

NOTE: Separate registrations and fees required for ALL review seminars, demonstrations and written examinations.

ACI Post-Installed Concrete Anchor Installation Inspector Certification

Presented by the Las Vegas Chapter of the American Concrete Institute.



Code/Title: (MO401) ACI Post-Installed Concrete Anchor Installation Inspector Review
Date/Time: Monday, February 3 | 8:00 am - 12:00 pm
Trainer: Werner Hellmer
Location: LVCC North Hall

The official, revised reference package for ACI Post-Installed Concrete Anchor Installation Inspector certification CP-81 is included when registering for the written examination TUAIW. Contact Las Vegas Chapter ACI for information on receiving the reference package.

ACI is pleased to offer an expanded certification program designed to reflect minimum qualification requirements for INSPECTORS related to installation of post-installed adhesive, mechanical anchors, and screw anchors in concrete. Changes implemented to ACI 318-19, Structural Concrete Building Code, now require anyone inspecting the installation of adhesive and mechanical anchors in concrete be ACI certified. This review will highlight information the Inspector must understand including responsibilities and qualifications requirements of the Installer, inspection requirements as cited in the documents governing the construction of the project, and the process governing the qualification of anchor systems. To become certified as an ACI Post-Installed Concrete Anchor Installation Inspector (*formerly Adhesive Anchor Installation Inspector*) candidates must pass a written examination and view a demonstration video.

Learning Objectives:

1. Describe knowledge and skills required to properly install adhesive and mechanical anchor systems
2. Identify field practices and environmental factors affecting installation quality
3. Recognize importance of proper installation procedures
4. List inspection requirements as per ACI 318-14 and 2015 IBC
5. Summarize requirements of adhesive anchors as per ACI 355.4 and ICC-ES Evaluation Report
6. Summarize requirements of mechanical anchors and screws as per ACI 355.2 ICC-ES Evaluation Report

NOTE: "Seminar Only" attendees not registered for the written examination can purchase a copy of the CP-81 Reference Package from the instructor at the review session to serve as the handout for this seminar. Payment can be made onsite with cash or credit card.

4.0 continuing education hours approved for AIA/CES LU|HSW, PDH and TCA.

MO401 Seminar Fee: \$210; \$245 after 12/11/19

Code/Title: (TUAIW) ACI Post-Installed Concrete Anchor Installation Inspector Written Examination
Date/Time: Tuesday, February 4 | 8:00 am - 11:30 am
Location: LVCC North Hall

To certify as an ACI Post-Installed Anchor Installation Inspector, candidates must view a video demonstration and pass both the installation and inspection examinations. ACI Post-Installed Concrete Anchor Installation Inspector reference package **CP-81 is included with the written exam registration and will be mailed to candidates prior to the show.**

EXCEPTION: Examinees from outside the United States can pay separately to have their reference package shipped or arrange with the Las Vegas Chapter ACI to pick up their reference package at the World of Concrete.

The 2-hour and 45-minute written exam is a combination open/closed book exam. The 45-minute installation exam is closed book and consists of approximately 45 multiple-choice questions. The two-hour inspection examination is open book and consists of approximately 90 multiple-choice questions. All questions on the exam are based on the CP-81 Pack Post-Installed Concrete Anchor Installation Inspector reference package.

CANCELLATION POLICY: If the certification candidate cancels registration for the written exam, there will be a **\$150 non-refundable fee** to cover the cost of the reference package. To send a replacement to take the exam contact registration@worldofconcrete.com.

TUAIW Written Exam Fee: \$425 (Fee includes reference packet)

SCHEDULE of EVENTS for the Post-Installed Concrete Anchor Installation INSPECTOR Certification:

- Preparatory 4-hour review seminar **MO401**: Monday, 8:00 am – 12:00 pm
- Written Examination **TUAIW**: Tuesday, 8:00 am – 11:30 am



Questions about the inspector certification or examination can be answered by Las Vegas Chapter ACI at acilasvegas@outlook.com or 702.656.8827.

ACI Specialty Commercial/Industrial Concrete Flatwork Finisher/Technician Certification

Presented by the Las Vegas Chapter of the American Concrete Institute

Code/Title: (MO403) **ACI Specialty Commercial/Industrial Concrete Flatwork Review**
Date/Time: Monday, February 3 | 1:00 pm - 5:00 pm
Trainers: Jerry Holland, Bob Simonelli



The official workbook for the ACI Advanced/Specialty Commercial/Industrial Finisher certification ACI CP11(08) is included when registering for the written exam TUCIF. Contact Las Vegas Chapter ACI for information on receiving the official workbook. Workbooks & exams are not available in Spanish for this certification.

This is the classroom review session for the ACI Specialty Commercial/Industrial Concrete Flatwork Finisher/Technician certification exams. This program is designed to prepare ACI-Certified Advanced Concrete Flatwork Finishers (also known as ACI Concrete Flatwork Finisher/Technicians) that have experience in commercial/industrial flatwork with competency in operating a ride-on power trowel and using a highway straightedge (bump cutter). This session will cover commercial/industrial slab construction and techniques for high tolerance floors. The Review covers:

1. Skills needed to become an ACI-Certified Specialty Commercial/Industrial Concrete Flatwork Finisher
2. Slab construction technology
3. Techniques for high tolerance floors, surface hardeners, and silica fume concrete
4. The certification process, requirements, and preparation needed for the examinations

NOTE: ‘Seminar Only’ attendees not registered for the written exam will receive handout containing presentation slides only but can purchase a copy of workbook ACI CP-11(08) at the review session to serve as a supplemental handout for this seminar. Payment can be made onsite with cash or credit card.

