



LOSS CONTROL SERVICES

# Quality management self-assessment



Quality Management (QM) helps to ensure construction is completed according to plans/specifications, on budget and on time. QM can also help mitigate reputation risk, increase profit margins and reduce litigation. QM touches all phases of the project.

Lack of QM can add enormous costs to construction projects. According to a PlanGrid and FMI survey, in the US, \$178 billion in labor are annually spent on rework in the construction industry yearly.<sup>1</sup> This equates to about five percent of total construction costs according another study by the Journal of Construction Engineering and Management.<sup>2</sup>

This self-assessment is designed as a tool to assess your construction-related quality processes and help identify opportunities.



## Step 1: Organize your team and assign responsibilities

Including key personnel in planning will help you identify potential risks and help increase the effectiveness of your plan. Key factors in choosing a team is expertise, authority and availability. For example, good candidates would have knowledge of your QM processes, documentation practices and have authority to make changes.



## Step 2: Use the self-assessment to find deficiencies

Involve all responsible parties within your firm to perform a comprehensive assessment. This may also include your broker or other resources.



## Step 3: Based on self-assessment results, define and prioritize your opportunities

After you've worked through the self-assessment, your team can outline a plan to prioritize and address opportunities in your QC Program. Identifying Key Performance Indicators at this stage can also ensure you can measure progress.



## Step 4: Continually improve your QC program

Continual improvement will enable your program to consistently meet objectives and improve quality performance.

## Quality Self-Assessment

Yes No

### 1.0—Commitment to Quality

Current program includes assigned roles, responsibilities, and goal setting/expectations.

### 2.0—Responsibility and Accountability

Documented Roles and Responsibilities that define who is accountable for what process (examples: QC Manager, Inspections, Audits, Submittals, Final Design Reviews, Change Orders, Request for Information , etc.).

Assigned roles include personnel to verify requirements are met in a subcontract agreement (e.g. certificate of insurance showing required minimum limits, additional insured endorsements, etc.)

### 3.0—Training

Your company has implemented and documented its in-house Quality Management training. It should include lessons learned, MFG trainings, and other components noted throughout the assessment.

### 4.0—Documentation Retention

Company has a document retention program and staff trained on what documents need to be retained. Maintain and secure copies of job file and contracts for a minimum of 10 years. Examples include but are not limited to the following:

1. As-built plans and specifications/engineering
2. Contracts/subcontracts signed and dated
3. Change-orders with formal sign-off
4. Schedules
5. Progress photos and recordings
6. Warranty and accounting files

### 5.0—Peer Reviews Prior to Construction

Your company conducts preplanning and constructability meetings with all parties involved in scope of work to identify design conflicts and testing procedures following install.

Meetings focus on critical work products, such as waterproofing, critical machinery, etc.

### 6.0—Field Quality Processes

Your company has process in place to identify quality issues before punch list, allow all parties involved to view deficiencies list, and have corrective actions/follow-up process for these deficiencies: Quality Inspections, Quality audits, Quality Measurements, Quality Assurance Plan, etc.

### 7.0—Mock-Ups and First-Work Approvals

Your company uses mock-ups and a first work approval process (submittals) for critical assemblies such as the building envelope, high end finishes, etc. Mocks-ups allow for testing and inspection prior to final install.

### 8.0—Material Verification

A method is in place for non-conforming work and material to be identified and a system exists to track corrective actions taken.

There is an individual responsible for quality verifies that manufacturer's and architect's recommendations are being followed. Any deviations should be approved and documented.

## Quality self-assessment

Yes No

### 9.0—Inspections and Testing

Your program requires in-house inspection of all areas documented at key project milestones, such as pre-closure inspections.

Data are collected and analyzed to implement improved installations on future projects.

Offsite materials/fabrications are inspected in accordance with the applicable contract specifications and using appropriate test methods, adhering to industry codes and standards of compliance such as - ACI, AISC, ASME, ASNT, ASQ, ASTM, etc.

In addition to in-house inspections, your company requires a third-party to inspect all areas documented at key building milestones such as pre-closure inspections on complex work or high value installations.

Reinspection by the Owner's third-party inspector is required for all non-conformances prior to restarting work. This includes sound and vapor transmission testing where interior partitions abut exterior walls along with water or negative air testing of windows and door assemblies.

Certified material testing and inspections are conducted according to industry standards for all trades

### 10.0—Warranty Program

Proactive approach to warranty complaints and responds to all complaints within a reasonable time to include a written warranty policy reviewed by qualified counsel.

An Operations and Maintenance reference tool is available to the owner after completion that provides virtual BIM, X-Rays of as-builts so client can easily isolate problems during and after warranty period.

Willingness to correct items that are of a construction defect nature regardless of the warranty date.

### 11.0—Punchlist Process

There is a Zero-Defect Policy on all of your projects. The goal of Zero Defects is that no punch list items exist at the time of substantial completion; usually uses a pre-punch protocol.

Punch list deficiencies at substantial completion are a part of your written performance policy.

Your company uses field devices to document work items to the field office and Subcontractors to maintain a current list for improved efficiency.

Root causes of non-conforming items are conducted, followed by corrective actions are documented with photos and stored as part of job documentation.



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<sup>1</sup> <https://www.prnewswire.com/news-releases/new-research-from-plangrid-and-fmi-identifies-factors-costing-the-construction-industry-more-than-177-billion-annually-300689826.html>

<sup>2</sup> Journal of Construction Engineering and Management ([https://www.researchgate.net/publication/252333158\\_Measuring\\_the\\_Impact\\_of\\_Rework\\_on\\_Construction\\_Cost\\_Performance](https://www.researchgate.net/publication/252333158_Measuring_the_Impact_of_Rework_on_Construction_Cost_Performance))