

# Residential Renovation

## AIA Small Project Forum

# PIA

### The Frustrations (Sour Grapes) of Residential Additions and Renovation Projects

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Recently, as an SPF Local Advisor, I received a letter that began “Dear Charles...I have had several inquiries from local architects and designers who were finding it difficult to work with the contractors that had been hired to build their designs. Some are tired of contractors who don’t read the drawings and waste their time with obvious questions, while others have to constantly observe the same work over and over again. Some are annoyed that the work is not being completed on time, there isn’t a superintendent on the job site, and that clients are frustrated with seemingly endless hidden costs.”

My curiosity was sparked so I investigated. The problems were even greater than I had imagined. One contractor wanted to have complete control of the project including design, contract documents, specifications, and construction management, the contractor also wanted a sole line of communication with the owner. Contractors

sell the homeowner on this approach by saying they will save the homeowner money. To add to the problems in residential remodeling, many homeowners don’t think architects are really working when they come to process applications for payments or make site inspections. That is until something goes wrong.

**Architects should explain to the homeowner the reasons for the services they perform. They should make it clear that they ensure a project is being built according to its plans and specifications and that the contractor is not being paid for work not done.**

On one project, a contractor who had done some previous work for a client won the bid. With the owner’s trust and desire to save some money, he used his own contract saying, “This agreement incorporates the applicable terms and conditions of AIA document A201, 1997 version.” This gave him the ability to choose which sections of A201 to apply and which to ignore. Basically, he included the architect by incorporating the AIA contract by name in his contract, but took away any ability for the architect to be the owner’s agent. He could build the addition to suit his fancy and give the architect a call whenever he got in



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trouble, needed someone to blame, or couldn't figure something out for himself.

**When confronted with this kind of problem, the architect should write an agreement with the owner indemnifying and holding the architect harmless against any claims associated with the project. The owner thus retains the architect as a design consultant.**

I had a similar situation. As the construction work progressed, the contractor, without understanding the whole picture, made many bad construction decisions that changed the whole concept and integrity of the finished product. How did this process and my relationship go astray? I soon found out that the contractor bad mouthed me and questioned my design and detailing to the owner. The contractor tried to convince the homeowner that architects are excess baggage and that architects create an adversarial relationship in the construction process resulting in unnecessary work. They also tried to convince the homeowner that they knew more about construction and design detailing than I did.

John Rusk in his book, *On Time and On Budget*, states "If there is no line of communication between the contractor and the architect, the job might stay on schedule but you'll get the contractor's quickest and cheapest alternative. Of course there is nothing wrong with cheap simple alternatives, but it's the architect's job to see that there is a cost savings, and that the change does not interfere with the rest of the picture."

One local wanna-be-architect design/build contractor routinely used photos of different architects' work in his ads with quotes like "there's a certain slant of light on autumn after-

noons" by Emily Dickinson. He gave credit to the poet but not the architect, making it look like he designed and built these projects.

Architects should inform the contractor that there are copyright laws to protect architects. If they don't want their projects used without receiving credit, they should work out an agreement with the contractor or legally stop him. State licensing boards are also an avenue for possible solutions.

Many times a contractor gets the owner to agree to changes for the contractor's convenience, even if these changes harm the design. He presents these changes to the owner with a promise to provide a cost cut or an assurance that they're better materials.

**My firm's specifications state, "any and all discussions between Owner and Contractor regarding construction methods and or design changes shall not be binding until authorized by the Architect. All non-authorized decisions between Owner and Contractor shall be considered the responsibility of the contractor."**

Wanna-be-architect contractors want to redesign the whole project even after the concepts have gone through schematic design, contract documents, and bidding. Often, in order to gain control, the contractor takes the owner aside and creates an adversarial atmosphere as he criticizes the architect's details and design. One of the bidders for a custom home we recently designed actually had a line item in their bid for "redesign of the project."

Any change is interwoven with numerous decisions made during the design and contract drawing stages. Consider how many times have we had to redo our work as we try to recall the path of decisions made as

a design is put down on paper. There are contractors who would like to do their work answering only to the homeowner. But, the finished work represented in buildable drawings is like a fragile ecosystem of dimensions and critical relationships that an owner cannot fully understand.

I did a schematic design for a client with the understanding that construction documents were needed. I did not hear from them for quite some time. When I did start calling they did not return my calls. A year later, while driving by the house, I saw that the addition had been built! They had approached a contractor who had done some handyman work for them in the past, gotten a permit, and done the work. I've been afraid to see the results.

I recently read a "design tip" in a local newspaper. A couple needed an addition to their house. They had approached several builders, none could figure out how to make the addition work. They were advised to find an architect. The architect understood their needs and designed an addition with the outdoor feel they really wanted and couldn't explain.

For remodeling projects, you could advise a client to omit the architect if they know what they want and don't reconfiguring space—projects like replacing kitchen cabinetry, adding bookcases, or replacing windows. However, for more complex jobs like creating a master bedroom suite or closing in a garage to create a family room, it's wise to employ someone trained in design. It's also our moral responsibility to advise when our services are not really needed.

Ideally, I see the homeowner, architect, and contractor as a team, using each others' strengths and guiding the job with the intent of creating a beautiful project. A project of which every-

one can be proud. A project that looks great, meets budget, and is functional. In *On Time and On Budget*, John Rusk illustrates two scenarios: the Nightmare Renovation, and the Dream Project. The examples above illustrate the former. If the architect could produce good documentation, develop good communication, foster trust in all parties, and educate the client on the team concept, we would have more dream projects. When the contractor is allowed to control the writing of the specifications and the contract, I get fed up, as do the architects who write me.

**A proper contract is a start in developing a dream team. The contract should support a team effort by being fair to all parties, carefully listing the responsibilities of each party, and providing a method to resolve construction problems. This method of conflict resolution should be one that has been tested extensively in the courts. The AIA Owner/Contractor contract agreements have been endorsed by the Council of General Contractors. These should be the documents of choice and should be enforced.**

It helps to work with contractors we have worked with before and trust. But when expanding our bid list, we need to communicate what is expected of contractors, and what to expect from architects and the owner in order to create a dream team.

## It's Common Sense: An Editorial

### Four walls do not make a home

In the past, Texas has been referred to as the wide-open spaces with lots of elbowroom and an independent grit. Here we have always prided ourselves on our advocacy of home ownership for all income levels. In difficult political days, the fact that most everyone owned their own kept us from exploding in hate riots and spared us the degeneration of our city government infrastructure. Yes, we were part of the urban sprawl that is so severely criticized today. Today, the powers to be of Houston recognize the future implications to both the tax base and the cost of city services. Today, our community is promoting the concept of revitalizing and rebuilding the downtown and near downtown neighborhoods. Yes, I know that this has been going on throughout the United States. For Texas, this is a totally different mindset. Either older buildings are being torn down and new ones erected, or older buildings are being reused, revamped, and revised. There is so much construction that the legislature wants to change the state bird from the mockingbird to the crane. Never, in my wildest dreams would I have imagined the popular acceptance of New York City type lofts. Our downtown was never a popular evening celebration or jubilee until now. We lived by the availability of air conditioning, a reliable car, and a comfortable space between our neighbors. Well that was yesterday. Today we are almost like any other city in the U.S., giving up personal liberties for security and expedience.

Somewhere I read that today's culture is controlled by a penitentiary mentality and I agree. We try to find a safe

neighborhood, a safe school for our children, a walled in development, burglar bars on windows and doors, a security system in the home, and worst of all, a gun in the house. To many this is called progress. This SPF report is devoted to the physical renovation of residences. Our authors have again provided excellent insight into the process and complications of providing responsible service, as well as tips to make you a successful architect and planner.

What are our higher responsibilities to our clients, to our neighborhoods, to our community in establishing civility by design? What is the cause of all the crime we fear and what can we do about it? I need answers.