4.0 continuing education hours approved for AIA/CES (HSW), PDH, and TCA.

MO403 Seminar Fee: \$210; \$245 after 12/11/19

Code/Title: (TUFPE) **ACI Specialty Commercial/Industrial Concrete Flatwork Finisher Hands-On Performance Examination**

Date/Time: Tuesday, February 4 | 7:00 am - 1:00 pm
Location: LVCC Bronze Lot, Certification/Training Area

Attendees are required to be ACI Certified Advanced Concrete Flatwork Finishers (also known as ACI Concrete Flatwork Finisher/Technician) with experience and competency in operating a ride-on power trowel and using a highway straightedge (bump cutter) to participate in this examination.

Attendees will be evaluated on their ability to place, strike-off, and finish a high tolerance superflat slab. ACI-Certified Advanced Concrete Flatwork Finishers (formerly known as Flatwork Finisher/Technicians) that successfully complete the written exam, performance exam and verification of work experience, will be issued certification as ACI Specialty Commercial/Industrial Concrete Flatwork Finisher. Successful participants will also receive the High Tolerance Specialist rider certification.

Since the performance exam will be conducted using fresh concrete, a limited number of hands-on performance examinations will be available. Registered participants must be present for the entire performance examination.

IMPORTANT: ACI Las Vegas will provide all powered and hand tools needed for the performance exam plus safety equipment - it is required that participants wear steel toe boots.

NOTE: Space for performance exam is limited to 50 participants, so register early!

TUFPE Performance Exam Fee: \$350

Code/Title: (TUCIF) ACI Specialty Commercial/Industrial Concrete Flatwork Finisher Written Examination
Date/Time: Tuesday, February 4 | 3:30 pm - 5:30 pm
Location: LVCC North Hall

The closed-book, two-hour 75 multiple-choice written exam is based on the ACI CP-11(08) workbook and scheduled for Tuesday afternoon, 3:30 pm – 5:30 pm. The ACI CP-11(08) workbook is included in the written exam registration fee and will be mailed to registered attendees prior to the show. **EXCEPTION:** *Examinees from outside of the United States can pay to have their study guide shipped or make arrangements with the Las Vegas Chapter ACI to pick up their book at World of Concrete.* Participants who score 70% or above will be certified as an ACI Specialty Commercial/Industrial Concrete Flatwork **Technician**. Participants can upgrade to full Specialty Commercial/Industrial Concrete Flatwork **Finisher/Technician** status upon meeting the requirements of certification as an ACI Advanced Concrete Flatwork Finisher (also known as Flatwork Finisher/Technician), submittal and approval of sufficient work experience, and successful completion of the ACI Specialty Commercial/Industrial Concrete Flatwork performance examination. This written exam will satisfy ACI Specialty/Commercial Industrial Concrete Flatwork Finisher recertification needs.

CANCELLATION POLICY: Attendees who cancel registration for the written exam (TUCIF) will incur a **\$100 non-refundable fee to cover cost of the workbook.**

TUCIF Written Exam Fee: \$330 (Fee includes workbook)

SCHEDULE of EVENTS for the Specialty Commercial/Industrial Certification:

- Preparatory 4-hour review seminar **MO403** scheduled on Monday, 1:00 pm – 5:00 pm.
- Performance Examination **TUFPE** takes approximately six hours to complete and will be held Tuesday, 7:00 am – 1:00 pm in the Bronze Lot, outside of South Hall.
- Written Examination **TUCIF** administered Tuesday afternoon, 3:30 pm – 5:30 pm.



Questions about the technician certification or examination can be answered by Las Vegas Chapter ACI at acilasvegas@outlook.com or 702.656.8827.

NEW! ACI Decorative Concrete Flatwork Finisher and Associate Certification Review



Code/Title: (MO404) ACI Decorative Concrete Flatwork Finisher and Associate Certification Review
Date/Time: Monday, February 3 | 1:00 pm – 5:00 pm
Trainers: Chris Sullivan
Location: LVCC North Hall

The official reference material for the ACI Decorative Concrete Flatwork Finisher and Associate certification CSS-5(16) is included when registering for the written exam TUDCW. Contact Las Vegas Chapter ACI for information on receiving the official workbook.

Those registered for either the review MO404 and/or the written exam TUDCW are invited to familiarize themselves with the following workbook and job task analysis:

[CP-12 \(1st Edition\) Decorative Concrete Flatwork Finisher and Associate Job Task Analysis \(JTA\) for ACI Decorative Concrete Flatwork Finisher and Associate Certification](#)

This review session covers the following topics pertaining to decorative concrete: safety, subgrade/base requirements, formwork, coloring, stamping, exposed finishes, stairs, and cleaning/sealing applications, and is designed for participants taking the new ACI Decorative Concrete Flatwork Finisher and Associate certification exam (separate registration and fee is required). The ACI Decorative Concrete Flatwork Finisher and Associate certification program is designed to provide a credential to concrete finishers who possess a command of essential knowledge specific to those working in the decorative concrete industry. Decorative Concrete Finishing firms may also benefit from employing certified finishers by distinguishing their company from those that don't.

Learning Objectives:

1. Summarize basic concepts specific to decorative concrete
2. Review proper safety and importance of ADA requirements
3. Discuss some of the best practices for each of the decorative concrete topics
4. Clarify certification process, requirements, and preparation needed for the written exam.

