

Case study: United House

United House embraces Powerproject and Site Progress Mobile to boost site – and business – performance

With multiple concurrent projects, which can involve more than 1000 individual builds at the same time, house-builder United House needed to sharpen its site progress management. To make it easier for planners to keep the master project plan accurately up-to-date it has deployed the Site Progress Mobile app, running on iPads, for its entire team of project and site managers. They can now take responsibility for making quick and simple updates directly to the master Powerproject plan on a regular and dependable basis, even when phone and wi-fi signals are patchy.

Powerproject as foundation for standardisation

While United House has a substantial team of more than 50 expert project and site managers, operating both out of its Swanley, Kent headquarters and on site, it has tended to rely on traditional planning resources. When Warren Betts joined the company in 2012, it was apparent that it was time to refine and streamline the company's planning and progress approach. The company started to closely examine and understand its core design, procurement and construction processes and to assess its planning challenges. Warren explains "We needed to be clever at structuring our programmes, and bring in clearer planning processes and procedures."

United House was using a range of different tools and approaches, including Powerproject. Warren had used the software for many years, and saw an opportunity to use it to catalyse change "Although Powerproject was used to create programmes for tender, it was all a bit ad hoc. I believed



United House is a leading housing contractor delivering new build residential schemes and refurbishment projects across London and the South East. It has a track record of excellence and innovation across a broad range of housing and regeneration projects that include new build, refurbishment, mixed use and high end private residential homes; its achievements have resulted in numerous industry awards.

Individual projects usually incorporate

a mixture of build types and aims, which may include social housing and high-end private residential townhouses, apartments, penthouses and duplexes. The company typically has around 40 projects running simultaneously, all varying in type and scale and often with staggered completion deadlines and client handovers. A complex environment like this demands the very best in planning and progress management, and as the company has grown, its planning needs have grown too.

we could use it instead to create proper organisational structure to all our programmes. So, we set about redefining everything."

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Warren's new approach to tendering was for the planning team to use Powerproject to create a more fully formed, readily actionable programme at tender stage. "We now put much more detail in at the start about how we would actually build; covering design, procurement and construction. As an integrated programme we can then include the sequence, and really know



United House projects

Site Progress Mobile is helping United House to progress manage demolition, clearance, redesign and construction of multiple projects including:

- ◆ Wharf Road – 327 dwellings and commercial space
- ◆ Alfa Laval – 40 apartments, 29 terraced houses
- ◆ Grange Walk – 5 blocks containing 205 dwellings and commercial space
- ◆ Wenlock – 104 flats and duplexes, commercial space, car parking
- ◆ South Kilburn Phase 2A – 229 flats, community amenity space, car parking and landscaping
- ◆ Hammersmith Grove – part 4 storey, part 5 storey, part 6 storey apartments plus basement
- ◆ Manor Lane – 22 new apartments plus external works.
- ◆ Courtauld Road – Warehouse conversion and development of 34 apartments, 8 houses on split site
- ◆ East Street, Epsom – Young Persons Accommodation in 45 short-stay flats, communal facilities, administration and employment areas
- ◆ Hounslow Homes framework – total of 182 units split over 6 sites

how we will move forward and how long it will take. It puts more science in the design and construction planning process, creating 3D build and phasing diagrams that complement each other.”

The company now benefits from the standardisation the software has enabled, as well as saving significant amounts of scarce repeat planning time. “From job to job the format stays the same, so we don’t have to reinvent the wheel every time” says Warren.

Teams can move rapidly from office planning to site action

The benefits have been far-reaching in terms of kick-starting contract wins fast. Crucially, it has helped ease the pressure on limited planning resources “When we submit a tender, we have often now completed much of the hard work ahead of time. When we win a contract, we often have very little time to convert it into an active plan, but the time it takes to do that is much smaller than before – because we’ve already

understood and organised it, and configured the plan correctly”

Using the app it is now far faster, and easier, to engage the team. “By using the work breakdown structure, we can now easily allocate sections of the programme out, to the design manager, or to the commercial manager for immediate action on procurement. Construction plans can also be split out in different ways –substructure, superstructure, the facade, or the eventual fit-out – and we can allocate these sub areas to specific site managers. Quite simply, it gets everyone started faster.”

Site progress across 1150 builds is now transparent

The second stage of transforming the process of planning fully throughout the delivery phase was to focus on progress management, and for this United House was quick to grasp the potential of Site Progress Mobile. Designed to support Powerproject users with site-to-office project progress reporting from mobile devices, the app puts the power to collect and submit onsite progress in the hands of a wider team, no matter where they are working and how difficult internet connectivity may be.

“We wanted the business benefits that come from visibility and transparency around the progress of projects” explains Warren. “We have very few

planners overall, and given the size of certain projects and the number we need to plan, it simply isn’t cost-effective to have a planner on every job. What Site Progress Mobile enables us to do is give the project teams their programmes, with all the planning aspects agreed in advance.”

United House signed up for 23 licences of the app even prior to its release,

“ We know exactly when things are started, and finished. Not only can we use this for future planning, it also allows us to analyse any delays or the issues that create those delays. ”

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ordered 30 iPads for its project and site managers, and started to plan the rollout. "The opportunity was to give project managers real responsibility for their own progress management and how they mark it up. They can now effectively assess their own programme position. This one source of truth is used across the business reporting cycle." United House implemented the app the instant it became available. The Site Progress Mobile rollout has already reached all of the company's current developments, totalling over 1150 individual builds, and is ongoing with more licenses planned.

