Silver - Unit 4 - Planning, Costing and Presenting a Sustainable Building Project

Relevant LINKS

BACK TO BIM UNITS **[1]**

Overview

This is the ability to understand and define a construction project with particular emphasis on what is required to make it sustainable over a reasonable period of time. Some understanding and appreciation of the impact on the wider community will also need to be in evidence. The main issues will need to be presented clearly to all stake-holders, and where appropriate, solutions to issues will need to be found before progressing.
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the software tools and functions will be predetermined or commonly used; and
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Main areas covered will include, but not be limited by:

- the ability to research materials and functions
- the understanding and application of local and national guidelines
- ability to present information and attend relevant meetings to support the process

Example of context: Proposing a local construction project, such as an eco friendly classroom for a primary school.

Activities supporting the assessment of this award

Assessor's guide to interpreting the criteria

General Information

QCF general description for Level 1 qualifications

- Achievement at QCF Level 1 (EQF Level 2) reflects the ability to use relevant knowledge, skills and procedures to complete routine tasks. It includes responsibility for completing tasks and procedures subject to direction or guidance.
- Use knowledge of facts, procedures and ideas to complete well-defined, routine tasks. Be aware of information relevant to the area of study or work
- Complete well-defined routine tasks. Use relevant skills and procedures. Select and use

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relevant information. Identify whether actions have been effective.
- Take responsibility for completing tasks and procedures subject to direction or guidance as needed

Requirements

- Standards must be confirmed by a trained Level 1 Assessor or higher
- Assessors must at a minimum record assessment judgements as entries in the online mark book on the INGOTs.org certification site.
- Routine evidence of work used for judging assessment outcomes in the candidates' records of their day to day work will be available from their e-portfolios and online work. Assessors should ensure that relevant web pages are available to their Account Manager on request by supply of the URL.
- When the candidate provides evidence of matching all the criteria to the specification, subject to the guidance below, the assessor can request the award using the link on the certification site. The Account Manager will request a random sample of evidence from candidates' work that verifies the assessor's judgement.
- When the Account Manager is satisfied that the evidence is sufficient to safely make an award, the candidate's success will be confirmed and the unit certificate will be printable from the web site.
- Each unit at Level 1 has recommended guided learning hours based on time required to complete by an average learner.

Assessment Method

Assessors can score each of the criteria N, L, S or H. N indicates no evidence and it is the default setting. L indicates some capability but some help still required to meet the standard. S indicates that the candidate can match the criterion to its required specification in keeping with the overall level descriptor. H indicates performance that goes beyond the expected in at least some aspects. Candidates are required to achieve at least S on all the criteria to achieve the full unit award. Once the candidate has satisfied all the criteria by demonstrating practical competence in realistic contexts they achieve the unit certificate.

Expansion of the assessment criteria

1. The candidate will understand issues associated with planning legislation and controls

1.1 I can describe the importance of planning and planning protocols

Candidates should recognise BIM as enabling the realistic modelling of buildings and the sharing of critical real-time information.
Evidence: verbal/written report in portfolios.

Additional information and guidance
At level 1 identifying key reasons and aspects of the planning officer role is sufficient but candidates should be encouraged to describe and explain these in as much detail as they are able. This will help develop literacy and communication skills.

1.2 I can identify planning requirements related to the design and construction of an Eco Classroom

Candidates should possess a sound knowledge of their eco classroom’s immediate location and local surrounding area insofar as they could be relevant to planning restrictions.

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Evidence: from portfolios of evidence.

Additional information and guidance
They should demonstrate that they have investigated any planning restrictions on their construction project and taken all measures to ensure a positive result.

1.3 I can identify common problems that arise in planning applications

Candidates will have an understanding of the issues and constraints surrounding planning applications.
Evidence: from portfolios and/or internal controlled tests.

Additional information and guidance
They should be aware of a number of factors that influence a planning decision, particularly where construction will impact the local community and the environment, for example over development, conservation areas or areas of outstanding natural beauty, wildlife habitat or floodplain. They should have a general awareness regarding contaminated land restrictions and tree preservation.