NOTE: “Seminar Only” attendees not registered for the written exam will receive a handout containing presentation slides only. To purchase a copy of the reference materials CSS-5(16) please contact the Las Vegas Chapter ACI at acilasvegas@outlook.com.

4.0 continuing education hours approved for AIA/CES LU|HSW, PDH and TCA.

MO404 Seminar Fee: \$210; \$245 after 12/11/19

Code/Title: (TUDCW) ACI Decorative Concrete Flatwork Finisher and Associate Certification Written Examination
Date/Time: Tuesday, Feb 4 | 1:00 pm – 3:00 p.m.
Location: LVCC North Hall

Attendees are required to be a certified ACI Concrete Flatwork Associate (formerly Concrete Flatwork Technician) or ACI Advanced Concrete Flatwork Finisher (formerly Concrete Flatwork Finisher/Technician) to participate in this examination.

Reference materials CCS-5(16) will be mailed to candidates prior to the show. EXCEPTION: Examinees from outside the United States can pay separately to have their reference package shipped or arrange with the Las Vegas Chapter ACI to pick up their reference package at the World of Concrete.

The Las Vegas Chapter of ACI is pleased to offer the new ACI Decorative Concrete Flatwork Finisher and Associate certification examination. The two-hour written examination is closed-book and consists of approximately 50 multiple-choice questions and is based on the specific points of knowledge included in the Job Task Analysis. Reference materials included with TUDCW registration is CSS-5(16) Placing and Finishing Decorative Concrete Flatwork. Links to both the digital download for CP-12 (1st Edition) Craftsman Workbook for Decorative Concrete Flatwork Finisher and Associate, and the Job Task Analysis are listed in the MO404 description.

Participants who score 70% or above and are currently certified as an ACI Advanced Concrete Flatwork Finisher will be certified as a Decorative Concrete Flatwork Finisher upon submittal and approval of required work experience. Work experience consists of 1,500 hours of actual on-the-job placing and finishing experience. **Experience must include a minimum of 250 hours in EACH of the following areas of decorative concrete flatwork placing and finishing: coloring, stamping, exposed finishes, stairs; and a minimum of 40 hours in cleaning and sealing of decorative concrete flatwork.**

CANCELLATION POLICY: Examinee who cancel registration for the written examination will incur a **\$75 non-refundable fee** to cover cost of reference materials. To send a replacement to take the examination contact: registration@worldofconcrete.com.

TUDCW Written Examination Fee: \$350 (Fee includes reference materials)

 Questions about the Decorative Concrete Flatwork certification can be answered by the Las Vegas Chapter ACI at acilasvegas@outlook.com or 702.656.8827.

ACI Concrete Field Testing Technician – Grade I Certification

Presented by the Las Vegas Chapter of the American Concrete Institute.

Code/Title: (TU406) ACI Concrete Field Testing Technician - Grade I Review
Date/Time: Tuesday, February 4 | 1:00 pm - 5:00 pm
Trainer: Mitch Englestead
Location: LVCC North Hall



The official workbook for the ACI Concrete Field Testing Technician Grade I certification, CP-1 37th Edition is included when registering for the performance examination THFTP.

Learning Objectives:

1. Outline requirements of the ACI Concrete Field Testing Technician - Grade I program
2. Explain how to properly conduct field tests on freshly mixed concrete
3. Describe how proper procedures result in accurate and reliable results
4. Examine seven ASTM test methods and best practices:
 - a) C1064/C1064M Temperature of Freshly Mixed Hydraulic-Cement Concrete

- b) C172 Sampling Freshly Mixed Concrete
- c) C143/C143M Slump of Hydraulic-Cement Concrete
- d) C138/C138M Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete
- e) C231 Air Content of Freshly Mixed Concrete by the Pressure Method
- f) C173/C173M Air Content of Freshly Mixed Concrete by the Volumetric Method
- g) C31/C31M Making and Curing Concrete Test Specimens in the Field

NOTE: “Seminar Only” attendees should purchase a copy of the workbook CP-1 37th Edition from the instructor at the review session to serve as the handout for this seminar. Payment can be made onsite with cash or credit card.

4.0 continuing education hours approved for AIA/CES LU|HSW, PDH and TCA.

TU406 Seminar Fee: \$210; \$245 after 12/11/19

Code/Title: (WEFTW) ACI Concrete Field Testing Technician – Grade I Written Examination
Date/Time: Wednesday, February 5 | 3:30 pm – 5:00 pm
Location: LVCC North Hall

The one-hour, closed-book written examination consisting of 55 multiple-choice and true-false questions is scheduled for Wednesday from 3:30 pm – 5:00 pm. The examination is based on the ACI publication CP-1 37th Edition. To certify as an ACI Concrete Field Testing Technician Grade I, candidates must pass both the written examination WEFTW and the performance examination THFTP.

IMPORTANT: The official workbook for the ACI Concrete Field Testing Technician Grade I certification, CP-1 37th Edition is only included when registering for the performance examination THFTP.

WEFTW Written Examination Fee: \$260

Code/Title: (THFTP) ACI Concrete Field Testing Technician – Grade I Performance Examination
Date/Time: Thursday, February 6 | 8:00 am – 12:00 pm (*select preferred time slot*)
Location: LVCC Bronze Lot, Certification/Training Area

The hands-on performance examination requires examinee to properly perform and record the results of seven basic field tests on freshly mixed concrete. Attendees will have the opportunity to participate in a hands-on practice session Wednesday from 8:00 am – 12:00 pm. The workbook will be mailed to candidates prior to the show. **EXCEPTION: Examinees from outside the United States will receive their study guide at the review seminar.** To certify as a Concrete Field Testing Technician - Grade I, candidates must pass both written examination WEFTW and performance examination THFTP.

