CERTIFICATE PROGRAM PARTICIPANT HANDBOOK

NRCA PROCertification™

# QUALIFIED ASSESSOR

NRCA PROCertification™ QUALIFIED ASSESSOR

NRCA

NATIONAL ROOFING CONTRACTORS ASSOCIATION

National Roofing Contractors Association

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## Introduction

This handbook summarizes key aspects of the National Roofing Contractors Association's (NRCA's) ProCertification® Qualified Assessor Certificate Program. It is intended to help you understand why the program was developed, its policies and procedures, and the steps to earning and maintaining the credential.

NRCA ProCertification was developed to build a competent, sustainable and high-performing roofing and waterproofing industry workforce. It accomplishes this by recognizing individuals who demonstrate knowledge and skills essential to professional roof system installations through certification. The opportunity to become certified also provides development goals for roofing workers as they continue in their careers. By identifying the knowledge and skills required for installing specific roof systems in each certification's Job Task Analysis (JTA), NRCA ProCertification offers guidance for education and training required for developing professional installation skills.

NRCA ProCertification provides an opportunity for experienced roofing workers to demonstrate their skills and knowledge to become ProCertified® roof system installers in specific roof systems. Certifications ultimately will be available for all major roofing, waterproofing and rooftop photovoltaic installations plus roof system repair and maintenance.

A roof system installer certification is earned by passing a two-part exam.

> **Part One—Knowledge Exam.** In an online exam, participants must answer questions correctly to establish their knowledge.
>
> **Part Two—Practical, Hands-on Skills Test.** This is called a performance exam. Participants will be instructed which tasks they must complete to demonstrate their installations skills, including following safety requirements. A Qualified Assessor observes and scores the installer's performance. Note that the terms assessment, exam and test will be used interchangeably in this handbook.

## Qualified Assessor Certificate Program Description

The NRCA ProCertification Qualified Assessor (also referred to in this handbook as a Qualified Assessor) credential is earned by completing the NRCA ProCertification Qualified Assessor Certificate Program. This assessment-based certificate program uses instructional design principles to deliver high-quality education and assessments. The learning objectives are based on the NRCA ProCertification Qualified Assessor JTA that can be found in Appendix A of this handbook.

The NRCA ProCertification Qualified Assessor Certificate Program exists to teach observation skills, and the policies and procedures required to assess the performance of roof system installers seeking NRCA ProCertification certification.

Once earned, the NRCA ProCertification Qualified Assessor credential has annual maintenance requirements that must be met to remain effective. The responsibilities of a Qualified Assessor and the annual maintenance requirements are described later in this handbook.

This handbook is divided into two parts. Part One describes what is involved in earning the NRCA ProCertification Qualified Assessor credential. Part Two describes what is involved in fulfilling the role of a Qualified Assessor after the credential is earned.

## Designations

NRCA ProCertification Qualified Assessors are designated in specific types of roof systems for which they can conduct performance exams. Qualified Assessors must demonstrate technical competence in specific roof or waterproofing systems. Qualified Assessor participants select the designation(s) they seek during the application process. Additional designations also can be sought after an initial designation is earned. Each designation requires submitting a new application and application fee.

# Part One: Requirements for Earning and Maintaining the Qualified Assessor Credential

## Earning the Qualified Assessor Credential

Earning a Qualified Assessor credential involves several steps, including completing training and passing exams. All training and exams must be completed in six months. This six-month timeframe begins when the applicant is notified his or her application has been approved.

Earning a Qualified Assessor credential requires the following:

1. Meet eligibility requirements for the NRCA ProCertification Qualified Assessor Certificate Program designation desired and apply for the credential. Refer to the Eligibility Requirements section of this handbook.
2. Sign a confidentiality and nondisclosure agreement. See Appendix B.
3. Complete three self-paced computer-based training modules.
4. Pass an unproctored, open-book computer-based exam about NRCA ProCertification policies and procedures.
5. Pass a computer-based final exam.
    a. To qualify to take the NRCA ProCertification Qualified Assessor Certificate Program final exam, individuals must have successfully completed the computer-based training modules and passed the open-book exam.
    b. The exam questions are multiple-choice, and some include audio, videos and images.
    c. The content of the exam covers all aspects of the Qualified Assessor JTA regardless of whether the information was covered in the Qualified Assessor computer-based training modules.
    d. A candidate who fails the exam will be allowed to reschedule taking the exam two times. Each attempt will incur an additional fee.
    e. After three failed attempts at the exam, an individual must reapply for the NRCA ProCertification Qualified Assessor Certificate Program to pursue the credential.
    f. Participants must take their initial and any retake exams within six months of being notified their application has been approved.
6. Agree to follow the policies and procedures of NRCA ProCertification, including the NRCA ProCertification Qualified Assessor Code of Professional Conduct.

## Annual Maintenance Requirements

Maintaining a Qualified Assessor credential requires the following:

1. Conduct a minimum of five NRCA ProCertification installer certification performance exam assessments per year.
2. Stay current regarding changes in systems technology and best practices in a given designation. NRCA will notify Qualified Assessors when a significant technical change occurs that requires them to complete additional education related to the change.
3. Stay current regarding NRCA ProCertification policies and procedures. NRCA will notify Qualified Assessors if they are required to complete additional NRCA education related to the change.
4. Maintain a minimum average evaluation score from certification candidates.
5. Pay an annual maintenance fee.

## Eligibility Requirements

### General Eligibility

All applicants for the Qualified Assessor credential must be a minimum 21 years of age

### Specific System Designation Eligibility

*NRCA ProCertification Qualified Assessor: Thermoplastic Systems Designation*

Individuals are eligible to take the training and assessments to earn an NRCA ProCertification Qualified Assessor: Thermoplastic Systems Designation credential if they meet one of the following requirements:

1. **Option A:** The applicant holds a current NRCA ProCertified Thermoplastic Systems Installer certification.
2. **Option B:** The applicant has been in a responsible position supervising or observing installers of thermoplastic roof systems for at least a 24-month period. This experience must have occurred within three years of the date of application. The experience requirement assumes the applicant has supervised or observed at least five thermoplastic system installation projects that include a variety of installation details such as flashings, sheet layout and attachment.

   Applicants under Option B must submit information about five thermoplastic system projects, including customer names, locations and types of project. NRCA reserves the right to verify the applicant's work experience and decision-making authority.

Examples of being in a responsible position observing or supervising thermoplastic system installers may include:

- A manufacturer's technical representative who inspects installations in progress
- A Registered Roof Observer (RRO) who conducts quality control observations during installations
- A roofing foreman or superintendent who oversees a crew performing installations

*NRCA ProCertification Qualified Assessor: Asphalt Shingles Designation*

Individuals are eligible to take the training and assessments to earn an NRCA ProCertification Qualified Assessor: Asphalt Shingles Designation credential if they meet one of the following requirements:

1. **Option A:** The applicant holds a current NRCA ProCertified Asphalt Shingles Installer certification.
2. **Option B:** The applicant has been in a responsible position supervising or observing installers of asphalt shingle roof systems for at least an 18-month period. This experience must have occurred within three years of the date of application. The experience requirement assumes the applicant has supervised or observed at least five asphalt shingles installation projects that include a variety of installation details, such as flashings, valleys and shingle types.

   Applicants under Option B must submit information about five asphalt shingles installation projects, including customer names, locations and types of projects. NRCA reserves the right to verify the applicant's work experience and decision-making authority.

Examples of being in a responsible position observing or supervising asphalt shingle roof system installers may include:

- A manufacturer's technical representative who inspects installations in progress
- A Registered Roof Observer (RRO) who conducts quality control observations during installations
- A roofing foreman or superintendent who oversees a crew performing installations

For more information about these requirements, contact certification@nrca.net or (866) ASK-NRCA (275-6722).

## Verification of Information by NRCA

NRCA reserves the right to contact building owners/operators, permitting authorities and responsible contractors to verify work experience.

## Nondiscrimination Policy

NRCA does not discriminate and prohibits discrimination against its applicants, candidates, certificants, Qualified Assessors, Qualified Trainers, employees and volunteers on the basis of race, color, ethnicity, religion, national origin, age, gender, sexual orientation, disability, marital status, or personal or business relationships. Membership in any voluntary membership or trade organization is not required.

## Fees

If a Qualified Assessor applicant does not meet the eligibility requirements, the enrollment fee will be refunded less a $249 administrative fee.

| Item | Fee |
|---|---|
| Qualified Assessor program enrollment fee per designation (This fee includes the online training and one attempt to take the online exam. This fee must be submitted with the application.) | NRCA member price: $1,499<br>Nonmember price: $2,999 |

| | |
|---|---|
| Qualified Assessor computer-based exam retake fee | NRCA member price: $199<br>Nonmember price: $399 |
| Qualified Assessor annual maintenance fee. One annual fee covers all designations earned. | NRCA member price: $149<br>Nonmember price: $299 |

## NRCA ProCertification Qualified Assessor Code of Professional Conduct

NRCA ProCertification Qualified Assessors must abide by high ethical standards. This code sets forth standards for fulfillment of their responsibilities associated with the NRCA ProCertification credentialing program.

1. Conduct all assessment activities fairly, honestly, ethically and in a timely manner.
2. Provide quality services to all certification candidates and clients.
3. Avoid situations where a conflict of interest is likely to impair professional judgment.
4. Hold paramount the safety and well-being of certification candidates, employers, clients, employees and the public and seek to protect people and property.
5. Treat all proprietary and confidential NRCA ProCertification training, assessment and candidate information with sensitivity, discretion and strict confidentiality.
6. Act in a manner free of bias with regard to race, color, ethnicity, religion, national origin, age, gender, sexual orientation, disability, marital status, or personal or business relationships.
7. Honestly represent your education, training and experience qualifications.
8. Undertake assessment activities only when qualified to do so, and inform candidates and employers of significant limitations, concerns and risks.
9. Strive for ongoing professional growth to remain current with trends and developments relevant to professional practice.
10. Communicate with ProCertification candidates, staff, volunteer representatives and other stakeholders in a timely, professional manner.
11. Refrain from the abuse of alcohol and prescription drugs and the illegal use, manufacture, purchase or distribution of drugs and other controlled substances, and do not undertake training or assessment activities while under the influence or intoxicated.

