



A/E Risk Review brought to you by PLAN and:

Selvaggio, Teske & Associates

RISK MANAGEMENT PARTNERS FOR THE DESIGN AND BUILD INDUSTRY

The Basics of Project Selection

The following material is provided for informational purposes only. Before taking any action that could have legal or other important consequences, speak with a qualified professional who can provide guidance that considers your own unique circumstances.

A mechanical engineer in a small historic town was asked to design air conditioning system modifications for an old building to which a new addition was being attached. According to the new owner of the building, no reliable record drawings of the original system were available.

The mechanical engineer recommended exploratory demolition to a section of the old building to map the existing system. The budget-conscious owner, however, vetoed tearing into walls or ceilings as “too expensive” and asked the engineer to base his recommendations upon a visual inspection only. The engineer did so, and failed to take steps to protect himself with appropriate disclaimers in his contract and in his final report.

Later, during construction of the addition, the original system’s components, ductwork and piping were found to be in poor condition and inadequate to support the new addition. To make matters worse, the contractor discovered asbestos during the renovation. In light of these unknown conditions, the engineer made additional recommendations that required costly modifications.

The owner had used the engineer’s original report as the basis for the contractor’s work scope. The owner grudgingly accepted the engineer’s modifications as necessary, but made a claim for the additional cost, alleging errors and omissions on the part of the engineer.

What went wrong? The design professional seemed to have acted in a perfectly reasonable, ethical and professional manner. If we look at the entire transaction and the decisions within the engineer’s control, however, we can see the mistakes that led to this claim.

The engineer did not recognize clear danger signals when considering the risks of the project. When he was informed by the owner, for instance, that insufficient funds were available for conducting exploratory demolition to determine the condition and location of the existing system, he should have detected the signs of a poorly financed project.

Furthermore, the engineer should have included in his contract and report a precautionary statement indicating that no design or construction budget involving renovation of existing structures and systems should be based on the preliminary information provided, and that additional expenditures might well be necessary after the existing structure was opened.

He should have anticipated the possibility that asbestos would be present in the older building. The liability implications here are so great that on any remodeling or restoration project, the agreement should contain language noting that if asbestos or other hazardous materials are discovered, the design professional is not responsible for any claims resulting from the existence of the materials, or for the removal or additional costs the removal will necessitate.

Clearly, had the engineer been alert to potential problems, he would have spotted the warning signs. Even if he had elected to proceed with the assignment, he could have substantially protected himself by informing the client of the risks and by arming himself with special provisions in his contract.

Assessing the Risk of a Project

It isn't always easy to pick and choose among potential projects. Yet careful selection is essential because accepting the wrong project almost guarantees professional liability problems. In making your selections, you need to weigh every aspect of your potential projects.

Several factors have an enormous impact on your risk exposure. Claims are much more likely when you ignore the warning signs in one or more of these areas:

- Type of project
- Type of client
- Adequacy of project funding
- Scope of services
- Fees
- Your firm's capabilities
- Contract language.

Each of these factors is just as important to liability risks as the actual preparation of your plans and specifications.

Some projects are so litigation-prone that only the most foolhardy architect or engineer would dare accept them. Other claims-prone projects are not so easily identifiable. These could include fast-track projects, which often involve substantial modifications to plans and thus big change-order expenses — and irate owners. In this situation, unsophisticated clients won't expect or understand change orders and, most likely, will not understand the need to have sufficient contingency reserves set aside in their project budgets. Projects that omit your construction observation services are also prone to errors since you are not available to provide guidance in the execution of your plans.

These days, many projects vary from the traditional design-bid-build delivery method. It is important to realize that each alternative delivery project involves specific risks and requires a different allocation of responsibilities. For example, your risk on a design-build project varies depending on the role and contractual relationships you undertake. If you lead a design-build project, you become responsible for risks traditionally associated with contractors and not normally assumed by engineers and architects. On the other hand, in a contractor-led design-build project, your risk may be little different from that of the traditional delivery method. The same holds true for design firms that provide construction management services. Your risk as a construction manager depends on which role you play and what contractual obligations and relationships you undertake.

Then there is the "contractually hazardous" project. This could be any type of project — even a plain-vanilla, single story commercial building — for which the client issues a contract containing such unfair or onerous provisions that you could wind up accepting most or all of the client's liability. Sometimes, the client issues a purchase order or similar contract form, which is thoroughly inappropriate for engaging a design professional's services. Some might argue that such a project is

among the riskiest of all because you have none of the standard contractual provisions professionals need for protection.

