



Friday, July 2, 1999

John and Lisa Owner  
1 Home Road  
Carmel Valley, California 93940

Theresa R. Lawyer, Esq.  
Lawyer & Attorney  
456 Legal Lane  
Monterey, California 93940

**RE: Owners v. ABC Construction, et al.**

Site: 1 Home Road, Carmel Valley  
Inspections: 10/12, 11/16, 11/17, 11/19 & 12/16/98, 1/5, 1/7, 1/12, 1/19, & 3/16/99  
Report Type: **Claims of Design/Construction Deficiencies & Scope of Repair**

**Section I of V**

Dear Mr. Owner, Ms. Owner and Ms. Lawyer:

We were initially asked to investigate, discover the sources of, and recommend repairs required due to, long-term water intrusion problems that ABC Construction, the original builder, had been unable to resolve. This assignment expanded into documenting various construction deficiencies that had resulted in extensive water intrusion damage and substandard conditions. This is our detailed report on those damages and substandard conditions including our estimated costs to repair.

Throughout this report we refer to ourselves as MFC, ABC Construction, the original builder, as ABC or Contractor, Guy Frank-Alvarez, the original architect, as GFA, Mickey T. Construction, Inc. (repairing contractor) as MTC, and Mr. and Ms. Owner as Owners or Plaintiffs.

**SUMMARY:**

The total to repair the defects is, in our opinion, **\$1,410,371.73**. Of that figure we would apportion \$1,073,044.22, which is approximately 76% overall, to ABC Construction & his subcontractors, and \$337,327.51, which is approximately 24% overall, to Guy Frank-Alvarez & the design team.

Our total here includes all of those costs which directly relate to the repair of the various construction deficiencies. Please see "Cost to Repair" below and Section IV.

When we refer to Guy Frank-Alvarez (GFA) in this report we allow for Mr. Frank-Alvarez and others on his design team. This includes Jaime Darter & Associates, the Structural Engineer, whose work was found to have errors, and Myron Jackson, the Soils Engineer, whose work did not.

For the purposes of this report, we have not allocated responsibility among the parties working for either GFA or ABC.

## **COMMENTS:**

### **General:**

Our Format is fully defined & described on page 11. In short, there are five Sections. Section I summarizes our findings. Section II is our issue by issue discussion of the problem areas. Section III contains summary tables of Section II content. Section IV is our detailed cost estimate. Section V contains the original construction contractual agreements.

This is a complicated construction deficiency report. We have used several formats to organize the information in different ways. In particular, Section II is structured by deficiency, whereas Section IV has our suggested scope of work outlined by room, elevation, or area. We have made our best effort to include all pertinent claims and corrective measures and to have correctly cross-referenced them. We realize that errors are possible and hereby apologize for any.

### **History:**

The Owners signed an AIA B131 contract with GFA on 11/26/85 to “design and construct a residence” for a fee of 11.5% of construction costs. In our opinion, GFA, by term 1.1 of this contract, was obligated to provide “Basic Services” including design development, drafting, assisting the Owners in estimating costs of construction, securing bids and awarding building contracts, and to periodically monitor construction progress through the Final Payment in order to ascertain whether the building was being assembled in accordance with the Contract Documents.

The Owners signed an AIA A111 contract with ABC Construction on 6/16/87 for “construction of a single family residence including swimming pool, driveway, grading, excavation and necessary utilities for completion of the project. House to be built as per plans and specifications as drawn and provided by Guy Frank-Alvarez and Associates.” Article 4 states the construction schedule as being July 1, 1987, through July 1, 1988, with a liquidated damages provision of \$75.00/day. The contract amount was \$509,075.00. The only exclusions from the scope via Article 16 are “light fixtures other than recessed fixtures and pool light fixtures.”

Construction began circa 7/15/87, based on the Monterey County Building Department "Job Copy" stamp found on the back of a set of blueprints saved by the Owners and the date of the Building Permit #38905M. The building was constructed under the authority of the 1985 Uniform Building Code (UBC).

