#3

Continuing Education and the Small Projects PIA?

by Donald Wardlaw, AIA
Oakland, CA

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Intrinsically a professional development resource, our PIA will prove to be an opportunity to further our expertise and receive credits in the new AIA continuing education program (AIA/CES). This opportunity need not be burdensome or expensive. Credits can be acquired in varied ways. Many of you may routinely pursue self-directed study projects that could accrue the credits required under the new program.

The final requirements for the program, which result from extensive research and a pilot project since 1992, were adopted in September 1994 and effective January 1, 1995. The program will begin January 1, 1995, with a three year phase-in period covering 1995, 1996, and 1997. Thirty-six learning units must be accrued by the end of 1997. After 1997, members will need to accrue 36 learning units (LU) each calendar year, beginning with 1998.

Continuing education projects or courses will be designed in accordance with one of three possible quality levels. The system of three quality levels was set up to account for the fact that some education experiences would be more or less demanding than others. Some would offer more substantial learning opportunities and, therefore, credit for time spent should vary according to the educational quality of the particular program. Quality Level 1 programs will offer one unit of credit for each hour spent on the program. Quality 2 programs will offer 2 units for each hour spent. Quality Level 3 programs will offer 3 units for each hour spent.

The salient differences between the three classifications are as follows. Quality Level 1 is passive learning, having a professional purpose and appropriate resources. Independent study programs would fall into this class as would lectures and video presentations where participants are principally passive observers.

Quality Level 2 is interactive learning and must meet the minimum requirements of Quality Level 1. It must include an interactive exchange between the presenters and those attending for the learning experience. Interactive seminars, workshops, self-study, and some correspondence courses should qualify for Quality Level 2.

Quality Level 3 programs are measured-learning activities that also satisfy the requirements for Quality Levels 1 and 2. Additionally, Quality Level 3 programs must offer some means

whereby participants can gauge their success or progress in meeting the learning objectives of the program. This evaluation could be in the form of assessments, critiques by presenters, or verbal or written exams. Workshops, studios, classroom courses, and other courses, including specially focused self-study, may qualify for Quality Level 3.

We can meet AIA/CES obligations while furthering our knowledge and expertise in small-project practice. We can do so by creating opportunities for both group and individual learning programs. AIA components can organize the majority of their activities to meet the CES criteria so that participants can receive credits for participation. Each special PIA activity can be similarly organized.

Based on your responses to our earlier survey, we have an idea of the areas in which PIA members seek to develop greater expertise. The advisory group has submitted proposal for next year's convention in Atlanta which will address a couple of these areas of major interest: marketing and computers. It is expected that these programs will be seminars and therefore will not entail additional cost to convention attendees. Learning units will be awarded. Review of convention seminar tapes will qualify for Level 1 units.

Many of our PIA activities should be of great interest to many other AIA members who have not joined our PIA. Other PIAs will offer their own programs, which may of interest to our members. The professional development department promotes its own AIA-wide programs, including the widely acclaimed seminars by resident fellow James Franklin, FAIA. In this way, AIA members will have access to a wide array of local and national continuing education opportunities.

This newsletter, which needs your participation to thrive, is another opportunity to acquire learning units. We are planning to deal with small projects issues more thematically in future issues. The next issue will feature articles on cost estimating and the one following will feature articles on analyzing existing conditions. PIA members can earn credits by identifying an aspect of one of these themes that they would like to learn more about, researching the topic (by readings, survey of other practitioners, or reflection on one's own practices), and writing about their findings. Those wishing to contribute articles or tips to the issue on cost estimating should contact Rosemary McMonigal, AIA, advisory group member. Members wishing to contribute to the issue on existing conditions analysis should contact the author. Your thoughtful contributions could, at minimal cost, earn learning units and broaden the horizons of many AIA members.

While we may emphasize topics in future issues, we will continue to welcome articles on whatever topic interests you. Make this newsletter part of your learning experience. Need to learn more about kitchen cabinets? Find a good book on it, read it, write us a review and accrue continuing education credits. Investigating CAD software? Write a comprehensive report and chart the features of different programs. Need to know what finish works best on hardwood floors? Survey your peers and local contractors. Report your findings. This list can be at least as long as your imagination.

