

Keeping the Clients Happy with Revit® Architecture Software

By Leslie Faughnan

Dennehy & Dennehy Designs is now one of the largest firms of architectural designers in the South of Ireland, with a staff of 26 including specialists in urban planning and landscaping as well as commercial and residential building design. Established by Tony Dennehy in 1982, the practice aimed from its inception to offer a range of services to its clients, from master planning and urban design to interior design, with experienced professionals in each discipline. The wide range of Dennehy & Dennehy projects in recent years have varied from major new construction projects with values of up to €215 million to the sensitive interior re-fitting of historic buildings.

Its work spans commercial projects such as business parks, retail, hotel and leisure facilities as well as housing, from a single €20 million neo-Georgian house to a 1,500 unit housing development with forty dwelling types and a town centre including shopping, medical, crèche and recreation facilities. Other special projects have ranged from specialised industrial projects such as a business recovery facility and pharmaceutical plant extension to a cinema and a marina.

All staff work with high performance PCs, including four dedicated visualisation workstations with dual screens. "About 95% of our work is done using Autodesk products," explains David Purdon, who has responsibility for the software applications in the practice. "Revit® Architecture became our principal platform in 2007 while we also used AutoCAD®. We had been designing for about three years using AutoCAD® Architecture. The move to Revit and building information modelling (BIM) was principally driven by two objectives: to meet our needs for a high level of collaboration with third party professionals as well as within our own teams, and to bring the ability to visualise all aspects of a design model as it is progressing from concept to final plans."



These before and after photos show how a proposed commercial development will sit in the landscape.

"This firm made a policy decision some years ago to commit to top quality visualisation as a key element in working with both lay and professional clients," says Dennehy & Dennehy director Patrick Nash. "We are quite frankly looking to gain a competitive edge in using state of the art technology. In any event today's clients are savvy, they know what design technology is capable of and they expect to be offered high class visualisation. In fact more and more commercial clients especially are actively asking for specific presentation elements."

"But there is also enormous practical value day to day in the design process because of the underlying building information model and its comprehensiveness being shared by all of the disciplines working on the project," Patrick Nash adds. "We have found that working completely in BIM and therefore 3D is valuable for internal quality control on projects. It actually helps eliminate a lot of problems early. Our belief is that BIM and the 3D design process, in our case based on Revit Architecture, is not just a set of tools to do a job but actually a complete way of working."

Revit Architecture software allows the designers to model more rapidly, more accurately and more intuitively, he says. Changes can be made quickly and accurately and it is especially flexible in the early stages of a design project. "Because it is shared among the technicians working on any aspect or element of a building, multiple inputs are facilitated and the master model can easily be updated and locked when a task is finished. Take windows and doors, for example: changes can be cumbersome to carry through consistently when working in 2D

but with 3D and Revit that process is effectively automated. You can also at a much earlier stage and more easily see how different facets of a design impact visually on each other. That might be lines of sight, for example, or roof heights and you can spin the model around to examine aspects from different points of view."

The practice has now competed in several major projects using Revit throughout, beginning with a major development of mixed commercial and residential elements on a substantial urban site in Cashel, Co. Tipperary and more recently a commercial office campus in Cork. "The Cashel project demonstrated clearly the value of staff being able to work on different aspects of three or four projects simultaneously using Revit Architecture. It also greatly improved the quality of our communications and collaboration with third party professionals which in this case included planning, building and quantity surveyors as well as engineers and local authority planners."