The "Job Copy" set has only sheets 2-10, all dated 5/7/87. Additional plan sheets obtained from GFA during our investigation have a last revision date of 7/21/88 on sheet SD2. See "Sources of Information" below for an index of available drawings.

Building Permit #38905M, for the residence, garage and deck construction, shows an "OK to Occupy" signature on 1/5/89. The "Final Inspection" sign-off was given on 3/1/89. However, punch list completion work and water intrusion repairs continued through 1989. A Completion Agreement was signed on 12/22/89, approximately 18 months after the contracted Completion Date (7/1/88). See "Delay Damages" below.

Recurrent and new water intrusion problems have been noted since original construction. For example, in the Completion Agreement, page 2, item 6(2), ABC warranted that "all leaks have been repaired." Reportedly, ABC Construction has returned to the Owners' Residence repeatedly for the past 9 years. Some leaks were successfully resolved, others not. The major water intrusion we found was not uncovered during those years.

### **The Complaint:**

In our opinion, the responsibility for the work being properly performed and the home properly maintained rests with, generally, the designer, the builder and the owners. In this case much of the responsibility for the problems at this home rest with the builder. The remainder, in our opinion, goes mostly to the designer. The owners have, we believe, some very minor responsibility. There was one clogged landscaping drainage cleanout cover which happened on their watch.

Please see Section II of this report for an item by item discussion of the design, construction deficiencies. Section II Claim #1 is a further discussion of the Architect's responsibility.

### **Costs to Repair:**

Our total estimated cost to repair is \$1,410,371.73. Our reasoning, detailed estimate and suggested scope of repair is stated in Sections II & IV of this report. Our estimated scope of repair and costs to do the work are based on actual expenses to date and projections towards completion. See Sections II & IV for specifics.

Generally our sizing for estimating is either from the plans & specifications referenced below under "Sources of Information," "take offs" by various members of the MTC team, or from MFC site inspection findings.

Our costs to do the work are based on the scope of work which best recommended itself to us as the most reasonable and effective correction for any given fix. We feel that the owners should receive a finished product with the minimum standards being the original specifications, whether specified or implied by then existing codes, and current standards of care. This includes all of Monterey County Building requirements. Where we are projecting future costs, we use our own cost database, current research and the bids of sub-contractors.

We have made cost to repair apportionment decisions at each Section II Claim, based on related line items in the Section IV detailed estimate. To the total of the line items we used for each issue, we added a mark-up which includes General Conditions, Design, Move Out, Overhead & Profit, Contingency and an apportionment of the Work Completed (as applicable). We added a mark-up based only on Design and Move Out soft costs to the Work Completed costs.

We have spent a great deal of time on this project in the consideration of the repairs. Critical detailing was absent in the original design and the "as built" conditions. It is also true that our input was occasionally required in the taking apart of this complex structure. In both cases we consider the work, on our part, as necessary to the repairs and, therefore, a valid part of the claimed costs to repair.

However, the time we spent working on this report is, in our opinion, work related to our position as expert and therefore not a part of the repair costs. Though it would not be possible for us to absolutely distinguish between the two, we have carefully considered our overall work on this matter and determined that about two thirds of our time through 6/18/99 was spent working on the repair design. We have allowed for that in the last area of Section IV "Design."

To generate an initial scope of work that would, in our opinion, correct original deficiencies and repair the extensive resultant damages at the Owners' residence, we enlisted the aide of several professionals. Their recommendations, as pertinent, are incorporated or referenced in the plan set submitted to the Monterey County Building Department by MTC.

Therefore, and similarly, the fees paid the consulting engineers working on the MFC Team, both geotechnical and structural, helped, in part, to generate working drawings in order to obtain a building permit for repairs. We have included in the last area of Section IV, a percentage of these combined expert fees as design fees.

Prior to adding in the structural design deficiencies the total of the construction repair estimate was **\$1,059,672.33**.