One hopes the PIA will one day develop into an accessible and searchable network of architects with special expertise. Programs at the local level will provide, for many, the prime resource for continuing education. And the PIA links lessons learned in Daytona Beach with lessons learned in Bucks County. We all gather for lessons. It's going to be fun and rewarding because we run the school.

Is CAD Feasible for Small Projects

by Larry Mortimer, AIA

As a small practitioner, I'm often asked if CAD is feasible for small projects. I'd say it is even if I weren't a techno-junkie. All of my projects, including small residential additions and renovations, are done on CAD, and I find the benefits far outweigh the disadvantages.

My projects usually begin with the production of measured drawings that I enter directly into my CAD program on-site using a laptop computer. When I leave the site with drawings, instead of sketches, I know exactly what I have and don't have and can eliminate return trips to resolve discrepancies and gather missing data.

Using the measure drawings as a base, I construct additional 2D and 3D design drawings. Since take-offs are easy to get from these drawings, I'm into cost control much earlier than if I'm drawing by hand. Design review is often easier because plan reviewers appreciate CAD design drawings that are easy to read and professional looking.

The most obvious advantages to using CAD are in the construction documents phase. Design drawings on CAD give you a head start on construction documents. Other advantages are, the ease of making changes, ability to use detail libraries and previous details, and ease of drawing repetitive elements. My standard drawing sheet is 22" by 34", so all of my intermediate check sets are done as 50-percent reduced prints on ordinary 11" x 17" bond paper (easy to reproduce on a copy machine, yet still readable and scaleable). I only print full-size when I'm ready to submit for permits or go out to bid.

CAD drawings are easily transported to desktop publishing programs, giving you the ability to create custom marketing materials than can be targeted to specific proposals.

There are some areas where you can increase your cash flow using CAD. My consultant's drawings are usually overlays on my drawings plus details and schedules that are often boilerplate or easily produced from previous versions. It is usually cost effective for me to do all the drafting and limit my consultants' time to producing calculations, redlines, and sketch details. CAD can also increase your opportunities for additional services. Some CAD programs allow you to do 3D models, computer-generated walk-throughs, solar studies, view studies, photo montages, high-quality renderings, and take-offs.

The disadvantages of CAD are the cost and time that you will spend. Cost includes both the initial cost and the cost of maintaining the system. Although the initial cost of hardware is changing all of the time (usually downward), don't get caught in the "if I wait until tomorrow it will be even better and cheaper" syndrome. In that frame of mind you'll never buy anything. As for time, plan to include time to initially learn the system as well as time to maintain the system.

My advice is to shop first for software; then buy the fastest hardware you can afford that will run it. Also, set some money aside for training and the upgrade you will need in two to three years.

Have fun and enjoy the prestige of being up-to-speed on CAD!

Contributors Needed

Do you have an article or tip idea that you would like to share with your peers? The Small Projects PIA Newsletter is seeking contributions of articles of interest to small-projects architects, individual small-projects architect profiles, and tips on small-projects practice.

We will publish a selection of these in each newsletter. The remaining articles, tips, and profiles will be publshied periodically as a collection entitled "Notes From the Field."

Please send your ideas, tips and articles on a 5¼" or 3½" disk-along with illustrative photos, drawings, and charts-to Small Projects PIA, The American Institute of Architects, 1735 New York Avenue, NW, Washington, DC 20006-5292. Have any questions or comments? Contact Christopher Clark, AIA, at (202) 626-7537, fax (202) 626-7518.

Bidding Process

by Harry Jacobs, FAIA

At a mid-1993 meeting of the "Small Firm Forum" the AIA East Bay (California) Chapter attendees were asked to bring the forms they use in obtaining construction bids for small projects. Of the approximately 20 attendees, 10 shared their forms. The forms offered suggested a variety of tactics.

BID FORMS: Three elements made up the most complete approach:

I. **Invitation to Bid:** Only one member submitted a separate invitation to bid. This included the location and brief description of the project, a listing of the constituent parts of the bid package (see BID PACKAGES below), and the method of obtaining one.

II. **Instructions to Bidders:** A majority submitted instructions to bidders as separate documents and included the material described above in the invitation to bid within it. In addition to containing that material, the instruction to bidders typically had statements:
   1. Limiting submittals to the architect-provided form of proposal
   2. Indicating bid due date and place of bid receipt
   3. Requiring bidders to notify the architect of document discrepancies or errors
   4. Requiring bidders to visit the site
   5. Reserving to the owner the right to reject any or all bids
   6. Indicating that the owner/contractor agreement is to be AIA Document A107
   7. Defining and describing the use of addenda.