*Hy Applebaum, AIA  
1999 SPF Chair*

## Director's Note

As part of an ongoing effort to assist small project practitioners, the PIA will be digitizing and making web-accessible all previous SPF reports and convention reports. This new online resource will be tied to the Architect's Handbook of Professional Practice (HPP) via subject headings. The tie to the handbook headings will allow for quick searches by issue. It is hoped that this project will be completed by the end of the calendar year.

There was a 2% return rate for the survey in Report 15. Although no hard conclusions can be drawn from this level of return, I thought you might be interested in the distribution of responses. No one indicated a desire to receive the Report via fax, 4 % via the Internet, 17% via email, and 79% via the existing printed format. The Advisory Group will use this information in upcoming discussions regarding the SPF Report series.



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Restoration projects involving historic house museums have a very different set of objectives. First, there is the interpretative period of the house. Buildings that are being interpreted to a specific date or period necessitate an understanding of that particular building, its history of previous repairs and alterations, and the interpretation plan developed by the historic site management. Unfortunately, many times this information is incomplete or vague.

## Some Thoughts on Historic House Museum Restoration Projects

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Small and even one-person practices may have a specialization, especially if they are not tied to a small locale for their work base. As a sole practitioner, I specialize in historic preservation projects and frequently work with small historic house museums. While I travel widely around the Southeast, and sometimes beyond, providing preservation consulting services such as condition assessments, feasibility studies, master plans, historic structures reports, and the like, my full-service architectural practice remains preservation-based and within the one state in which I am licensed. Overall, this provides me with a very satisfying and interesting range of project

types—my practice has never been dull in thirteen years.

Projects involving the restoration or maintenance of historic house museums bring with them a unique set of issues and restrictions not typically encountered in new building projects. Unlike when one is designing a new structure and the page is blank at the start, the historic house already exists. This is not a building type that lends itself to the strong-minded designer since one's architectural design ego must make way for that of the original builder/designer.

House museum restorations go beyond the guidelines for rehabilitation established in the *Secretary of Interior's Standards*. Neither are they investment tax credit projects. They are, however, more precise and demanding projects in terms of what can and cannot be done to the building to achieve the restoration program's objectives.

Often the client does not have a well-defined interpretation for the house nor any particular program for the restoration of the house other than to deal with years of deferred (read no) maintenance. Rarely has a Historic Structures Report (HSR) been completed. An HSR studies the house's design, its evolution, and its current physical condition. In addition, the HSR would normally set forth the programmatic issues to be addressed and the design parameters to be followed in the restoration process.

Working with historic structures requires familiarity and experience with historic design concepts, building materials, and methods of construction—topics rarely addressed at architectural schools. Having an understanding of historic detailing, as well as the properties and deterioration characteristics of historic building materials, will help to prevent inappropriate or unnecessary repairs to, or the

## PHOTOGRAPH CAPTIONS:

1. James K. Polk Historic Site, Sisters House Restoration (Columbia, TN)—major alterations to the house had occurred over the years and the porch connecting the main house with the kitchen wing incorporated several periods of changes. Even though the Sisters House functioned as the offices and interpretive center for the site, the project had to be planned around its eventual conversion into a house museum.

2. James K. Polk Historic Site, Sisters House Restoration—The final project included extensive cleaning, pointing, repair, and repainting of the exterior masonry. In addition, a new standing seam copper roof was installed matching the historic staggered pan system standing and flat seam system typically found in the area. The public restrooms, located on the first floor of the kitchen wing, were completely redone and reoriented from the interior to provide exterior access. Handicap access was provided by a simple grade modification raising one of the brick garden paths up to meet the side porch level.

3. Cordell Hull Birthplace Historic Site—Reassembly of the two pen log structure necessitated the complete rebuilding of only the rear stone chimney as part of the two log pens inappropriately butted together in 1957.

4. Cordell Hull Birthplace Historic Site—The two pen reconstruction nearing completion.

loss of, historic materials. While this is particularly important in a restoration process, it is certainly significant in achieving a successful adaptive reuse project if the historic building is to retain its historic integrity.

The typical architectural design process needs to be modified somewhat to suit the particular needs and requirements of an historic house museum restoration project. This begins with the Programming Phase, where the architect and the client work together to set the design parameters for the project. In addition to the typical and significant issue of the budget (never sufficient), the discussion usually focuses on the physical condition problems of the house, possibly the need to remove or deal with in some way later alterations and additions, and the specifics of upgrading the house's mechanical systems. This is also the point at which the architect needs to determine what type of documentation exists for the structure. If you are lucky, there may be existing floor plans and possibly historic photographs. However, elevation drawings rarely exist and the architect should never expect to find detailing of any type showing how the structure has been constructed. Generally, existing physical documentation is usually scarce or non-existent.

The Schematic Design Phase typically involves an on-site physical condition assessment of the house, noting the various deterioration problems and their extent. It is also during this phase that a determination needs to be made of the type and extent of later additions and alterations, some or all of which may need to be either corrected or removed. This is also the point during which the architect becomes more conversant with the overall design and detailing of the structure. It is at this

point that the architect needs to begin dealing with the issue of repair versus replacement of materials noted during the condition assessment.

This phase also usually includes doing measured drawings of the floor plans, and sometimes elevations or sections. Good perspective-corrected elevation photographs can be used as a substitute for drawn elevations, using them to show locations of detail photographs and other information. The elevation photographs can also be used to define specific areas showing the location and extent of repair or replacement required.

A major component of the Design Development Phase involves the evaluation of the type and nature of repairs and replacements. Evaluating existing conditions to determine when and if to repair or the extent of replacement of severely deteriorated materials is one of the most challenging issues. With historic structures the preservation and retention of original materials and detailing is essential. A major concern will be how to match historic construction techniques and where to find materials to match the original materials when replacement is required. Fortunately, preservation has come into its own and is no longer a foreign idea. There are numerous technical publications such as the *Preservation Brief* series published by the National Park Service, [www2.cr.nps.gov.tps.briefs/presbhom.htm](http://www2.cr.nps.gov.tps.briefs/presbhom.htm), as well as books, articles, and magazines. One, *Traditional Building Magazine*, [www.traditional-building.com](http://www.traditional-building.com), regularly publishes various lists of suppliers and manufacturers of various building products for restoration and renovation projects. (I regularly reduce these to an 8½ x 11 format and save them in a three-ring binder that is organized by specification division

for ready reference and updating as new lists are published).

Careful documentation of existing-condition problems is essential to being able to define the extent of repair or replacement of historic materials. Photographs are very useful in defining both the extents of existing condition problems as well as other unique problems. A combination of well-written captions and the use of annotations on the photos themselves help to clarify both the intent and extent of the contractor's work.

Other issues that will be addressed include relevant life safety and fire code requirements and handicap accessibility issues. These will be very specific to the individual building and their impact can vary greatly. With respect to accessibility, it is frequently impossible to make an historic house readily or completely accessible without significantly adversely impacting the historic design, and the site will often need to develop alternative methods of interpreting the house to these visitors. This usually takes the form of special exhibits or videos showing illustrations and interpreting those parts of the structure that remain inaccessible to handicapped visitors.

Another issue that should be taken into consideration is the need for an archaeological assessment, or providing for archaeological monitoring if any sub-surface work is to be undertaken. The importance of information or artifacts that might be recovered from builder's trenches and potential sub-surface deposits cannot be overestimated. This material could be of vital importance to the development of site interpretation and understanding.

The Construction Document Phase is perhaps the place where I've made the most significant changes in how I organize my construction documents

in the project manual. The specifications for restoration and adaptive-reuse projects are generally more closely related to the mechanics of constructing the project since special materials, procedures, and precautions are far more typical on this type of project. In order to encourage the reading of the specifications and, hopefully, the developing of a closer tie between the specifications, the drawings, and other graphic materials, all graphic materials—drawings, details, photographs—are included in my project manual. The standard 8½ x 11 format is used, with larger graphic materials being laid out on 11 x 17 size sheets folded back into the manual. The generally small scale of historic houses means that floor plans will normally fit this format at ¼" scale. Drawings for larger structures can be reduced to 1/8" because the floor plans are more typically used for referencing specific areas of work.

