RESIDENTIAL PROJECTS
CLAIMS STUDY

Between 2013 and 2022, residential projects (defined for this study as houses/townhouses, condominiums, and apartments) resulted in 32.9% of all claims filed in the Victor and CNA professional liability program. While frequent, residential claims can also be expensive. The average indemnity payment was \$214,249; the average payment against architects for residential claims was \$237,349. Larger firms (annual billings over \$5 million) were hit particularly hard by residential claims, with average indemnity payments of \$457,362.



Although claims related to residential projects involve all design disciplines, 54.3% of the claims were made against architects. Below are examples of the types of claims paid on behalf of Victor and CNA policyholders.

Houses/townhouses

The average paid claim for houses/townhouses was \$131,966. Smaller design firms often think that because of their lesser fees on "smaller" scope projects, they are immune to claims. However, whether we're discussing houses or townhouses, these projects represent a significant risk for all design firms in terms of an indemnity payment being made on a house/townhouse claim, particularly larger firms.

AVERAGE HOUSE/TOWNHOUSE INDEMNITY PAYMENTS

FIRM ANNUAL BILLINGS	AVERAGE INDEMNITY PAYMENT	% CLAIMS CLOSED WITHOUT PAYMENT
\$5 million or less	\$99, 714	36.7%
Over \$5 million	\$447,178	57.9%
All firms	\$131,966	41.3%

CASE STUDY: WATERPROOFING

An architect designed a high-end, single-family residence that had a construction budget in excess of \$20 million. A hurricane caused leakage in 37 separate locations, resulting in a \$3.5 million subrogation claim from the owner's insurance carrier. The architect stated that the water-proofing design was altered for aesthetic reasons. The general contractor had been skeptical of the design and asked that a water-proofing expert be retained, but the architect refused to do so. The claim settled for \$1.7 million and expenses exceeded \$60,000.

CASE STUDY: POOR DOCUMENTATION

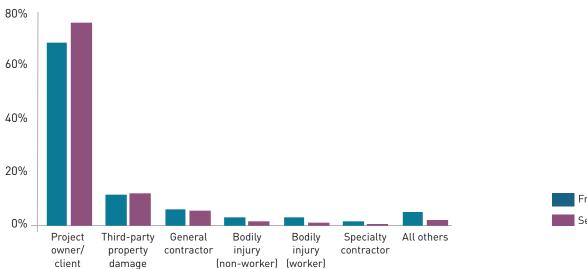
An engineer was retained to inspect a house the plaintiff intended to purchase. The engineer performed a visual inspection only. The plaintiff filed suit alleging \$102,000 in structural damage caused by termites and dry rot that the engineer failed to disclose. The plaintiff alleged that the engineer did not recommend further testing and only told him that it would cost \$10,000 to repair the old house. The engineer denied that he would have provided a cost estimate and claimed that he would have told the plaintiff only that he couldn't do further testing without the seller's permission. Unfortunately, the engineer had few records to support his position. Lack of documentation resulted in a settlement of \$60,000, with expenses of \$25,000.





FIGURE 1

Claims by claimant ID (2013 - 2022)



Frequency = reported claims Severity = CNA dollars spent

CASE STUDY: PROVIDING SERVICES OUTSIDE FIELD OF EXPERTISE

An architect was retained to remodel a single-family house. The architect's scope of services included landscape architecture, which the architect had never done before. The \$400,000 claim included allegations of deficient landscape design, including plant selection, lighting, ponds, the main entry, and the motor courtyard. The owners threatened to take this claim to trial. The claim settled for \$175,000 and the architect agreed to waive his \$50,000 fee; expenses were \$102,000.

CASE STUDY: STRUCTURAL ENGINEERING SERVICES

A project involving 17 townhouses started to show signs of structural distress. It was alleged that the trusses were underdesigned and needed reinforcement. The structural engineer designed the project in conjunction with the truss manufacturer. However, the final design used the truss manufacturer's valueengineered design rather than the structural engineer's original design. The developer/general contractor and the MEP contractor decided to omit a loft space to save money. This necessitated moving ductwork and a reconfiguration between the third and fourth floors. They also requested a change from rafters to trusses and required re-orientation of the trusses to accommodate the MEP.

The structural engineer left the firm to start his own practice. While at his own

firm, he continued to work on this project as a subconsultant to his prior employer. During this time, he was asked to review the design to determine if the reorientation of the trusses would affect the transfer of load. He was asked to ensure that the truss layout plan and the truss cut sheet were compatible with the other structural elements, such as columns and beams. All he did, however, was check and change the size of the beams. He did not check all of the structural elements, and his approval of the design did not include any comments on the truss placement or cut sheet.