CANCELLATION POLICY: If certification candidate cancels registration for the performance examination THFTP there will be a **\$100 non-refundable fee** to cover cost of the workbook. To send a replacement to take the examination contact registration@worldofconcrete.com.

NOTE: Space is limited to 15 participants per time slot, so register early!

When registering, select preferred slot from schedule. Your performance examination can take up to 2 hours to complete so plan your schedule accordingly,

below: THFTP1: 8:00 am – 10:00 am
THFTP2: 10:00 am – 12:00 pm

THFTP Performance Examination Fee: \$330 (Fee includes workbook)

SCHEDULE of EVENTS for the Concrete Field Testing Grade 1:

- Preparatory 4-hour review seminar **TU406:** Tuesday, 1:00 pm – 5:00 pm
- Hands-on practice session: Wednesday between 8:00 am and 12:00 pm; open workshop where attendees can observe and participate in demonstrations for each of the testing procedures.

NOTE: You must be registered for the performance examination to attend the practice session.

- Written Examination **WEFTW:** Wednesday, 3:30 pm – 5:00 pm
- Performance Examination **THFTP:** Thursday, 8:00 am - 12:00 pm; takes approximately two hours to complete. When registering, candidates will need to select their preferred time slot.



Questions about the field testing certification or examinations can be answered by Las Vegas Chapter ACI at acilasvegas@outlook.com or 702.656.8827.

ACI Concrete Flatwork Associate and Advanced Concrete Flatwork Finisher Certification (formerly known as *Flatwork Technician and Flatwork Finisher/Technician*)

Presented by the Las Vegas Chapter of the American Concrete Institute

Code/Title: (WE408) ACI Concrete Flatwork Associate and Advanced Concrete Flatwork Finisher Certification Review

Date/Time: Wednesday, February 5 | 8:00 am - 12:00 pm

Trainers: Jerry Holland, Bob Simonelli

Location: LVCC North Hall



The official workbook for the ACI Concrete Flatwork Associate and Advanced Concrete Flatwork Finisher certification ACI CP-10(10) is included when registering for the written examination THCFE. Spanish version of the workbook and examination are available upon request — see contact information below.

For participants taking the ACI Concrete Flatwork Associate and Advanced Concrete Flatwork Finisher (formerly known as *Flatwork Technician and Flatwork Finisher/Technician*) certification examination, this review course will cover topics such as quality control tests, tools, placing, finishing, jointing and curing.

Learning Objectives:

1. Recognize basic materials and mix proportioning.
2. Analyze procedures for placing, consolidating, finishing, edging, jointing, curing and protecting concrete flatwork.
3. Identify techniques for the proper use of tools.
4. Clarify certification process, requirements and preparation needed for the written examination.

NOTE: 'Seminar Only' attendees not registered for the written examination will receive handout containing presentation slides only. To purchase a copy of workbook CP-10(10), contact ACI Las Vegas at acilasvegas@outlook.com.

4.0 continuing education hours approved for AIA/CES LU/HSW, PDH and TCA.

WE408 Seminar Fee: \$210; \$245 after 12/11/19

Code/Title: (THCFF) ACI Concrete Flatwork Associate and Advanced Concrete Flatwork Finisher Certification Written Examination

Date/Time: Thursday, February 6 | 1:00 pm - 3:00 pm

Location: LVCC North Hall

The closed-book, two-hour written examination consisting of 50 multiple-choice questions based on the ACI CP-10(10) workbook is scheduled Thursday, 1:00 pm – 3:00 pm. Written examination registration fee includes the ACI CP-10(10) workbook. Examinee may contact the Las Vegas Chapter ACI and request that a workbook be shipped prior to the World of Concrete or pick up their workbook at the World of Concrete at specified location and times identified in their confirmation letter. **Books will not be shipped after January 22, 2020. EXCEPTION: Examinees from outside the United States will receive their study guide at the review session WE408. Spanish version of the workbook and examination available upon request.**

Participants who score 70% or above will be certified as an ACI Concrete Flatwork Associate. Credential can be upgraded to full ACI Advanced Concrete Flatwork Finisher status upon submittal and approval of required work experience. For participants seeking recertification, the Advanced Concrete Flatwork Finisher examination will satisfy.

CANCELLATION POLICY: If examinee cancels registration for the written examination there will be a **\$100 non-refundable fee to cover cost of workbook**. To send a replacement to take the examination contact: registration@worldofconcrete.com.

THCFF Written Examination Fee: \$365 (Fee includes workbook)



Questions about the flatwork certification and/or request for Spanish version can be answered by the Las Vegas Chapter ACI at acilasvegas@outlook.com or 702.656.8827.

ACI/CFA Residential Foundation Technician Certification

Presented by the Concrete Foundations Association.

Code/Title: (TH409) CFA Residential Foundation Technician Review
Date/Time: Thursday, February 6 | 8:00 am - 12:00 pm
Trainers: James Baty
Location: LVCC North Hall



Registration for the written examination includes the required examination reference packet containing all the documents used during the examination. Study packet includes copies of ACI residential documents, a portion of the IRC and other important industry resources. Packets will be shipped to registrants following registration confirmation. Continental US shipping only. For shipping outside the Continental US, please contact jbaty@cfawalls.org.

