

QUALITY ASSURANCE PROGRAM

DAVCAL INC.

Purpose:

The purpose of the Quality Assurance Program is to ensure the highest quality of work installed by Davcal.

Key Quality Drivers:

There are several reasons to maintain the highest quality work:

- Customer Satisfaction.
- Reduce costs for correcting work.
- Reduce General Liability Insurance Costs.
- Avoid Litigation.

What is Quality?

- Customer expectations define quality.
- Contractors, Owners, Inspectors and Architects are the Customer.
- Customer expectations:
 - Comply with regulations.
 - Fulfill contract requirements.
 - Conform to construction drawings and specifications.
 - Meet industry workmanship standards.

Inspectors:

- Crew Foreman
- Job Superintendent
- General Superintendent
- Contractor Superintendent
- Inspector
- Architect
- Owner

Inspections alone do not assure quality.

Inspecting quality into the product does not work. Inspections are only effective at finding problem areas.

We must do it right the first time! Prevention is the only option!

Elements of the Quality Assurance Program:

- **Knowledge:**

Project Managers, Job Superintendents and Crew Foremen must understand the Contract Documents:

- Plans
- Specifications
- Submittals
- Manufacturers installation instructions
- Contract
- Industry Standards
- Performance Tolerances
- Building Codes

- **Communication:**

Project Managers, Job Superintendents and Crew Foremen must effectively communicate the requirements of the Contract Documents to the field personnel.

- **Control:**

Project Managers, Job Superintendents and Crew Foremen must tightly control the construction process:

- Materials:
 - Use only approved materials.
 - Use only properly manufactured materials.
 - Use only properly packaged and shipped materials
 - Properly store and protect materials until installation.
- Tools & Equipment:
 - Use proper tools and equipment.
- Personnel qualifications:
 - Use only properly trained personnel.
 - Knowledge of compliance requirements.
 - Knowledge of process requirements.
 - Demonstrated capabilities.
 - Training credentials.
 - Field training to prevent problems.
- Accountability and recognition.

- **Feedback:**

Project Managers, Job Superintendents and Crew Foremen must:

- Understand why defects occurred
- See that all defects are corrected.
- See that field personnel are reeducated to prevent reoccurrence.

1. Proper Material Handling:

A. Ordering:

The foreman (or designated qualified field personnel) familiarize himself with the requirements of the drawings, specifications, sub-contract and approved submittals prior to ordering material. He or she only order materials consistent with the drawings, specifications, subcontract and approved submittals.

B. Receiving Inspection:

The foreman (or designated qualified field personnel) shall inspect incoming material to ensure that all quality requirements are as specified in the purchase order, drawings, specifications, subcontract and approved submittals. He or she shall inspect for completeness and or damage as well as proper identification.

C. Proper Storage:

The foreman (or designated qualified field personnel) shall understand the specific requirements for the proper handling and storing of all materials. He or she shall ensure that all such requirements are met.

2. Proper Tools & Equipment:

The foreman (or designated qualified field personnel) shall understand the specific requirements for the proper installation of the materials in terms of use of the proper tools, equipment, and scaffolding/ladders, etc, He or she shall communicate this to all field personnel involved in the installation, and shall ensure that all required tools, equipment and scaffolding/ladders, etc. are available and are, in fact, being used.

3. Personnel Qualifications:

A. Evaluation & Assignment:

The foreman (or designated qualified field personnel) must understand that not all field personnel are equally qualified to properly perform each and every task. He or she must evaluate the task to be performed, and must determine which (and how many) field personnel are best able to properly perform the required task. The foreman shall assign the required number of qualified personnel to the task to ensure that it is performed properly.

B. Communication:

The foreman (or designated qualified field personnel) shall communicate the specific requirements of the task to be performed to the field personnel involved in the installation. He or she and shall ensure that the field personnel understand (1) what are the contract requirements, (2) which material is to be used, (3) which are the required tools, equipment and scaffolding/ladders, etc. to be used, (4) how the installation is to be performed, and (5) what is expected in terms of the final product.

4. Inspection:

The foreman (or designated qualified field personnel) shall conduct periodic inspections, as appropriate, throughout the installation to ensure that the specific requirements of the task are being properly performed. He or she shall ensure that all tolerances are being met and that the final product is consistent with the contract documents. Any deficiencies shall be corrected.

5. Feedback:

Following completion of the task, the foreman (or designated qualified field personnel) shall communicate with the field personnel involved in the installation. He or she shall advise the field personnel of the results of the inspection(s) and shall review all deficiencies with an eye towards avoiding a repetition of those errors.