

ArchiCAD also made it easy for the firm to receive input from civil engineers and outside consultants who typically use DWG files. For example, a mechanical engineer sent Sanders a DWG file containing the locations of a series of rooftop air conditioning units. Using ArchiCAD, Sanders was able to convert them into 3D objects available throughout the project in less than five minutes. ArchiCAD offers additional support for referencing civil engineering site plan information into the model.

No matter what the scale, the ArchiCAD Virtual Building solution creates one integrated database—a database designers can filter to provide quantities for cost analysis, door schedules, space inventories, and more—so design teams can go from the model to construction documents with a single application. And its built-in TeamWork functionality enables multiple team members to work on the same model at the same time in a coordinated fashion, greatly improving productivity.

THE WESTWARD HO—PHOENIX, ARIZONA

In the late 1920s, Westward Ho was the premier hotel in downtown Phoenix and one of the most recognizable buildings on the city's skyline. By 1980, it had earned a place on the National Register of Historic Places—and conversion to affordable housing was in the works. Recently, the owners asked Orcutt/Winslow to replace all the exterior windows, convert 64 small studio apartments into 32 one-bedroom apartments, and remodel a disused ballroom into 32 additional one-bedroom apartments.

Nine different sources of funding—local, national, and tax credits—added to the complications imposed by placement on the Register of Historic Places. “To get the project off the ground required a whole slew of presentations,” says Sanders. “We used ArchiCAD and PlotMaker to create a series of different presentation packages by quickly extracting the information we needed from the model—within a day or even hours.” One presentation to the National Historic Trust secured \$2.5 million in tax credits for the project.

Using ArchiCAD software's point-and-click Zone tool and the Calculate Menu feature, the team quickly located studio apartments suitable for conversion. “They were all different shapes and sizes throughout the entire building,” says Sanders. “We had to locate the smallest adjacent ones and then combine them into one-bedroom apartments. I created a green zone to signify a studio apartment and then identified the two smallest green areas on a floor and combined them.”

The firm had to take special care that whatever work they performed preserved the unique historical character of the building. “We went through a series of different

design options for the Thunderbird building—a ballroom that we turned into apartments—and I think it was about the third or fourth option that actually satisfied both us and the National Park Service,” says Sanders. “ArchiCAD was key in helping us generate various design options and finally satisfy everybody.”

For more information about **Graphisoft ArchiCAD**, please visit www.graphisoftus.com. To learn more about **The Orcutt/Winslow Partnership**, go to www.owp.com.



Westward Ho—Phoenix, Arizona

GRAPHISOFT ARCHICAD —DESIGN TOOL OF THE FUTURE ... TODAY

“The ArchiCAD Virtual Building model is not just for generating interesting images,” says Sanders. “It also produces construction documents. When you adjust the model, you automatically adjust the construction documents. The 3D model enables us to spend more time designing and less time worrying about actual document output.”

But superior designs and productivity are not enough. You must dazzle—and convince—your clients. People respond to 3D, and owners are no exception. Using ArchiCAD software's powerful presentation capabilities, you can take your clients on a virtual tour, instantly respond to their feedback, and win their business. And once you're on the job, ArchiCAD encourages teamwork and collaboration, while in the background, it responds to every wall you raise, and every window you add by efficiently updating the entire model to reflect your every design change.

“There's just too much information out there, and it's difficult to keep track of without tools like ArchiCAD,” says Winslow. “ArchiCAD just keeps getting better.”

“Ninety percent of our clientele returns for more business.”

Russ Sanders, AIA, Orcutt/Winslow Associate and Virtual Building Committee Coordinator

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win new business

ArchiCAD Virtual Building Solution Wins New Business for The Orcutt/Winslow Partnership



Webb Medical Plaza B—Sun City West, Arizona

The Orcutt/Winslow Partnership is the largest architectural firm in Arizona and the AIA Arizona 2004/2005 Architecture Firm of the Year. For more than three decades, its talented staff of licensed architects and interior designers has provided innovative design solutions for medical and educational facilities, historic renovations, and other commercial projects. In 1992, the firm standardized on **Graphisoft® ArchiCAD®** software to help fulfill its principal goals—providing clients with outstanding architecture and great service.