Residential concrete construction has a broad range of experience and quality represented in thousands of companies across North America. Distinguishing your company from these ranks is one of the most important decisions you can make. The ACI/CFA Foundation Technician Certification Program was established to provide measurable quality assurance and demonstrate command of essential standards to the residential construction industry. This presentation highlights the resources and standards used during the examination with a focus on their practical use. Attendees will identify the advanced principles that define companies from coast to coast for their quality and leadership while they prepare to be recognized as a **Certified Foundation Technician**.

1. Assess basic concepts specific to residential foundations necessary for ACI/CFA Technician Certification
2. Determine minimum design requirements for concrete foundation wall designs
3. Evaluate various techniques for excavating and backfilling
4. Identify safety issues and code compliance

NOTE: "Seminar Only" attendees will receive a handout containing presentation slides only. Individuals not registered for the written examination are encouraged to purchase the examination reference packet for additional reference during the seminar, for preparation to a future examination or for business practice – **contact CFA to purchase a copy.** Attendees who register for the written examination will automatically receive a copy of the examination reference packet.

4.0 continuing education hours approved for AIA/CES LU|HSW and PDH.

TH409 Seminar Fee: \$210; \$245 after 12/11/19

Code/Title: (THCFA) ACI/CFA Residential Foundation Technician Written Examination
Date/Time: Thursday, February 6 | 1:00 pm – 3:30 pm
Location: LVCC North Hall

The ACI/CFA Residential Foundation Technician Certification is achieved with a 2.5-hour examination consisting of 80 multiple-choice questions. The examination is scheduled for Thursday, 1:00 pm – 3:30 pm. This open-book but difficult test challenges the examinee to demonstrate a working knowledge of the current codes and standards influencing the residential foundation industry. After successful completion of this examination, participants will earn the **ACI/CFA Residential Foundation Technician Certification**.

Registration for this examination includes the required examination reference packet containing all of the documents used during the exam. Study packet includes copies of ACI residential documents, a portion of the IRC and other important industry resources. Packets will be shipped to registrants following registration confirmation.

DEADLINE TO REGISTER: Based on the delivery of required examination materials, **January 17 is the last day to register for the written examination** – interested registrants can contact jbaty@cfawalls.org for late registration approval and expedited shipping rates.

CANCELLATION POLICY: There is a **\$250 non-refundable fee** (cost of the reference packet) if cancelling the written examination registration. To send a replacement to take the examination contact registration@worldofconcrete.com

THCFA Written Examination Fee: \$475 (Fee includes reference packet)



For questions or additional information, please contact CFA at 319.895.6940.

ACI/TCA Tilt-Up Technician/Supervisor Certification

Presented by the Tilt-Up Concrete Association.

Code/Title: (TH410) TCA Tilt-Up Technician/Supervisor Review
Date/Time: Thursday, February 6 | 12:00 pm - 4:00 pm
Trainer: Shawn Hickey
Location: LVCC North Hall



Attendees who register for the examination will automatically receive TCA's Construction of Tilt-Up manual, the official publication for the Tilt-Up Technician/Supervisor certification, which is published in side-by-side English/Spanish content.

Manuals will be shipped to registrants beginning in November on a weekly basis (attendees can request expedited shipping). Continental US shipping only; for shipping outside Continental US, please contact jbaty@tilt-up.org. A Spanish version of the examination can be reserved upon request. See contact information below.

If registering after January 17, manuals will be available for pick-up onsite beginning Tuesday, February 4 at the ACI or TCA booth or registrant can arrange for express shipping by contacting TCA.

This seminar presents an overview of the areas of construction in which a tilt-up supervisor is expected to be knowledgeable: safety, plan reading, scheduling, site preparations, foundations, slabs-on-grade, layout, forming, concrete placement and properties, erection and structural systems. These areas of knowledge comprise the essential basis for achieving status as a Certified Tilt-Up Technician or Supervisor. Work experience, length of certification, certification levels and other program criteria will be discussed.

1. Describe the ACI Tilt-Up Technician/Supervisor certification process, responsibilities and terminology
2. Summarize issues of safety, plan reading, site preparation, scheduling, foundations, slabs-on-grade, layout, forming, placement and erection of tilt-up walls
3. Recognize factors that affect performance of concrete for tilt-up panels including aggregates, colored and special cement, admixtures and mix proportioning
4. Demonstrate knowledge of basic concrete technology by completing study questions

NOTE: "Seminar Only" attendees will receive a handout containing presentation slides only. Individuals not registered for the written examination are encouraged to purchase TCA's *Construction of Tilt-Up* manual for additional reference during the seminar, for preparation to a future examination or for business practice – **contact TCA to purchase a copy.**

4.0 continuing education hours approved for AIA/CES LU|HSW, PDH and TCA.

TH410 Seminar Fee: \$210; \$245 after 12/11/19

Code/Title: (THTUS) ACI/TCA Tilt-Up Technician/Supervisor Written Examination
Date/Time: Thursday, February 6 | 4:00 pm - 6:00 pm
Location: LVCC North Hall

The closed-book, two-hour written examination consisting of 80 multiple-choice questions based on TCA's *Construction of Tilt-Up* manual is scheduled Thursday, 4:00 pm to 6:00 pm, immediately following the seminar. Participants who score 70% or above will be certified as an **ACI/TCA Tilt-Up Technician**. A work experience submittal is required for individuals to be upgraded to **ACI/TCA Tilt-Up Supervisor**. Work experience forms will be made available at the examination or can be obtained directly from ACI at www.concrete.org/certification.