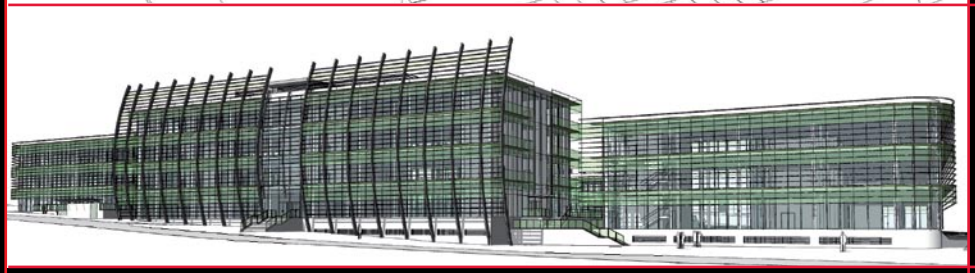
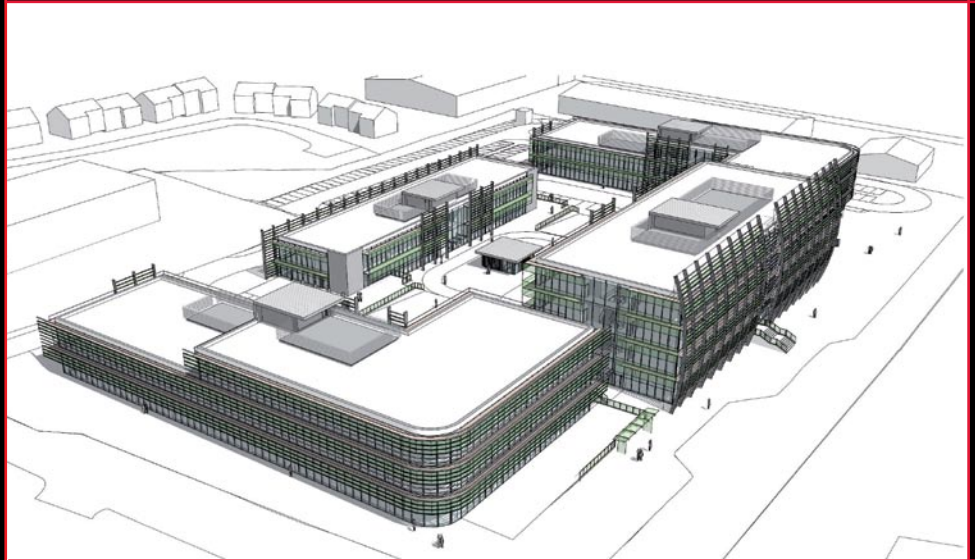
The ease of producing DWG and DXF files from Revit Architecture to share design data with professional partners, combined with the fact that most of them also use Autodesk products, ensured a smooth collaboration process. Similarly, working with returned files and incorporating changes and revisions with full version control also proved both speedy and relatively easy compared to alternative methods.

The Revit projects introduced the Dennehy & Dennehy team to using the extensive capabilities of the program to model alternative solutions to the various topographical and planning constraints of the site. "There were elements that were a constraint, including restriction by exposure and line of sight issues. But there were also factors that we were able to take design advantage of in various ways. The key point overall is that we were able to do so much on screen, with survey and other data, and so progress the project design more quickly than we could possibly have expected using any other methods."

Compared to other experiences with various CAD programs, Autodesk Revit had a far shallower learning curve and was easier to implement. David Purdon says. "The interface and the tool set are very intuitive. For example, you can draw a 'wall' instead of merely a line. So now we have close to half of our design staff transferred to Revit Architecture. In fact it is important in keeping staff motivated that we are working with the latest design software and high spec hardware. It is also something of a recruitment incentive, because today's graduates are accustomed to high end systems in college." The firm is also investing in staff training in Revit Architecture with a total of 18 professionals due to have completed courses by mid-2008.

"Looking forward, the principal benefits of our investment in Revit Architecture as our design platform will be in terms of efficiency, speed and enhanced collaboration. It fits perfectly with our IT strategy of completely centralising all of the data in the firm to ensure security and consistency. We have a formal quality system and are fully certified to ISO 9001, so in that context it is essential that all of our processes are tightly controlled. There is always a consistent hierarchy of master design models and subsidiary working files, centrally stored and replicated for backup."

Patrick Nash also repeats the Dennehy & Dennehy belief that investment in high quality presentations for its clients is central to the continuing success of the firm as a leading regional practice. "That capability of Revit Architecture, in its own right and working easily with animation and movie software packages such as 3ds Max, is a major contribution to the business side. We have already produced animated 360 degree presentations and walk-throughs. We see the next step as offering our clients 3D presentations over broadband at key intervals in the design process, both to show progress and to achieve clear understanding and agreement in relation to alterations. Who knows, in a very short time we may be working with such design models in real time at client meetings, even virtual meetings by videoconferencing."



Revit Architecture was provided by Autodesk Reseller, C-CAD Computing

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