Photographs typically take the place of elevation drawings and these are used both to reference detail photographs of areas requiring specific repair or replacement work as well as larger general areas of work (such as repointing or replacement of siding). Whenever possible, I place any details that need to be included into the section of the specifications to which they relate (i.e. roofing, flashing, masonry). The incorporation of drawings, details, and photos into the project manual does require a good cross-reference system for the contractor to be able to find and use them.

How do contractors react to not having a separate set of drawings? The first time around, neither they nor the code officials quite knew what to do. Overall, the contractor response has been highly favorable and the contractors and subcontractors quickly, and

easily, carry around one small book with everything, rather than only the drawings.

Bidding and negotiations require, as you would expect, every contractor (or subcontractor) to be familiar with or suited to restoration work—but some will bid the project anyway. The best of all worlds is to have a client who can interview and select a contractor to work with early on in the project, in a negotiated, or a cost-plus type agreement. This is a much more workable and appropriate format for restoration projects because you can depend on unforeseen conditions and change orders (take care to educate your client on these issues).

However, if you must use a bid process, there is often some flexibility in pre-qualifying contractors. The *AIA Contractor's Qualification Statement* (A305) can be used, but it goes significantly beyond what I am typically interested in for restoration projects, i.e. a contractor's ability and experience with historic buildings and building materials. This form is easily edited to provide as much or as little as you feel is needed for your project. Those sections which would be of specific use in establishing qualifications would be 3.4 (for a list of major restoration projects), 3.5 (a list of similar projects in the past 5 years), and 3.6 (experience of essential individuals). These sections would address both the general as well as subcontractors in key areas such as historic masonry, log construction, or historic roofing materials. More than anything, this form might discourage inexperienced bidders from chasing the project. More typically, I use a series of forms I have developed for contractors and subs together with an evaluation matrix to establish a minimum level of experience and competence. This goes

in Division 0 of the specifications and is completed and submitted with the bid form.

The Construction Observation Phase demands more time and site visits than would typically be required for a new building. So, when submitting a proposal for this type of project, budget more time than normal for site visits, telephone calls, and meetings. This is actually the most enjoyable part of the project if you develop a good working relationship with the contractor and subcontractors. Hopefully, once the contract has been awarded and the successful contractor is someone with the requisite experience and familiarity with historic projects, teamwork for the benefit of the project should kick in.

Also, at most historic house museum sites, the site director, site staff, and even board members will often take a more active interest during this phase. Keep in mind, they will probably be there every day—looking, wondering, meddling, talking to the workmen, questioning something based on an article they have read, or who knows what. The contractor needs to know exactly who to go to with his questions and whom to listen to from the owner's side. You should have worked with your client to establish a clear path for communication and decision-making. This is essential during this critical phase of the project. The owner's representative should be a single, key person to whom you can bring problems and issues that come up during construction, and who will then go back to his committee, board, or whatever, for a decision.

In summary, what was intended as a brief series of thoughts on how I work with historic house restoration projects has grown beyond the short article I was charged to write. Once I put this down, I know that I will find plenty

of other questions to address and gaps that could have been filled or better explained. In any event, I look forward to comments from other architects based on their insight and experience.

## Residential Renovation: A Structural Designer's Perspective

*Jeff Gunnells*

Residential structural design provides the engineer an interesting diversion into wood and light-frame foundation design. Typically, it provides an opportunity for engineers and architects to move outside the box of traditional commercial design. Asymmetrical layouts, unique roofs, and special ceiling conditions are typical in residential construction, especially in large, custom homes. Since this is the case, the residential engineer expects (or should expect) to implement new and innovative solutions on each project.

For a structural designer, renovating an existing residence is even more demanding than creating a new one. As in commercial projects, what appears to be a minor modification may actually require major construction alterations to the existing structure. Consequently, renovation design requires an understanding of both contemporary and historical construction techniques and materials. Budgets are generally smaller and more limited than those of commercial projects. So any modifications, let alone major modifications, may be cost prohibitive. It becomes imperative that the design engineer be capable of identifying potential problems up front.

While engineers might lick their chops at the opportunity to flex their design muscles, owners might not feel so enthused. Looking past the excite-

ment of upgrading or refurbishing their home, they are daunted with the task of making several important decisions. Once the decisions are made and pen has been put to paper, they have to put up with weeks of noise, construction, and the angst of potential cost overruns and final project quality. Ever seen the film *The Money Pit* (Universal Studios, 1986)? This tongue-in-cheek portrayal of a couple performing their own renovations might be enlightening.

While we can't necessarily help the owners with the construction, we have identified a few points that might make their experience easier. Understanding these points might also help the architect during an initial meeting with the owners.

### **Identify someone to perform the structural design**

Depending on the area, an engineer's involvement in the structural design may be required. Most municipalities or other governing entities in hurricane prone areas are now adopting regulations that require an engineer's seal on residential drawings. In any case, the individual performing the framing design should be experienced with wood and the construction techniques associated with wood. He should also be familiar with applicable code requirements and regulations in the region. If the foundation is being designed separately from the framing, the foundation designer should be experienced with residential foundations and familiar with the type of foundations predominant in the locale of the project.

### **Locate and obtain copies of any existing drawings of the residence**

It is important for the architect/designer to be familiar with the existing

structure. Existing drawings, either structural or architectural, provide the designer with invaluable information. If the owners do not have a copy of the structural drawings, they may be able to obtain a copy through the city's building department. Depending on the municipality and the age of the house, there is a possibility that the city required a submittal of the structural drawings and maintained them over the years. Obtaining a copy of the drawings in this manner might require a little legwork, but in the end, would be worth the effort.

#### **Expect the structural engineer to perform a field review of the proposed renovation**

Performing a field review is recommended in any case and is imperative when drawings of the existing structure are not available. Without drawings, the structural designer should attempt to identify the existing foundation system, either through minor excavation or probing. He should be as thorough as necessary to make an assessment on the foundation's performance. If the engineer observes cracking, he probably won't recommend using the same foundation system for the renovation. At the very least, he would modify the construction requirements to improve foundation performance in the area of the proposed renovation. Repair of the existing foundation would be another story altogether. The engineer may also wish to review the attic area to make determinations on existing framing.

#### **Upon review of the structure, the engineer may recommend alterations to the existing structure**

This is typical with older homes, built when code requirements and local regulations weren't as stringent.

This is also common in second floor renovations, when loads are redistributed through the existing structure. In some cases, the builder may have to break through the existing foundation to install footings to accommodate the new loads.

#### **The engineer may request a soil test**

If existing drawings are not available, or if the existing foundation was determined to be inadequate, a soil test may be performed. Depending on the area, soil sampling and reporting may cost as much as the design fees. However, the cost of a soil test is minimal in comparison to the cost of repairing a failed foundation.

#### **The structural designer should issue final drawings once his design is complete**

Structural drawings should clearly present typical structural considerations, along with details, outlining any special structural conditions associated with the renovation. It is recommended that these drawings be used in concert with the architectural drawings. In addition, if possible, the drawings should be sealed by the engineer.

#### **Request the engineer to perform a final review of the structure once construction is complete**

A final review of the structure should be performed once the structure is erected and the mechanical, electrical, and plumbing components have been installed. The engineer should present the architect with a list of observations in a timely manner. A follow-up review should be performed if any major deficiencies were noted during the first review. The engineer should be expected to submit a completion letter once his review is complete.