**Status of Repair:**

The actual construction repair project was started when it was discovered (11/16/98) that the wood supporting structure of the main central deck was nearly 100% deteriorated by rot. At that time, the garden and patio walls, the patio trellises's supports, the built-in patio benches, the planters along the rear of the house, and both the Kitchen and the main stairways also had rot at every place we checked. We were, on all counts, concerned about the viability of these structures. The main patio was yellow-taped as off-limits immediately.

Though a large project, it was decided that the danger of collapse outweighed the benefits of waiting for project funding from the original construction team. It was decided that we would document the existing conditions with video, film and notes and that MTC would remove and replace the rotten parts we had found.

It was also decided that, during the aforesaid demolition, we would, naturally, continue to check for other problems. In that capacity, we inspected the perimeter of the house at the sub area stem wall/floor system juncture by pulling back insulation. In that review, we discovered rot and/or stains in most places. It was decided to open the sidewalk in the vicinity of the main entry door to inspect the rim framing. When it was discovered that the exterior surfaces of the house subgrade frame were severely rotten, more was opened. This led to the discovery of a lack of water-proofing, extensive non-treated wood below grade, and the failure of the foundation drainage system, which was clogged with soil.

When we observed the extent of the rot in the supports, it became apparent that we would need to get a structural engineer involved. It was clear that the repair would necessarily differ from the as built assemblies and that the original plans lacked the details we would need. We found large amounts of soil supported by wood frame and had many questions about the viability of partially rotted framing members. We asked Paul Bryce, Structural Engineer, to assist.

During his review of the original structural calculations (by Darter) and at site inspections, Mr. Bryce concluded that additional review, outside the scope of his contract, would be necessary. At that point, we brought in Dr. Bernard Gabe, Civil Engineer. See "Structural Seismic Retrofitting" below.

With regards to repairs, it was decided that the drainage along the foundation would be the first part of the structure to be repaired. That work began while we continued to investigate other issues.

While the drainage along the front of the house was being done, it became clear from discussions with the engineers that the projected eventual costs had exceeded the owners' ability to fund. Repair work was stopped. With minor ancillary exceptions no work has been done since late April.

The above paragraphs mention issues which are discussed further in Section II. The status of the repair leaves the owners in a very difficult situation.

### **Structural Seismic Retrofitting:**

When the building and the original structural calculations (Darter 12/16/86) were analyzed by Dr. Gabe, significant deficiencies were found, based upon the standards of the 1985 UBC. Both design and construction implementation deficiencies were discovered. On July 1<sup>st</sup> of this year, the state-wide standard became the 1997 UBC. There are stricter seismic requirements in the 1997 UBC.

We have considered various possibilities. The bare minimum standard that Monterey County might accept is the 1985 UBC. As there is a possibility that they would require the Owners' to move out, we have not yet asked. The County could, at most, require that current standards be met, which would mean the 1997 UBC.

The differences between retrofitting to the 1985 UBC versus the 1997 UBC would have a relatively small construction cost effect in that the removal of the interior finishes and installation of structural assemblies would be largely the same, with the "strength" of the structural assemblies being the main difference (i.e., size of nails or gauge of steel).

We believe, given the extent of the minimum possible retrofitting requirements, the fact that there are currently higher accepted standards, and the minimal cost differences, that it is prudent to proceed with the retrofit based on the 1997 UBC.

We have used Paul Bryce's 6/1/99 conceptual plan based on the 1997 UBC as the basis for our detailed review and estimating of the seismic retrofitting aspects of the project. A copy is included behind Section II MFC 2.

### **Water Resistiveness:**

During the course of this work, choices had to be made concerning the viability and quality of the replacement waterproofing assemblies. We have, in consultation with MTC and others, attempted to ensure water resistive construction. We have designed and specified reasonably high quality water resistance and waterproofing systems which should bring the home into compliance with the requirements of the code.

### ***Excerpted from 1985 UBC:***

***1707(b) Flashing and Counterflashing.*** Exterior openings exposed to the weather shall be flashed in such a manner as to make them weatherproof.