## Confidentiality

The *NRCA ProCertification Manual for Qualified Assessors*, training content and examination-related materials are provided confidentially to individuals who are pursuing or who have earned the Qualified Assessor credential. They are the intellectual property of NRCA. Individuals who are pursuing or who have earned the Qualified Assessor credential must keep information and materials confidential and use them only for the purposes of earning the credential and for administering ProCertification performance exams.

An applicant's personal information and materials for any ProCertification credential shall remain confidential unless authorized by other NRCA policies or practices or otherwise stipulated in writing by the applicant. Only members of NRCA ProCertification committees, staff and designated individuals acting on behalf of NRCA's board of directors shall have access to these documents. NRCA will take all reasonable precautions to ensure an applicant's personal information will not be released to third parties.

### Confidentiality of Individual Participant Scores

Individual exam scores are reported only to the candidate in a pass/fail format and will remain confidential unless a participant agrees in writing to release his or her score to specific parties.

### Confidentiality Exceptions

Upon earning a Qualified Assessor credential, professional contact information will be considered public information and made available to the public on NRCA's website unless requested otherwise by the applicant.

## What is Awarded Upon Successful Completion of the Certificate Program?

Participants who complete the online training, pass all assessments and agree to comply with the professional code of conduct and all policies and procedures involved in fulfilling the role of an NRCA ProCertification Qualified Assessor will earn that credential and may represent themselves as an NRCA ProCertification Qualified Assessor: X Designation. Recipients will be awarded a digital badge to document their achievement. He or she also will receive a photo ID card containing a QR code that can be scanned to verify the credential.

## Grievance/Appeals Process

NRCA ProCertification includes a robust grievance/appeals process intended to provide due process through independent evaluation of facts and circumstances to individuals whose credential or certification applications or renewals may have been denied or who may have experienced problems during the examination phases of the process that warrant reconsideration. An appeal or grievance may be filed regarding the following:

- Denial of the initial certification/credential application, revocation of the certification/ credential or denial of certification/credential renewal for failure to satisfy the requisite eligibility requirements
- Denial of the initial certification/credential application; revocation of the certification/ credential; or denial of certification/credential renewal for failure to complete all steps of the application, renewal, training and/or examination process
- Denial of the initial certification/credential application, revocation of the certification/credential, denial of certification/credential renewal for mis- representation of qualifications or falsification or cheating of any type
- A certification candidate disputes pass/fail of the online knowledge exam
- A certification candidate disputes pass/fail of the hands-on performance exam, claiming:
    - Qualified Assessor bias
    - Unfair testing conditions (poor environment, inadequate mockups, lack of materials, tools, equipment, etc.)
- Qualified Assessor applicant disputes pass/fail of the online exam
- Organization is denied designation/listing as an authorized testing location (ATL)
- Revocation or denial of Qualified Assessor credential renewal based on poor evaluations by NRCA ProCertification certification candidates
- Revocation or denial of Qualified Assessor credential renewal based on information gained from audits by NRCA of records or assessments

An individual may file a grievance/appeal within 30 days of receiving notice of the adverse decision by sending written notice of the individual's request for an appeal and the basis for same. The written grievance/request for appeal must be mailed to NRCA ProCertification program administrator:

National Roofing Contractors Association
Attn.: NRCA ProCertification Program Administrator
10255 W. Higgins Road, Suite 600
Rosemont, IL 60018-5607

The grievance/request for appeal shall contain the following information:

- The name, mailing address, email address and telephone number of the appellant
- A concise statement indicating the grounds for the appeal, including all evidence, facts and supporting documentation upon which the appeal is based
- A statement of the specific ruling or relief requested
- Signature of the appellant or an authorized agent of the appellant

Appellants waive their rights and remedies related to any grounds not specifically stated in writing in the request for appeal. Appeals received after the 30-day deadline will not be considered.

Upon receipt, the grievance/request for appeal will be independently evaluated by designated, qualified members of the NRCA Certification Exams Committee Appeals Subcommittee. This committee will determine the merits of the grievance/appeal within 60 days of the initial receipt and notify the individual in writing of the committee's decision. NRCA reserves the right to request additional information or documentation from the appellant to aid the committee in its evaluation of the grievance/appeal. The committee's decision will be based on the appellant's written submissions and documentation.

If an appellant is dissatisfied with the determination of the Certification Exams Committee Appeals Subcommittee, the appellant may request the Certification Exams Committee to review the matter by submitting a request for second-tier review, in writing, to the NRCA ProCertification program administrator within 30 days of receiving notice of the Certification Exams Committee Appeals Subcommittee's decision.

Determinations made by the Certification Exams Committee are final and subject to appeal by appropriate court action or arbitration in accordance with applicable law. The proper venue for any legal proceeding arising out of or relating to NRCA ProCertification shall be Cook County, Illinois, and each party waives any defense, whether asserted by motion or pleading, that Cook County, Illinois, is an improper or inconvenient venue.

## Denial and Revocation of Credential

An NRCA ProCertification Qualified Assessor credential will be denied or revoked if there is evidence of misrepresentation of qualifications or falsification orcheating of any type. The Qualified Assessor credential also may be revoked based on poor evaluations by NRCA ProCertification installer certification candidates or because of information gained from audits by NRCA of a performance exam, records or assessments. Failure to meet annual maintenance requirements for the credential also will cause the credential to be revoked.

## Prohibited Use of Credential

A Qualified Assessor or any holder of a ProCertified certification whose credential has expired or has been suspended or revoked may not represent himself or herself as having an active ProCertification credential and may not use a ProCertification designation until NRCA acknowledges the relevant renewal or recertification requirements have been satisfied or active status has been reinstated.

# Part Two: NRCA ProCertification Qualified Assessor Policies and Procedures

Individuals holding an active NRCA ProCertification Qualified Assessor certificate are authorized to conduct hands-on performance assessments of NRCA ProCertified installer candidates in accordance with the relevant policies and procedures. Because these assessments are key components of awarding NRCA ProCertified installer certifications, Qualified Assessors must agree to and follow various policies and procedures.

Many certification programs only assess knowledge through multiple-choice or other types of written exams. NRCA ProCertification certifications are unique because the process tests knowledge and hands-on performance of roof system installation skills. Hands-on performance assessments involve a Qualified Assessor observing a certification candidate completing an installation assignment under standard testing conditions. Standard testing conditions are described in the document titled *NRCA ProCertification Guidelines for Performance Exam Standard Testing Conditions*.

Installer performance is evaluated using a scoring rubric provided by NRCA. Qualified Assessors are qualified by completing training about observation skills in designated systems and passing an exam about the knowledge, skills and abilities contained in the Qualified Assessor JTA. They conduct assessments using standardized assignments and scoring tools provided by NRCA. A sample assignment and scoring rubric are included in this handbook as Appendixes C and D.

## Requirements for Scheduling, Conducting and Reporting NRCA ProCertified Installer Performance Exams

Following are policies and procedures for scheduling, conducting and reporting NRCA ProCertified installer certification performance exams. They are presented for the purpose of helping individuals interested in becoming an NRCA ProCertification Qualified Assessor understand the role. However, this is not an exhaustive list and the policies and procedures can change at any time.

Complete instructions are included in the Qualified Assessor online training modules and the NRCA ProCertification Manual for Qualified Assessors. That manual is provided to individuals who have applied to and been accepted into the NRCA ProCertification Qualified Assessor Certificate Program.

1. Roof system installers seeking an NRCA ProCertified installer certification will schedule their assessments directly with a Qualified Assessor following prescribed procedures but without the direct involvement of NRCA. A directory of ProCertification Qualified Assessors will be available.
2. Performance exams can be done in any location that provides standard testing conditions. These conditions include such things as a standard set of tools and equipment, required system materials and accessories, safety equipment, mockup characteristics or rooftop conditions and environmental and weather conditions. In all cases, Qualified Assessors must confirm that standard testing conditions exist throughout a performance exam. Qualified Assessors have the authority to deny conducting an exam if standard testing conditions are not present.

3. Some organizations sign an agreement with NRCA that identifies one or more of their facilities that will provide standard testing conditions for specific roof system types. These locations are called Authorized Testing Locations (ATLs).
4. Candidates seeking testing will select a group of hands-on performance assignments from which they will be tested.
5. After agreeing to conduct a performance exam, the Qualified Assessor will coordinate scheduling it on behalf of the candidate. NRCA is not involved in scheduling performance exams.
6. Once a testing date is scheduled, the Qualified Assessor must report the date, location and candidates' selected assignment group to NRCA.
7. Qualified Assessors must agree to follow all ProCertification policies and procedures, including the NRCA ProCertification Qualified Assessor Code of Professional Conduct found in the previous section of this handbook.
8. Qualified Assessors cannot conduct performance exams for individuals who are direct employees or subcontracted employees of the same company that also employs the Qualified Assessor.
9. The maximum number of certification candidates that a Qualified Assessor can assess at one time is four.
10. Candidates who require using exam materials in Spanish must have their performance exam conducted by a Qualified Assessor who speaks Spanish conversationally.
11. For job-site tests, a competent safety person supplied by the candidate's employer must oversee the candidate's safety for the duration of a performance exam.
12. Qualified Assessors must make all decisions related to the NRCA ProCertification program without bias for or against any individual or organization, including the fees they charge for ProCertification-related services on the basis of race, color, ethnicity, religion, national origin, age, gender, sexual orientation, disability, marital status or any other category protected by law.

    However, Qualified Assessors are not required to fulfill any particular request for assessment services if there are other legitimate, nondiscriminatory personal or business reasons that preclude doing so (such as a contractual relationship, union membership requirements or competitor/ antitrust concerns, etc.).