Attendees who register for the examination will automatically receive TCA's *Construction of Tilt-Up* manual, the new official publication for the Tilt-Up Technician/ Supervisor certification, which is published in side-by-side English/Spanish

content. Manuals will be shipped to registrants beginning in November on a weekly basis (attendees can request expedited shipping). A Spanish version of the examination can be reserved upon request. *See contact information below.*

DEADLINE TO REGISTER: January 17 is the **last day to register for the written examination** – interested registrants can contact jbaty@tilt-up.org for late registration approval and to verify the rate for expedited shipping. If registering after January 17, manuals will be available for pick-up onsite beginning Tuesday, February 4 at the ACI or TCA booth **or** registrant can arrange for express shipping by contacting TCA.

CANCELLATION POLICY: There is a **\$165 non-refundable fee** if cancelling the written examination registration. To send a replacement to take the examination contact registration@worldofconcrete.com.

THTUS Written Examination Fee: \$460 (Fee includes manual)

 Questions about the certification and/or examination can be answered by the ACI Certification Department at 248.848.3790 or TCA at 319.895.6911.

ACPA Concrete Pump Operator Certification

Presented by the American Concrete Pumping Association.



Code/Title: (TU405) ACPA Concrete Pump Operator Safety Review
Date/Time: Tuesday, February 4 | 8:00 am - 12:00 pm
Trainer: Les Ainsworth
Location: LVCC North Hall

Examination registration fee includes study guide which will be mailed to examinees prior to the show.

Attending seminar TU405 on Concrete Pump Safety fulfills the safety training requirement and is a comprehensive, in-depth course covering the basics included in the Certification Examination. ACPA Concrete Pump Operator Certification meets the safety training requirement included in the ASME B30.27 safety standard for material placement systems for concrete pumps and conveyors and is the only industry-recognized certification program which provides an independent written assessment of an operator's knowledge regarding concrete pump safety. Specific equipment experience time and completion of the ACPA Safety Training Program are prerequisites for ACPA Certification.

Inexperienced operators can fulfill their safety training requirement, take the written examination, and then apply for certification once they reach the required experience time. Certification and apprentice examinations are scheduled Tuesday afternoon, 1:00 pm – 3:00 pm.

1. Evaluate how to increase an operator's level of safety awareness and professionalism
2. Summarize concrete pumping basics from before job preparation to cleaning out and completing the job
3. Discuss detailed instructions on specific safety hazards such as: operating near power lines; outrigger setup; cleanout procedures and air entrapment
4. Identify top safety issues and how to safely and effectively deal with co-workers coming in contact with a concrete pump on the job

4.0 continuing education hours approved for AIA/CES LU|HSW, PDH and TCA.

TU405 Seminar Fee: \$210; \$245 after 12/11/19

Code/Title: (TUCPE) ACPA Concrete Pump Operator Safety Written Examination
Date/Time: Tuesday, February 4 | 1:00 pm - 3:00 pm
Location: LVCC North Hall

Take the ACPA Concrete Pump Operator Certification Examination the same day as the training seminar, Tuesday, 1:00 pm – 3:00 pm. Work experience on specified equipment is required for certification. Examination registration fee includes study guide which will be mailed to examinees prior to the show.

NOTE: ACPA Members are eligible for a \$150 examination rebate. Members and those interested in becoming a member should contact ACPA at 614.431.5618 or email janet@concretepumpers.com for rebate details.

TUCPE Written Examination Fee: \$290 (Fee includes study guide)



For more information regarding the pump operator certification process or member's examination rebate, contact ACPA at 614.431.5618 or email janet@concretepumpers.com.

ICRI Concrete Slab Moisture Testing Certification

Presented by the International Concrete Repair Institute.



BEFORE REGISTERING: All Tier 2 full certification and recertification applicants must be pre-approved by ICRI prior to registering. CONTACT: stevenb@icri.org.

Individuals who register for Tier 1 written examination WECRT will receive complete course materials including copies of the five ASTMs. Those that register for only the 4-hour review seminar will not receive course materials/ASTMs.

The International Concrete Repair Institute (ICRI) is pleased to provide a Concrete Slab Moisture Testing Certification Program. The purpose of the program is to help improve the performance of concrete slab moisture testing with intent of producing more consistent, accurate and reliable test results that allow flooring installers, manufacturers, design professionals and owners to make better decisions on when a concrete floor is ready for a floor covering installation.

This certification program is divided into two Tier levels:

TIER 1 [WE407/WECRT] is for individuals who are not regularly engaged in slab moisture testing yet have an active interest in learning more about the tests, what the tests mean and how the tests should be performed. Participants will be required to attend a 4-hour review seminar and take a one-hour written examination. Tier 1 participants who attend the WE407 review seminar and pass the WECRT written examination will be awarded a Certificate of Achievement from ICRI.

TIER 2 [WE407/WECRT/THRPE] is for individuals who desire **full certification**. Participants will be required to attend 4-hour review seminar, take the Tier 1 written examination and perform each of five ASTM field tests under the supervision of a qualified judge who will not provide any level of coaching. By attending WE407 review seminar and passing both the written examination WECRT and performance examination THRPE, a **Concrete Slab Moisture Testing Technician - Grade 1**, 5-year certification, will be issued by ICRI to the individual.