While wood is currently the material of choice in residential framing, more and more homes are being framed with steel and concrete. Concrete is especially beneficial for its insulation properties, while concrete and steel are used in hurricane areas for their strength characteristics. These materials are potentially as cost effective as wood, especially when assessed over a period of years. However, locating a residential builder with concrete and steel experience may be difficult. Who knows, a house made of advanced plastic composites may be in our future; a 25-foot-long, 26-foot-wide, plastic bridge, supported by steel columns, already exists in Fort Leonard Wood, Missouri. For now, locating a builder and designer with experience in wood will help with today's residential renovation.

If the architect will remember the following points, he should have a successful project.

- Experience is essential; paying a little more for someone who has been around for awhile will cost less in the long run.
- Preparation is necessary; use all available resources, including the city.
- Expect the unexpected; what appears to be simple may very well be complicated.
- Use comprehensive, quality drawings; the completeness and quality of the drawings usually sets the tone for the project.
- Try to keep the structural designer as involved as possible; the structural designer can help ensure final quality of the project.

Understanding and implementing these points should make for a cleaner renovation.

*The author, Jeff Gunnells, has ten years of experience designing and managing, small scale and large scale engineering projects. Please do not hesitate to email any comments regarding this article to [article996199@aol.com](mailto:article996199@aol.com).*

## Residential Design Consultations: From Free Interview to Paid Work

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### There had to be a better way

For years, I gave away design services under the guise of an “interview.” The scenario is familiar to many, especially to those who deal with clients unfamiliar with what an architect does:

“I want to renovate my home and am thinking of hiring an architect. I have never worked with an architect before. Can you come to my home and talk with me?”

“Absolutely,” I’d say ego-stroked that they would consider me as their architect. During the interview, which sometimes lasted two or more hours, the potential client and I would enthusiastically explore the possibilities of the existing house. When things seemed to be going particularly well, I would pencil a quick sketch or two. These visual aids would help the client understand generally how an addition might look. Later, I would discuss the process and the charges for my services. By this time in the interview, I assumed that their decision to hire me would soon follow.

Again and again, I found that while the interviewers were happy with my

ideas, they didn’t necessarily follow up with a contract. I had made a great impression, but I would find that I had not made a sale. Many times, I’d drive by the site only to see the concepts or ideas I delivered under construction. What this proved to me was that with small or uncomplicated renovations, a couple of hours were all the homeowner needed from an architect. Given sound concepts for a solution, they came forth with confidence and engaged a skilled contractor to complete the project.

Meeting my firm’s mission to make good architectural design available to the enormous residential market meant keeping this service available. However, my family’s need to eat meant charging a fee to cover my time.

I soon began experimenting with clients and assessing an hourly fee that could be applied to a percentage contract on future services. I discovered that charging a fee had many positive effects. Learning of the fee filtered out curiosity calls in favor of serious remodeling clients. In addition, clients who paid a fee valued the information and service more.

Then in 1997, I attended an “Architects and Income” workshop by Fred Stitt of *Guidelines*. At this workshop, I found that my experience was part of a national trend applicable to numerous segments of the architectural services market. Among other valuable suggestions, Stitt encouraged those of us interested in doing design consultations to create a tri-fold brochure.

Developing a design consultation brochure launched a standardization of my consulting process. I had to define my market and their needs, what they should expect, what I could provide as deliverables, how the client could maximize the benefit of the consulta-

tion, the price of the service, and what other information would be valuable in helping the client decide whether to hire us.

The design consultation brochure is the frontline of our client outreach. These tri-fold pamphlets are always available in our reception area. We mail or fax them to each residential remodeling inquirer. The content of the brochure is the script for potential client calls to the office. This allows anyone in the office to answer initial telephone calls, and frees up my time. Friends, realtors, current clients readily hand these out to anyone considering a renovation or addition. Contractors also share this information when contacted directly by remodeling clients who need guidance or expertise. Contractors refer many of our new clients.

Our design consultation brochure is a low-tech creation printed on second sheets of our stationery using our word processing program. Our brochure contains the following elements:

1. Definition of a design consultation and an explanation of what clients may expect from the service.
2. Advanced homework assignments for the client. We list the items that the homeowner can acquire to maximize the quality and value of the consultation. This list includes creating or acquiring such items as a site plan or survey, copy machine enlarged photographs of the exterior, subdivision restrictions, floor plans, and a magazine clipping file with sticky notes identifying and articulating just what it is in the photo that appeals to them.
3. Clear statement of cost. We list a flat fee for a specified amount of consulting time, including the report. This fee is currently a

multiple of our standard hourly rates and is not applied to future services. Additional time is offered at our standard hourly rates.

4. Assurance of satisfaction. If the client is not satisfied with the consultation for whatever reason during the first hour, they may stop the service at that time without charge.
5. Firm description and short bio on the consultant. Over 90 percent of our consultations are referrals based only on our reputation. This section gives the client facts that support our hard-earned reputation. We also include a statement inviting potential clients to visit our office during office hours to view notebooks featuring selected before and after photographs, as well as magazine and newspaper articles on the firm's work and staff.
6. Firm logo, address, phone numbers, email address, and members.

A design consultation is now the first step for all residential renovation clients. The standard design consultation is aimed primarily at clients considering an addition or renovation to their home. The consultation is quite literally a "house call." I visit the client's home, discuss and sketch possibilities, and answer basic questions about costs and construction alternatives for various home improvements. Together with the client, we explore the placement of a needed expansion, re-sculpt awkward facades, correct balance and composition, or add visual interest. During a design consultation, we can even recommend how to avoid the common mistakes made with additions and renovations.

Most conceptual possibilities are explored during the design consultation. Depending on the project's

complexity and the available documentation, some consultations may take longer than the average two hours. After the consultation, a brief report is prepared of the results and ideas generated during the visit.

We make it clear that the consultation is a stand-alone service and does not retain our firm for the duration of the client's particular project.

The demand for design consultations continues to increase. We have had a request for design consultation gift certificates. Last year, our office conducted over 66 consultations. This year, we control or limit the number of consultations to manage the workflow in our office. Consultations are scheduled for certain days of the week, in the late afternoon. This period allows the regular daily work of architecture to continue uninterrupted and minimizes the chance of emergency pages from the office or contractors. It also allows for completion of the consultation in time for a late supper just before my children's story time.

**Conducting design consultations is obviously not for every architect. This service is not for architects who have yet to develop a specific expertise or who are contemplative and prefer to take in information and go back to the client at a later time. This process is for architects who enjoy maximum client interaction and are comfortable thinking on their feet. It is also for architects who have developed an expertise in local construction codes, costs, and issues relating to a majority of their consultation clients.**

For our firm, residential design consulting services is a better way.

## Tip: Using Software for Energy Analysis

*Eugene M. Hollander, AIA  
AIA Connecticut*

There is a terrific new tool out there for architects doing it all by themselves and short on hours in the day. It is software designed to help with building energy analysis from schematic design through contract documents. As building codes require energy consumption analysis on even the smallest structure, small project practitioners are under fire to provide this kind of engineering without the accompanying consultant's fee. Enter the Building Design Advisor (BDA). Developed by the Lawrence Berkeley National Lab, BDA is a sophisticated database built around an object oriented representation of a building. The graphic user interface (GUI) makes it quite easy to model various scenarios. The simulations provide all the needed HL/HG calculations, all without the labor of running the numbers.

There are two components of the interface, "The Building Browser" and "Decision Desktop." The initial version of BDA (1.0) is linked to Delight, a simplified day lighting analysis model as well as to RESEGY, a simplified energy analysis model. Future components will address Radiance (daylighting and rendering) and COMIS (indoor air flow and indoor air quality), cost estimating, environmental impact models, building rating systems, and CAD.

I saved the best for last! This sophisticated design tool is absolutely free! What took years of research and development and tons of taxpayer dollars to create is now sitting, waiting to be used. And used it is. On my last visit, some 5000 plus visitors had looked at the site where the software

can be quickly downloaded.