*All parapets shall be provided with coping of approved materials. All flashing, counterflashing and coping, when of metal, shall be of not less than No. 26 U. S. gauge corrosion-resistant metal.*

**1707(c) Waterproofing Weather-exposed Areas.** *Balconies, landings, exterior stairways, occupied roofs and similar surfaces exposed to the weather and sealed underneath shall be waterproofed.*

This has not substantively changed since at least 1958 (our earliest on hand version). In the end, the home's design does not change and there are no finish upgrades.

### **Move Out & Temporary Lodging:**

The scope of this work and the condition of this structure will require, in our opinion, that the Owners move from the premises temporarily.

Considering the possibilities regarding eventual funding and the fact that the Owners can not continue living much longer in the building in its present condition, there is a real question as to the length of time we should allow for Lodging.

We estimate the total construction period of work, from its future recommencement, to be between six and eight months, possibly more. The uncertainty is due to the uncertain scope of the final structural repairs (which may increase if it is discovered that the framing was not done per the plans), the uncertainty around the extent of the finish repairs vis-a-vis the structural unknowns, and the fact that the rim/foundation/planter/stairway repairs are complicated construction projects.

We understand that the time from this date until the eventual funding of the repairs could be in the neighborhood of 14 months.

We anticipate, therefore, roughly 22 months from packing up belongings to unpacking belongings. This allows the Owners to move out soon, 14 months for the eventual funding, and six months for construction repairs.

Our calculations in Section II include move out, temporary residence and return as part of the apportioned mark-up. Section IV has an area where we detail the values.

### **Delay Damages:**

When researching this matter, we found that the contract called for a "No later than July 1<sup>st</sup>, 1988" completion date or the "Owners shall be compensated \$75.00 per day for each day past Completion date..." We do not know if any agreement existed between the parties that superseded this original contract clause. We understand that the Owners were able to occupy their home in the first week of 1989. Roughly, that would be six months or about 182 days beyond the planned completion date. The total would then be \$13,650.00 (182 X \$75.00).

As stated under "History" above, a Completion Agreement was signed on 12/22/89, which may be reasonable cause to calculate an 18 month delay. That would be \$41,025.00 (547 days X \$75.00). We do not include for this in our summary.

**Exclusions:**

Our estimates of costs do not include:

1. Delay damages, as discussed above (\$13,650.00 to \$41,025.00).
2. The cost to replace 10 year old plantings (trees, roses, perennials, ground cover, and Wisteria vines). We have included the cost of the largest reasonable size available. This will not restore the gardens & plantings to the original condition.
3. Additional living expense. Our calculations include move out, lodging and return but we have not allowed for any additional costs (e.g., eating away from home, telephone, utilities or other expenses) they would not normally have if they could stay in their home.
4. Certain construction assemblies which may later be included as per findings during the work. Some large items are:
  - A. The 1½" Settled Driveway Landing (possibly \$78,000.00).
  - B. The Pool area decks which are not performing well.
  - C. The Lower Level Patio in its entirety.
  - D. Extensive Interior Repairs due to Water Damage (not yet uncovered).
  - E. Some walkways.
  - F. Any substantial Electrical, Plumbing, Heating or Insulating repairs.
  - G. The additional cost for any correction to the eroded Culvert.
5. Damaged personal property. This includes, we understand, approximately, \$4,000.00 in precious china that was destroyed when a mis-cut shelf collapsed in the built-in Dining Room cabinet. It would also include any books, papers, linen, pillows, bay window cushions, rust stained area rug, or other items that may have been damaged over the years from various leaks.
6. Legal fees of any kind.
7. Expert litigation support fees.
8. Upgrades which are not necessary to repair the building.

**SITE INSPECTIONS:**

At the 10/12/98 site inspection, Mr. & Ms. Owner showed Mr. Corcoran the interior and exterior of the residence. Questions arising from that site inspection and the history we were advised of led to further investigation.

Investigative testing and, in time, repair at this property began on 11/16/98 and continued through 3/16/99, as listed on page 1 above. Additional damages continued to be uncovered throughout that period. We made occasional site visits and were in daily contact with MTC, the contractor performing the testing.