Written and performance examinations are based on the following five (5) ASTM Standards, including all Annexes and Appendices:

1. Preparing Concrete Floors to Receive Resilient Flooring; Section 5.2 pH Testing (ASTM F 710)
2. Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride (ASTM F 1869)
3. Determining Relative Humidity in Concrete Floor Slabs Using *in situ* Probes (ASTM F2170)
4. Preliminary Evaluation of Comparative Moisture Condition of Concrete, Gypsum Cement and Other Floor Slabs and Screeds Using a Non-Destructive Electronic Moisture Meter (ASTM F2659)
5. Field Determination of Substrate Water Absorption (Porosity) for Substrates to Receive Resilient Flooring (ASTM F3191)

Code/Title: **(WE407) ICRI Concrete Slab Moisture Testing Review**
Date/Time: Wednesday, February 5 | 8:00 am - 12:00 pm
Trainers: Peter Craig, Scott Tarr
Location: LVCC North Hall

This four-hour review seminar is open to anyone. The seminar is mandatory at both the Tier 1 and Tier 2 Certification levels. The seminar will be conducted by industry experts who have extensive experience with moisture related slab issues and are at the forefront of development and performance of the ASTM moisture test methods.

NOTE: Those that register for only the 4-hour review seminar **will not** receive course materials/ASTM's. Individuals who also register for Tier 1 written exam WECRT will receive complete course materials including copies of the five ASTM's.

4.0 continuing education hours approved for AIA/CES LU|HSW and PDH.

WE407 Seminar Fee: \$210; \$245 after 12/11/19

Code/Title **(WECRT) ICRI Concrete Slab Moisture Testing Tier 1 Written Exam**
Date/Time: Wednesday, February 5 | 2:00 pm – 3:00 pm
Location: LVCC North Hall

A closed-book, 60-minute written examination, based on the ASTM tests listed above, along with general knowledge of moisture testing in concrete slabs, is scheduled on Wednesday from 2:00 pm – 3:00 pm. Attendees taking the Tier 1 Written Examination will receive course materials at the class.

*Examinees will receive electronic versions of the five ASTM's within 1 week of registration and should register at least 2 weeks prior to the exam date to receive ASTM's at least one week prior to WOC. Examinees **must** bring hard copies of the ASTM's to the class.*

Tier 1 participants who attend the 4-hour review seminar and pass the written examination will be issued a Certificate of Achievement from ICRI. **Examinees must attend the review seminar WE407 before sitting for the Tier 1 written examination** (registration for review seminar requires separate registration and fee).

WECRT Tier 1 Written Examination Fee: \$285; \$315 after 12/11/19 (Fee includes course materials)

Code/Title: **(THRPE) ICRI Concrete Slab Moisture Testing Tier 2 Performance Examination****

Date/Time: Thursday, February 6 | 12:00 pm - 5:00 pm (select preferred one-hour time slot)
Location: Back of LVCC South Hall

****All Tier 2 performance examinees must be pre-approved by ICRI prior to registering. CONTACT stevenb@icri.org.**

Pre-approval is waived if examinees register for and attend the *optional* Concrete Slab Moisture Demonstration & Workshop **ICRITH**, scheduled Thursday 8:00 am – 11:00 am (separate registration and fee required).

Tier 2 full certification applicants must attend 4-hour review seminar WE407 and take Tier 1 written examination WECRT

before taking the performance examination.

Designed to evaluate an individual's ability to execute proper concrete slab moisture testing procedures, a limited number of hands-on field performance examination (1 hour allowed per examinee) will be available onsite at WOC, Thursday beginning at 12:00 pm. Examinees will perform the five ASTM test methods on hardened concrete/masonry (no exposure to fresh concrete) under the supervision of a qualified judge who will not provide any level of coaching. ICRI will provide all necessary power tools and safety equipment. No heavy lifting is involved with these tests.

Attendees taking Tier 2 Performance Examination will receive course materials at the class.

*Pre-approved examinees will receive electronic versions of the five ASTM's within 1 week of registration and should register at least 2 weeks prior to the exam date to receive ASTM's at least one week prior to WOC. Examinees **must** bring hard copies of the ASTM's to the class.*

Space is limited to 3 participants per time slot, so register early! One-hour time slots for the Performance Examination will be confirmed at Wednesday's written examination. Special requests for time slots will be considered by contacting ICRI prior to registering but are not guaranteed unless approved by ICRI.

Select preferred one-hour Performance Examination time slot from schedule below:

THRPE1: 12 pm – 1 pm	THRPE4: 3 pm – 4 pm
THRPE2: 1 pm – 2 pm	THPRE5: 4 pm – 5 pm
THRPE3: 2 pm – 3 pm	

IMPORTANT: Prequalification for acceptance into Tier 2 full certification will be adequate previous hands-on concrete slab moisture testing experience that **must be pre-approved by ICRI prior to registering; CONTACT stevenb@icri.org.** Applicants that register for THRPE and have not received pre-approval from ICRI of previous hands-on testing experience and have not registered for the demo/workshop ICRITH, **will not be allowed to take the Tier 2 Performance Examination and will not be refunded the THRPE registration fee.**

By attending the 4-hour review seminar and passing both written and performance examinations, a **Concrete Slab Moisture Testing Technician - Grade 1** certification will be issued by ICRI for a period of five (5) years. Certified individuals will receive a certificate and wallet certification card and be eligible to be listed on the ICRI website database.

CANCELLATION OF EXAMINATION: A minimum of 10 registrants for Tier 2 examination THRPE must be registered by January 3rd to run this program. If the minimum attendance is not met, the performance examination will be cancelled, and full registration fees will be refunded.