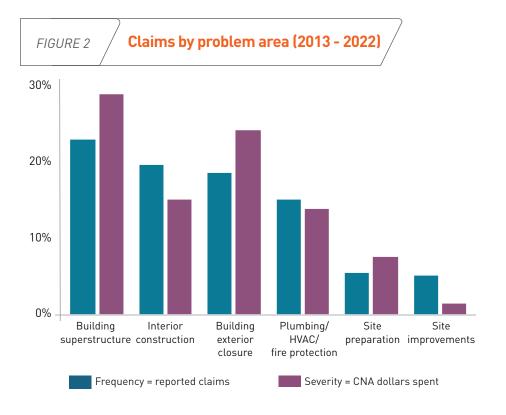
The alleged damages exceeded \$7 million. The structural engineer maintained that his design was not responsible for the plaintiff's damages because it was not built as-designed. However, the plaintiff countered and

said that even if the project had been built as designed, the problems would still have occurred. The engineer's own expert opined that the design was only "marginally adequate." By the time this went to mediation, the truss manufacturer was bankrupt and uninsured. The original firm paid \$1.9 million toward the settlement and the structural engineer's new firm contributed his remaining policy limit of \$850,000.

CASE STUDY: SURVEYING SERVICES

A surveyor was retained to survey and split a parcel of property into four equal parts, with easement to the rear parcels. He relied in part on a survey done in 1984 given to him by the real estate agency. He matched the boundary monuments shown on the old survey and accepted them as correct. It was later determined that the old survey was incorrect. As a result, each of the four parcels had incorrect boundaries. Each parcel was occupied

by a house. In one case, the correct boundary ran through the middle of the house, placing it partially on another property that was not part of the original four. To resolve this dispute, a property on the boundary was purchased and the property lines were shuffled to satisfy all the parties. The final cost to resolve this claim was \$197,000 with expenses of \$46,000.





Condominiums

Although condominium (condo) projects used to be the worst project type from the standpoint of claims, this is now mostly true. Current statistics indicate that claims for houses/ townhouses now surpass condo claims in terms of overall frequency, but condos are still the worst in terms of overall severity. So the cost of condo claims can still be significant. Although most condo claims were against architects (55.8%), 15.7% of condo claims were made against both civil engineers and mechanical engineers. Average indemnity payments were as follows:

AVERAGE CONDO INDEMNITY PAYMENTS

FIRM ANNUAL BILLINGS	AVERAGE INDEMNITY PAYMENT	% CLAIMS CLOSED WITHOUT PAYMENT
Less than \$5 million	\$175,546	28.0%
Over \$5 million	\$577,356	48.7%
All firms	\$305,200	37.5%

CASE STUDY: NOISE CODES

An architect was retained by a design-builder for a loft condo project. After completion, owners complained of noise from plumbing, neighbors, and the street that affected all 46 units. The plaintiffs' repair estimate was \$1,870,000. The architect and his acoustic expert argued that construction issues impacted the acoustics:

- there was decreased resiliency of gypboard;
- the joists were too widely spaced; and
- there was a lack of appropriate cushion where the ceilings and walls met.

The architect and acoustic expert also argued that because these were work/live lofts and not technically bedrooms, the standard of care was significantly different. There were concerns that a jury would decide that the architect should have anticipated the noise issues regardless of the codes because the project was in a particularly noisy area near a bridge and a highway. The claim settled in mediation for \$125,000 and expenses exceeded \$50,000.

CASE STUDY: LIMITED CONSTRUCTION PHASE SERVICES

An architect was retained to provide design and shop drawing review for an upscale high-rise condo building. No other construction phase services were to be provided. Soon after completion, water started to intrude, primarily through windows and balcony doors. (Water intrusion is one of the most common claims on condo projects.) Experts retained by the condo association identified a number of design and construction deficiencies and estimated damages at \$30 to \$45 million. The allegations against the architect included approval of EIFS, balcony slope issues, and negligent approval of shop drawings. The architect's exposure was significant in view of the size of the claim and the low policy limits of several co-defendants. The claim settled after several mediations. The architect contributed \$1.7 million and expenses exceeded \$450,000.

CASE STUDY: LARGE, COMPLEX PROJECT

A large architectural/engineering (AE) firm provided design and construction contract administration services for a high-rise condo project. Due to the project's complexity, the AE firm had a representative on-site on a daily basis.