    NRCA does not tell Qualified Assessors whether they should charge for their assessment services. If they charge for services, NRCA does not tell Qualified Assessors how much to charge. However, everyone must be charged similarly for similar services regardless of any business or personal relationships a Qualified Assessor or his or her employer has with the trainee or any organization. NRCA does not receive any part of fees Qualified Assessors are paid.
13. Qualified Assessors must report all performance exam assessment scores using the electronic scoring rubric provided by NRCA. This may be done in real time during a performance exam using an Android tablet or iPad, or scores can be scored on paper during the performance exam and input electronically after an exam is finished. NRCA does not provide a testing device to Qualified Assessors.

14. Qualified Assessors plan and prepare for assessment activities; conduct accurate, fair and unbiased assessments of candidates' performances in specific roof system disciplines through observations; and ensure candidates' conformance with safety standards for personal protective equipment (PPE), personal fall arrest systems (PFAs) and accepted industry best installation practices. Qualified Assessors are trained to observe certification candidates completing hands-on performance exam assignments and assess them using scoring rubrics provided by NRCA.
15. Qualified Assessors cannot provide any coaching, guidance or direction during the assessment unless there is imminent danger to the candidate or others.
16. Qualified Assessors must complete a Performance Exam Report online form that includes feedback about each assessment experience noting any problems or concerns regarding the candidate or testing site.
17. NRCA ProCertified installer candidates will be given the opportunity to evaluative the Qualified Assessor and the testing site. They also have the opportunity to appeal the results of the performance exam.

## Testing Location Agreements and Fees

At their discretion, Qualified Assessors may opt to enter into written agreements with testing locations regarding use of a site for conducting performance exams. Written agreements between Qualified Assessors and testing locations are optional. If a Qualified Assessor desires to provide and enter into such a written agreement, an example of such an agreement for use by the Qualified Assessor is included in the NRCA ProCertification Manual for Qualified Assessors.

Additionally, testing locations are permitted, in their discretion, to charge Qualified Assessors a reasonable, appropriate fee for conducting performance exams at their location. If a fee is charged, the testing location must charge the same fee to all Qualified Assessors who use the facility for performance exams. The testing location may not vary charges or discriminate in the imposition of such a fee nor in the amount of such fee for any reason, including on the basis of race, color, ethnicity, religion, national origin, age, gender, sexual orientation, disability, marital status, or personal or business relationships.

## Certification Candidates Agreements and Fees

In their discretion, Qualified Assessors may opt to enter into written agreements with NRCA ProCertified installer candidates to document and memorialize the relationship, understanding and terms between the Qualified Assessor and the candidate with regard to conducting a performance exam. Written agreements between Qualified Assessors and certification candidates are optional. If a Qualified Assessor desires to provide and enter into a written agreement with certification candidates, an example of such an agreement is provided to Qualified Assessors.

Additionally, Qualified Assessors are permitted, in their discretion, to charge a reasonable, appropriate fee for conducting performance exams. However, if a Qualified Assessor chooses to charge such a fee, he or she must charge the same fee to all candidates for whom the Qualified Assessor conducts the same performance exam. The Qualified Assessor may not vary charges or discriminate in the imposition of such a fee nor in the amount of such fee for any reason, including on the basis of race, color, ethnicity, religion, national origin, age, gender, sexual orientation, disability, marital status, or personal or business relationships.

## Permitted Use of NRCA Materials

### Description of Services

"Services" means all the content of NRCA ProCertification, including all the educational content, information, resources, documents, handbooks, policies, materials, agreements and assessments.

### Personal and Noncommercial Use Limitation

Unless otherwise specified, the Services are for your personal and noncommercial use. You may not disclose, modify, copy, distribute, transmit, display, perform, reproduce, publish, license, create derivative works from, transfer, or sell any information, software, products or services obtained from the Services, except as required and only to the extent necessary to fulfill the role of a NRCA Pro-Certification Qualified Assessor. By way of example, this includes, but is not limited to, copying, reproducing, duplicating, and/or disclosing of materials as needed to document and memorialize agreements with testing locations and NRCA ProCertified installer candidates, to perform assessments of NRCA ProCertified installer candidates, and to provide candidate assessment results to NRCA.

### Ownership of NRCA ProCertification Program Materials

NRCA owns and will continue to own all rights, copyrights, title and interest to NRCA ProCertification courses, course materials, handbooks, manuals and assessment materials. These are protected by U.S. and international copyright laws. The NRCA ProCertification Qualified Assessor agrees not to use, copy, distribute, modify, or make derivative works of any courses, course materials, educational content, information, resources, documents, materials, agreements, and assessments, except as required and only to the extent necessary to fulfill the role of a NRCA ProCertification Qualified Assessor. Doing so may result in severe civil and criminal penalties.

### Warranty Disclaimer and Limitation of Liability

All NRCA ProCertification information, documents, and materials are provided "as is," and NRCA makes no warranties, whether express, implied, statutory, or otherwise, including, without limitation, warranties of merchantability or fitness for a particular purpose. In no event shall NRCA be liable for any direct, indirect, special, punitive, or consequential damages of any kind or nature whatsoever, including without limitation, loss of profits or other economic loss caused by, resulting from, or otherwise arising from use of or reliance on any of the NRCA ProCertification program materials.

## Quality Assurance

NRCA has several procedures in place to monitor the performance of NRCA ProCertification Qualified Assessors acting on behalf of NRCA ProCertification to ensure all aspects of assessment meet the quality assurance standards prescribed by NRCA. These include audits by NRCA and evaluations and appeals by candidates seeking installer certifications. Qualified Assessors also are given opportunities to provide feedback about certification candidates and performance exam testing locations as part of the online Performance Exam Report form.

### Audits by NRCA

NRCA reserves the right to conduct announced or unannounced audits of assessment activities and records to provide assurance that Qualified Assessors are complying with all relevant agreements, procedures, policy directives and guidance pertaining to NRCA ProCertification activities.

Auditors may be an NRCA staff member, independent consultant, insurance representative or a designated agent by NRCA who is authorized by NRCA to conduct audits. In all cases, auditors are qualified by NRCA through training or experience. NRCA will provide auditors with standardized performance criteria checklists for use in all audit activities.

An audit summary will be prepared and presented for review to the ProCertification Program Committee. Results of the committee review will be shared in confidence directly with the Qualified Assessor. Audit results and all personal Qualified Assessor information will be kept secure and in strict confidence by NRCA, its auditors and the ProCertification Program Committee.

### NRCA ProCertified Installer Candidate Evaluations

As part of the hands-on performance assessment process, candidates seeking an NRCA ProCertified installer certification will have the opportunity to evaluate the Qualified Assessor who assesses their roof systems installation assignment following the completion of the candidate's performance exam and before the candidate receives their pass/fail score.

### NRCA ProCertified Installer Candidate Appeals Process

NRCA ProCertified installer certification candidates may appeal an adversedecision regarding their certification following a formal appeals procedure. For more information, see the Grievance/Appeals Process section of this handbook.

## NRCA ProCertification Contacts

**Applications for all NRCA ProCertification credentials are available on NRCA's website, www.nrca.net.**

**Mailing Address:**
National Roofing Contractors Association
Attn.: ProCertification Program Administrator
10255 W. Higgins Road, Suite 600
Rosemont, IL 60018-5607

**Email:**

**General inquiries, testing location inquiries and applications:** certification@nrca.net

**Qualified Assessor inquiries:**
QAsupport@nrca.net

**Phone:** (866) ASK-NRCA (275-6722)

**Office Hours:** Monday through Friday 8:00 a.m. to 4:30 p.m. CST

# Appendix A: NRCA ProCertification Qualified Assessor Job Task Analysis

| | | |
|---|---|---|
| **Job Description:** | **Given a hands-on performance assignment for installing a roofing, waterproofing or roof-mounted photovoltaic system, an NRCA ProCertification Qualified Assessor must be able to:** | |
| **DOMAIN 1** | **CORE PROFESSIONAL FOUNDATIONS** | |
| **Implement published NRCA ProCertification program safety policies and rules** | | **13%** |
| 1.1 | Recall industry-related safety regulations for personal protective equipment (PPE) and personal fall arrest systems (PFAs) published by the U.S. federal Occupational Safety and Health Administration (OSHA) | |
| 1.2 | Identify system-specific PPE requirements for a given installation | |
| 1.3 | Conform with safety regulations that apply to a testing location published by the organization with jurisdiction during all assessment activities | |
| 1.4 | Work with a testing site's point of contact or competent safety person to provide candidates with a safe testing environment free from hazard exposures | |
| **Communicate effectively** | | **5%** |
| 1.5 | Check that candidates understand given verbal instructions, regardless of first language | |
| 1.6 | Communicate directly with all NRCA ProCertification program stakeholders (e.g. candidates; performance exam testing locations; employers; administrative staff; general public) in conformance with all program policies, rules and procedures | |
| **Comply with ethics and legal requirements** | | **5%** |
| 1.7 | Comply with local regulatory requirements during NRCA ProCertification program activities | |
| 1.8 | Comply with the NRCA ProCertification Qualified Assessor Code of Professional Conduct | |
| 1.9 | Provide candidates fair and unbiased assessment services | |
| 1.10 | Respect confidentiality and anonymity of NRCA ProCertification program stakeholders (e.g. candidates, trainees, contractors, employers, manufacturers) | |
| 1.11 | Avoid conflicts of interest | |
| 1.12 | Comply with intellectual property and copyright regulations | |
| **Apply system technical knowledge** | | **23%** |
| 1.13 | Demonstrate deep technical knowledge and subject-matter expertise in system designations | |
| **Use media and technology** | | **2%** |
| 1.14 | Skillfully use computer systems (hardware and software) required to fulfill the Qualified Assessor role | |
| **Maintain professionalism** | | **2%** |
| 1.15 | Demonstrate exemplary professional conduct | |
| 1.16 | Conform with rules, policies and procedures during all NRCA ProCertification activities | |
| 1.17 | Engage stakeholders honestly and sincerely | |
| **Pursue ongoing professional development** | | **2%** |
| 1.18 | Stay current with roofing industry trends and system-specific technical knowledge and best practice information and requirements | |
| 1.19 | Document professional development activities for future reference | |
| 1.20 | Participate in industry-related conferences, meetings, trainings and education events | |
| 1.21 | Maintain memberships in relevant professional societies and associations | |