1.4 I can develop a structured argument to support a given planning application scenario

Candidates should demonstrate leadership skills in the planning committee room.
Evidence: from assessor observations, portfolios.

Additional information and guidance
They should have prepared and rehearsed a 3 minute statement to counteract an argument and addition to presenting evidence, they should find reliable solutions to potential issues.

Getting the tone of the debate right is critical - being sarcastic or angry puts listeners off immediately. A candidate who is ‘pro’ development should tell the ‘story’ of the eco classroom - why it is deemed necessary, for the greater good and the good of the local community. They should include significant facts, avoiding rhetoric, argument or comments that may offend the opposing party. In addition to presenting evidence, they should find reliable solutions to potential issues. Conversely, if the candidate opposes the eco classroom, he/she must return the same justification, clearly explaining why the project should not go ahead.
Level 1 candidates will need structured guidance in preparing their piece.

1.5 I can agree appropriate measures to conclude a successful planning application

Candidates should be prepared to present supporting evidence at a planning committee meeting.
Evidence: Assessor observation and portfolios.

Additional information and guidance
They should have with them all site plans and design drawings (elevations, floor plans, sections) on title blocks if possible. Further information is available on the UK website [2].
Level 1 candidates will need support in organising their resources in keeping with the overall level 1 descriptor.

2. The candidate will understand issues associated with procurement for a construction project

2.1 I can identify the effects of local and global procurement on local and global communities

Candidates should demonstrate they understand some key impacts of ethical and sustainable

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procurement both locally, nationally and globally.
Evidence: portfolios and/or internal controlled tests.

Additional information and guidance
They will investigate 5 shopping items on a shopping receipt (e.g. the local supermarket) and determine where the goods are coming from (the source), how they are manufactured/grown, by whom, and how do they get to us. The candidate will understand that there is often a fine economic, environmental and social balance between supporting a local economy in one country and not doing so in the very neighbourhood in which they live. Working closely with local suppliers can generate employment, skills and training opportunities, and we can enable small and diverse businesses to share in the delivery of large contracts. And yet, not procuring goods from third world countries that rely on our business can prove disastrous. Procuring solar panels from Eastern Europe may well make our energy cheaper, but in the long run, have we really saved the planet when the lorry that has made its way across the continent has burned a colossal amount of fossil fuels to get them here? UK government's Sustainable Procurement National Action Plan includes initiatives to

- reduce waste, carbon emissions, energy and water consumption
- protect biodiversity
- stop the buying of timber from unsustainable sources
- support fair and sustainable economic growth
- deliver social benefits through procurement

Another excellent resource regarding industry and sustainable procurement can be found at here [3].

2.2 I can identify properties of sustainable building materials

Candidates should demonstrate their knowledge of sustainable building materials through identifying information in their previous research.
Evidence: portfolios and/or internal controlled tests.

Additional information and guidance
Level 1 candidates should be encouraged to go beyond simple identification where possible. This will help support progression to level 2.

2.3 I can select sustainable goods and services from local sources where practicable

Candidates should demonstrate knowledge of supplier/source and propose alternatives where impractical.
Evidence: portfolios and/or internal controlled tests.

Additional information and guidance
They will write a letter to a local construction company seeking advice regarding the sustainability of their choice of materials and how they might be procured. They will make enquiries to investigate the availability of a local workforce, the level of skills required and the organisation's capacity to build their particular eco classroom design.

2.4 I can produce a bill of quantities for a construction project

Candidates should demonstrate their ability to compile a schedule of materials using Autodesk Revit software.
Evidence: Bill of quantities via 3D model schedule.

Additional information and guidance

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They will seek local help from a Quantity Surveyor where practicable.

2.5 I can identify the range of industry specific skills available locally

Candidates should identify a variety of skilled people, companies and businesses relevant to the construction industry in their locality.
Evidence: from portfolios.

Additional information and guidance
Candidates will require structured support in using possible sources of information that can include, survey advertisements, lists of providers in libraries, internet searches or any locally relevant means.

