

## American Institute of Constructors

### Constructor Certification Commission Document No. 59

#### AIC Constructor Certification Examination History – 1994 - 2013

The first AIC Examination Committee meeting was called to order by O.L. “Ozzie” Pfaffmann the Chair of the Constructor Certification Commission on October 29, 1994, in St. Louis, Missouri. The Chair distributed to the Exam Committee members the Constructor Certification information that had been developed so far leading to the creation of the Examination Committee. This included a definition of the Constructor, a two-tier examination process along with the candidate’s qualifications to take the examination; the White Paper on Constructor Certification; the AIC Commission, its committees, and their mission statement and committee member rosters. From this information, the duties of the Examination Committee were established. The agreed upon duties and priorities were to establish liaisons with the AIC Policy Committee and the Skills and Knowledge Committee, determine the testing services that were typically contracted out, and to review examination procedures authored by the ad-hoc task force of the Commission’s Policy Committee.

It was agreed upon by the members of the Examination Committee that the first priority was to find three testing agencies willing to make presentations concerning test development before the next meeting. Plus, develop a list of questions to serve as a guide while interviewing the three testing agencies and George Hutchinson volunteered to coordinate the efforts to compile the interview questions and establish the testing agency presentation schedule.

On December 3, 1994 in St. Louis, three testing agencies made presentations and answered the Examination Committee’s questions about certification. The three agencies that made presentations were CTB/McGraw-Hill, American College Testing (ACT); and Professional Examination Service. After the interviews, the Exam Committee decided to develop an RFP for testing services, and answer the American College Testing set of questions in their booklet titled *ACT Elements of a Request for Proposal*. The answers to the ACT questions were compiled from each committee member before the next meeting. In addition, nominations were taken from the members present for the Chair of the Examination Committee and Ed Brayton was elected. He had previously volunteered to gather the answers to the ACT questions and develop a rough draft of an RFP for testing services for discussion and approval at the next Committee meeting.

On January 28, 1995 in St. Louis, the Examination Committee discussed the Draft of the Request for Proposal (RFP) for examination development services and it was revised, approved, and reprinted for final review. In addition, it was decided to add appendices’ to the body of the RFP to include the *Constructor Certification White Paper*; list of participating construction associations with a description of each; copy of the Skills and Knowledge Survey; brochure on AIC; and the qualifications established to take the Level 1 and Level 2 examinations. Plus, established numerous target dates were set for the RFP process with a testing agency to be under contract by July 1995.

On March 11, 1995 in Dallas, Texas, the Examination Committee met to finalize the RFP draft for test development services from comments provided by the Policy Committee attended by the Examination Chair at their meeting in New Orleans, LA on February 18, 1995. In addition, the Examination Committee developed the RFP Evaluation Criteria; created the RFP announcement

letter and reply card, produced the RFP mailing list. Confirmed these dates for the RFP process: March 27, 1995 established for mailing of RFP to interested parties; April 27 cut off for vendors to submit questions concerning the RFP; May 5 for final reply to vendor questions; May 11 for receipt of all proposals; May 21 evaluation of proposals; June 3 presentations by short-listed vendors; June contract to Policy Committee for approval and review by legal counsel; late June notification of selected vendor and signing of contract; and in July 1995 is the vendor's start date.

On May 21, 1995 all six testing agency proposals were reviewed and the Examination Committee invited three testing agencies to make presentations. We selected Applied Measurement Professional (AMP), National Occupational Competency Testing Institute (NOCTI), and National Assessment Institute (NAI) to make presentations. Also, the Examination Committee prepared a list of questions that would be asked of all testing agencies at the presentations. On June 2, 1995, the three presenters were questioned and after the presentations, the Examination Committee reviewed and compared the three testing agencies and ranked them in order of preference and reasons for their decision. The ranking was unanimous with National Assessment Institute (NAI) of Clearwater, Florida being selected as the appropriate testing agency to help the AIC Commission and the Examination Committee create a two-tier Constructor Certification examination process. A contract was signed in July of 1995 with National Assessment Institute (NAI) to develop and administer two Constructor Certification Examinations.

The Examination committee also reviewed the future activities and their associated timeline to ensure that they could meet the deadline for the first administration of the Constructor Qualification Examination (CQE) Level I – Construction Fundamentals and the (CQE) Level II Advanced Construction Applications both scheduled for November 9, 1996. This timeline required the Committee to start to recruit subject matter experts as item writers for tentative item writing sessions in August of 1995.