   A few included statements:
   8. Indicating when and how contractors are to be notified of contract award
   9. Requiring successful bidders to provide appropriate notices to the owner as required by state law (e.g., California Contractors License Law has several such provisions)
   10. Requiring successful bidders to provide cost breakdown and/or subcontractor list
   11. Requiring successful bidder to provide proposal for payment schedule (in most cases spelling out retention and final payment conditions)
   12. Describing what the bidder is representing by making a bid
   13. Defining terms used in bidding documents
   14. Repeating and/or elaborating upon some of the provisions of the general conditions in this document, particularly insurance provisions.

III. **Form of Proposal (Bid Form):** All submitted these. Some, entitled "Bid Form" or "Form of Proposal," contained some of the above information in addition to much of what is below. Typically they contained:
   1. The title of the project as indicated on the drawings and its address
   2. The name of the owner and his or her address
   3. A statement that the contractors examined the bidding documents, the site, and other identified conditions of the project and that the contractors agree to furnish all labor, supervision, materials, permits, fees, insurance, bonds, etc. required by the bidding documents
   4. Spaces to write in the cost of the work in words and numbers
   5. Spaces to write in the start date and the time required for construction
   6. A description of alternates with spaces to write in additive or deductive costs and times
   7. A space for the contractor to list the name and date of each addendum included within the cost of the work
   8. The requirement or nonrequirement of, or statement reserving the owners' right to require, a performance bond

TIPS AND

Billing for Telephone Time

by Richard Morrison, AIA

To monitor the length of phone calls easily, get a phone with a built-in call timer. It will pay for itself very quickly. Not only will you be astounded at the length of time you're probably spending on calls, you'll be able to bill for those short calls that you're currently donating to clients. I found that what I assumed was probably a 5-minute call was really a 10- to 12-minute call, and a "15-minute" call was really more like 30 minutes.

Stickyback Drawing Notes

by Mark Robin, AIA

Do you get the artistic satisfaction of hand producing the seeds that produce your projects? How about receiving additional satisfaction that you are producing well-coordinated drawings while saving time?

What I do is hard draw all line work on the plans and elevations. While doing this I enter into word processing software each note in sequence that will appear on these drawings. I arrange the sequence so that noted items at the top of the drawing start at the top of the list. When two items are parallel, I place the item closest to the notes on top to ensure pointing lines won't cross.

By using one list, it is easy to correlate notations in plans with elevations. Moreover, by waiting until this line work is completed, the notes have been coordinated and revised without any erasing or rearranging of the drawings.

The notes are easily transferred to the drawing upon completion of the line work using sticky back film. I draw lines with arrows on the back side of the drawings to connect each item to its notation. Time is saved by doing the quickest but most artistic line work by hand while the time consuming lettering and revision is done on computer.

Analysis of Existing Conditions

You've just been hired to plan a new addition/remodel. How do you read the condition, limitations, and opportunities of the existing conditions? What method do you use to measure existing construction? How much time will you spend? By what means do you document the existing conditions? Do you require a professional site survey? What sort of research will you undertake on the natural environment? How do you assess the condition of the foundation? Do you research neighborhood politics? Do you require a soils report? When and how do you approach zoning and other governing authorities regarding their existing conditions. To what extent is the analysis of existing conditions an ongoing process? If you can answer questions like these from the perspective of your own experience, if you would like to begin earning continuing education learning units, and if you would like to share your experiences with other PIA members, we want you. Fax your tips and article ideas ASAP to Donald Wardlaw, AIA, at (510) 268-9524, 8 a.m.-6 p.m. PST.