3. The candidate will be able to make effective presentations

3.1 I can support a presentation with appropriate digital technologies

Candidates should support their presentation using appropriate digital tools.
Evidence: Presentation files or links from portfolio.

Additional information and guidance
Candidates will choose an appropriate method to present their project. This will be in a professional way, as though presenting to a professional audience. Encourage experimentation beyond bullet lists in PowerPoint. The best presentations are simple illustrative visuals with very little text. The text is what you say and can be provided separately. Feeling that it is necessary to read a lot of text can actually be a distraction to the audience as can a lot of unnecessary animation effects. Sound effects are almost always annoying! Link to web resources such as on-line videos to illustrate points. Level 1 candidates will need structured guidance but many adults do stereotypical boring presentations with PowerPoint simply because very few have had any real background or training in using the tool effectively. Also consider the number of
PowerPoint files that are distributed by e-mail and are simply cluttering folders. Consider that a URL to an on-line resource reaches anyone with the URL without the need to copy a file and if the originator of the file updates it everyone automatically gets the update. File based presentations are really a legacy of the past and we need to prepare children for the future so look into web based presentation tools. Mostly these are free.

3.2 I can design supporting media content to have impact and clarity

Candidates will design and present appropriate content to demonstrate impact and clarity.
Evidence: from portfolios.

Additional information and guidance
Candidates should prepare supporting content that can be used in their presentation. This can be eg video linked from a site such as You Tube or embedded in the presentation. Video editing tools good enough for this purpose are free so encourage their use as it then opens them up for students to use at home. Check copyright on images. Mediawiki [4] is a good source of free illustrative content that is free for re use. OpenClipart.org [5] is a free source of images and drawings. Encourage production of their own illustrative drawings and diagrams. Inkscape [6] is a good free resource for this.

3.3 I can structure a presentation to prioritise the messages

Candidates should appreciate the basic principles of structuring a presentation to reinforce a limited number of key messages.

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Evidence: Assessor observation and portfolios.

Additional information and guidance
Candidates will appreciate the importance of prioritising information. They should write a simple, logical outline regarding the key points, and introduce previous sketches and other appropriate visual aids if it helps get the message across. Level 1 candidates will need support in organising the structure of their presentation but should be encouraged to become increasingly self-sufficient in order to progress to Level 2.

3.4 I can make effective use of the time available while making a presentation

Assessors should check that the candidate has got the intended message across within the allocated time.
Evidence: Assessor observation.

Additional information and guidance
The candidate should aim to finish within an allotted time: and should also be concise. The presentation should include welcoming the client, setting out the key points and bringing about a purposeful conclusion.

3.5 I can identify strengths and weaknesses in my presentation

Candidates should be able to list strengths and weaknesses in their presentation.
Evidence: from portfolios.

Additional information and guidance
This is a good opportunity for peer review. Candidates should be open to constructive criticism as well as recognition for their good points. Candidates should realise that improvements come from understanding weaknesses and working on them to turn them into strengths.

Moderation/verification
The assessor should keep a record of assessment judgements made for each candidate guided by the above guidance. Criteria should be interpreted in the context of the general descriptors of QCF Level 1 qualifications. They should make notes of any significant issues for any candidate and be in a position to advise candidates on suitable routes for progression. They must be prepared to enter into dialogue with their Account Manager and provide their assessment records to the Account Manager through the on-line mark book. They should be prepared to provide evidence as a basis for their judgements through reference to candidate e-portfolios.
Before authorising certification, the Account Manager must be satisfied that the assessor's judgements are sound. In the event of missing evidence, the assessor will be requested to gather appropriate information before the award can be made.

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Source URL: https://theingots.org/community/decl1u4x

Links
[1] https://theingots.org/community/BIM_qualification_info_units
[2] http://www.planningportal.gov.uk/
[3] http://www.ciria.org/service/Web_Site/AM/ContentManagerNet/ContentDisplay.aspx?Section=Web_Site&ContentID=19278
[4] https://www.mediawiki.org/wiki/MediaWiki
[5] https://openclipart.org/homepage
[6] https://inkscape.org/en/

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