I can not imagine another situation in the construction industry where our national tax dollars have gone to fund research resulting in productivity tools to assist us in our work. It happens all the time in other industries, so perhaps it's about time for us. Anyway, go immediately to <http://kmp.lbl.gov/BDA/bdainfo.htm> and profit!

## Using the Internet to Communicate with Clients

*Daniel J. Jansenson, AIA  
AIA Los Angeles*

Most of my residential clients have access to the Internet. They seem to be knowledgeable enough to access the Web, and, indeed, often require their remodeling projects to include home offices incorporating computers.

I use a CAD program (VectorWorks) that allows me to create photo-realistic renderings and it is easy to save these images in a form that can be placed on the Web. Since my clients and projects are often located at a great distance from my office, the use of the Internet, and specifically the World Wide Web, has become an essential tool for communicating design concepts and transmitting information to clients. They seem to enjoy finding their project published on the Internet, and they like copying the images and printing them on their own printers. It is quite simple and very inexpensive to place the images on the Internet, and since they are available to clients quickly (and available for viewing around-the-clock) they can respond sooner to design-related issues and questions, especially when photo-realistic perspective drawings are combined with plans. There is no substitution for

face-to-face meetings, of course, but the use of this method as an additional tool has given my clients a greater sense of involvement and control in the projects, and significantly raised their level of understanding and satisfaction. They will often give the Web page addresses to their friends to show them the project design, which helps with the firm's publicity efforts.

Here is a brief summary of how it works in my small firm—it isn't necessarily the best process, and I'm always looking for better ways of doing things.

### 1. Creating the Drawings

VectorWorks, like some other CAD programs, allows me to create rendered images and save them in an image format that can be viewed in any Web browser. After creating a design and rendering it, I export the image (or as Hy Applebaum calls it, the picture) and sometimes touch it up using graphics software (such as Photoshop). After adding some plants, or changing the contrast a bit, I end up with one or more electronic images that will be incorporated into a simple Web page.

### 2. Creating a Web Page

There are several programs that help you create and publish a Web page with a minimum of difficulty; I use Claris Home Page. On the screen, it looks similar to a word processing program; you can type text, insert images, and generally create an attractive presentation for viewing with a Web browser. I strive for simplicity—no fancy flashing words, animated features, jumping buttons, elaborate databases or the like, since the purpose is to make the information available to clients quickly and with a minimum of fuss. Once I have created the

page and viewed it using Netscape and Internet Explorer (and made the inevitable adjustments such as image size and letter size) it is saved in a special folder for easy retrieval, along with all the associated images.

### 3. Publishing on the Internet

Most Internet service providers allow their customers to store Web pages on their computers and have detailed instructions that describe the process. I use America Online (AOL), whose method is extremely easy and straightforward. With AOL, once connected, you type command (or control K). This is the shortcut for MyPlace, the AOL Web server location, and you then follow the instructions to create a place on their computer for your files. You then proceed to send your Web page files and images electronically into that folder, following their step-by-step instructions. The process takes a bit of time, but once it has been completed, the Web page is available for viewing by anybody with access to a computer with an Internet connection. A Web page containing six or seven large images takes about 15 minutes to send to the Internet service provider; it's really quite straightforward once you've done it once or twice. Once the Web page with your images has been created, it will have an Internet address (the infamous <http://...>) that you give to anybody who wants to see the images on their computer.

Over time, I have discovered that this method can be used to transmit not only images of the design work, but also other types of project information that can be useful to members of the project team (if your fellow team

members have Internet access, of course). This information can include: address, maps and driving directions, a project consultant list, or anything else you find helpful at the beginning of a project.

These are the kinds of pages that have worked for my firm:

### 1. Design Progress Drawings

Use color perspective drawings of the interior and exterior of the project. This, obviously, helps clients who have difficulties visualizing spaces when looking at plans. The great advantage of the Web, in this case, is the ease of preparing and distributing images: no need for expensive color reproductions, as they are viewed on a computer screen. An example of this kind of Web page can be seen at <http://members.aol.com/danielj101/BeanHollow/bh.html>. An interior view, along with floor plans, can be seen at <http://members.aol.com/danjan4044/raymondcloset/rayclos.htm>.

### 2. Floor Plans

My firm usually prepares design floor plans in color to help clients understand the arrangement of spaces. Although it often does not look very architectural to an architect, clients often appreciate the ability to quickly understand a simplified floor plan, especially when it looks visually similar (in color and layout) to plans that appear in the popular magazines they read so avidly. An example of this kind of image can be seen at <http://members.aol.com/djansenson/garage/gar.htm>.

### 3. Project Newsletter

A simple newsletter that conveys developments in the project really helps involve the clients. Any piece

of information will do, no matter how small. The date when the plans were submitted to the planning department, a phone call placed to a consultant—no matter the information, placing it on the Internet adds great interest and effectively conveys a sense of progress and accomplishment. In addition, by regularly publishing such a newsletter, the firm compiles an archive of project milestones and events that can be reviewed by clients (and other team members) at any time throughout the project. One great advantage of placing it on the Web is the ability to create links to other information: for example, a directory of project consultants, or the Web pages of product suppliers and vendors. In other words, the newsletter can become a central location for the distribution of project information to clients, which is often very highly appreciated. An example of such a newsletter can be seen at: <http://members.aol.com/modglin101/bhnews/bhnews51.htm>

### 4. Contact Gateway

We're just beginning to experiment with this one. A simple gateway Web page is a first point of contact for service vendors and suppliers seeking to participate in the project. It also serves as a location where participants in the project can retrieve files and information. Although service providers and contractors often do not have access to the Internet, an increasing number do, and the expectation is that such a Web page will help distribute information during the bidding process and later. Such a page (experimental at this stage) can be seen at <http://members.aol.com/danjanarch/bhproject/bhinfo4.htm>.

## Conclusion

Using the the Internet to communicate with your clients can be extremely beneficial in keeping the clients involved and making information available to all members of a project team. It helps give clients a sense of empowerment, and spreads the word about your firm's work. The process is quite simple and straightforward, and you do *not* have to be a computer geek to use this technique. Although it may take a bit of effort the first time, a project Web page can quickly become an inexpensive and indispensable tool in the small project architect's arsenal.

This article has been placed on the Internet, complete with quick links to the Web pages mentioned. You can view it at <http://members.aol.com/djansenson/spf.htm>.

## The Residential Paradox

*Lisa K. Stacholy, AIA  
AIA Atlanta*

Residential project are most intriguing things. They are very alluring when the right client asks wonderfully open-ended questions that lead to discovery. They are very difficult when the wish list far outpaces the allotted budget. They are also puzzling, when confronted with the almost 3-dimensional constraints of ordinances (zoning, restrictive covenants), functionality (existing conditions versus new program), and client comprehension, over time.

We tend to view residential projects as fantastic opportunities to experiment with (on smaller scale than our commercial projects) new materials, combinations, and usage while stretching available resources to gain the maximum output and reminding ourselves how precious it is to help our clients create their definition of the

future. These projects are a fun challenge and offer both great diversions from the tedium of commercial architecture and reminders of how to take good care of our commercial clients. The most important factor for us, however, is the communication required for successful projects. For us, it appears that there are five main tenets of how to approach the residential client.

**Recognize** that people have their own definitions of “home.” Learn the client’s version.

**Realize** that residential clients often have specific budgets with little contingency and definite expectations of the goals (after all, it’s a castle and our clients are embarking on a journey).

**Remember** that “Listening 101” and “Deciphering 102” were college courses that you wish you could have taken, where 101 covered how to hear what is said and 102 covered how to read between the lines.

**Experience it.** Next time work is slow in the office, take on a renovation project in your own home that can’t be finished in a weekend—live without water in your kitchen to appreciate what the clients is facing. Acknowledge that the benefit of education helps in understanding the process behind the machine of renovation, other times just “hang on.”