| | | |
|---|---|---|
| 1.22 | Meet published Qualified Assessor credential maintenance requirements | |
| **DOMAIN 2** | **PLANNING AND PREPARATION** | |
| **Plan for assessments** | | **4%** |
| 2.1 | Review details of all candidate assignments and related performance scoring rubrics | |
| 2.2 | Review unfamiliar assignment technical content using standardized industry references before conducting assessments (e.g. NRCA or manufacturers' manuals, safety regulations) | |
| 2.3 | Review lists of all required materials and equipment for specific assessment assignments | |
| **Prepare assessment environment** | | **4%** |
| 2.4 | Ensure all published standardized testing conditions are met at a testing venue for each assignment before candidates arrive for scheduled assessments (e.g., noise levels, temperature, slope, etc.) | |
| 2.5 | Ensure all mockups, roofing materials, tools and equipment are in place and in good working condition | |
| 2.6 | Recognize available resources in, and limits of, a testing environment | |
| **DOMAIN 3** | **ASSESSING CANDIDATE PERFORMANCE** | |
| **Verify trainees follow given instructions** | | **15%** |
| 3.1 | Provide candidates performance assignment instructions as written | |
| 3.2 | Inform candidates of proctoring rules and time requirements prior to start of assessment activities | |
| 3.3 | Accurately assess candidate's abilities to perform all installation steps for a given assignment against published installation standards listed in the related scoring rubric | |
| **Validate trainee technical skills performance** | | **25%** |
| 3.4 | Ensure candidate coaching and mentoring activities do not occur during assessment activities | |
| 3.5 | Observe candidates' abilities to select correct tools, equipment and materials for a specific performance assignment | |
| 3.6 | Ensure performance time requirements are met, when applicable | |
| 3.7 | Accurately compare completed performance assignments against published installation standards | |

# Appendix B: Confidentiality and Nondisclosure Agreement

## CONFIDENTIALITY & NONDISCLOSURE AGREEMENT

This CONFIDENTIALITY AND NONDISCLOSURE AGREEMENT (this **"Agreement"**), with an effective date of April 25, 2018 (the **"Effective Date"**), is entered into by and between the National Roofing Contractors Association (hereinafter, **"NRCA"**), with its principal place of business located at 10255 W. Higgins Road, Suite 600, Rosemont, Illinois 60018, and _____, and whose name and signature appear below (hereinafter,the **"Qualified Assessor"**), and between them agree as follows:

## RECITALS

WHEREAS, the Qualified Assessor understands that as part of the Qualified Assessor's involvement in one or more aspects or functions of NRCA ProCertification, the Qualified Assessor may be provided, allowed access to, or otherwise exposed to certain confidential information, documents, and/or records relating to NRCA ProCertification, including but not limited to, confidential, private information regarding NRCA ProCertification applicants, candidates or certificants, as well as confidential, proprietary information regarding NRCA ProCertification exams, exam items/questions, exam item banks, exam scoring, and exam administration information, and NRCA ProCertification training materials, course content, contracts, handbooks, manuals, policies, and procedures.

WHEREAS, pursuant to and in accordance with the requirements set forth by international standard ISO/IEC 17024:2012: Conformity assessment – General requirements for bodies operating certification programs, by NCCA Standard 10: Confidentiality, and by other applicable credentialing standards, the Qualified Assessor expressly agrees to protect and maintain the confidentiality of all confidential information he/she is provided, allowed access, or otherwise exposed to through his/her participation in NRCA ProCertification and expressly agrees to refrain from any and all unauthorized disclosure of such confidential information.

NOW, THEREFORE, to protect the confidentiality and ensure the nondisclosure of all NRCA ProCertification-related information and in consideration of the Qualified Assessor's designation and performance as an NRCA ProCertification Qualified Assessor and the mutual covenants contained herein, NRCA and the Qualified Assessor agree as follows:

**I. CONFIDENTIAL INFORMATION.** For purposes of this Agreement, the term "Confidential Information" means any information, document, record, or material relating to NRCA ProCertification, including but not limited to, confidential, private information about NRCA ProCertification applicants, candidates,certificants, qualified trainers, qualified assessors, and all other affiliated individuals, as well as NRCA ProCertification information that is confidential and proprietary to NRCA, or not readily available to the general public, whether or not owned or developed by NRCA, whenever and however acquired, whether before or after the date of this Agreement, whether provided in writing, through inspection of documents,through video or other audio-visual means, through electronic delivery or storage, or through spoken communication in meetings, presentations, and conversations, and whether or not marked or designated "secret," "proprietary," or "confidential." Confidential Information shall include, without limitation, the following:

- Information concerning NRCA ProCertification applicants, candidates, and certificants, qualified trainers, applicants or candidates for the qualified trainer credential, qualified assessors, applicants or candidates for the qualified assessor credential, and any other NRCA ProCertification-affiliated individuals
- NRCA ProCertification exams, exam administration, exam content, exam items/questions, proposed exam items/questions, exam item banks, exam scores and scoring methods, rubrics, policies, procedures, and projections
- NRCA ProCertification training materials, course content, handbooks, manuals, policies, and procedures
- Proprietary information concerning the operation of NRCA ProCertification including business records, plans, and projections, marketing information, such as research, strategies, plans, programs, services, contracts, leads, reports, studies, goals, and techniques, advertising information and sources, financial and accounting information, such as cost, pricing and billing information, revenues and profit margins, pricing structure, discounts, financial data, reports, forecasts, schedules, statements, models, and projections
- Confidential information concerning NRCA ProCertification vendors and suppliers
- Technical data, product ideas, computer programs, source code and/or object code
- Trade secrets and confidential information believed by NRCA to be a trade secret as defined under Illinois or applicable state law, whether or not such information ultimately qualifies as a trade secret under Illinois or applicable state law but nonetheless was maintained by NRCA as confidential
- All intellectual property of NRCA relating to NRCA ProCertification, including any and all trademarks, trade names, service marks, copyrighted materials, all copy, ideas, inventions, designs, scripts, concepts, renderings, recordings, and advertising and promotional materials, and all computer programs and software developed by or for the benefit of NRCA ProCertification and related data source code, specifications, and programming information (whether or not patentable or registered under copyright or similar statutes)
- And any other information relating to NRCA ProCertification that is not publicly available and the nature and manner of disclosure of which are such that a reasonable person would understand it to be confidential

For avoidance of doubt, Confidential Information do not include any information that:

- is already in the public domain or becomes available to the public through no breach by the Qualified Assessor of this Agreement
- was lawfully in the Qualified Assessor's possession prior to disclosure to the Qualified Assessor by NRCA
- is lawfully disclosed to the Qualified Assessor by a third party without any obligations of confidentiality attaching to such disclosure

- is developed by the Qualified Assessor entirely on his/her own time without NRCA's equipment, supplies or facilities and does not relate at the time of conception to the NRCA's business, the ProCertification program, or actual or demonstrably anticipated research or development of NRCA
- is disclosed by operation of law
- is disclosed by the Qualified Assessor with the prior consent of NRCA and
- any other information that both parties agree is not confidential.

Nothing in this Agreement is intended to affect the application of the Illinois Trade Secrets Act, 765 ILCS 1065/1, et. seq., or the Defend Trade Secrets Act of 2016, Pub. Law 114-153, to the NRCA's Confidential Information and trade secrets.

**II. PROTECTION OF CONFIDENTIAL INFORMATION.** The Qualified Assessor understands and acknowledges that the Confidential Information has been developed or obtained by NRCA by the investment of significant time, effort and expense, and that the Confidential Information is an important, material, valuable, special and unique asset of NRCA which provides NRCA with a significant competitive advantage and needs to be protected from improper disclosure.

The Qualified Assessor expressly agrees to hold the Confidential Information in strict confidence and will not at any time or in any manner, during or after the term of the Qualified Assessor's participation in NRCA ProCertification, whether voluntary or involuntary, either directly or indirectly, use, divulge, disclose, publish, or communicate any Confidential Information to any person, firm or corporation outside NRCA, except as required to perform the Qualified Assessor's duties or functions related to the ProCertification program or as otherwise authorized by NRCA. The Qualified Assessor further agrees that, except as required to perform the Qualified Assessor's duties or functions related to the NRCA ProCertification program or as otherwise authorized by NRCA, the Qualified Assessor will not copy or modify any Confidential Information without the prior consent of NRCA. The Qualified Assessor shall promptly advise NRCA if the Qualified Assessor becomes aware of any possible unauthorized disclosure or use of any Confidential Information.

The Qualified Assessor acknowledges and agrees that every writing, conception, invention, discovery, know-how, plan, program, idea, information, and tangible expression of idea relating to NRCA ProCertification or which arises out of the Qualified Assessor's use of NRCA's time, facilities, or money is the property of NRCA and that the Qualified Assessor shall cooperate with NRCA in registering any copyright, trademark, patent, or other protection in the name and for the benefit of NRCA. The Qualified Assessor hereby assigns any and all rights, title, and interest in any such inventions to NRCA.

NRCA and the Qualified Assessor understand and acknowledge that, pursuant to the Defend Trade Secrets Act of 2016, an individual may not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that: (a) is made (i) in confidence to a federal, state, or local government official, either directly or indirectly, or to an attorney; and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (b) is made in a complaint or other document that is filed under seal in a lawsuit or other proceeding. Further, an individual who files a lawsuit for retaliation by an employer for reporting a suspect- ed violation of law may disclose the

employer's trade secrets to the attorney and use the trade secret information in the court proceeding if the individual: (a) files any document containing the trade secret under seal; and (b) does not disclose the trade secret, except pursuant to court order.