TECHNIQUES

Miss MAC

by Donald Wardlaw, AIA

I find that the rush of events in some weeks can be so intense that I am momentarily at a loss for what day it is. Being too distracted to consult my calendar, scheduled events would occasionally pass me by. A secretary would be nice but how would she eat? Somehow it dawned on me that my computer would have to manage my schedule since I was obviously incapable of doing it myself. Fortunately there are several software products designed just for this purpose. I bought Agenda (perhaps not the best but very adequate) for about $90. When I schedule an event, I tell the computer when I want to be reminded. This it will do by politely interrupting what I'm doing and presenting a message that says what needs to be done and when. I may ask to be reminded again at another time or I may check it off as done. What really made this system fully functional was a feature of Macintosh System 7 known as the "Startup Items Folder." Dragging icons, or aliases of icons, for applications and documents into this folder causes them to launch automatically or open when the computer is turned on. Thus, the first thing that appears on my screen in the morning is my calendar for the week. Using System 7's "Hide" command, the calendar can then be made invisible but immediately accessible. All this in sum gives me something I have occasionally lacked, the necessary awareness of all my appointments.

Small Project Cost Estimating

How do you design to a budget? How do you figure and report the probable construction costs to your clients? How do you verify whether your clients program and budget are compatible? Do you seek the counsel of others on matters of construction cost? What have you learned not to do ever again? Have you experimented with cost estimating software? Do your clients usually require cost estimates prior to bidding? If you can answer questions like these from the perspective of your own experience, if you would like to begin earning continuing education learning units, and if you would like to share your experiences with other PIA members, we want you. Fax your tips and article ideas ASAP to Rosemary McMonigal, AIA, at (612) 331-1079.

9. The length of time the proposal/bid is to be valid (usually 30 to 60 days)
10. The signature section providing space for a description of the type of business, its name, contractor's license number, address, telephone/fax numbers, name of principal, title, signature of principal, date.

A few included:

11. The requirement and space for the contractor to write in the basis of charging for change orders (list price, wholesale price, cost to contractor, markup, billing rate for each category of contractor's workers, etc.)
12. The requirement that a cost breakdown be submitted with the form of proposal.

BID PACKAGE was defined by most to include the following bidding documents:

1. Invitation to bid/instruction to bidders/form of proposal
2. Owner/contractor agreement (usually a blank or partially completed copy of AIA Document A107 was provided as a part of the bid package)
3. Drawings and specifications with pages and dates indicated
4. Addenda (to be listed by contractor on the form of proposal)

Ordinarily one to four copies of the package was provided each contractor with a description of how to obtain more copies. One member gave a single copy to each contractor and left the originals with a blueprint service so that contractors could order, make delivery arrangements, and pay for as many additional copies as they wished without requiring time of the architect.

BID OPENINGS: Most instructions required bids to be submitted to the architect's office. None of the 10 received or opened bids at formal bid openings.

It is important to understand that this article summarizes the approach to the construction bidding process for small projects of 10 architects in California. It should not be considered to be a recommendation by the AIA of an appropriate bidding strategy or appropriate constituent parts of the bidding process. Members are invited to refer to *The Architect's Handbook of Professional Practice.*

Another approach is what we did at the AIAEB Small Firm Forum. At your component meetings, ask attendees to bring samples for sharing of forms, agreements, specifications, drawings, or whatever suits the topic of the meeting. Those who bring their own take home copies of all samples.

Working With Long Distance Clients

by James Wentling, AIA

Our office works with clients that are 500 to 1,000 miles away, and sometimes halfway around the world. Hardly any of our clients have ever set foot in our office, and we can count on one hand the number of professional visitors we have annually.

A lot of the reasons for our long-distance relationships with clients come from our design specialty, housing. Housing designs have been purchased through the mail or copied from pattern books since the 19th century. The relatively small scale of houses leaves little in the budget for design as compared to commercial or institutional buildings, therefore most design work is done on a prototypical basis with the investment in design amortized over multiple uses or sites.

Most of our clients are home builders who follow national design trends in housing through organizations such as the National Association of Home Builders or national magazines that cover residential design. We generally market our services through these avenues by advertising, writing, award programs, and presentations. Home builders generally don't have problems working with consultants on a long-distance basis, as it is customary in the industry.

The main practice challenge in working long distance is the cost of travel, both in out-of-pocket expenses and professional time. Therefore travel must be organized on a cost-effective basis to be absorbed into your project fees.

Beginning with the first call from the prospective client, I like to arrange for a face-to-face meeting, if possible, to size up the prospect, their organization, and the site. The important questions are: Is the prospect real? Do they build a quality product? Will they be able to pay your bill?

Initial meetings are generally highly speculative, and prudence is required to decide if you should risk the time and money to see the prospect. The questions are: What can you combine the trip with? Do you have other prospects or clients in the area that you could also visit? How about friends or relatives? Generally it is best not to make a special trip. Also, sometimes showing up immediately may not make sense or look good anyway.