**Figure out** how to convey this to the client. Pieces of the puzzle and elements of the image are collected and assembled to create an understanding of the object. For example, the mechanism by which our clients comprehend the process of design and construction is similar to explaining the concept of “the dark” to Serina, our 4-year-old

daughter. It is easy to explain the dark to her, quite another when she is confronted by all of the unknowns in “the dark” at 4 a.m. However, the demystification begins when she thinks of the four-watt nightlight as similar to twinkle stars in the sky. Experiment and don’t be afraid to try a new idea, means or method.

We’ve found that using these five points (and variations thereof) sets up the scene for the best possible outcome. At initial contact, we try to start “filling in the blanks” of how we can best serve this particular client. At the consultation meeting, we present an overview of the process and how the architect’s work is woven into it. In the proposal, we describe (as clearly and concisely as possible) the general process of their project. We provide periodic status reports to the client, providing necessary details and if/then analysis. These reports aren’t tied to the calendar, but rather the progress of design and construction and the client’s perception thereof. We try to be as available as time permits to help our clients feel as comfortable as possible. We don’t take ourselves too seriously and we help our clients to remember to have fun in the process. It is really a journey that is well worth taking!

## Specifications for Residential Remodeling

*Buz Groshong*  
*Arcom MASTERSPEC*

Whenever construction or repair work is required for an existing residence, the contractor and the owner often inconvenience each other. This can lead to innumerable opportunities for disagreement, and the architect is usually caught in the middle. While most

owners and contractors expect a certain amount of inconvenience with this type of project, Division 1 specification sections can help clarify these situations and hopefully head off some of the potential disputes.

Section 01100, “Summary” should spell out limitations on the contractor’s use of the premises, such as designation of work and storage areas, work hours, daily clean-up requirements, limits on utility outages, and a requirement for reasonable notice for such outages. Requirements for providing temporary toilets, if needed, waste collection and disposal, and temporary heat should be included in Section 01500, “Temporary Facilities and Controls.” Requirements for protection of existing facilities should also be spelled out in detail, either in the individual sections where the work requiring protection is specified, or in Division 1. It could also be advantageous to put the contractor on notice in Section 01200, “Price and Payment Procedures” that money will be withheld from payments to cover the cost of clean-up and repairs of consequential damage if not done at the time of requests for payment.

Refinishing of surfaces that must be cut and patched is another area that must be spelled out clearly. Is the contractor required to paint the patched area? the whole wall? or the entire room? For surfaces that cannot be cut and patched successfully, the extent of removal and replacement should be similarly specified. If the requirements are put in writing, both the contractor and the owner will know what is expected. Section 09910, “Painting” needs to be modified to indicate the extent of painting required. The usual statement “Paint all exposed surfaces, unless otherwise indicated,” should be modified by adding the word “new”

and additional statements will have to be added to indicate which existing surfaces, if any, require painting.

Since communication is vital to minimizing problems, don't just include these items in the specifications. Discuss them with the owner and, if necessary, with the contractor as well.

## Firm Profile: Becker Architects

*Diana K. Melichar, AIA*  
*AIA Chicago*

Becker Architects began with one small project and some confirmed convictions about design. The firm has grown consistently through recession as well as construction boom. They have won numerous awards, have been featured in many architectural periodicals, and are highly sought by clientele. Their firm presently consists of seven members, with a dozen projects on the boards or in construction, with a dollar value exceeding \$5 million. How did they become a success story? Richard claims three ingredients for their success: quality design, exceptional service, and creative marketing.

A husband and wife team, Richard and Nancy Becker met in architecture school at Syracuse University. Each of them worked in separate Manhattan architectural firms before deciding that with several projects in hand, they were ready to establish their own firm. They made a conscious choice to create "whole environments"—planning, architecture and interiors—for their clients. Although Richard and Nancy knew that they would have fewer jobs, each job would be more comprehensive. By being selective with their commissions, Richard and Nancy were able to incrementally build their pro-

fessional reputation, one job at a time.

Quality design requires quality documentation in order to control the final outcome of construction. Highly detailed sets of contract documents are created in a collaborative atmosphere in their office. All team members are experienced designers and architects that work in an open studio arrangement. Each member shares his or her specialties, and they are critiqued in each design project.

Richard believes that this enriching exchange of ideas creates consistency from project to project.

Exceptional service is the second ingredient of Becker Architects' success. Richard's motto: "kill the client with service." Although his firm has been successful over the years, it hasn't always been easy. In order to weather the economic storms, and relocations (Richard and Nancy moved their practice from New York City to her hometown in 1989 to raise their five children), Richard and Nancy had to pay their dues several times over.

How did they get repeat clients and high quality work? "We convinced our clients of our worth," says Nancy. "Part of the design and construction process is educating the client about how the process works, and how we help clients to achieve their goals.



Top: Rosen Honda; Bottom: Perfection Machinery

This requires a lot of support and extra service on our part."

Richard admits that when they moved back to the Midwest, that clients were more conservative, cautious, and restrained than their Manhattan counterparts. "We went on a lot of interviews in the early days. Clients didn't see the value of high quality design or construction documents. We tried cutting our fees to get work, but in the end everything suffered, including us. We could barely break even."

Today Richard and Nancy have learned to select their clients carefully. "Long term client relationships are our goal," Nancy states. "The only way to achieve this end is to provide better service than other firms, and be rewarded for our efforts."

Long term client relationships



Residences in Highland Park, Ill.

include contractors as well. Richard described how some of their early Chicago commercial projects were automobile dealership designs for a design/builder whose office was located next door within the same building. “They had recently lost their in-house architect and were initially looking for a firm to simply produce builder’s documents, with little documentation. Over time, we were able to

convince the contractor, and the dealers as well, that it was to everyone’s advantage to spend more time on design and documentation.” In recent years this type of work has become a specialty niche and Becker Architects now contracts directly with a number of Chicago area auto dealers. Becker continues to work with that first design/builder and other contractors as well. Richard and Nancy Becker have worked hard to educate potential clients of their worth through some very creative marketing efforts. In order to keep their portfolio looking fresh, they try to professionally shoot at least two or three projects per year. Other activities to keep the firm visible include a Web-page, getting placed in local and national publica-

tions, volunteering residential projects for house walks, speaking locally at schools and seminars, and organizing educational programs at the local high school. The firm has also performed gratis services for local organizations such as their synagogue and the town’s historical society. Richard sits on a local historic preservation commission while Nancy is on the board of a local arts group.

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Another vehicle for raising firm awareness is their construction company, Becker Builders, which acquires infill lots and constructs new houses. In 1993, Richard created his first project in an established residential neighborhood. “So much of the spec housing we see is mediocre. We wanted to create a high-quality product in our own neighborhood,” Richard says. “We felt that we could create a well-constructed house and control costs at the same time, though for a small builder, this can be challenging. The profit potential is attractive as well since development fees can far exceed those you would earn as an architect.” This first project gave Becker Architects excellent visibility in the community where they live and practice. “We got a lot of referrals and interest from this project,” Nancy remarked. They are about to break ground on their fourth and fifth houses.

Becker Architects has also recently completed an eight-minute video that highlights a dozen recent residential projects. Nancy says that the video, which features on-camera testimonials, has been a great marketing tool. “We don’t have to knock on past clients’ doors anymore to show potential clients our completed work.” They can get a feel for our firm’s work from the comfort of their own living rooms. “We’re enthusiastic about our work,” Nancy says. “And we like to share that enthusiasm with our clients too.”

## Concealed Conditions: Open that Can of Worms

Laura Montllor, AIA  
AIA Long Island

Concealed conditions are the nightmare of any homeowner, the bane of the architect, and can make the contractor see dancing dollar signs. Renovation work on older houses is full of unexpected difficulties. In over 12 years of doing residential renovations, we have yet to build one job that did not hit a snag. On a few projects we've run into horrendous concealed conditions. Starting demolition of walls and ceilings is just like opening a can of worms. The following are a few ways to prepare for the unpredictable.

