

## **CONSTRUCTION CLAIMS TASKFORCE**

Mr. Chairman and members of the Construction Claims Taskforce

My name is Raymond T. Miller. I am a registered and practicing structural engineer in the state of Oregon since 1969. I hold licenses in 12 other western states.

Thank you for this opportunity to present the concerns of ACEC-Oregon (American Council of Engineering Companies of Oregon) relating to jobsite problems and possible solutions. All of these solutions involve cost.

### **PLANS AND SPECIFICATIONS**

1. Lack of detailing on plans. Possible solution—plan review to require missing details. Combined with number 3 are standard check sheets and/or peer reviews.
2. Reliance on manufactured systems or standards to supply information for proper installation such as EIFS, foam forms, flashing, etc. Possible solution—have manufacturer inspect and certify the material and installation were to the manufacturers' standards.
3. Lack of in house review of plans before filing with jurisdictions for permit. Seeing an increase in design firms using the jurisdiction as their quality control. Possible solution—have a signed statement from the design firm that the plans have been reviewed in house prior to submittal for permit.
4. Lack of knowledge on new products. Possible solution—require training for proper use and installation of new products.
5. Lack of maintenance program for facility. Liability for first six years or to first remodel. Possible solution—provide maintenance program manual by design firm.

### **CONSTRUCTION**

1. A majority of problems can be resolved by requiring a knowledgeable supervisor on the job site at all times. A requirement for a certified supervisor.
2. Use of wet framing lumber. Possible solution—require protection and dry material (19% or less).
3. Proper venting of foundation. Possible solution—proper location determined by design professional and note on plans, or a knowledgeable job site supervisor.
4. Improper flashing around openings. Possible solution—Inspected and certified by material supplier for conformance to standards.

5. Improperly placed concrete foundations on slopes, step footings, or near edge of cut. Possible solution—knowledgeable supervisor
6. Improper installation of foundation drainage, such as uphill slopes, ends at corner of structure, no protection against filling with fine soil, crushed during backfilling, etc. Possible solution—knowledgeable supervisor or trained certified installers.
7. Improperly installed rock retaining walls with loose rock, soil washing through and improper placement (unbalanced). Possible solution—knowledgeable supervisor, special inspection or trained certified installer.
8. Reinforcing steel on the wrong face of cantilever retaining walls or basement walls. Possible solution—knowledgeable supervisor, special inspection or trained certified installer.
9. Improper notching or holes in beams, columns and joist. Possible solution—knowledgeable supervisor, special inspection or trained certified installer.
10. Concrete anchor improperly installed, such as dirt in hole, crooked, too short, too long, wrong location, etc. Possible solution—knowledgeable supervisor, special inspection or trained certified installer.
11. Anchorage of mechanical and electrical units. Possible solution—knowledgeable supervisor, special inspection or trained certified installer.

These are fairly common problems in construction. All parties to the project need to provide knowledgeable personnel with proper review and oversight to minimize the amount of error at the construction site. The design professional, the plan reviewers, the contractor and the owner should be providing diligent review of the project.

Thanks for your attention.