



Kingston Crown Court

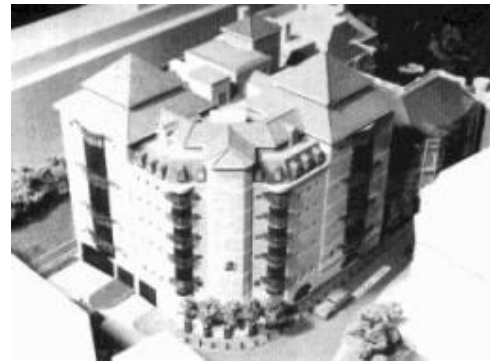
The Project

Until 1989, Kyle Stewart Limited was one of the UK's largest privately owned construction companies. Now part of Hollandsche Beton Groep nv, Kyle Stewart's interests cover almost every type of building. Design services are closely integrated with construction skills to provide a complete solution for fast-track 'design and build' contracts.

Having the latest computing technology is an important issue. In 1994, the company's structural engineers upgraded to AutoCAD alongside Graitec UK's SuperCONCRETE, SuperSTRESS and SuperCAD. According to Principal Structural Engineer Chris Packer, increased productivity to gain competitive edge was a major objective within a recession hit industry where resources are limited.

The Software Solution

"We wanted to see if we could create the RC detailed drawings as a by-product of the design without involving a draughtsman in the usual way. We needed a new design system that produced at least 50 percent of the final drawing automatically as part of the design process." said Packer.



Following supplier evaluations Kyle Stewart opted for Graitec UK's SuperSTRESS, SuperCONCRETE and SuperCAD packages for analysis design and detailing. Graitec UK's software, explains Packer, was "more flexible" for tackling complex beams and columns. Greater user friendliness and a good "intuitive" feel were also important influences. But, says Packer, Graitec UK had to offer more.

"What we purchased was only half of what we needed. The remainder comes from Graitec UK's future plans. We told Graitec UK that the development of their product line was very important to us."

Future working practices, believes Packer, must include an integrated "building model". This will allow analysis, design and drawing processes to be closely integrated. Increasing overall productivity and ending traditional job demarcations.

The Project

For Kyle Stewart's first requirements, SuperCAD proved an immediate winner. After an on-site training course in March 1994, Graitec UK's SuperCAD was used on a £20 million design and build project for Kingston Crown Court. Seven detailers using SuperCAD produced 280 RC drawings detailing 1,140 tonnes of reinforcement within 7,600 cubic metres of concrete.

"The results were excellent and we were very impressed with the way the work went. The SuperCAD details were neat, extremely accurate and very fast. Drawing quality made a good statement about us to the client," commented Packer.

Apart from productivity gains, Packer says that SuperCAD helped design out discrepancies in quantities between manually produced reinforcement estimates and final designs. New project estimates, produced using Graitec UK's software, will be more accurate. Further practical experience using the software is being gained on the £10 million Reading Crown Court project, won after a tough competitive tender.

"The whole of the analysis, design and detailing for Reading Crown Court has been planned using Graitec UK's SuperSTRESS, SuperCONCRETE and SuperCAD."

These programs are linked together to allow the design engineer to produce RC drawings that are at least 50 percent complete as a by-product of the design function. This close integration between Graitec UK's modules is now being exploited as the project progresses, cutting down on much basic work traditionally done by draughtsmen.

Although Graitec UK's software has been used for less than a year, Kyle Stewart can see the "great potential" of feature efficiencies. Fast-track projects, tight estimates and less staff mean a considerable squeeze on resources. The use of the latest RC analysis, design and detailing software can assist to ease these pressures.

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