Almost 10 years after construction, the brick masonry veneer exterior wall system began spalling, cracking, moving, and falling off in some areas. Repair costs were estimated at \$8 to \$13 million. While it was determined that damages resulted because the contractors had not followed the plans and specifications, the AE's on-site presence provided exposure for the AE firm. With projected costs of \$500,000 to defend the claim through trial, the insurance company agreed to settle the claim for \$2 million; expenses were \$265,000.



Apartments

Claims involving apartments represented 10.2% of all claims filed and 8.0% of indemnity payments in the Victor and CNA program, with indemnity payments averaging \$208,175.

AVERAGE APARTMENT INDEMNITY PAYMENTS

	FIRM ANNUAL BILLINGS	AVERAGE INDEMNITY PAYMENT	% CLAIMS CLOSED WITHOUT PAYMENT
	Less than \$5 million	\$114,326	34.2%
	Over \$5 million	\$394,670	55.2%
	All firms	\$208,175	44.7%

CASE STUDY: CONTRACT ADMINISTRATION

This claim involved a 280-unit apartment complex. The owners filed an \$11 million lawsuit against the contractor and six subcontractors for construction defects that resulted in water intrusion. The contractor filed a third-party lawsuit against the architect. The architect's expert felt that the design met the standard of care, but expressed concern regarding administration of the construction contract and approval of contractor-recommended value engineering that did not work. The two main areas of concern were:

- specifying parapet caps without a waterproofing layer beneath it. and
- changes to the drainage of the walkways.

The architect drew an informal design and wrote "not for construction" on it, but then, while on site, allowed it to be used. This resulted in inadequate slope of the walkways. The claim settled for \$6.4 million, which included the architect's contribution of \$250,000; expenses exceeded \$300,000.

CASE STUDY: HVAC DESIGN

Another apartment claim involved a mechanical engineer who was retained by the HVAC subcontractor to design the HVAC system for two apartment towers. Following a hurricane, both towers experienced serious mold problems. The claim was initiated by the owner's insurance company that wanted to pursue subrogation for the \$1.5 million paid for damage to the property. The insurance company alleged that the mold was caused by poor design and construction, which allowed for water infiltration.

Further investigation revealed that the owner maintained negative pressure in one building, sucking air from the other positively pressured building through doors left open between the two towers. The owner also allowed several doors to the outside to be left open, which enabled humid air to enter and overwhelm the dehumidifier, and the air conditioners were not well-maintained. There were also construction problems, such as missing vapor barriers and poorly applied caulking and sealing. It was alleged that the engineer had exposure for not investigating the effects the buildings would have upon one another and for not protesting some of the value engineering. The claim settled for \$870,000, which included the engineer's contribution of \$225,000. (Note: Although it was believed that the engineer had considerably less exposure, the engineer's \$500,000 professional liability policy was being depleted by expenses, and the decision was made to settle quickly to protect the engineer from possible excess exposure if the claim went to trial and resulted in a verdict against the engineer that exceeded his remaining insurance.)



Managing the risks of residential project claims

- Select clients based upon their experience, financial strength, ties to the community, and emphasis on quality design and construction.
- Select projects that have a realistic budget and time frame, especially in relation to their degree of complexity of design and construction. Take into account the contractor selection process.
- Select subconsultants who are experienced and adequately insured.
- Be wary of providing limited or no construction contract administration services.
- Be proactive on maintenance issues. This is especially important on condo projects. Try to convince the developer to establish a contingency fund for testing, maintenance, and repairs. Arrange to be put on retainer to work with the homeowners' association. Offer to prepare a maintenance manual as part of your scope of services. Have your client write into the by-laws of the association that required maintenance will be the responsibility of the homeowners.

- Include a mediation clause in your contract. In the case of condos, ensure that a mediation clause is part of any sale, binding all future homeowners to agree to mediate prior to litigation.
- Review or have input on promotional material.
- As with all projects, pay appropriate attention to the quality
 of the design; continuously manage the expectations of your
 clients through timely and consistent communication; and
 have a systematic, objective documentation process in place to
 document all relevant activity.
- Use professional services agreements that fairly allocate risks to the party in the best position to manage those risks.

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^{*} The claims scenario is strictly documented for illustrative purposes only and provides an example of what a policy could cover. It is intended to provide a general overview of the program described. Please remember only the insurance policy can give actual terms, coverage, amounts, conditions and exclusions. Program availability and coverage are subject to individual underwriting criteria.