Since that time, Orcutt/Winslow has used ArchiCAD® Virtual Building™ technology to complete more than 1,800 major projects worth billions of dollars in construction value. “We selected ArchiCAD because it fit our office philosophy—hire the best people and give them the best technology,” says Paul Winslow, FAIA, Partner.

CLIENT-CENTERED DESIGN

“Behind every well-designed building is an architect who took the time to understand the client's needs,” says Winslow. Orcutt/Winslow architects begin each new project by gathering information from those who best understand it—the people who will use, operate, and maintain the new facility. For example, when designing a school, the team gathers information from local administrators, teachers, students, maintenance personnel, and neighbors.

PERSONAL ATTENTION

The same team that gathers this information sees the project through to the end. This dedicated team of architects and designers guides clients through each stage of the architectural process and helps them surpass all their goals—esthetic and financial.

The Orcutt/Winslow Partnership—an industry leader in the use of technology for architecture, planning, and interior design—uses Graphisoft ArchiCAD to design great buildings, improve productivity, and maintain a 90 percent client return rate. Several of the firm's major projects showcase the strengths of the ArchiCAD Virtual Building solution:

- Make design easy with powerful 3D tools—Webb Medical Plaza B
- Precisely coordinate complex projects—Greenbaum Specialty Hospital
- Collaborate efficiently with all design team members—Chandler Junior High School No. 5
- Quickly assemble winning presentations—The Westward Ho

“We use ArchiCAD whether we're remodeling a restroom or creating an \$80 million campus. We use it for everything.”

Russ Sanders, AIA, Orcutt/Winslow Associate and Virtual Building Committee Coordinator

GRAPHISOFT®



Designed specifically for architects, the ArchiCAD Virtual Building solution helps firms win more business and focus on the fundamental architectural skill of creating inspiring designs.

- Design in the 3D Virtual Building environment—construction documents are an automatic result of the process, and 3D drawings are automatically translated into 2D drawings.
- Quickly create high-quality 2D drawings, 3D zones, animations, virtual reality scenes, and photorealistic renderings for stunning presentations
- Easily compare and evaluate different design alternatives
- Make design changes once and ArchiCAD updates all views and documents automatically
- Enable multiple design team members to work simultaneously on the same building model using the TeamWork feature
- Effectively collaborate with outside consultants through easy integration of DWG and other file formats
- Identify conflicts and errors before they become costly during construction
- Extract accurate estimates directly from the model
- Use PlotMaker, ArchiCAD software's built-in layout tool, to easily publish up-to-date documents at any time

A RIGOROUS SELECTION PROCESS

Orcutt/Winslow knows technology. Recently, the firm received a national award from the Professional Services Management Association for its in-house development of an Oracle® database that helps track team budgets, AIA documents, marketing material, and more.

To support its practice of working in small, independent design teams, the firm began a search for a new CAD system in the late 1980s. A solution had to possess full 3D capabilities, be easy to learn and use, and include an integral database so information generated from preplanning stages through the end of the project could be used throughout the process and turned over to the client to manage the facility. And because Orcutt/Winslow is a Macintosh®-based firm, the ability to network in this environment was also a must. After painstaking evaluation of 11 different CAD systems and a year of gathering input, the selection team made its final decision—the ArchiCAD Virtual Building solution from Graphisoft. “From my vantage point, there really wasn’t any other alternative,” says Winslow.

SPEND MORE TIME ON DESIGN, LESS ON DOCUMENTATION

“One unique aspect of ArchiCAD was that it thought like an architect—everybody else was drawing lines,” says Winslow. Graphisoft built ArchiCAD from the ground up as a 3D solution. Architects can raise walls, add doors and windows, and lay floors, while ArchiCAD simultaneously creates all project documentation, virtually eliminating tedious drafting work. “It is extremely user-friendly,” says Winslow.

Design teams can quickly extract any information they need—complete plans, sections and elevations, bills of materials, schedules, renderings, animations, and virtual reality scenes. “We are truly able to spend more time thinking about designing the building,” says Russ Sanders, RA, Orcutt/Winslow Associate. “Editing in the Virtual Building has become so easy. Even on the largest projects, you can move around as if you’re playing a video game.”

ONE POWERFUL SOLUTION—MANY USES

“We’re committed to Graphisoft because they give us the tools to put buildings together right,” says Winslow. Four recent major projects, in particular, showcase the strengths ArchiCAD brings to the architectural design process.