**UNAUTHORIZED DISCLOSURE OF INFORMATION - INJUNCTION.** The Qualified Assessor understands and acknowledges that his/her obligations under this Agreement are necessary and reasonable to protect NRCA's legitimate business interests and that monetary damages would be inadequate to compensate for any breach of this Agreement. Accordingly, the Qualified Assessor agrees that any such breach will cause immediate and irreparable injury to the NRCA for which

there would be no adequate remedy at law. As such, the Qualified Assessor agrees that if he/she breaches any provision of this Agreement, NRCA shall be entitled to any proper injunction, including but not limited to temporary, preliminary, and final injunctions, temporary restraining orders, and temporary protective orders, with- out bond or security, to enforce this Agreement, in addition to any other remedies available to NRCA at law or in equity.

The Qualified Assessor further acknowledges that the Qualified Assessor is hereby estopped from subsequently asserting in any action to enforce the Agreement that NRCA has an adequate remedy at law and therefore is not entitled to injunctive relief. The covenants contained in this Agreement are independent of any other existing or future obligations between the parties, and the existence of any other claim or cause of action against NRCA is not a defense to enforcement of said covenants by injunction.

**III. RETURN OF CONFIDENTIAL INFORMATION.** Upon the request of NRCA, the Qualified Assessor shall, within five (5) business days, return to NRCA all Confidential Information in the Qualified Assessor's possession, custody, or control. The Qualified Assessor shall also deliver to NRCA a written statement signed by the Qualified Assessor certifying that all materials have been returned within five (5) business days of receipt of the request. Upon termination of the Qualified Assessor's relationship with NRCA, the Qualified Assessor shall immediately deliver to NRCA or its authorized representative all such Confidential Information in the Qualified Assessor's possession, custody, or control, including all copies. The Qualified Assessor shall not retain any copy, version, or rendition of such Confidential Information nor cause or permit any third party to retain the same.

**IV. RELATIONSHIP OF PARTIES.** Neither party has an obligation under this Agreement to purchase any service or item from the other party, or commercially offer any products using or incorporating the Confidential Information. This Agreement does not create any agency, partnership, or joint venture.

**V. NO WARRANTY.** The Qualified Assessor acknowledges and agrees that the Confidential Information is provided on an "AS IS" basis. NRCA MAKES NO WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO THE CONFIDENTIAL INFORMATION AND HEREBY EXPRESSLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL THE NRCA BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH OR ARISING OUT OF THE PERFORMANCE OR USE OF ANY PORTION OF THE CONFIDENTIAL INFORMATION. NRCA does not represent or warrant that any product or business plans disclosed to the Qualified Assessor will be marketed or carried out as disclosed, or at all. Any actions taken by the

Qualified Assessor in response to the disclosure of the Confidential Information shall be solely at the risk of the Qualified Assessor.

**VI. ATTORNEY'S FEES.** In any legal action between the parties concerning or arising out of this Agreement, the prevailing party shall be entitled to recover all costs incurred by the prevailing party in connection with the litigation or proceeding including reasonable attorney's fees, experts' fees, and costs, whether incurred before, during, and after suit, trial, arbitration proceedings, mediation, and appeals.

**VII. TERM.** Termination of the Qualified Assessor's relationship with NRCA shall not release the Qualified Assessor from any of his/her obligations under this Agreement, which shall survive and remain in full force and effect in perpetuity or until NRCA sends the Qualified Assessor written notice releasing the Qualified Assessor from this Agreement. Absent a written release, the Qualified Assessor must continue to protect the Confidential Information that was received during the term of this Agreement from unauthorized use or disclosure indefinitely. Notwithstanding the foregoing, to the extent any Confidential Information constitutes a trade secret, this Agreement shall remain in full effect with respect to such Confidential Information, and the Qualified Assessor must safeguard such Confidential Information, for as long as it remains a trade secret.

**VIII. WAIVER.** No waiver by NRCA of any breach of this Agreement shall be a waiver of any preceding or succeeding breach. No waiver by NRCA of any right under this Agreement shall be construed as a waiver of any other right. No waiver by NRCA of any breach or threatened breach by any other signatory to a similar or identical non-disclosure agreement signed by that signatory shall be construed as a waiver by NRCA of any breach, threatened breach, or right against the Qualified Assessor under this Agreement.

**IX. BINDING EFFECT; NO ASSIGNMENT.** This Agreement shall not be assignable by either party. Neither party may delegate its duties under this Agreement without the prior written consent of the other party. The rights, specifically including those of NRCA regarding the obligations of the Qualified Assessor under this Agreement, shall be binding upon the Qualified Assessor's heirs, executors and administrators.

**X. GOVERNING LAW; VENUE.** The provisions of this Agreement, including the validity, interpretation, construction, and enforcement thereof, shall be governed by and construed in accordance with the laws of the State of Illinois without giving effect to the principles of conflict of laws. The parties consent and agree that the proper venue for any legal proceeding relating directly or indirectly to this Agreement shall be in the federal district court or state court for Cook County, Illinois, and each party waives any defense, whether asserted by motion or pleading, that Cook County, Illinois, is an improper or inconvenient venue.

**XI. SEVERABILITY.** Each provision of this Agreement is intended to be severable. If any court of competent jurisdiction determines that one or more of the provisions of this Agreement, or any part thereof, is or are invalid, illegal or unenforceable, only that provision, term or clause shall be affected, and such invalidity, illegality or unenforceability shall not affect or impair any other provision of this Agreement, and this Agreement shall be given full force and effect while being construed as if such invalid, illegal or unenforceable provision had not been contained within it. If the scope of any provision in this Agreement is found to be too broad to permit enforcement of such provision to its full extent, the Parties consent to judicial modification of such provision and enforcement to the

maximum extent permitted by law.

**XII. MODIFICATION.** No waiver, amendment, or modification of this Agreement or of any covenant, condition, or limitation contained in this Agreement shall be valid unless in writing and signed by both parties. No evidence of any waiver, amendment, or modification shall be offered or received in evidence in any legal proceeding between the parties arising out of this Agreement, unless such waiver, amendment, or modification is in writing and signed by both parties.

**XIII. ENTIRE AGREEMENT.** This Agreement sets forth the entire understanding between the parties with respect to the subject matter hereof and supersedes all prior agreements of the parties whether oral or written.

**XIV. ACKNOWLEDGEMENTS.** The Qualified Assessor hereby acknowledges that he/she has been provided with a copy of this Agreement for review prior to signing it, that he/she understands the purposes and effects of this Agreement, that he/she is fully aware that this Agreement creates, imposes, and/or alters the Qualified Assessor's legal rights and obligations, and that if the Qualified Assessor so requests, he/she will be given a signed copy of this Agreement for his/her own records. The Qualified Assessor acknowledges that NRCA has provided the Qualified Assessor adequate opportunity to have this Agreement reviewed by an attorney at the Qualified Assessor's sole discretion. By executing this Agreement as indicated below, the Qualified Assessor hereby acknowledges that the Qualified Assessor has either chosen to have this Agreement reviewed by an attorney or has voluntarily chosen not to do so prior to executing this Agreement.

**XV. CONSTRUCTION.** The parties acknowledge that each party has reviewed this Agreement and, thus, agree that the language of this Agreement shall be construed as a whole, according to its fair meaning, and without regard as to which party drafted this Agreement. The parties agree that the Agreement shall be construed as if the parties jointly prepared and drafted it so that the language of this Agreement, including any uncertainty or ambiguity, shall not be construed strictly for or against either party.

**XVI. KNOWING AND VOLUNTARY ACCEPTANCE.** By executing this Agreement as indicated below, the Qualified Assessor hereby acknowledges that the Qualified Assessor has received and read this Agreement in its entirety and that the Qualified Assessor fully understands and agrees to be bound by it. The Qualified Assessor acknowledges that this Agreement was executed prior to any termination or separation from NRCA and shall be effective after termination/separation per the terms contained herein. The Qualified Assessor further acknowledges that he/she is not executing this Agreement under any duress, force, threat, or undue manipulation, and the Qualified Assessor, at the time of his/her review and execution of this Agreement, is of sound mind and not under the influence of any medicine, substance, illness, or disability that would limit or reduce his/her mental capacity.

*Accepted and agreed on the dates below but effective as of the date first written above.*

**QUALIFIED ASSESSOR:**

Signed: _____

Printed: _____

Title/Position: _____

Date: _____

## Appendix C: TP-SA1: Mechanically Attached Thermoplastic Systems

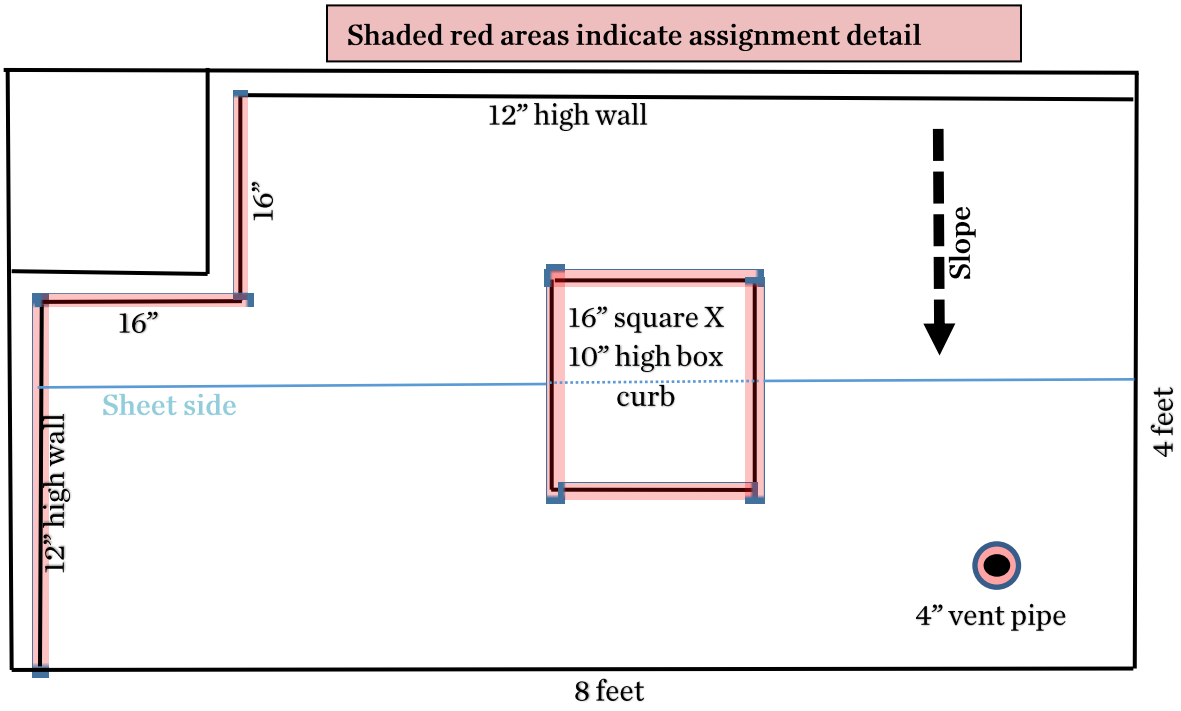
# TP-SA1: GROUP ONE—MECHANICALLY ATTACHED THERMOPLASTIC SYSTEMS

## Installer Performance Assignment and Instructions

Candidate Name: _____ Exam Date: _____
Candidate ID No.: _____
Qualified Assessor Name: _____
Qualified Assessor ID No.: _____
Exam Location: ☐ Job Site ☐ Other Testing Location
Exam Start Time: _____ Exam Stop Time: _____