**Investigate thoroughly.** On Long Island, where 40% of houses were built before 1950, original construction plans are often unavailable. We are forced to guess about hidden elements and take hints about structure. We do an intensive investigation of the existing conditions and record them with several rolls of film. This includes getting into basement crawl spaces and cramped attics.

In addition, we advocate doing **exploratory surgery**. Poking holes in soffits can reveal plumbing lines, vents and the condition of wiring. By cutting openings in closet ceilings, we can detect joist sizes and direction. When we exposed one kitchen soffit from the 1930s, we found three-foot-long fence posts, painted, nailed, patched together, and used structurally as floor joists. Do not trust construction documents, since actual conditions may be very different. Details of a 1960's ranch showed a sound slab foundation design, but we saw some suspicious cracks. Our investigation revealed a three-inch slab with no reinforcing

and no footing in some spots.

Understandably, some clients are hesitant to begin this destruction. We explain it is the best way to expose concealed structural members and gain needed information.

### **Budget for maintenance items.**

Clients start projects with wonderful visions of their *new* room and often forget all about repairing other neglected parts of the house. It is easy for them to see the need for a new kitchen, but they can overlook replacing the tired 20-year-old roof. Maintenance is mundane, yet essential for a completely finished house. We recommend adding to the budget for repairs such as all new windows, replacement of rotting window sills, and repainting the entire interior. Preparing the owners in advance for these maintenance extras can avoid costly overruns.

Some concealed conditions are very hard to predict, such as deterioration from termite infestation or long term water damage. We propose a **contingency allowance** of 15 to 20 percent to cope with these truly unforeseen problems.

We also endorse only using contractors who are experienced with renovation work. The **experienced contractor** will anticipate running into some concealed conditions and will not need to charge extreme extras. The right contractor has the skill to make repairs and can often offer practical solutions.

The renovation market on the East coast is booming. We love the challenge of designing additions that respect the original house style and retain historical character. The architectural challenge far outweighs the risk of any unknown conditions.

**Assume nothing**, and open that can of worms while you can still make changes on paper.

## On the Other Hand...

Donald R. Wardlaw, AIA  
AIA East Bay

A new client recently hired me to continue a residential remodeling project begun by another architect. I take special care when a situation like that arises. After talking with the clients, I learned that the other architect, one I know of and who has a good reputation, was not the right architect for them. It looked like we could work together effectively, so I took the work.

The previous architect had taken the work only as far as an existing floor plan and a proposed floor plan. On my first working visit, I wanted to sit down with them and try to understand how they arrived at their plan. I wanted to know whether this scheme was meeting their objectives or whether some variation was needed. Therefore, I asked them, "What did some of the other alternatives look like?" Kind gazes and smiles. Then, "What other alternatives?"

An architect friend who does a lot of residential renovation called today and we talked a bit about the way we work. He had about had it with his CAD program (you know the one), and wanted to talk about different ways of working. He is working in a mixed environment where work starts out on computer and ends up partly hand drawn. (The worst-of-all-worlds, in my opinion.) We had different experiences with respect to the question of whether one can do more or less drawing on computer, than in pencil, in a given amount of time. He said it's hard to do many alternatives for clients in pencil because it takes too long to draw. He also said that years ago, he used to show clients many alternatives,

but found on occasion a client would choose an alternative of which he was not fond.

When I was in architecture school in the early 70s, the progressive, idealistic wing of the profession was, as I saw it, captivated by community design centers and participatory design. Design centers were ad hoc, grant funded, volunteer-staffed champions of neighborhood design that provided design services for inner city neighborhoods. Some of the good intentions of design centers have been co-opted and subsumed by city bureaucracies—planning departments, design review boards, zoning adjustment boards. Instead of championing the cause of neighborhoods expressing themselves, we champion the cause of neighbors expressing themselves.

Back in the 1970s, I remember reading an article about a San Francisco architecture firm. Describing the way the firm worked with its clients, the article included a remark by the principal who said, “The days of the architect walking in with a three piece suit and declaring, ‘here is your design’ are over.” Twenty years later, when I related that line to a community activist who felt ignored in the design process of the same architect, I was met with dumbfounded disbelief.

I suppose letting clients in on the design process has risks. Here are some observations on the practice, thoughts on why I do it, and some ways I manage it.

**I need to do alternatives in any event to see, in greater depth, what works, and what does not.** The more I draw the more I understand. The more I understand the better I’m able to knowledgeably converse with my

clients about their problems and goals. That builds trust and makes for better projects.

**I do not need to show my client every alternative, but I need to show them the significant ones.** And by all means I must show them the alternative that most closely represents the project as they originally envision it, if I can see what that is. This shows that I am listening, which they need to know. It helps them, I think, to consider other ideas if they can see that their idea is understood and seriously taken. I find my clients want and expect their architect to see opportunities that escape them. I think they feel like they are getting their money’s worth when I show them new vistas.

**One of the main purposes of presenting alternatives is to have a discussion that leads to a clear, common understanding about what works and what does not work for my client.** Together we build a detailed understanding. It is helpful not only to look at things that work and discuss why, but also to look at things that do not work and discuss why not. If the client has a preconceived idea for their project, it can stand or fall on its merits. They will tell me what we all know. Often I return to the drawing board with new insight into what must happen.

**Client enthusiasm seems to grow in proportion to the extent they feel essential to the design process.** If the discourse is properly managed, clients look on the project as their work in collaboration with me. When they invest their pride in the outcome, they tend to push for higher quality standards. This is my aim.

**A presentation of alternatives should be clear and pleasing to the eye.** It is important to me that everything the clients see me do must look sharp, and if possible, have some beauty. In a team environment, people recognize the different strengths of each other. The visual composition of the work I do is important to me so I must not show indifference to visual design.

**I feel challenged, not threatened by client involvement.** Certainly, one must use very good listening and interpretive skills. Don’t try this if you talk over people, miss innuendo, or have no idea how your clients are relating to each other when they talk to you. Do not try this if you cannot make your client’s agenda your own. Most design disasters occur when the architect designs *for* a client rather than *with* a client. In those situations, the clients have less attachment to the architect’s design and will discard all or part of it on a whim. I feel success is easier when the client has a more natural respect for the design.

**Fear not. Imagine.**

The real secret to success with this method, in my opinion, is imagination. There is no need to be hung up on one way of doing things if we have the imagination to see many others. There is no need to fret about letting go of something that almost works when we know we can think of others that work better. There is no need to fear a loss of influence, when the value of insight and fresh ideas is taken into account. To me, the most gratifying projects are those that my client and I, (and our builder and neighbors) judge a success. Can there be success at the expense of one of the parties?