THRPE Tier 2 Performance Examination Fee: \$450; \$500 after 12/11/19

Code/Title: (ICRITH) ICRI Concrete Slab Moisture Demonstration & Workshop
Date/Time: Thursday, February 6 | 8:00 am – 11:00 am
Trainer: Peter Craig
Location: Back of LVCC South Hall

Individuals who want to register for the Tier 2 Performance Examination THRPE without pre-approved previous hands-on concrete slab moisture testing experience, or individuals who wish to enhance their slab moisture testing ability, may take the **optional** Concrete Slab Moisture Testing Demonstration & Workshop. Five ASTM tests will be demonstrated with opportunity for hands-on testing and training by ICRI instructors. Participation in this session will waive the requirement of pre-approved previous hands-on slab moisture testing experience necessary for acceptance into the Tier 2 full certification performance examination THRPE.

ICRITH Demo/Wkshp Fee: \$210; \$260 after 12/11/19

Code/Title: (WERCE) **ICRI Concrete Slab Moisture Testing Recertification Examination****
Date/Time: Wednesday, February 5 | 2:00 pm – 3:00 pm
Location: LVCC North Hall

****Candidates must be pre-approved by ICRI prior to registering. CONTACT stevenb@icri.org.**

IMPORTANT: Applicants that register for WERCE and have not received pre-approval from ICRI will not be allowed to take the Recertification Examination and will not be refunded the WERCE registration fee. Recertification policy states that the recertification written examination can be taken up to six (6) months prior to the certification expiration date but no longer than nine (9) months after the expiration date, or the entire full certification program (Tier 2) must be retaken in its entirety.

This examination is available for ICRI certified individuals whose five-year certification has or is about to expire. Recertification examinees will take a closed-book, 60-minute written examination based on five ASTM standards along with general knowledge of moisture testing in concrete slabs. **Pre-approved examinees should register at least 3 weeks prior** to the

examination date to receive study/review materials, including ASTM's, at least two weeks prior to WOC; if register after January 15th, examinees must contact ICRI directly and make arrangements to obtain materials (kenl@icri.org).

Although not required, recertification participants may want to attend 4-hour review seminar WE407 in preparation for the recertification examination. **Separate registration and additional fee required for optional review seminar.**

By passing the recertification examination, a **Concrete Slab Moisture Testing Technician – Grade 1**, five-year certification will be issued by ICRI to the individual. Recertified individuals will receive a new certificate and wallet certification card and be eligible to be listed on the ICRI website database.

WERCE Recertification Examination Fee: \$450; \$500 after 12/11/19

SCHEDULE OF EVENTS required for the ICRI Concrete Slab Moisture Testing Certification Program:

- 4-hour Review Seminar **WE407**, Wednesday, 8 am – 12 pm
- Tier 1 Written Examination **WECRT**, 2 pm – 3 pm
- Recertification Examination **WERCE**, 2 pm – 3 pm, **Requires ICRI pre-approval**
- Tier 2 Performance Examination **THRPE**: Thursday, 12 pm – 5 pm **Select 1-hour time slot; Requires ICRI pre-approval**
- Optional Demonstration & Workshop **ICRITH**: Thursday, 8 am – 11 am



For questions and to receive pre-approval of previous hands-on testing experience for Tier 2 Performance Examination **THRPE**; obtain approval of special request for performance examination time slot; and/or recertification pre-approval, please contact Steven Bruns, PE, ICRI Certification Manager, **prior to registering**, at 651.290.7461 or via email stevenb@icri.org.

Pervious Concrete Installer Certification

Presented by the Tennessee Concrete Association.

Code/Title: **(MO402) Pervious Concrete Installer Review**
Date/Time: **Monday, February 3 | 8:00 am - 12:00 pm**
Trainers: **Alan Sparkman**
Location: **LVCC North Hall**



Attendees will receive NRMCA Publication #2PPCRT, the reference material for the National Ready Mixed Concrete Association's Pervious Concrete Technician Certification Written Examination (an \$80 value). Manuals will be mailed to seminar registrants prior to the show for registrations received before January 15, 2020. Registrations received after this date must pick up books on the day of the seminar

This seminar is valuable for ready mixed concrete personnel, testing labs, inspectors, admixture personnel, designers and contractors who want to expand their business in the pervious concrete growing market. This seminar is an excellent preparatory review for the NRMCA Pervious Concrete Installer Certification.

Discussions will cover foundational information about pervious concrete mix designs, installation procedures, tools and testing of pervious concrete; an excellent introduction to pervious concrete for anyone interested in learning more about this growing market.

1. Discuss pervious concrete materials, mixture proportioning and quality control testing
2. Examine design principles of pervious concrete pavements
3. Explore placement options for various installations
4. Develop a plan to train and certify employees to place pervious concrete and launch a contracting business

4.0 continuing education hours submitted for AIA/CES|HSW and PDH.

CANCELLATION POLICY: If the certification candidate cancels registration for the review seminar, there will be a **\$100 non-refundable fee** to cover the cost of the workbook and shipping. To send a replacement to attend the review seminar contact registration@worldofconcrete.com.

MO402 Seminar Fee: \$210; \$245 after 12/11/19

Code/Title: **(TUPCW) Pervious Concrete Technician Written Examination**
Date/Time: **Tuesday, February 4 | 3:00 pm – 5:00 pm**
Location: **LVCC North Hall**

The two-hour written "closed book" examination consists of approximately 60 multiple-choice questions. Examinees passing the written examination with a score of 75% or higher will be certified by NRMCA as a **Pervious Concrete Technician**.

NOTE: reference materials for the Written Examination are included with registration for the MO402 Review Seminar.

TUPCW Written Examination Fee: \$175; \$200 after 12/11/19 (Fee includes reference material)



Questions about the previous certification can be answered by the Tennessee Concrete Association, 615.360.7393 or asparkman@tnconcrete.org.