This is your performance assignment. Your Qualified Assessor will review these instructions with you before beginning your assignment. The information is divided into two sections:
**Section A**—A quick reference drawing representing the performance assignment tasks
**Section B**—Specific instructions you must follow to perform your assignment. Your Qualified Assessor will review these instructions in detail before you start.

**SECTION A: QUICK REFERENCE ASSIGNMENT DRAWING**
**This drawing will help identify the general tasks that you must perform. Your testing area may look different, but the assignments are the same whether you are testing at your employer's shop, a testing location or on a job site.**



| | |
|---|---|
| | **SECTION B: SPECIFIC ASSIGNMENT INSTRUCTIONS**<br>- **Your Qualified Assessor will read these instructions with you before beginning your exam**<br>- **You can keep this copy of your instructions to look at during your exam.** |
| | **EXAM PART ONE: SETUP AND SAFETY INSTRUCTIONS** |
| **1** | This is your performance exam assignment. You must complete the tasks following the instructions. You will not be given any more information, but you can keep your copy of the instructions to refer to any time during your exam.<br><br>Your exam has two parts. This is Part One. This part is not timed. |
| **2** | **FOR EXAMS NOT CONDUCTED AT JOB SITES**<br>If you are taking your exam at a testing location other than a job site and your assessor (or the location's competent safety person) observes you violating the following safety policy, he or she will stop the exam and you will be automatically failed. There are no exceptions to this policy.<br><br>1. Any behavior identified by your assessor that creates imminent danger of serious injury or death to you or others<br><br>**FOR EXAMS CONDUCTED AT JOB SITES**<br>If you are taking your exam at a job site and your assessor (or employer's competent safety person) observes you violating any of the following safety policies, he or she will stop the exam and you will be automatically failed. There are no exceptions to this policy.<br>1. You expose yourself to a fall hazard without a fall protection system in place<br>2. You improperly use fall protection equipment.<br>3. You unsafely use a ladder<br>4. Other behavior identified by your assessor or your employer's competent safety person that creates imminent danger of serious injury or death to you or others |
| **3** | You may NOT ask your assessor, or anybody, questions about:<br>- How to set up or use any tools, equipment or materials<br>- How to wear or use a personal fall arrest (PFA) system<br>- Correct or incorrect procedures, steps or techniques to help you do any task |
| **4** | For Part One of this exam, you must *demonstrate and explain* to your assessor how to use a PFA system including:<br>- Putting on a harness<br>- Connecting a lifeline to an anchor. Your assessor will show you the anchor.<br>- Connecting a lanyard to the harness and to the life line<br>- Explaining all PFA system components and how they work<br>- Demonstrating how to use a rope grab device and lifeline |
| **5** | When you finish Part One, your assessor will read all the instruction for Part Two of your assignment. |
| **6** | Your assessor will now show you where the anchor is located to connect the PFA lifeline. |

| EXAM PART TWO: INSTALLATION TASKS INSTRUCTIONS | |
|---|---|
| **7** | This part of your exam is timed. You have a total of **two and one-half hours, or 150-minutes,** to do these tasks before the timer ends. |
| **8** | Take whatever time you need to set up all tools, equipment and materials any way you want but without help from your assessor or anybody. When you are ready, you must tell your assessor to start. Only then will he or she start the timer. |
| **9** | You must use PPE for all your work. If you do something unsafe, your assessor will stop your work. You must correct the safety error before proceeding. You do not get extra time when you are stopped for a safety issue. |
| **10** | **FOR EXAMS NOT CONDUCTED AT JOB SITES**<br>As a reminder, if you are taking your exam at a location other than a job site and your assessor (or the testing location's competent safety person) observes you violating the following safety policies, he or she will stop the exam and you will be automatically failed. There are no exceptions to this policy.<br><br>1. Any behavior identified by your assessor that creates imminent danger of serious injury or death to you or others<br><br>**FOR EXAMS CONDUCTED AT JOB SITES**<br>As a reminder, if you are taking your exam at a job site and your assessor (or employer's competent safety person) observes you violating any of the following safety policies, he or she will stop the exam and you will be automatically failed. There are no exceptions to this policy. Again, the safety policies that could cause you to automatically fail your exam include:<br><br>1. You expose yourself to a fall hazard without a fall protection system in place<br>2. You improperly use fall protection equipment<br>3. You unsafely use a ladder<br>4. Other behavior identified by your assessor or your employer's competent safety person that creates imminent danger of serious injury or death to you or others |
| **11** | Your assessor will tell you when you have 10 minutes left on the timer. |
| **12** | Your assessor will tell you when the time ends, and you must stop. If you finish your tasks before the timer ends, you must tell your assessor you are finished. |
| **13** | Your assessor will now read you the tasks. These tasks are not in any particular order. He or she can repeat any instruction for you at any time during the exam if you ask, but you cannot ask them questions about how to do any part of the work or help you in any way to get the assignment done. |
| 14 | Install two 8-foot long rows of thermoplastic membrane sheets and maintain a minimum 6-inch sidelap in all areas |
| 15 | Extend sheets a minimum of 4 inches up parapet walls and curbs |

| | |
|---|---|
| 16 | Set and align field sheet into the parapet wall inside and outside corners, and secure |
| 17 | Mechanically attach field sheet with fastener plates 6 inches on center in seams and within 1 inch from the sheet edge |
| 18 | Mechanically attach field sheet 6 inches on center around penetrations |
| 19 | Mechanically attach field membrane 12 inches on center and a minimum of 1 inch above sheet surface at perimeter. |
| 20 | Completely hot-air weld a minimum of 8 feet of sheet sidelap seams |
| 21 | Hot-air weld a minimum 6-inch wide cover strip at all field-cut sheets, if present |
| 22 | Install a minimum 24-inch square target sheet welded a minimum of 2 inches around its perimeter and install a pre-fabricated boot flashing on the pipe penetration including the draw band. Do not apply sealant to the pipe boot. |
| 23 | Install a minimum 12-inch tall by six lineal feet base flashing covering the short-side parapet wall and include the inside and outside corners. |
| 24 | Secure top of base flashing with a termination bar anchored 6-inches on-center |
| 25 | Install a field-fabricated base flashing on all sides of the box curb. Extend membrane a minimum of 4 inches out onto field sheet. |
| 26 | When you are all ready, tell your assessor and they will start the timer. |

# Appendix D: TP-SA1 Sample Performance Exam Scoring Rubric

## GROUP ONE: MECHANICALLY-ATTACHED THERMOPLASTIC SYSTEMS

## TP-SA1— Sample Performance Exam Scoring Rubric

Candidate Name: _____ Exam Date: _____
Candidate ID No.: _____
Qualified Assessor Name: _____
Qualified Assessor ID No.: _____
Exam Location: ☐ Job Site ☐ Other Testing Location
Exam Start Time: _____ Exam Stop Time: _____

**PART ONE: QUALIFIED ASSESSOR SETUP AND SAFETY TASKS**

- ☐ **If job site is checked above, I have confirmed with the controlling contractor that building owner permission has been obtained.**
- ☐ **I have confirmed with a competent safety person the safety checklist found in the Qualified Assessor's matching TP-SA1 assignment has been completed.**
- ☐ **I have completed the standard testing conditions checklist found in the Qualified Assessors matching TP-SA1 assignment.**
- ☐ **I have inspected all tools and equipment for defects prior to candidate's arrival.**