On August 19, 1995, the Examination Committee reviewed and approved the draft criteria for selecting Subject Matter Experts (SME's), then selected certain members to be on the Focus group workshop. Plus, the Exam Committee established procedures for the test sites and procedures for the proctors for administration of the examinations. A letter was also developed and sent to all Associated Schools of Construction (ASC) and American Council for Construction Education (ACCE) universities soliciting their university as an examination (test) site.

On September 29 & 30, 1995 the National Assessment Institute (NAI) conducted a two-day Role Delineation workshop in Clearwater, Florida with the Level I SME's in a focus group and a separate SME focus group for the Level II examination. Each group developed their own examination specifications. The purpose of the workshop was to verify and compare the AIC Role Delineation Study previously conducted and develop examination specifications for the Level 1 and Level 2 Constructor Certification examinations. The Examination Committee selected Subject Matter Experts (SME's) from the commercial, industrial, heavy/highway, a subcontractor, and residential/multi-family housing construction industries. The Level I SME's selected had 0 – 7 years of construction experience and were from different areas of the United States. The Level II SME's selected have 7 – 10+ years of construction experience and were from different areas of the U.S.

On November, 18, 1995 National Assessment Institute (NAI), the testing agency submitted a report to the Examination Committee outlining their findings comparing the results of the focus group to the AIC Job Analysis/Role Delineation Study. Plus, the compared the Level I Test Specifications to the content eight construction curriculums. On February 11, 1996, NAI conducted a Pilot Test for the

Level I Examination containing approximately 50 test items. On May 11, 1996, NAI provided a report to the Examination Committee indicating that the Level I Examination needed approximately 50 additional test questions. On August 11, 1996 selected the Level I test questions and on September 7 & 8, 1996 selected additional Level I test questions. On October 13, 1996, the Examination Committee selected the Level II test questions for the pilot test because of the low number of candidates and most of the test questions in the database were Level II items.

On November 9, 1996, the first Level I Examination was administered at approximately 20 different test sites. The Level I Examination consisted of a total of 300 points which consisted of 186 one-point multiple choice test questions and 14 points for completing a report and a business letter. The report and business letter were hand scored by volunteer constructors. On December 6 and 7, 1996 The Examination Committee reviewed the results of the test items that NAI presented as preliminary results from the November 9, 1996 Examinations. The Committee read all test questions that did not perform well and decided on a resolution for scoring purposes. Also, they read all comments and resolved any issues and set the cut-score for the Level I and the Level II Examinations.

The Examination Committee met on March 3 - 7 1997 and they held a Level II item writing workshop and item review of test questions for the Level II session using the project documents. On April 12, 1997, the first administration of the Level II Examination using a 4-hour session for the candidates to utilize the unique set of construction documents to arrive at their answers was administered. The Level II Examination consisted of a total of 200 points, which consisted of 100 one-point multiple-choice test questions in the morning session plus, 50 multiple test questions worth two-point apiece and equal to 100 points.

In May 2000, NAI terminated their contract for testing services and AIC created an RFP for soliciting other testing agencies to provide testing services. In August, 2000 Professional Testing Corporation (PTC) was selected to prove the services and their first task was to convert the data bank to ensure that the November 12, 2000 Level I and Level II Examinations could be administered. In January 2002, the Examination Committee decided to convert 7 of the 14 points for the Communication Skills on the Level I Examination to multiple-choice questions for the report test questions. This reduced the hand-scoring time for the examination. In addition, on January 24 and 25, 2004, the Examination Committee made another change and they created a Rubric for scoring the business letter to substantially reduce the volunteer graders time. Currently, a group of 5 Graders can typically score over 1000 candidate business letters in less than three hours. Finally, the Examination committee was reorganized in 2009.

