

## Building a standard component library for Kent County Council's school building programme



### Challenge / opportunity faced by KCC:

Kent County Council have an annual school building programme of £380m, this budget will reduce to £260m (32% reduction) whilst accommodating an additional 22,500 places over the next 5 years. KCC want to future proof their infrastructure to:

- Increase capacity by 200%
- Reduce carbon emissions by 30%.
- Reduce lead-in time to commencement on site from 6 months to 4 months (33% reduction) to avoid the risk of hiring temporary accommodation caused by late starts and overruns.

### Lessons learned from others who have embarked on a similar journey:

SECBE who manage the Constructing Excellence in London and South East Awards were able to draw upon experience from two similar award winners, sharing with KCC the methodology and the time and costs savings achievable on similar projects within the public sector. These were:

- NHS Procure 21+ Repeatable Rooms project, and
- Ministry of Justice Standardisation Objective.

### Scope of support provided by SECBE to KCC:

To cover all schools and any facilities within the school boundary that meets the Basic Needs policy. It was acknowledged that the creation of a standardised component library capturing features and specification would not achieve the above high level objectives. It would however provide a platform upon which further initiatives could be built, one of which would be for the supply chain to reduce costs as a standardised BIM approach took risk and cost out of their processes.

### Objectives of SECBE support to KCC:

- Identify components within scope of Component Library Project.
- Develop Road Map of how to create and apply component library.
- Identify how the application process can be developed to ensure that capital projects and maintenance and minor operations, including FM, can work together.

### Process:

- Initial actions focus on primary schools, followed by secondary and then special needs schools.
- Source of components within scope identified for each school type, and estimated at 38 for primary schools.
- Develop a Road map to achieve a BIM library for primary schools by June 2016 resulting in an historical cost base and a revised cost based on a standardised BIM library detailed to include features and specification. The new standardised components will form an integral part of Employers Requirement (ER) documents.
- The ER generation process is to be amended to formally include Maintenance and Minor Works and who will have sign off responsibilities.
- Completion of design options incorporating standardised BIM component models will be undertaken by external design consultants.
- Component design cost targets will be base cost less 30%.
- Stakeholder involvement will take place after credible options have been designed and costed.
- KCC will realise limited internal BIM capability, relying on the supply chain to develop and integrate BIM models.

### Issues to be addressed going forward:

- Development of useful BIM models will need to address issues of flexibility.
  1. Important to identify which aspects are flexible and which fixed (room size lower limit fixed, room shape some degree of flexibility) and understand how that flexibility will be expressed.
  2. Important to get appropriate level of granularity in BIM objects so flexibility in design can be realised – especially important not to constrain opportunity for offsite manufacture/construction.
- Issues likely to be addressed in considering technical feasibility at initial meeting.
- How KCC will capture activity to enable development of an exemplar case study if warranted.
- If a fully implemented BIM library will not achieve required strategic objectives, what else needs to be done to achieve them?