A Project Selection Checklist

Project selection is rarely a cut-and-dried, yes-or-no decision. Potential projects usually contain risk factors that, considered separately, might be acceptable. But together, these risk factors could add up to a big liability headache. Take for example, a well-financed client who wants to build an apartment complex as a speculative project and then sell to the highest bidder. You might be able to negotiate a solid contract. But can you protect yourself from the subsequent purchaser of the complex? What could you do to mitigate risks if the apartment complex sells and goes condo in a few years and the complex suddenly has 300 new owners?

Your best course is to learn to identify all the potential risks on a prospective project and then make a calculated decision based on a combination of factors. Some architects and engineers use a Project Evaluation Checklist to evaluate projects before submitting a proposal or negotiating an agreement. Besides providing protection, this can save a lot of time and money spent chasing projects you really shouldn't accept. The checklist should cover issues such as:

- Does the project team, including the owner, the prime consultant, subconsultants and the contract, have experience with this type of project?
- Is the project type one that is inherently risky, such as condominiums, amusement rides or renovations?
- Is the project adequately financed?

What are the Riskiest Projects?

Which type of project presents the greatest risk to design firms? According to a study by professional liability insurer XL Insurance – Design Professional, condominiums are by far the most litigious-prone type of project for virtually any design professional. Other project types involve various levels of risk, some more risky for particular design disciplines than other.

According to XL Insurance – Design Professional's Risk Drivers study of more than 8,600 claim files, residential condos are a professional liability nightmare. While insureds generated only 0.7% of their fees on condo projects, these projects ate up 8.1% of claims dollars paid out by XL – DP. The study measured relative risk by comparing fees earned by design firms by project type (a measure of total work volume that creates risk exposure) to the dollars paid out in claims.

Other project types that presented higher than average risks included wastewater/sewage plants, residential custom homes, schools (k-12), and residential subdivisions. Lower-risk projects included malls/retail and commercial industrial buildings of nine or fewer stories.

Slicing the data by design discipline, the study showed that:

- Architects found condos, and residential homes as higher risk, while low-rise commercial/industrial, malls/retail, and hospitals were lower-than-average risks.
- Structural engineers were stung by condos and residential homes, while enjoying lower risks for low-rise commercial industrial, colleges/universities, and bridges/trestles.
- Civil engineers had high risk with condos and wastewater/sewage plants, while enjoying much lower risks with roads/highways, low-rise commercial/industrial and malls/retail.
- Mechanical engineers had troubles with high-rise structures, universities/colleges and hospitals, while fairing much better with low-rise commercial industrial and malls/retail.
- Electrical engineers faired poorly with residential homes and condos, as well as hospitals, while doing much better with low-rise commercial/industrial projects.

- Does the project owner or contractor have a litigious history?
- Does the project include an adequate scope of services?
- Are you receiving an adequate fee?
- Is the project schedule realistic?
- Are there any unusual features, such as unfamiliar code requirements, new technologies or unstable geological conditions?
- Can mitigating factors be offset with contractual protection, such as a limitation of liability clause or indemnity provisions?

Once you've analyzed the risks of a potential project, determine how the risks you've identified might be managed. You can minimize some risk by educating your clients, providing more comprehensive services and insisting on qualification-based selection and negotiation with a competent contractor. You can also reduce your risk by developing a contract that is fair and precise, that accurately defines the intent of both parties — and that includes reasonable indemnities and a limitation of liability clause. And, of course, you can limit your risks by purchasing adequate professional liability insurance.

It is in everyone's best interest for you and your client to take a good, hard look at the risks you cannot prevent or control. Understand that on a high-risk project, the risk should be borne by the party best able to control it. If no one can control the risk, then it rightly remains with the project owner, who has the most to gain from the project. If the owner refuses to shoulder his or her share of the risk, you should probably decline the project.

The risks that remain on your plate — those that rightly belong to you and cannot be otherwise transferred or managed — will require a hard-nosed business decision. Is the fee or other incentive so attractive that you can afford to accept the risk? Making that determination may be the toughest decision you make on the project.

Can We Be of Assistance?

We may be able to help you by providing referrals to consultants, and by providing guidance relative to insurance issues, and even to certain preventives, from construction observation through the development and application of sound human resources management policies and procedures. Please call on us for assistance. We're a member of the Professional Liability Agents Network (PLAN). We're here to help.