

# The Architect's Guide to Avoiding Change Orders

*Concise Primer*

*A pocket reference distilled from the full guide.*

## Foreword

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*Most change orders are preventable upstream. This primer collects the ten principles that do the most preventive work, the ten root causes most often within the architect's control, an abbreviated QA/QC checklist, and three short cases. The full guide expands each of these and adds the appendices that working teams need at hand.*

## The ten prevention principles

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### 1. Treat the documents as unfinished until the building is built.

The set you seal is the start of the conversation, not the end. Between seal and substantial completion lives every ambiguity a counterparty is incentivized to find. Plan, staff, and price your CA accordingly.

### 2. Count the full cost of a change order, not the face value.

Direct cost is the smallest part. Indirect, schedule, and relational costs compound it; a working multiplier of 1.5–3x face value is defensible on most institutional and commercial work. The case for prevention starts from the real number.

### 3. Make phase-gate QA/QC reviews real.

Every project should pass through an SD, DD, CD, bid, and recurring CA review performed by someone who is not the project's daily designer, against a written standard, with findings tracked to resolution. Symbolic gates do not catch anything.

### 4. Cross-walk drawings and specifications at the end of every phase.

Coordination failures between drawings and specs are the single largest source of design-side change orders. The cross-walk is tedious; it pays back its cost every time.

### 5. Use specifications with discipline.

CSI MasterFormat and SectionFormat are the lingua franca; stay inside the convention. Edit masters for project applicability; do not issue unedited sections. Division 01 is the most consequential and least-read division — invest in it.

### 6. Run BIM clash detection against a defined matrix.

Automated clash reports are noise without a matrix that says which elements are tested against which others at what tolerance, by whom, on what cadence. Coordinate at the right LOD; federate models on a written model coordination plan.

### 7. Document program decisions contemporaneously and discipline owner changes.

Owner-directed scope is in the top three CO categories by frequency and value. Establish a single-channel rule for owner direction; document every program change with a cost and schedule impact statement before it is implemented.

### 8. Read every RFI for the request behind the request.

Categorize on intake: clarification, coordination gap, substitution probe, constructive change probe, or disguised design question. Respond narrowly, identify whether the response constitutes a change, and track response times.

## **9. Review submittals with explicit notation.**

Silent approvals are the most expensive form of submittal review. Every deviation should be marked. Submittals that fail the contractor's own coordination review should be returned without architect review.

## **10. Build defensible files contemporaneously.**

Every project should be administered so that, if a claim were filed in the next decade, the file would tell a coherent story without reconstruction. Maintain the RFI log, submittal log, field reports, change order log, IDM decisions, schedule updates, and the platform record on every project, every week.

## Top ten root causes architects control

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**Incomplete documents passed off as complete.** — Establish a written completeness standard; do not certify a set as ready for bid until it meets the standard.

**Drawing–specification coordination failures.** — Cross-walk at every phase end; adopt an order-of-precedence clause in the supplementary conditions.

**Ambiguous language ("as required," "or equal," "match existing").** — Use only when anchored by an evaluation procedure, sample, or specific reference.

**Constructability and trade-sequencing oversights.** — Constructability review at end of DD by a practitioner with field experience or an independent reviewer.

**Owner program creep without documentation.** — Single-channel rule; documented program and basis-of-design; every change priced and acknowledged before implementation.

**Code interpretation surprises at permit or in CA.** — Pre-application meeting with the AHJ; written memorandum of agreed interpretations.

**Utility coordination gaps.** — Capacity and lead-time confirmations in writing at SD; civil and MEP coordinated against utility provider responses.

**Differing site / concealed conditions.** — Investigation scoped to the risk; explicit disclosure of what was investigated; allowances where appropriate.

**Late or inadequate addenda discipline at bid.** — Use bidder Q&A as a diagnostic; issue clarifying addenda through a controlled channel with confirmed receipt.

**Under-staffed construction administration.** — Resource CA with senior practitioners at ratios appropriate to construction volume; price it accurately.

## Abbreviated QA/QC checklist

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### End of CD

- Drawing index closes; every referenced sheet exists.
- Every keynote, schedule entry, and material call-out traces to a specification section.
- Every specification section maps to a location on the drawings.
- Division 01 reviewed; submittal schedule, allowances, alternates, unit prices reconciled.
- BIM clash matrix run; outstanding clashes dispositioned.
- Independent CD review performed; findings tracked to resolution.
- Code memorandum updated and reconciled with the AHJ.
- Owner final review complete; comments incorporated or formally responded to.

### Recurring CA (weekly)

- RFI status reviewed; aging items investigated.
- Submittal log reconciled with submittal schedule.
- Field reports issued for every visit; non-conforming work documented.
- Change order log current; PCOs tracked with target close dates.
- Schedule update reviewed; critical-path changes flagged.

## Three short cases

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### The 90% set that was 70%

A renovation issued for bid as "100%" with several detail packages deferred to addendum carried roughly 9% change orders against the original contract. A four-week bid delay to complete the set would have cost a fraction of what the changes did. **Lesson:** a real CD gate refuses to ship a set the team knows is incomplete.

### The substitution approved by RFI

A curtain wall sub asked, via RFI, whether an alternative system was "acceptable." The conditional response read as approval. The substituted system failed water performance in service; corrective work was extensive. **Lesson:** return substitution probes to the formal substitution procedure; do not approve in RFI responses.

### The submittal stamp that approved a deviation

A structural shop drawing showing a deviation from the specified connection was stamped "reviewed" with no notation. The as-built connection could not carry the design load; discovery was late and expensive. **Lesson:** review every submittal against the documents, note every deviation explicitly, and accept silence as approval.

## **Where to go next**

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The full **Architect's Guide to Avoiding Change Orders** expands each principle, walks the root causes in detail, covers the full construction administration toolkit (RFI triage, submittal review, CCDs, PCO evaluation, schedule impact, claims, contract language), and includes nine appendices of working tools: phase-gate checklists, a drawing–spec coordination checklist, an RFI decision tree, a PCO evaluation worksheet, sample supplementary clause language, eight case vignettes, a glossary, and an annotated bibliography.