On initial trips, you may want to drive instead of fly, where reasonable, to cut down on costs. Sometimes existing clients may be open to splitting the cost of your trip, if a visit to their project would be beneficial. On really nice prospective projects, you may just have to cross your fingers and pay full freight with the hope that you'll be able to land the job. Each case is a difficult judgment call.

In some cases of extreme distance and high travel cost, we have started work without ever visiting the site. Here you just tell the prospect that you can't visit without them paying for the trip, but you would be happy to work through the mail, with faxes, etc. This has happened with us on rare occasions, but the general rule is that an initial meeting is required to visit the site and environs with the client.

Assuming you have a successful initial meeting and your prospect becomes a client, off you go with the project. We have found that the computer and the fax machine have dramatically altered our design process. The computer allows you to do ongoing 8-1/2" by 11" images of your design, which can be faxed to the client for immediate input. This involves your client in the design process more than the traditional face-to-face, cast-in-stone design presentations. It also eliminates costly on-site meetings to discuss design. Use the fax machine to its full potential.

Of course, larger projects still benefit from the interchange that takes place at a meeting. On larger projects I like to schedule one or two meetings into the contract to discuss and debate design and become more familiar with the site and client organization. Meetings should not be rushed. Compared to the time it takes to get there it's important to make the most of your visit.

Once the project is under way it's nice to stay in touch with the job during construction. (Most of our contracts do not include construction administration services.) I have a clause in our contract that states we will visit the site when "we are in the area on other business." Special trips requested by the client are reimbursable, however. Some clients may want visits at specific times, and, if so, these have to be budgeted.

After the job is complete, I also try to stop by to do some record photography for promotion and award programs, publishing, etc. Clients always like to have you visit and show an interest in their project, and it's a good idea to keep in touch so they can let you know about upcoming work.

So the key to long-distance work is really to develop *groups of clients* and projects in regions where you can *combine travel expenses*. If you can accomplish four or five objectives in one trip, then long distance work can be rewarding and profitable, provided you are organized.

James Wentling is the principal of five-person James Wentling/Architects in Philadelphia.

Greening Up Sole Practice

by Lawrence Schechter, AIA

Confronted by the dismal prospect of my ninth consecutive Christmas party, I decided it was time to move on. Association with a well established architecture firm in San Francisco provided a sound foundation of practical experience following university (U of I, 1963). But something was missing. Stagnation and crystallization of conventional practice was taking its toll. For me, issues of the larger environment and personal integrity were too easily sacrificed in the name of professionalism.

That was 1972. I have been a sole practitioner ever since. After moving from the city, I became involved in small partnerships of a few years' duration and now live and work in a rural setting on the foothills of Mount Ashland at the Oregon/California border. A lot has changed beyond my address. Before leaving San Francisco, I was involved in numerous large commercial and industrial projects, the largest of which was a multiple office complex and convention center, including a sports arena designed by Kenzo Tange of Japan. My job was to coordinate certain work of other participating architecture and engineering offices plus represent the project to the public utility commission and offices of the city engineer. I was, as many others have been, promoted from a significant level of design responsibility to that of administrator, firmly bound by political red tape.

I chose to get out while I still had a chance. Although the going has been rough at times, I have never regretted one moment. The freedom to pursue my own dreams, travel, and experience new ways of living and working was coupled with the search to find out who I am and what I'm made of.

Architecture has remained my principal path, but unlike many graduates who have hardly deviated from university training, I have not traveled a conventional path. Departure from a secure, conservation practice has opened my eyes to new possibilities. During a trip in 1972 to Crete and the Middle East, I had a good long look at the roots of Western civilization, much of it unchanged even today. The pace, aroma, and texture of these ancient places recalled a cultural memory of indigenous peoples whose architecture was integral to living, molded by enduring values over countless generations. This mindfulness, enhanced later by inner contemplation, motivated me to explore a contemporary basis for timeless architecture that, like a tree, is rooted in the soil of our local heritage, which extends branches upward to our developing potential.

I have developed an approach I call "emerald green architecture" based on a blend of the conventional stretched to encompass more holism. Solar energy, organic proportions (sacred geometry), appropriate technologies, healthful nondepleting means of construction, and moving beyond ecology alone to integrate issues of health, community, environmental, and economic impact. A blend of complex elements, from advanced technology to subtle energies, provides an interdependent framework for sustainability based on natural law.

