



MFC NEWS

“Building Understanding”

MFC will find out the truth about buildings and answer the hard questions.

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About MFC News

Myles F. Corcoran and his Team would like to share the best of what we’ve learned over the years about well-constructed buildings and resolving construction disputes.

Ask An Expert...Call 831-476-4502 or email us at: mfcnews@mfcbuild.com.

What’s New at MFC...

We are launching a new forum called, “Ask An Expert.” We pride ourselves on the fact that we Answer the Hard Questions - it’s part of our Mission Statement. To prove it, we are going to field your Hard Questions and answer them in our issues. So bring them on ... give us your head scratchers, your hardest, most complicated situations and questions. We dare/invite you to try and stump us.

Submit a question that we use in MFC News and we’ll award you with a gift certificate to the restaurant of your choice.

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Congratulations to Inspector/Consultant Daniel Alcocer, who passed the exam and is now an ICC-certified California Commercial Building Inspector.

Quote of the Day

“Beware of the little expenses; a small leak will sink a great ship.”

-Benjamin Franklin

Wisdom Corner

Anatomy of a Leak
The Worst Case Scenario
A Bedtime Story For Children
of Waterproofing Consultants

by Bruce Mosias

The following story is fictional but could and has happened to numerous people.

Jack and Jill decide to build their dream house. They buy their property in a remote location on top of a mountain with a beautiful view of the valley below and the ocean beyond. They fantasize about the wonderful moments they will have sitting on their deck with their friends and family enjoying the view.

Jack draws a basic layout for the home and they both decide to finish the exterior with stucco because they want a southwestern look and don’t want to have to paint every five years. They hire an architect to design their house. The architect proposes the cost of design and supervision of the project.

FIRST MISTAKE

Jack feels that the cost for design is a little high and that supervision will not be necessary. Especially since he has a friend who knows a contractor that builds custom homes and Jack himself knows a little about construction. Jack feels confident that between hiring a contractor who specializes

in homes and his ability to watch the construction, the chances for errors are practically nil.

SECOND MISTAKE

Jack asks the architect to produce a basic set of plans (Builders Set) of drawings for the house. This includes floor plans, structural, electrical and mechanical. Details of where and how waterproofing will be installed will be figured out by the contractor. After all this is his specialty.

The contract goes out to bid. Even though Jack feels confident in his friend's recommendation for the contractor he also wants to get the lowest price. The bids come in and sure enough the friends contractor is \$ 50,000.00 lower than the other two contractors who were very close.

THIRD MISTAKE

Jack chooses the low bid without checking the contractor's references. The contractor proposes a lump sum bid with 10% mark-up for each sub contractor.

FOURTH MISTAKE

Jack feels that a 10% mark up is a little high, and since he will be on the job everyday (at least an hour in the morning and maybe, sometimes in the afternoon) that he will be able to manage the sub contractors. After all these subs are specialists in their field and will know how to do the work. Besides the money Jack and Jill will save on the sub contractor's mark up can go toward that new car they want. Construction starts. Excavation, foundation, and framing go fairly smoothly. Well there was the a little trouble with the

coordination because the General Contractor was not always there to answer questions as to sequence of work. Jack was not always there to field questions either because his workload at the office became more demanding. Due to these delays the project that was started at the beginning of the summer and scheduled to take three months grew into six months and it was now winter and the rains caused more delays.

During construction the general Contractor has several other projects going on. He is busy trying to keep up with the paper work while his superintendent is stressed out by trying to oversee all the jobs. Problems on the other jobs keep him away from Jack and Jill's house most of the time. He usually shows up in the morning to make sure all the subs are there.

FIFTH MISTAKE

There is some confusion by the subs as to sequencing of their trades. Consequently they get in each other's way and in some cases complete their work before another sub can get in to do his. These errors require either costly removal or the more inexpensive and creative "caulking and cover up" technique.

Jack and Jill's house is finally complete (except for the landscaping) by the end of the next summer. They move in.

Jack and Jill work with a landscaping contractor to finish off their yard and the steep slope between the neighbor's property and theirs. They choose to plant twenty 25 gallon olive trees at the top of the slope on the property line. After the trees are in, the neighbor's attorney writes them a letter asking that the trees be removed because

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first they were not approved by application to the neighborhood architectural committee and second the olive trees are a symbol of bad luck to the neighbor who is of a particular ethnic group.

Jack and Jill do not want to go to the expense of removing the trees so they hire a lawyer to assist them. Meanwhile.....

The first rains fall in early November (one month post move-in). Jack goes into the kitchen to make his early morning coffee and walks through a large puddle of water. Jill screams from upstairs that the bathroom is flooded.

They call the GC who shows up three hours later with a ladder and after coming off the roof informs them that roof jacks (the collars that go around the vent pipes) had not been installed and that the puddles are caused by water entering the roof and wall framing via the vent pipes. Of course the GC is sympathetic but lets Jack know that he was not really responsible for the roofing sub. That was Jack's area. Jack calls the roofing sub but he has gone on a fishing trip in Mexico (avoiding the rainy season) with his new boat. Jack agrees to pay the GC to apply wet-patch roofing mastic as a temporary repair until the roofing sub returns.