# Renovation Field Measurement Tips

*Edward Z. Wronsky, Jr., AIA  
AIA Long Island East End*

I do not trust the sonic measuring device that I received for Christmas several years ago, nor do I carry a laptop computer and digital camera to the project site to record existing conditions. The following is a summary of my current procedure for field measurements, which may be helpful to others:

Basic equipment:

1. 33' long steel tape measure—stiff enough to support itself for 6 to 8 feet
  2. 100' or 150' tape measure
  3. Several bulletin board pushpins
  4. Flashlight with fresh batteries
  5. Pitch/angle locator
  6. Camera and extra rolls of film
  7. Lined yellow pads
  8. Several 7mm mechanical lead pencils
- Start by photographing the exterior of the whole house and the interiors of the floor or floors to be addressed. Pay particular attention to trim details. Don't rely on your memory. If you take the pictures first, you won't worry about darkness or inclement weather occurring before you complete the field work. Keep the camera with you when you measure the interior; you will always find additional things to document.
  - In the cellar or crawl space, measure the size, spacing, and direction of the floor beams and girders, including supporting columns.
  - In the attic, determine the size, spacing, and slope of the rafters. The pitch/angle locator makes this very easy. Before I got it, I'd go nuts trying to measure 12" horizontally with one tape measure and vertically with the other, or alternatively scaling from the photographs.
  - Measure the spacing of clapboards or shingles. If the exposure is an oddball number like 7-7/32", note the total measurement of six or eight courses.
  - Measure the typical windows to identify types, noting size, operation, and muntin patterns, as well as casing details.
  - Note compass points and determine which walls you will call north, south, east and west.
  - Using a pushpin to anchor one end of the tape, measure the overall exterior building size.
  - To document the interior, start at the front door and sketch each wall, with rough rectangles for all openings. Include ceiling height as well as height of sills and heads of windows and doors. Note flooring material and direction. Note swing of doors. Sketch both typical and atypical trim details. The lined pads help you to sketch freehand, without worrying about scale. You can draw accurately when you get back to the office.
  - When you have drawn all four walls of a room and labeled them north, south, east and west, place the end of your 33' steel tape at eye level in the left corner (I'm right-handed) of the first wall. The pushpins may come in handy here too if you can use them without damaging surfaces likely to remain "as-is." Measure to the first edge of a door or window opening, then to the second and so on, always measuring from the same point. If you have an assistant to jot down the numbers as you call them out, and also monitor the level of the tape, you are very lucky. I tried a voice-activated tape recorder on a string around my neck—it was a total disaster! Noting all measurements in inches makes later transcribing much easier since you don't have to remember if "4 0" is 4'-0" or 40". Don't worry too much about fractional accuracy, since your last entry will be the overall measurement of each wall.
  - Measure the width of the stairs, including tread and riser height and number. Include the railing height and type.
  - I have found that even if the scope of the project is initially limited to a garage conversion, master bedroom remodeling, or family room addition, it is usually valuable to record the whole house. The owner needs the entire plan to understand the proposal and always wants to know what the house is going to look like from the outside. Also, if I see the whole floor, I'm much more likely to think of possible alternate solutions to the situation I've been called upon to address.
  - As a closing tip, if you keep your preliminary drawings at 1/8" or 1/10" = 1' 0" and can show the owners the whole floor plan, they are much more likely to understand what you propose to do. After you obtain their approval, you can concentrate on the affected areas at 1/4" scale for working drawings. Of course, using CAD makes this change of plotting scale really easy. You can even create a small locator plan on the working drawings for the contractor's orientation.

## Hey Buddy, Can You Spare a Plan?

At some point in every career comes a request for *pro bono publico* (for the public good) work. The purpose of this article is to give some suggestions on responding to the request and approaching the commitment. These are just guidelines designed to ensure that the requestor's expectation and the professional's offer of services are both realistic. Rehabilitation projects taken on by volunteer groups might be especially tricky due to novices involved in the construction processes or the *managus opus* project view.

The concept of pro bono work is different from that of a client who is late paying or from a loss leader for a future project (see SPF Convention Report #5—Negotiating Strategies: 12 Steps to Improving Profitability). Pro bono requests are for free services because a not-for-profit organization either has no funds or is attempting to leverage a scarce resource. First, if you are not familiar with the group, you need to verify that the organization is a not-for-profit or fits other criteria making it eligible to receive services for no fee. Ask for a copy of tax documents or annual report documentation. Second, you need to determine the extent of the request and whether or not you can fulfill it. Defining your terminology is essential for a successful volunteer effort. References such as the National Park Service's Web site, <http://www2.cr.nps.gov/tps/secstan1.htm>, can be used to establish a common vocabulary. To illustrate approaches to offering pro bono services, let's look at an example involving the Nathan Clifford Ricker House.



Ricker House, front elevation, June 1999, David Garner

### The Ricker House

Who was Ricker? Nathan Clifford Ricker is a legend in architecture. In 1873, at the age of 29, Ricker was the first person to receive a degree in architecture in the United States. Following his graduation from the University of Illinois, Ricker remained at the school and devoted his entire career to developing the educational philosophy of the Department (now School) of Architecture, advancing the profession of architecture, and practicing his educational philosophies by designing buildings.

Ricker was an outstanding innovator in education. He developed guiding principles that direct an architect to be first, a safe and economical builder; second, a person of business capacity; and third, an artistic designer. Functional applications and sound construction technology were given priority. In addition to embedding this philosophy into the minds of aspiring architects, Ricker translated over forty volumes on architecture when English texts on

certain subjects were not available. He also authored several publications during his tenure as a faculty member. Ricker served thirty-seven years as a professor and head of the Department of Architecture from 1873 until his retirement in 1910.

From 1892 until his death in 1924, Nathan Clifford Ricker lived in the house he designed. During construction, it was used as a laboratory for his students to practice construction techniques.

A person within the local community, who wishes to remain anonymous, saved the house from demolition by granting a loan of \$115,000 to the Preservation and Conservation Association (PACA). The future use of the house is uncon-firmed, though it is the desire of the Ricker Foundation to use the facility to promote Ricker's legacy as an architectural educator. Although a single use is preferred, the opportunity also exists for mixed use. For example, combining an alumni center on the first floor with student or visitor

rooms on the second floor. Other possible uses are administrative, residential, and light commercial. A Web site, <http://www.prairienet.org/ricker/>, containing information on the many facets of the restoration project was developed with the aid of a local architect in a pro bono capacity.

### Approaches to the project

The Construction Specifications Institute (CSI) format is a good guide for determining whether the needs for services is a systems issue, or a design issue. The 16-division format is an aid to volunteer organizations prioritizing their needs, and can also serve as a guide to solicit particular material suppliers or possible other donated services. The City of Alexandria, Va., offers to do mortar analysis for renovation projects pertaining to historic and older homes. Allied products, such as MASTERSPEC Small Project, can be used to generate specifications for volunteers to follow or to help define parameters of giving. Another option would be to prepare simple floor plans. With plans, fundraising activities (such as room rehabilitation sponsorship) can be initiated. While rooms on the Ricker Web site floor plans are not designated specifically for sponsorship, it would be an easy next step to designate a donor sponsorship.

### Your role

You may want to target specific pro bono rehabilitation projects. One reason would be to enhance your skills by practicing with particular materials or details. You may also want to seek a project because the building represents a specific type that you may be interested in working with or exposing an intern to. An intern may find great value in being exposed to a building type that may not happen to be on

your current list of projects.

Keep in mind whether or not the items you will address are health, safety, welfare, or egress issues. These issues could expose you to liability in the case of an accident. You may want to go over a standard disclaimer form with the pro bono client prior to beginning work. There need to be checks and balances in place to ensure proper execution of volunteer efforts. An idea on paper can only carry a project so far. There has to be a committed volunteer labor force or grant funds available to complete the project.

Offering pro bono services can be a sign of goodwill to the community and generate possible leads to future commissions. But your time and skills are valuable. You may want to consider establishing a specific contact time (for example, 11:30 Friday mornings), and setting a limit on how long you will speak. At the least, you should record the time you spend on the project. You should also track the supplies you use on the project and check with an appropriate tax professional regarding possible tax deductions.

This brief overview provides some guidance for efforts in the realm of pro bono work. The following checklist serves as a summary.

- Is the requesting organization a viable not-for-profit operation?
- What is the time frame for the project? Is this reasonable given the “free” nature of the work?
- Is the need materials and method, systems or design orientated?
- Is the need for design, promotion purposes, or constructibility?
- Are life safety issues involved?
- Will the project be properly stewarded?

- Are tax write-offs available?
- How long are you willing to stay involved with the project?

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If you would like to report on issues relevant to the Small Project Forum from your area on a regular basis, we invite you to join our network of Local Advisors. Please call Laura Lee Russell, AIA.

The opinions expressed in this report do not necessarily reflect those of the Advisory Group, the AIA staff members who prepared the report, or The American Institute of Architects.

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