### **Revision History:**

Latest Revision: 02/08/2022

<b>AIC EXAMINATION COMMITTEE TESTING AGENCY SELECTION ACTIVITIES</b>		
<b>Date</b>	<b>Location</b>	<b>Examination Committee Activities</b>
October 29, 1994	St. Louis, MO	Chair of the Constructor Certification Commission distributed to the Exam Committee members the Constructor Certification information that had been developed so far leading to the creation of the Examination Committee. The examination Committee established these priority duties, such as develop liaisons with the AIC Policy Committee and the AIC Skills and Knowledge Committee, understand the outside testing services available to the Examination Committee by interviewing testing agencies. A list of questions was developed by the committee members to serve as a guide in obtaining complete information from the vendors.
December 3, 1994	St. Louis, MO	Three testing agencies were invited to present their information concerning the testing services they typically provide, including test development, scoring results, and creating item writing guidelines for Subject Matter Experts. After the interviews, the Exam Committee decided to develop an RFP for testing services, create a detailed action plan, and answer the American College Testing set of questions in their booklet titled ACT Elements of a Request for Proposal.
January 28, 1995	St. Louis, MO	Reviewed the draft of the Request for Proposal (RFP) for examination development services then revised, approved, and reprinted for review. It was decided to add appendices' to the body of the RFP for Constructor Certification White Paper; list of participating construction associations with a description of each; copy of the Skills and Knowledge Survey; brochure on AIC; copy of the Level 1 and Level 2 qualifications to take the examinations. Exam Committee Target dates were set for the RFP process.  February 18, 1995 Policy Committee; March 27 for mailing of RFP to interested parties; April 27 cut off for vendors to submit questions concerning the RFP; May 5 for final reply to vendor questions; May 11 for receipt of all proposals; May 21 evaluation of proposals; June 3 presentations by short-listed vendors; June contract to Policy Committee for approval and review by legal counsel; late June notification of selected vendor and signing of contract; and July vendor start date.
February 18, 1995	New Orleans, LA	Presented the RFP to the Policy Committee for their review and approval of the RFP
March 11, 1995	Dallas, TX	Review and finalize the RFP draft, Develop the RFP Evaluation Criteria, develop the RFP announcement letter and reply card, create RFP mailing list.
May 21, 1995	Dallas, TX	Reviewed testing agency proposals and invited Applied Measurement Professional (AMP), National Occupational Competency Testing Institute (NOCTI) and National Assessment Institute (NAI) to make presentations. Also, Examination Committee prepared a list of questions that would be asked of all testing agencies at the presentations.
June 2, 1995	St. Louis, MO	The Examination Committee reviewed and compared the three testing agency presentations and ranked them in order of preference and reasons for their decision. The ranking was unanimous with National Assessment Institute (NAI) of Clearwater, FL being selected as the appropriate testing agency.

<b>AIC EXAMINATION COMMITTEE TEST DEVELOPMENT ACTIVITIES</b>		
August 19, 1995	Dallas, TX	The Examination Committee reviewed and approved the draft criteria for selecting Subject Matter Experts (SME's). Then selected certain members to attend the Focus group workshop conducted by NAI. Plus, the Exam Committee established procedures for the test sites and procedures for the proctors for administration of the examinations. A letter was also developed and sent to all Associated Schools of Construction (ASC) and American Council for Construction Education (ACCE) universities soliciting their university as an examination (test) site.
November 18, 1995	Clearwater, FL	NAI prepared a test specification content outline report which compared the SME examination areas for the Level I and the Level II examinations to the AIC Skills and Knowledge survey compiled by Allan Hauck of Colorado State University. Plus, the Level I test specifications were also compared to eight construction curriculums submitted to NAI. Test site applications were also reviewed
February 11, 1996	Dallas, TX	A Pilot Testing Plan was submitted by NAI for the Level I Examination containing approximately 50 questions. The examination was administered to 4 universities in mid-April who volunteered to administer the examination. The Committee also reviewed a draft of the Test Administration Handbook and reviewed a draft of the examination content descriptions for the Candidate Handbook and made necessary corrections.
May 11, 1996	St. Louis, MO	NAI provided a breakdown of the number of test items written and approved in each content category. It was concluded that the Level I Examination needed 50 additional questions to be written and reviewed to be ready for the November 9, 1996 examination.
August 11, 1996	Dallas, TX	Selected and approved the questions for the Level I Examination scheduled for November 9, 1996.
September 7 & 8, 1996	Edwardsville, IL	Selected additional Level I test questions for the November 9, 1996 examination.
October 12, 1996	Dallas, TX	The Committee review admission letters. Established the hand-grading criteria for AIC Graders to evaluate the Communication Skills activity on the Level I Examination. Selected the Level II test questions for the examination. Reviewed the suggested changes to the Candidate Handbook and approved for implementation. Reviewed the individual Grade Report and the University Grade Report and approved for use after the examination.
October, 13, 1996	Dallas, TX	The Committee selected Level II test questions for the pilot test of the Level II Examination scheduled for November 9, 1996
<b>December 6 &amp; 7, 1996</b>	<b>St. Louis, MO</b>	<b>The Examination Committee reviewed the results of the test items that NAI presented as preliminary results of the November 9, 1996 Examinations. Read all test questions that did not perform well and decided on a resolution for scoring purposes. Also, read all comments and resolved any issues and set the cut-score for the Level I and the Level II Examinations.</b>