**PART ONE: CANDIDATE SETUP AND SAFETY TASKS**

NOTE: THIS PART OF THE PERFORMANCE EXAM IS NOT TIMED

- **Put on a personal fall arrest (PFA) harness**
- **Connect a lifeline to an anchor**
- **Connect a lanyard to the harness and to the life line**
- **Demonstrate how to use rope grab device and lifeline**
- **Explain PFA system components and functions**

| PFA DEMO | Description | 3 pts | 2 pts | 0 pts | N/A |
|---|---|---|---|---|---|
| 1 | Inspects all PFA components for damage or wear before use | Inspected PFA components | | Did not inspect PFA components | |
| 2 | Puts on PFA harness correctly including adjusting chest and leg straps | Put on and adjusted correctly | | Put on incorrectly or adjustments left loose | |
| 3 | Attaches lanyard correctly to harness | Securely attached latch to D-ring and checked for lock | | Latch attached to wrong location or not securely locked | |
| 4 | Attaches lanyard correctly to life line | Rope grab is attached in correct direction to life line, and locked | | Rope grab is attached in wrong direction to life line OR left unlocked | |
| 5 | Explains and demonstrates proper PFA system use:<br>☐ Explains what to look for when inspecting all components before each use<br>☐ Explains anchor device attachment following | Correctly explained all proper use details | Correctly explained four proper use details | Explained three or less proper use details | |

| | | | | | |
|---|---|---|---|---|---|
| | manufacturer instructions<br>☐ Explains anchor device placement to avoid swing-fall hazard exposure<br>☐ Explains and demonstrates using a rope grab device<br>☐ Explains correct line slack adjustment to keep free-fall less than 6 ft. or not hit lower surface | | | | |
| | **PART TWO: THERMOPLASTIC MEMBRANE INSTALLATION**<br>**START EXAM TIMER HERE = 45 MINUTES** | | | | |
| **SHEET LAYOUT** | ➢ **Install two 8-foot long rows of TPO or PVC membrane sheets and maintain a minimum 6-inch sidelap at all areas**<br>➢ **Extend sheets a minimum of 4 inches up parapet walls and curbs**<br>➢ **Set and align field sheets around the parapet wall inside and outside corners, and secure** | | | | |
| | **Description** | **3 pts** | **2 pts** | **0 pts** | **N/A** |
| **6** | Inspects and prepares substrate to ensure it is smooth, clean and dry before installing membrane | Substrate was inspected, cleaned and prepared | | Substrate was NOT inspected, cleaned and prepared | |
| **7** | Sheets are set and unrolled in correct direction to accommodate slope drainage | Sheets unrolled in correct direction for given slope | | Sheets unrolled in wrong direction for given slope | |
| **8** | Sheets are unrolled and set smooth without wrinkles, ridging or physical damage | Laid sheets smooth | | Laid sheets have wrinkles, ridging or physical damage | |
| **9** | Sheets are unrolled straight, turned up wall evenly and maintains a minimum of 4 inches | Sheets are unrolled straight and turned up wall evenly a minimum of 4 inches | Sheets are NOT unrolled straight but are turned up wall and maintain a minimum of 4 inches | Sheets are NOT unrolled straight and parallel and do NOT turn up wall and maintain a minimum of 4 inches | |
| **10** | Sheet cuts around curb penetration are centered on curb corners and turned up a minimum of 4 inches on all four vertical sides | Sheet cuts were centered on curb corners and turned up curb a minimum of 4 inches on all sides | Sheet cuts were off-center on curb corners but turned up curb a minimum of 4 inches on all sides | Sheet cuts were off-centered on curb corners and did NOT turn up curb a minimum of 4 inches on all sides | |
| **11** | Sheet is cut and trimmed tightly around vent pipe penetration | Sheet cut was tightly trimmed | Sheet cut was loosely trimmed but close to pipe to accommodate required pipe | Sheet was NOT cut and trimmed tightly to pipe to accommodate required pipe | |

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| | | | boot or target sheet coverage | boot or target sheet coverage | |
| **12** | A minimum 6-inch sheet side lap is maintained at all areas | Minimum 6-inch side lap is maintained at all areas | Minimum 6-inch sidelap is maintained in all areas plus or minus ¼ inch | Minimum 6-inch sidelap is NOT maintained in all areas plus or minus ¼ inch | |
| **13** | Sheet cuts around penetrations are on the downslope side | Cuts were made on downslope side | | Cuts were NOT made on downslope side | |
| **14** | Field sheet cuts around wall outside corners maintain a minimum of 4-inches turned up wall on both sides | Cuts maintained a minimum 4-inch turn up walls on both sides | | Cuts did NOT maintain a minimum 4-inch turn up walls on both sides | |
| **15** | Always wears cut-resistant gloves when cutting membrane | Always wore correct glove type | Had to stop task and remind to wear correct glove type | Ignored correction or would not wear correct glove type | |
| **16** | Inspects electric extension cords and power tools for damage or defects before use NOTE: This task may have been completed by candidate during setup, prior to exam timer start. | Extension cords and power tools were inspected prior to use | | Extension cords and power tools were NOT inspected prior to use | |
| **17** | Form, fold and hot-air weld sheets tightly into the inside corner NOTE: Inside corner fold welding may not occur until inside corner flashing is installed. | Sheets were formed, folded and welded tightly into inside corner | Sheets were formed, folded and welded loosely into inside corner | Sheets were NOT formed, folded and welded into inside corner | |
| **18** | Always wears heat-resistant gloves as recommended by welding equipment manufacturer when hot-air welding | Chose and always wore correct glove type | Had to stop task and remind to wear correct glove type | Ignored correction or could not choose correct glove type | |
| **SHEET ATTACHMENT** | ➢ **Mechanically attach field sheets with fastener plates spaced a maximum of 6 inches on center in seams and within 1 inch from the sheet edge**<br>➢ **Mechanically attach field sheets with fastener plates spaced a maximum of 6 inches on center around penetrations, with a minimum of four fasteners per penetration**<br>➢ **Mechanically attach field sheets with fasteners spaced a maximum of 12 inches on center and a minimum of 1 inch above membrane surface at perimeter walls** | | | | |
| | **Description** | **3 pts** | **2 pts** | **0 pts** | **N/A** |
| **19** | Selects correct seam fasteners and plates | Selected correct fastener and plate type for seams | | Selected INCORRECT fastener and plate type for seams | |
| **20** | All fastener plates are set with the correct side up | All fastener plates were set with the correct side up | | All fastener plates were NOT set with the correct side up | |
| **21** | Seam fasteners are evenly spaced a maximum of 6 inches on center | All fasteners were evenly | More than 80% of | Less than 80% of fasteners | |

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| | | spaced 6 inches on center | fasteners were evenly spaced, but all maintained a maximum of 6 inches on center | were evenly spaced OR they were spaced more than 6 inches on center | |
| **22** | Seam plates are set at a maximum of 1 inch in from membrane edge | Fastener plates were consistently set 1 inch or less in from the membrane edge | Fasteners were not set consistently BUT all maintained a maximum of 1 inch in from membrane edge | Fasteners exceeded the maximum 1 inch in from membrane edge | |
| **23** | A minimum of four fasteners are evenly spaced a maximum of 6 inches around all penetration | A minimum of four fasteners were evenly spaced a maximum of 6 inches around all penetrations | A minimum of four fasteners were NOT evenly spaced but DID maintain a maximum of 6 inches around all penetrations | Less than four fasteners were used OR they exceeded the maximum 6-inch spacing around all penetrations | |
| **24** | Always wears required eye protection when installing fasteners | Chose and always wore required eye protection | Had to stop task and remind to wear correct eye protection | Ignored correction or did not use correct eye protection | |
| **25** | Fasteners are evenly spaced at a maximum of 12 inches on center at vertical perimeters | Fasteners were evenly spaced at a maximum of 12 inches on center | Fasteners were randomly spaced BUT maintained a maximum of 12 inches on center | Fasteners were spaced more than the maximum 12 inches on center | |
| **26** | Fasteners are evenly spaced and set a minimum of 1 inch above the membrane surface on vertical perimeters | Fasteners were evenly spaced and set a minimum of 1 inch above the membrane surface | Fasteners were NOT evenly spaced BUT maintained a minimum of 1 inch above the membrane surface | Fasteners were NOT evenly spaced OR were less than the minimum of 1 inch above the membrane surface | |
| | All fasteners are correctly driven, including: | | | | |
| **27** | Fasteners are not over-driven | None were over-driven | | One or more were over-driven | |
| **28** | Fasteners are not under-driven | None were under-driven | | One or more were under-driven | |

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| **29** | Fasteners are not left in-place that are stripped, sheared or broken | None were were stripped, sheared or broken | | One or more were stripped, sheared or broken and left in-place | |
| **SEAMING** | ➢ **Completely hot-air weld a minimum of 8 lineal feet of sheet sidelap seams and maintain a minimum 2-inch weld width**<br>➢ **Hot-air weld a minimum 6-inch wide cover strip over any cut field sheets** | | | | |
| | **Description** | **3 pts** | **2 pts** | **0 pts** | **Comment** |
| **30** | Measures, fits and marks cover strip centered over cut membrane | Cover strip was measured, fit and marked on-center over cut membrane | Cover strip was measured, fit and marked off-center over cut membrane by no more than ½ inch | Cover strip was measured, fit and marked off-center over cut membrane by MORE than ½ inch | |
| **31** | Rounds cut membrane corners without damaging underlying membrane | Cut field membrane corners were rounded without damaging underlying membrane | | Cut field membrane corners were NOT rounded OR underlying membrane WAS damaged | |
| **32** | Rounds cover strip corners | Cover strip corners were rounded | | Cover strip corners were NOT rounded | |
| | **Prepares membrane for seaming** | | | | |
| **33** | Wears manufacturer's recommended solvent-resistant gloves when handling seam cleaner solution | Always wore correct glove type | Had to stop task and remind to wear correct glove type | Ignored correction or would not use correct glove type | |
| **34** | Wears manufacturers' recommended eye protection when handling seam cleaner solution | Always wore correct eye protection | Had to stop task and remind to wear correct eye protection | Ignored correction or would not use correct eye protection | |
| **35** | Uses clean rags | Clean rags were always used | | Clean rags were NOT used | |
| **36** | Uses manufacturer's recommended membrane cleaning solution | Used correct membrane cleaning solution | | Did NOT use the correct membrane cleaning solution | |
| **37** | Completely cleans both membrane surfaces of all seams and cover strip | Both membrane and cover strip surfaces were cleaned | Cleaned membrane surface but NOT cover strip | Did NOT clean membrane and cover strip | |
| | **Completes hot-air seam welding** | | | | |
| **38** | Uses correct nozzle for hot air welder for seaming task | Used correct hot air welder nozzle | | Used INCORRECT hot air welder nozzle | |
| **39** | Turns on hot air welder, adjusts temperature, performs a practice weld and adjusts temperature | Completed all practice weld steps | | Did NOT complete all | |