The rain continues off and on for a couple of weeks. Meanwhile Jack and Jill begin to detect a musty smell in the closets, laundry room and basement. Water is pooling on the windowsills and a blackish discoloration is forming at the baseboards in these areas and under the windows in the dining room, living room and kitchen. These are the room that face the beautiful view.

They also see a crack developing in the ceiling of their master bedroom, which is on the lower level (under the rooms with a view). In the large basement/storage room that is directly behind their master bedroom they discover that there is water pooling on the floor. It appears to be seeping in at the bottom of the concrete retaining wall.

After numerous calls the GC comes out to look at the problems. He returns two days later with an extension ladder and a laborer. The laborer uses 24 tubes of clear silicone sealant to caulk around all the window and doors and to fill all the cracks in the storage room walls and floor.

During the next rain Jack and Jill find that there are less leaks at the windows but that the leaks in the basement/storage room have continued and that the water in that room has reached the wall in their bedroom and that the black stains at the walls and windows have grown and are now fuzzy. Also the crown molding at the ceiling in the rooms with a view and the master bedroom are beginning to separate.

After three days of frantic calls and waiting the GC returns to redo some of the caulking around the windows that still leak. The rain returns after two days and all the windows begin to leak again and the leak in the master bedroom ceiling becomes a waterfall. In addition to the waterfall there is water leaking out of the ceiling spotlights. Jack buys blue tarps and with the help of his brother covers the roof and creates a canopy to shelter the large sliding glass door and windows off the rooms with a view that are over the master bedroom. The leaks slow down considerably in the master bedroom but continue at the windows and storage room.

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Winter ends and Jack and Jill try to get the GC back to find out what happened. The GC says he is at his wits end and refuses to return. He stops answering their phone calls. Jack calls his lawyer who writes a letter to the GC threatening a lawsuit. The GC does not respond. The lawyer also tells Jack that unfortunately he is in violation of the CC&R's in his neighborhood and will need to remove the olive trees or suffer a \$100.00 per week fine until the trees are removed. Jack has the option to leave the trees in place but when he does sell the home the outstanding fine will be a cloud on his title.

Jack and Jill reluctantly remove the trees. The lawsuit begins. Enter the CONSTRUCTION DEFECT EXPERT (the last person to be called). Tests are run, finishes are removed, and reports (with photo documentation) are written.

Other experts representing the now attentive GC and the wide-eyed subs visit the site to see what has been discovered. Following is the laundry list:

- The windows were installed without a continuous bead of sealant behind the fins thereby allowing water access to the wall cavity. Since there are 60 windows it will be more cost effective to remove all the stucco and most likely replace all the building paper.
- The exterior light fixtures were installed without sealant at the interface of the junction box and the building paper or exterior sealant at the top and sides of the fixture. To compound the problem the exterior fixtures were not made to be exposed to weather because they were beginning to corrode and came without gaskets.

- The large sliding glass door off the "rooms with a view" was installed without a sheet metal sill pan thereby allowing water that bypassed the window fin clear access to the master bedroom below. The door and side lites (16' in total) will need to be removed to install the sill pan.

- Tile, setting bed and waterproof membrane (hot mop) were removed and it was seen that the perimeter sheet metal flashing laps were not soldered and the membrane returned up the wall to finish just behind the stucco screed. The screeds were installed on top of the tile leaving no weep space. Unfortunately there was a sequence problem. The stucco was installed before the tile deck and since the deck was built dead level (despite the note on the plans for the framing to be sloped $\frac{1}{4}$ " per foot) the slope on the deck needed to be achieved in the mortar setting bed. Water on the deck had direct access to the unsoldered perimeter sheet metal laps. The deck will need to be redone and the stucco screed raised to provide proper clearance.

- The waterproofing used at the basement/storage room wall was a brushed on product that barely hid the concrete. The remedy is to excavate and redo the waterproofing. There was no provision for drainage at the basement wall consequently the water just sits there. Further excavation will be necessary so that proper drainage can be installed.

- The black substance on the gypsum board turns out to be toxic mold, which will necessitate the removal of all the interior sheet rock. All the rooms will need protection and Hepa filters for the duration of the work. Because of the mold remediation all of the house contents will need to be cleaned and stored in 40 vaults. Jack and Jill will have to

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find other living arrangements for the duration of the work, which will probably take one year (almost four times longer than the schedule to build the house).

- The house cost \$1,400,000.00 to build and the repairs came to \$2,600,000.00.

THE MORAL OF THE STORY

If you are going to build your dream house let an architect design and administrate the construction.

Do not base your decision on the lowest bid. Do not take on the responsibility (and liability) for any of the work. The moral of the story should be; You get what you pay for. Think twice before you do-it-yourself.

THE END

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