AIC EXAMINATION COMMITTEE TEST DEVELOPMENT ACTIVITIES		
February 22 & 23, 1997	Albuquerque, NM	Selected test questions for the Level I Examination. Reviewed the entire Project Documentation donated for use on the Level II Examination. This project was approved for use in the Level II examination. The Level II test questions were scheduled to be written using the approved documents.
March 3 – 7, 1997	Clearwater, FL	Item Writing and Item review session at NAI office
May 17 & 18, 1997	Dallas, TX	Reviewed the test questions and comments and decided the cut-off score for the Level I and the Level II examinations administered on April 12, 1997. This was the first administration of the Level II Examination using a 4-hour session for answering test questions from the set of documents approved for use in February, 1997.
June 20 – 27, 1997	Clearwater, FL	Item Writing, database updated, and selected test questions for the Level 1 and the Level II Examinations scheduled for November 8, 1997.
December 13 & 14, 1997	Dallas, TX	Reviewed the test questions and comments and decided the cut-off score for the Level I and the Level II examinations administered on November 8, 1997.
May 9 & 10, 1998	St. Louis, MO	Reviewed the test questions and comments and decided the cut-off score for the Level I and the Level II examinations administered on April 18, 1998
August 13 - 17, 1998	Clearwater, FL	Selected test questions for the Level 1 and Level II Examinations scheduled for November 14, 1998
December 12 & 13, 1998	Dallas, TX	Reviewed the test questions and comments and decided the cut-off score for the Level I and the Level II examinations administered on November 14, 1998
January 15 & 16, 1999	Clearwater, FL	Selected test questions for the Level 1 and Level II Examinations scheduled for April 17, 1999
May 14 & 15, 1999	St. Louis, MO	Reviewed the test questions and comments and decided the cut-off score for the Level I and the Level II examinations administered on April 17, 1999
August 19 – 22, 1999	Clearwater, FL	Selected test questions for the Level 1 and Level II Examinations scheduled for November 13, 1999
January 14 & 15, 2000	Clearwater, FL	Selected test questions for the Level 1 and Level II Examinations scheduled for April 16, 2001
May, 2000		Cut Scores established via the telephone with a practicing Constructor and an educator
May 2000		NAI informs the Commission that they have provided notification of termination for testing services

AIC EXAMINATION COMMITTEE TEST DEVELOPMENT ACTIVITIES		
May, 2000		Create RFP for testing services with proposals due on July, 7 2000
July 20, 2000	Minneapolis, MN	Reviewed the testing agency proposals and invited 3 agencies in for presentations and selected Professional Testing Corporation (PTC) New York, NY
August 11, 2000	New York	<b>PTC converted the database and selected questions for the Level I and Level II Examinations scheduled for November 12, 2000</b>
December 9 & 10, 2000	Dallas	Reviewed the test questions and comments and decided the cut-off score for the Level I and the Level II examinations administered on November 12, 2000
May 12 & 13, 2001	St. Louis, MO	Reviewed the test questions and comments and decided the cut-off score for the Level I and the Level II examinations administered on
December 8 & 9, 2001	Dallas, TX	Reviewed the test questions and comments and decided the cut-off score for the Level I and the Level II examinations administered on November 8, 2001
May 4 & 5, 2002	St. Louis, MO	Reviewed the test questions and comments and decided the cut-off score for the Level I and the Level II examinations administered on
December 7 & 8, 2002	Dallas, TX	Reviewed the test questions and comments and decided the cut-off score for the Level I and the Level II examinations administered on November 9, 2002
August 9 & 10, 2003	Salt Lake City, UT	Selected test questions for the Level I and Level II Examinations scheduled for
October 4 & 5, 2003	Dallas, TX	Selected test questions for the Level II examination
January 24 & 25, 2004	Washington, DC	<b>Created a Business Letter Rubric for the Level I Communication Skills Activity for better response time from the Graders</b>
April 17, 2004	Washington, DC	Graders Training session based on the Rubric and Graders evaluated over 1,000 candidate business writing letters
August 7 & 8, 2004	Denver, CO	Discussed the Level I Grading rubric process and the selection of Grader locations. Reviewed and Selected Level I test questions
February 5 & 6, 2005	Dallas, TX	Selected Test questions for the Level I examination
April 15, 2005	Salt Lake City, UT	Graders Training session based on the Rubric and Graders evaluated over 1,000 candidate business letters
August 20 & 21, 2005	New York, NY	Selected Graders & location for November 19, 2005
February 4 & 5, 2006	Las Vegas, NV	Reviewed test items
August 5 & 6, 2006	Minneapolis, MN	Selected Level I & II test questions
November 18, 2006	Milwaukee, WI	Graders Training session based on the Rubric and Graders evaluated over 800 candidate business letters
February 16 & 17, 2007	Dallas, TX	Selected test questions for the Level II examination
August 3 & 4, 2007	Albuquerque, NM	Selected test questions for the Level I examination
November 17, 2007	Cleveland, OH	Graders Training session based on the Rubric and Graders evaluated over 800 candidate business letters
February 2 & 3, 2008	Dallas, TX	Select test questions
August 8 & 9, 2008	Boston, MA	Select test questions
January 16 & 17, 2009	Atlanta, GA	Select Test items
August 8 & 9, 2009	San Francisco, CA	<b>Reviewed and revised operations manuals, Reorganized the Examination Committee, Rick Lawrence is Chair, Create new Item</b>
January 22 & 23, 2010	Dallas, TX	Review test questions
March 8, 2010	Salt Lake City, UT	Test question writing session
April 10, 2010	Chicago, IL	Item review session
August 13 & 14, 2010	Salt Lake City, UT	Item selection for Level I committee and item writing committee
February 24 & 25, 2011	Dallas, TX	Item review session for Level II test questions
April 14, 2011	Cleveland, OH	Item review session for Level II test questions
August 5 & 6, 2011	St. Louis, MO	Item review session & item writing session for the Level I exam
October, 14, 2011	Washington, DC	Item review session for both examinations