In summary, we found extensive damage to the frame of the building due to inadequate waterproofing, inadequate drainage, and inadequate crawl space ventilation. Additional miscellaneous claims involve multiple skylight leaks; inadequate weatherproofing of wood-framed, stuccoed deck walls; minor plumbing, heating and electrical problems; and resultant damages in the interior.

Multiple walk-through presentations of the claims have been made: the first on 11/19/98 and the second on 1/19/99. At both walk-throughs, MFC described the to-date list of claims of construction and design deficiencies and indicated what additional testing remained to be done. At both presentations, CAP Adjusters and the Contractor were present. At the 1/19/99 inspection, GFA was also present. Additional presentations were made to other involved parties on 5/13/99, 5/17/99 and 5/28/99; we do not consider these site inspections.

The Owners took photos during construction and prior to our first site inspection. During our inspections we took numerous photos and some video. MFC did the same. Selections from these sources are feathered in behind related issues in Section II.

### **SOURCES OF INFORMATION:**

To compile this report we used the following information/sources. Those items with bolded numbers are included in this report, feathered into Sections as indicated in parentheses.

1. UBC 1985.
2. Owners - Guy Frank-Alvarez Owner-Architect Contract, AIA B131, 1966 edition, *Percentage of Construction Cost*, dated 11/26/85. (Copy in Section V)
3. Plans - Sheets 1-16, E1, E2, SD1 and SD2, by Guy Frank-Alvarez, dated 5/7/87. Last revision date of 7/21/88 is on sheet SD2. Of these, 10 pages are stamped Job Copy on the back.
4. Structural Calculations by Jaime Darter Associates, Inc. - miscellaneous sheets dated 12/16/86, 12/17/86, 12/22/86, 12/23/86, 12/24/86, 12/29/86, 1/5/87, 6/1/87, 6/2/87, 2/11/88 and 2/12/88 (total of 37 pages). No signature. No stamp. (Section II MFC 2)
5. Soil Investigation by M. Jackson and Associates, dated 7/8/86, signed by Mr. Myron M. Jackson, C.E. (Section II MFC 4)
6. Owners - ABC Construction Owner-Contractor Agreement, AIA Form A111, 1974 edition, *Cost of the Work Plus a Fee*, dated 6/16/87. Note: We did not see the referenced Addendum 1 Cost Breakdown. (Section V)
7. Handwritten Punchlists by Guy Frank-Alvarez, dated 1/12/89 (8 pages) and 2/22/89 (12 pages). The 2/28/89 list was annotated on 2/28/89. (Section II MFC 1)
8. Monterey County Building Permits: #38905M, for the residence, garage and deck was initiated 7/15/87 and finalized 3/1/89; #38915M for a retaining wall was initiated 7/??/87 and finalized 2/16/89; and, #38925M for a trellis was initiated 7/15/87 and finalized 2/16/89. (Section II MFC 1)
9. Owners - ABC Construction Completion Agreement, signed and dated 12/22/89. (Section V)
10. Photographs taken by MFC: 551 photographs taken on above listed inspection dates (none on 1/19/99).
11. Video footage taken by MFC: approximately 8 hours on above listed inspection dates (none on 1/19/99).