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| | | | | practice weld steps | |
| **40** | Secures adjoining membranes using tack welds | Secured adjoining membranes with tack welds | | Did NOT secure adjoining membranes with tack welds | |
| **41** | Controls hot air welder nozzle at correct angle in seam as required by manufacturer | Always controlled nozzle at correct angle | Controlled nozzle at correct angle 70% or more of time | Controlled nozzle at correct angle LESS than 70% of time | |
| **42** | Heats interior of seam (pre-welds) and works seam heating process outward | Always heated, rolled and worked seam heating process outward | Heated, rolled and worked seam heating process outward 70% or more of time | Heated, rolled and worked seam heating process outward LESS THAN 70% of time | |
| **43** | Uses roller at a 45-degree angle to seam | Always used roller at correct angle | Used roller at correct angle 70% or more of time | Used roller at correct angle LESS than 70% of time | |
| **44** | Established a pace for given conditions to ensure full seam bond. Did not over- or under-heat membrane | Paced seam welding to ensure full bonding and never over- or under-heated membrane | Paced seam welding to ensure full bonding; NEVER over-heated membrane; and, under-heated membrane 30% or less of time | Did NOT pace seam welding to ensure full bond; over-heated membrane; OR under-heated membrane MORE than 30% of time | |
| **45** | Continuously tests seam bond using seam probe tool without scratching underlying membrane | Continuously tested seam bond and NEVER scratched underlying membrane | Tested seam bond 70% or more of time and NEVER scratched underlying membrane | Tested seam bond less than 70% of time OR scratched underlying membrane | |
| **46** | Re-heats and repairs loose, damaged or cold-weld seam areas as they are found | Always re-heated and repaired loose, damaged or cold-weld seam areas as they were found | | Did NOT re-heat and repair loose, damaged or cold-welded seams as they were found | |
| **47** | Turns hot-air welder temperature completely down and allows heating element to cool prior to shutting off tool power | Turned down temperature and allowed full cooling prior to shutting off power | Turned down temperature and allowed partial cooling prior to shutting off power | Shut down tool power WITHOUT allowing element to cool. | |
| **PIPE BOOT FLASHING** | ➢ **Install a minimum 24-inch square target sheet welded a minimum of 2 inches around its perimeter**<br>➢ **Install a pre-fabricated boot flashing on the pipe penetration including draw band and sealant** | | | | |

| | Description | 3 pts | 2 pts | 0 pts | Comment |
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| | **Prepares and installs target sheet** | | | | |
| **48** | Always wears cut-resistant gloves when cutting membrane | Always wore correct glove type | Had to stop task and remind to wear correct glove type | Ignored correction or would not use correct glove type | |
| **49** | Accurately measures and cuts target sheet | Target sheet measures 24 inches square | Target sheet measures 24 inches square plus-or-minus ½ inch in either direction | Target sheet measures LESS than 23 ½ inches in either direction | |
| **50** | Accurately marks and cuts pipe opening in center of target sheet for tight fit | Pipe cut is centered on target sheet and fits tightly | Target sheet pipe opening is cut off-center by less than ½ inch in either direction and fits tightly | Target sheet pipe opening is cut off-center MORE than ½ inch in either direction OR opening is larger than pre-fabricated pipe boot can accommodate | |
| **51** | Cuts target sheet corners round | Target sheet corners are rounded | | Target sheet corners are NOT rounded | |
| **52** | Sets and marks target sheet on field membrane | Target sheet was set and marked on field membrane | | Target sheet was NOT set and marked on field membrane | |
| **53** | Wears manufacturer's recommended solvent-resistant gloves when handling seam cleaner solution | Always wore correct glove type | Had to stop task and remind to wear correct glove type | Ignored correction or would not use correct glove type | |
| **54** | Wears manufacturers' recommended eye protection when handling seam cleaner solution | Always wore correct eye protection | Had to stop task and remind to wear correct eye protection | Ignored correction or would not use correct eye protection | |
| **55** | Uses clean rags | Clean rags were always used | | Clean rags were NOT used | |
| **56** | Uses manufacturer's recommended membrane cleaning solution | Uses correct membrane cleaning solution | | Did NOT use correct membrane cleaning solution | |
| **57** | Completely cleans membrane and target sheet mating surfaces | Cleaned entire membrane and target sheet mating surfaces | | Did NOT clean entire membrane and target sheet mating surfaces | |
| **58** | Turns on hot air welder, adjusts temperature, performs a practice weld and adjusts temperature | Completed all practice weld steps | | Did NOT complete all practice weld steps | |

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| **59** | Secures target sheet to membrane using tack welds | Secured target sheet using tack welds | | Did NOT secure target sheet using tack welds | |
| **60** | Controls hot air welder nozzle at correct angle between membrane and target sheet as required by manufacturer | Always controlled nozzle at correct angle | Controlled nozzle at correct angle 70% or more of time | Controlled nozzle at correct angle LESS than 70% of time | |
| **61** | Heats and rolls target sheet perimeter and works heating process from inward (pre-weld) to outward | Always worked target sheet heating and rolling process from inward to outward | Worked target sheet heating and rolling process from inward to outward 70% or more of time | Worked target sheet heating and rolling process from inward to outward LESS than 70% of time | |
| **62** | Uses roller at an outward 45-degree angle, or as required by membrane manufacturer | Always used roller at outward at required angle | Used roller at outward required angle 70% or more of time | Used roller at outward required angle LESS than 70% of time | |
| **63** | Continuously tests target sheet seam bond using seam probe tool without scratching underlying field membrane | Continuously tested seam bond and NEVER scratched underlying membrane | Tested seam bond 70 % or more of time and NEVER scratched underlying membrane | Tested seam bond less than 70 % of time OR scratched underlying membrane | |
| **64** | Re-heats and repairs loose or cold-weld seam areas as they are found | Always re-heated and repaired loose or cold-weld seam areas as they were found | | Did NOT re-heat and repair loose or cold-welded seams as they were found | |
| | **Prepares and installs pre-fabricated boot flashing on pipe penetration** | | | | |
| **65** | Always wears cut-resistant gloves when cutting membrane | Always wore correct glove type | Had to stop task and remind to wear correct glove type | Ignored correction or would not use correct glove type | |
| **66** | Accurately measures and cuts pipe boot diameter for tight fit | Pipe boot diameter was cut for tight fit | | Pipe boot diameter was NOT cut for tight fit | |
| **67** | Sets and marks pipe boot on target sheet | Pipe boot was set and marked on target sheet | | Pipe boot was NOT set and marked on target sheet | |
| **68** | Wears manufacturer's recommended solvent-resistant gloves when handling membrane cleaning solution | Always wore correct glove type | Had to stop task and remind to wear correct glove type | Ignored correction or would not use correct glove type | |
| **69** | Wears manufacturers' recommended eye protection when handling membrane cleaning solution | Always wore correct eye protection | Had to stop task and remind to wear correct eye protection | Ignored correction or would not use correct eye protection | |

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| **70** | Uses clean rags | Clean rags were always used | | Clean rags were NOT used | |
| **71** | Uses manufacturer's recommended membrane cleaning solution | Used correct membrane cleaning solution | | Did NOT use correct membrane cleaning solution | |
| **72** | Completely cleans target sheet and pipe boot mating surfaces | Cleaned entire target sheet and pipe boot mating surfaces | | Did NOT clean entire target sheet and pipe boot mating surfaces | |
| **73** | Turns on hot air welder, adjusts temperature, performs a practice weld and adjusts temperature | Completed all practice weld steps | | Did NOT complete all practice weld steps | |
| **74** | Secures pipe boot to target sheet using tack welds | Secured pipe boot using tack welds | | Did NOT secure pipe boot using tack welds | |
| **75** | Controls hot air welder nozzle at correct angle between pipe boot and target sheet as required by manufacturer | Always controlled nozzle at correct angle | Controlled nozzle at correct angle 70% or more of time | Controlled nozzle at correct angle LESS than 70% of time | |
| **76** | Heats and rolls pipe boot perimeter seam and works heating process from inward (pre-welds) to outward | Always worked pipe boot seam heating and rolling process from inward to outward | Worked pipe boot seam heating and rolling process from inward to outward 70% or more of time | Worked pipe boot seam heating and rolling process from inward to outward LESS than 70% of time | |
| **77** | Uses roller at an outward 45-degree angle, or as required by membrane manufacturer | Always used roller at outward at required angle | Used roller at outward required angle 70% or more of time | Used roller at outward required angle LESS than 70% of time | |
| **78** | Continuously tests pipe boot seam bond using seam probe tool without scratching underlying target sheet | Continuously tested seam bond and NEVER scratched underlying membrane | Tested seam bond 70% or more of time and NEVER scratched underlying membrane | Tested seam bond less than 70% of time OR scratched underlying membrane | |
| **79** | Re-heats and repairs loose or cold-weld seam areas as they are found | Always re-heated and repaired loose or cold-weld seam areas as they were found | | Did NOT re-heat and repair loose or cold-welded seams as they were found | |
| **80** | Turns hot-air welder temperature completely down and allows heating element to cool prior to shutting off tool power | Turned down temperature and allowed full cooling prior to shutting off power | Turned down temperature and allowed partial cooling prior to shutting off power | Shut down tool power WITHOUT allowing element to cool. | |

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| **81** | Apply required sealant, install and tighten pipe draw band | Applied required sealant, installed and tightened draw band | | Did NOT apply required sealant OR did NOT install OR tighten draw band | |
| **82** | Apply seam sealant around target sheet edges | Applied seam sealant around target sheet without voids and with smooth edges | Applied continuous seam sealant around target sheet without voids but did NOT smooth edges | Did NOT apply continuous seam sealant around target sheet | |
| | **General housekeeping** | | | | |
| **83** | Picks up and removes excess fasteners and debris from entire work area | Removed excess fasteners and debris | | Did NOT remove excess fasteners and debris | |
| **84** | Cleans soiled or scuffed membrane areas | Cleaned soiled or scuffed areas | | Did NOT clean soiled or scuffed areas | |
| **85** | Inspects all tools and equipment used to identify possible damage caused during exam | Inspected all tools and equipment used | | Did NOT inspect all tools and equipment used | |
| **86** | Cleans adhesives, sealants or other contaminants found during inspection from tools and equipment | Cleaned contaminants found during inspection | | Did NOT clean contaminants found | |