Limited planning and software knowledge amongst project managers had been a challenge in the past. Site Progress Mobile eliminates that challenge for those who do not need to be involved in complex planning activity but need to focus on the simpler tasks swiftly and efficiently. "Now, it doesn't matter that many aren't trained on Powerproject itself, because the app is such a quick and simple way to capture progress information - they don't have to put the information into Powerproject, because the app takes care of that." This ease of use is seen as significant because it supports the particularly fast-moving environment of residential developments and the highly repetitive nature of tasks, in particular the fit-out element, when developing multiples of a particular build. "In a residential project, you can be managing anything from 10 townhouses to 350+ apartments, and when it gets to fit-out stage, especially, it moves very quickly. There are lots of activities all happening at the same time, and it's very hard for any project manager to see the exact apartment position of each one against the project programme. With Site Progress Mobile they don't have to think so hard - tasks are either done or not done, checked off or not. They do not need to work out percentage completion, and instead can be very clinical."

Site Progress Mobile aids rapid, regular and relevant reporting

The submission of updates from every project manager and site is now simple



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and regular. The company does not wait to report programme delays at monthly reviews as the progress information is collected by the app user all week. Project managers know it is being stored as they input updates, regardless of whether there is a wireless signal at the time. Now that there is submission of completely up-to-date progress data each Friday, reporting delays have been slashed: "Our planning team would capture progress and mark up the project using the jagged line mark up ready for a monthly client review meeting with only limited attention paid to the programme. They would review and capture results, input it, collate report and feed back to project teams

- it could take up to two or three days. Now, the planning team can collate and aggregate the programme position fast, sending them back a report on the same day."

It aids continuity of planning both on site and at head office "When project managers know their exact position, it enables their short-term planning. Quite simply, if something wasn't done last week, it needs to be done this week, they can then ensure that it happens - so it focuses the mind!" At the programme management level it helps planners see the whole programme position and align resources: "We can immediately see any jagged lines, and understand what tasks are running behind the programme" explains Warren. "We can then reschedule those tasks, and reforecast the overall position. We can review that against the original baseline programme and know exactly where we stand, allowing us to take any mitigation measures accordingly."

Having more accurate and up-to-date information means that all areas of the company are better informed and are able to act on those insights. "We can generate a range of different reports - the critical path, extracts on a specific block, or trade, or on a specific house or apartment, and run different scenarios - that way we can communicate back not only to the project team, but to senior directors. Everyone sees the level of

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detail they need: the operations director can interrogate the information, and use it as a basis for relooking at something, or allocating extra man hours or resources to overcome a problem. We can stop, think regroup and re-plan – and it's working very well"

Now that project managers have Site Progress Mobile, it has not only improved the currency and accuracy of the programme plan, but has helped the drive for standardisation. Previously project managers were using a range of ad hoc, personal systems to capture their progress updates, and submitting these on varying schedules. Collating information from different inputs was hugely time-consuming, and information was of slightly differing levels of detail and accuracy. "Information is now structured in a way that makes it easy for the project manager in the field to understand and interact with. Before, people used a combination of tools like Microsoft Project and Excel or even paper, and interpreted progress capture individually – there was no standard. This brings more order to the process."

Site Progress Mobile now ensures that tasks are not only checked off but the time and date is recorded too. This is mitigating issues, reducing business risk and empowering United House with vital information for planning: "We are now able to capture As Built information more easily, which we can use as a benchmark. We know exactly when things are started, and finished. Not only can we use this for future planning, it also allows us to analyse any delays or the issues that create those delays. We can identify problems – and, importantly, it gives us a contemporary As Built record to use to fight off any claims for delay, or to substantiate our claims for extension of time. If a client adds into the plan, that addition is recorded."

Looking to the future

The standardisation and enhanced quality of planning processes has already paid dividends, improved transparency and helped United House to maintain its usual high quality and dependability of service for customers.

"Site Progress Mobile has helped our managers to report effectively without the need to use Powerproject and has got them into the mindset of reporting regularly and without prejudice. This is, most importantly, making them proactively manage the programme and take control of it."

The ease of use of the Site Progress Mobile app is such that the company feels able to train and engage project managers itself, but it has worked closely with the support team at throughout the rollout. "We have given Powerproject constant feedback. They're always very helpful – the helpdesk is quick, they respond fast, and we have put forward some suggestions already for further improvement."

The future looks positive for the relationship and for United House too. It has a reputation for innovation

and continuous improvement, and its focus on planning and progress management excellence is clear. What are the next steps? "We want our guys to embrace the use of the app and iPad, to fully understand the benefits these bring, and to take ownership – and we're committed to giving them all the training and support we can to do that. Going forward there are opportunities to use Powerproject dashboards to gain even better business intelligence, and start to use it with our most forward-looking clients to enhance communication and planning."

"Perhaps it is a cliché, but we want all United House projects to finish on time and on budget, as well as be delivered to our high standards – and we know clients want that too. We plan on using these tools and the intelligence they can provide to help us move towards that."



About United House

United House is a leading housing specialist offering innovative construction solutions across London and the South East. The company was founded in 1964 and has achieved impressive, consistent growth, reflecting its outstanding track record for delivering an unrivalled combination of social housing new

build, refurbishment, regeneration, mixed use, and high end private residential homes, investing in the communities where it works. The company is a pioneer of low-carbon retrofit to reduce fuel poverty, and has won numerous awards for homebuilding and use of innovative technology. www.unitedhouse.net.

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