12. Digital photos taken by MTC Construction: 102 on 12/31/98, 1/5/99, 1/8/99 and 1/12/99.
13. Video footage taken by MTC: approximately 4 hours taken on 11/16/98, 12/15/98, 12/16/98, 12/21/98, 12/24/98, 1/5/99, 1/12/99, 2/4/99 and 3/16/99.
14. Photographs taken by MTC: 75 photographs taken on various dates. (No date feature used by MTC.)
15. Photographs taken by the Owners in 1988-89 (color copies reviewed) and in 1998 (black & white originals reviewed).
16. Samples of as-built materials: typical rolled aluminum foundation flashing (Ext. Storage 2); typical concrete deck green "rolled roofing" waterproofing membrane (Main Central Deck); corner of typical copper roof-to-skylight curb flashing with soldered joint (Study); bolt from base of deck to roof eave column (Main Central Deck); typical painted stucco w/wire lath taken from wall outside Powder Room.
17. Electrical Inspection report by D.W. Builders, dated 12/4/98. (Section II MFC 31)
18. A & B Plumbing, Inc. Work Orders dated 11/20/98, 12/7/98 and 12/2/98. (Section II MFC 33)
19. TRW Concrete Site Inspection, dated 1/7/99. (Section II MFC 3)
20. "Geotechnical Site Inspection, Surface and Subsurface Drainage Conditions, Review of July 1986 Geotechnical Investigation" by Harry, Krauss and Associates, dated 3/5/99. (Section II MFC 4)
21. "Structural Plans and Details - Corrective Measures - Plan Check Revisions" (3/26/99) by Paul Bryce, Structural Engineer. (Section II MFC 2)
22. "Conceptual Structural Plans and Details - Seismic Correction Retrofit" (6/1/99) by Paul Bryce, Structural Engineer. (Section II MFC 2)
23. "Seismic Observations" (Section II MFC 2) and site inspection consultation by Dr. Gabe, Ph.D., Civil Engineer.

SAMPLE

**FORMAT:**

There are five sections to this report (plus attachments as noted above). They are as follows:

**Section I:** This section is intended as an overview, background to and summary of our response. Specific comments for each issue are contained in Section II.

**Section II:** This is where we state what the individual complaints are. These item by item complaints are printed on green paper with a page break following each one. For each issue there are several fields of information. The legend for these fields is found on page 1 of Section II.

Selected supporting documentation, on white paper, such as referenced codes and photographs, is inserted directly following each issue, as we deemed relevant. This includes full versions of any supplemental reports, such as engineering. Most (if not all) clouds and highlights are by MFC.

We include an apportionment field (Apportionment to Repair), extrapolated from our Section IV Estimate. Due to assembly overlap, these apportionments may be viewed differently by others. We did not attempt to allocate specific responsibility for the trades involved. We did allocate, by percentage, the apportionment between the Design and the Contractor.

There is a table of contents, by issue, starting on page three of Section II.

**Section III:** Various Summary Tables (yellow paper):

1. Summary of Issues and Associated Repair Costs.
2. Summary of Apportionment between Architect and Contractor.

**Section IV:** Detailed Estimate (blue paper). See also general comments at “Costs to Repair” above. Our details, that are referred to in this estimate, are included at the end of the estimate, on white paper. Also attached are selected take-offs and the P. Bryce details, taken from his reports, which can be found behind Section II MFC 2, and the Krauss details, which can be found behind Section II MFC 4.

**Section V:** Contractual Agreements related to the original construction:

1. Owners - Guy Frank-Alvarez
2. Owners - ABC Construction
3. Owners - ABC Construction Completion Agreement

***LIMITATIONS AND ASSUMPTIONS TO THE REPORT***

This Study is not to be construed as a guarantee or warranty, nor as an opinion as to the advisability of purchase or sale.

No reliance on this report will be made by anyone other than the client for whom it was written. We have made reasonable efforts to assure that this report is accurate, however, we cannot assume any liability for damages which may result from it or for any conditions which this report may fail to disclose.

The information contained in this report is deemed reliable as of the dates of inspection- 10/12, 11/16, 11/17, 11/19 & 12/16/98, 1/5, 1/7, 1/12, 1/19 & 3/16/99 - but it is not guaranteed. Our conclusions, estimates and recommendations are based on our current understanding of the issues in question and the related codes and standards as well as our opinions and professional conjecture where necessary.

This report does not warrant against the contingency of unforeseen conditions or circumstances, unreliable information, or unpredictable inflationary/deflationary spirals. The scope of this report is expressly limited to the components described herein.

Very truly yours,



Myles F. Corcoran, CEO



Lisa Ellis

This is Section I of V

cc: 4 additional copies provided to Theresa R. Lawyer, Esq.

SAMPLE