KNOWLEDGE

B1 ASSESS SURVEY REQUIREMENTS, DATA STANDARDS AND OUTPUTS

The first requirement of a project is to undertake a Measured Land and Building Survey. This would be undertaken using digital measuring equipment for the floor plans and elevations of the existing building and a Total Station reflectorless laser for a Topographical Survey of the site. All these types of measuring and surveying would require a small tolerance so the survey would be accurate. Additional information would be taken on site, such as photographs, ordnance survey maps and materials. A significant requirement for a survey may be internal ground levels and the height and dimensions of trusses, purlins and rafters due to the requirement for structural calculations. Both techniques of using a digital measuring device and a Total Station laser would create an accurate section to be used for proposals.

It would also be useful to check with the council whether the site or building is listed or within a conservation area as this will affect what is feasible when we are at the proposal stage.

In most cases the client will provide a detailed survey requirement brief that can be easily followed and assessed. As the surveyor it is my responsibility to assess the site itself and what additional information should be taken to produce appropriate survey drawings. I use CAD in the office and so all surveys will be produced on ArchiCAD software that will allow me to apply the proposals to the same survey drawings. I feel this is a benefit and an advantage compared to a drawing board as it saves time and allows me to provide digitally based documents to the client or any other party with an interest in the project. The data can be emailed, saved in many formats and printed as many times as required.

B2 SELECT CRITICAL INVESTIGATION REQUIREMENTS

For this unit I will be assessing a Grade II listed building that I have worked on from conception to completion. With this building being Grade II Listed, from the outset it was clear to me that due to the building having historic value this would have a significant effect on the proposals and additional information required to be submitted with the planning application. Therefore the Measured Land and Building Survey would play an important role in determining the feasible proposals. Due to the significant value of a survey it was carried out accurately as detail was critical at this time. With the survey, photographs and additional survey evidence was submitted with the planning application along with a full Design & Access Statement.

Additional investigation was required for the existing details i.e. the wheel in the roof space and the existing workbench. After consultation with the Conservation Architect, he explained his concern with the conservation of the workbench. To get around this problem the proposals needed to incorporate the conservation, restoration and replacement of this workbench. Additional measuring and surveying of the exact location and dimensions of the workbench and wheel was required and detailed drawings were produced.

It was paramount at the outset that this building had historic value and this was highly important in making part of the planning application, therefore all detail would be critical and would be needed to be put down in writing with photographs and surveys so that it would form evidence whilst making the planning application.

As the building was also in a conservation area and within a built up area, the visual aspects of the buildings would need to be concentrated on greatly as it would have a bearing on an existing small hamlet. All parties who were involved at this stage of the project would have to be advised that the survey was going forward and their permissions received prior to entering on to the site to undertake the crucial surveys. A safety inspection was undertaken before entering on to the site and advice given on safety equipment to be worn whilst undertaking the survey.

B3 INVESTIGATE AND EVALUATE DEVELOPMENT FACTORS, LIKELY PROBLEMS AND POTENTIAL SOLUTIONS

After further consultation with the Conservation Architect, it was clear that the preservation of the existing bench and wheel were going to cause problems with the feasible proposals and so solutions were required to work around these existing features. Using the Measured Building Survey and including the accurate detailing of the location of the wheel and bench, a proposed framework system was devised that enabled us to remove the wheel and bench, install the framework system with insulation meeting U value requirements and then replace the restored features in their near-to existing location. These proposals were forwarded to the Conservation Architect before a planning application was submitted for his informal opinion. The outcome was positive and so these proposed drawings were submitted with the planning application.

With the building being Grade II Listed and having historical value, it was known that there might be artefacts of significant importance within the floor structure of the barn. The proposals were to dig up the existing floor and replace with a new insulated floor. This type of proposal would require the existing floor to be completely dug up and removed from site and so it was clear that a Condition would be put on to the Permission, if granted, for an Archaeological Assessment and Evaluation of the groundwork's. To reduce the significant impact on the ground, the

proposals were amended to lift the new proposed floor higher than the existing level to reduce the excavation of the existing ground.