<b>AIC ITEM WRITING SESSION ACTIVITIES</b>		
October 19 & 20, 1995	Syracuse, NY	Item Writing Workshop
November 17, 1995	Clearwater, FL	Item Writing Workshop
December 8 & 9, 1995	Atlanta, GA	Item Writing Workshop
January 26 & 27, 1996	Cleveland, OH	Item Writing Workshop
February 10, 1996	Dallas, TX	Item Writing Workshop
February 17 & 18, 1996	Nashville, TN	Item Writing Workshop
February 20, 1996	Orlando, FL	Item Writing Workshop
March 8 & 9, 1996	Grand Rapids, MI	Item Writing Workshop
May 12, 1996	St. Louis, MO	Item Writing Workshop for Level II test questions
June 22 & 23, 1996	Boston, MA	Test Question Review
July 7 - 14, 1996	Clearwater, FL	Test Question Review
July 27 & 28, 1996	Denver, CO	Test Question Review
August 10, 1996	Dallas, TX	Test Question Review
September 14 & 15, 1996	Clearwater, FL	Item Writing Workshop
September 27 & 28, 1996	Denver, CO	Test Question Review
March 5 – 9, 1997	Clearwater, FL	Create Level II Test Questions from the approved set of documents
February 21 & 22, 1998	Austin, TX	Item Writing Workshop
July 22 & 23, 1998	Chicago, IL	Test Question Review
June 6 & 7, 2003	Washington, DC	Item Writing Workshop
February 24, 2006	San Diego, CA	Item Writing Workshop
April 14, 2007	Flagstaff, AZ	Item Writing Workshop
April 4, 2008	Auburn, MS	Item Writing Workshop
June 3, 2008	Tempe, AZ	Item Writing Workshop
October 2, 2008	Washington, DC	Item Writing Workshop
April 4, 2009	Milwaukee, WI	Item Writing Workshop
March 3, 2010	Tampa, FL	Item Writing Workshop
August 13, 2010	Salt Lake City,	Examination Committee Meeting
August 5, 2011	St. Louis, MO	Examination Committee Meeting
February 3-4, 2012	Irving, TX	Examination Committee Meeting



April 12, 2012	Washington, D.C.	Writing Skills Subcommittee Meeting, Training, Grading Session
April 14, 2012	Falls Church, VA	Writing Skills Subcommittee Meeting, Training, Grading Session
April 20, 2012	Tampa, FL	Item Writing Workshop
May 26, 2012	Online	Item Review Meeting
August 3-4, 2012	St. Louis, MO	Examination Committee Meeting
November 16, 2012	Dallas, TX	Writing Skills Subcommittee Meeting, Training, Grading
February 1-2, 2013	Dallas, TX	Examination Committee Meeting
April 19, 2013	San Antonio, TX	Writing Skills Subcommittee Meeting, Training, Grading
April 19, 2013	Leesburg, VA	Writing Skills Subcommittee Meeting, Training, Grading

**Revision History:**

Last Revised: 12/30/2013