“I had shied away from using the 3D aspects of ArchiCAD, but the scale of the Webb Building forced me to give it a try. I was amazed at how easily it all came together.”

Nathan Leblang, AIA, and
Orcutt/Winslow Project Architect

WEBB MEDICAL PLAZA B—SUN CITY WEST, ARIZONA

The Orcutt/Winslow Partnership designed this sleek, three-story stucco building as a shell to house individual doctors’ offices. “I had shied away from using the 3D aspects of ArchiCAD, but the scale of the Webb Building forced me to give it a try,” says Nathan Leblang, AIA, and Orcutt/Winslow Project Architect. “I was amazed at how easily it all came together.”

“Not only was it easy to create the model, but also to produce 2D elevations and building sections directly from the 3D model,” says Leblang. “The entire step of tediously drawing 2D elevations was eliminated.” Leblang estimates that eliminating this step increased productivity by about 10 percent.

Using the 3D model, Leblang helped the owners better understand his design intent. “Being able to show them a complex design, fly into the building, go over the building—that blew them away,” says Leblang. “They got it. They knew exactly what the building looked like. Presentation actually sold the building.”

Managing change is easy with ArchiCAD software. Just before construction, the owner decided to change the original green Solex® exterior windows to blue reflective glass. “It took only a few operations in ArchiCAD to create a solution,” says Leblang. “We created an instant rendering directly from the 3D model.”

The Virtual Building solution also makes it easy to track space within a building. “As we completed each doctor’s suite, we created a module and dropped it into the overall building model,” says Leblang. “ArchiCAD reflected any changes to the floor plan of the shell, so that the building owners had instant access to how much space was still available for lease.”

GREENBAUM SPECIALTY HOSPITAL—SCOTTSDALE, ARIZONA

Greenbaum Specialty Hospital is a 60,000-square-foot outpatient surgery center with 48-hour recovery beds on the second floor. The ArchiCAD Virtual Building solution helped Marie Segura, AIA and Orcutt/Winslow Associate, integrate the facility’s exterior with historic downtown Scottsdale, while precisely coordinating the interior’s complex systems, equipment, and furnishings.

One of Segura’s first tasks was to obtain the necessary special-use permits for construction in a historic district. Using ArchiCAD, the design team quickly generated models, presentations, and 3D renderings tailored to the requirements of a wide range of groups and agencies, including the Hospital Board, various community organizations, and zoning committees. “The ArchiCAD 3D model and PlotMaker really enabled us to do it,” says Segura.

Even more pressing was the task of finding a place for all interior systems, without affecting the exterior design plan. “Greenbaum is a really detailed, high-density facility,” explains Winslow. Using ArchiCAD, the team precisely coordinated the interior complexity with the exterior, enabling the team to make decisions quickly and effectively—crucial for keeping projects on track.

“By doing it in 3D we were able to help the client get a sense of the space,” says Segura. “This was an alternative to building a full-scale, expensive mock-up of the room.” Using ArchiCAD and a laptop, the architects were able to take the clients on a virtual tour of the facility and make adjustments that they could instantly evaluate. ArchiCAD software also enabled them to generate clear 3D models or sections anywhere in the building, so contractors could easily understand the interstitial spaces of the building. “ArchiCAD software’s ability to represent structural systems and equipment in 3D enabled us to coordinate complex building types and avoid conflicts,” says Winslow. “We see better designs coming out of our office as a result of this technology.”

CHANDLER JUNIOR HIGH SCHOOL No. 5—GILBERT, ARIZONA

Collaboration and coordination are essential for the success of major architectural projects. Orcutt/Winslow used ArchiCAD software to interface with the entire Chandler design and construction team, while also maintaining up-to-date and accurate documentation. Encompassing 120,000 square feet in five buildings across 30 acres, this facility demanded the design team’s best effort.

To work efficiently, Orcutt/Winslow used TeamWork, a feature in ArchiCAD that enables multiple people to work simultaneously on the same file—while preventing them from changing the same components. Using TeamWork, design teams can easily share changes among themselves and view what other team members are doing. “We can all collaborate on the Virtual Building without pulling it apart into separate pieces,” says Russ Sanders, AIA, Orcutt/Winslow Associate and Virtual Building Committee Coordinator.