I offer 30 years of experience in the field to local clients, including homes, small institutional, and commercial projects. Much of my work in the past seven years has been facilities design and land planning for Alcyone Light Centre, a holistic, educational foundation focused on advancement of human consciousness, the environment, and communications. Our center for environmental and ecological studies provides workshops and courses emphasizing sustainbility and demonstrates such holistic principles as off-grid power, passive solar energy, and rammed earth construction. Accommodation is provided for 16 overnight guests.

Our 1994 internship programs on sustainable architecture will provide students and graduates opportunity to participate in 12-week courses in design principles and hands-on construction. I enjoy working with young, energetic, and optimistic people. This facet of my work has been highly rewarding. As principal mentor, my experience serves to enrich the conventional education of university training.

As public service, I teach at local colleges on issues of sustainability. I will also be consulting with local planning departments to derive guidelines for sustainable land use and design. Stimulated by attending the AIA/UIA convention

1993 in Chicago, I brought the message home to our local AIA chapter and will chair a newly formed committee on sustainable architecture. Several members of the local chapter are attending a seminar at our center as a kick-off for the project.

The rewards of sole practice are many, including time and space for design innovation with a supportive environment. The challenge of working directly with clients and contractors is generally more satisfying than in a large firm. Resolutions involve more personal dedication and resourcefulness. Low overheads of an in-home office allows one to ride out dry spells without taking undesirable work to cover expenses. Ability to choose clients motivated by compatible values is a pleasure. Construction experience at our center has advanced my competence in construction engineering and detailing.

The drawbacks of a small practice must also be reckoned with. A sole practitioner is all things to all people and spread very thin, often leaving little time for certain important issues. Without a staff one cannot adequately follow through with former clients and pursue leads for future work. Larger commissions, which I handled with confidence much earlier in my career, are not generally available without staff and professional liability insurance, which is too expensive. In a depleted economy, many sizeable local projects are either done by big city offices or developers that employ less expensive design and drafting services. Architects in the area are having a tougher time competing with nonprofessionals than with other architects.

Architects could form new collegial relations with professional peers. A cocreative approach to advance the quality and recognition of our service in the marketplace is essential. This could improve design, technical competence, and efficiency and develop the market through education of the general public and clientele. As with many other professional organizations, the AIA could be more aggressive in spearheading this improvement.

I am seriously considering joining forces on a part-time basis with a few other sole practitioners. At this point, I am happy blending teaching, writing, and public speaking as means to bring light to a troubled world. As architect and futurist, my public outreach suggests tangible methods to transform life on this planet.

Publications

These publications provide information to small projects practitioners. To order, call 800-365-ARCH. Prices listed are for AIA members. Non-member prices are slightly higher.

Current Practices in Small Firm Management: An Architect's Notebook
by James R. Franklin, FAIA
This timely hands-on book, based on the successful "optimizing the small firm" workshops, explains how to improve competitive position by spending less time on management and more time providing clients with quality architecture. It is a valuable reference filled with management tips and ideas that have worked for other architects. (190 pages; Order #R942) $50.00

How to Start Your Own Firm Kit
James R. Franklin, FAIA
This "kit" version addresses issues vital to setting up a firm and includes the complete text of *Current Practices in Small Firm Management.* (230 pages; Order #R942-CS) $65.00

Small-Projects Documents

A105/A205-Standard Form of Agreement Between Owner and Contractor for a Small Project and General Conditions of the Contract for Construction of a Small Project with instruction sheet wrapped (1993). (two-document set)

B155-Standard Form of Agreement Between Owner and Architect for a Small Project with instruction sheet wrapped (1993).

(Small-Projects Documents may be purchased from your local AIA Documents Distributor or by calling 800-365-ARCH (2724).

Professional Interest Area Staff
Director: Christopher Clark, AIA

1995 Advisory Committee
Chair: Gabriel Durand-Hollis, AIA
Phone: (210) 377-3306 Fax: (210) 377-3365

Rosemary A. McMonigal, AIA
Phone: (612) 331-1244 Fax: (612) 331-1079

Donald Wardlaw, AIA
Phone: (510) 268-9524 Fax: (510) 268-9524