Gold - Unit 22 - Understanding the Social and Environmental Impact of Architecture and Construction (4 Credits)

Activities supporting the assessment of this unit

Assessor's guide to interpreting the criteria

General Information

QCF general description for Level 2 qualifications

The full details of the descriptions of Level 2 of the QCF are provided from this link [1].

QCF Level 2 is referenced to EQF level 3

In interpreting these levels in the context of these units, the following guidance should be used.

Complexity

The context for Level 2 projects and the associated assessment will be evidence of a clear understanding of the impact on the environment of construction projects and some sense of how these can be minimised or removed as far as possible.

Example - Working with a local community project, the candidates should be able to demonstrate how they supported and promoted a project from an environmental perspective. They can demonstrate their understanding of the issues and materials in order to persuade towards an environmental outcome. An example here might be involvement in a new school build or community centre. It should be possible to negotiate with local government to be involved at a community level.

Requirements

- Standards must be confirmed by a trained Gold Level Assessor
- Assessors must at a minimum record assessment judgements as entries in the on-line 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 on-line 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

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award, the candidate's success will be confirmed and the unit certificate will be printable from the web site.

- This unit at Level 2 should take an average level 2 learner 40 hours of work to complete.

Assessment Method

Assessors can score each of the criteria N, L, S, or H. N indicates no evidence and is the default starting position. L indicates some capability but secure capability has not yet been achieved to meet the criterion in the context of the general description of level 2 qualifications above and the assessor guidance below. S indicates that the candidate can match the criterion to its required specification. 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 unit. They should demonstrate a complete and fully working system that incorporates the secure application of the criteria, including original elements and a clear standard of documentation to explain how their application works.

Expansion of the assessment criteria

1. Behave responsibly in relation to environmental issues

1.1 I can present sustainability issues to a relevant audience

Candidates need to show that they are comfortable enough wit the terminology and ideas to present a suitable case to an audience.

Evidence: Assessor witness statement or video evidence.

Additional Guidance:

The candidate's will need to do a presentation to an audience that is relevant and to a semi-professional standard. The presentation can be any form that is suitable, but will need to be evidenced, either by feedback from the organisation to which the presentation is given, a witness statement by the assessor or a video.

1.2 I can assess the local environment for sustainable practices

Candidates need to show that they can evaluate their own environment and look for best practice is sustainability.

Evidence: Documentary evidence in documents, web pages or ePortfolios.

Additional Guidance:

The evidence here will vary depending on where the candidates are living as they may have issues related to coastal issues, urban problems or other issues. They should provide a basic report on their findings in whatever form they find most comfortable. They could have a video log of their key findings with their own commentary or interviews with relevant people if they are willing.

1.3 I can use evidence as the basis of sustainable recommendations

Candidates need to show clear evidence of their conclusions if they are to inform practice.

Evidence: Written documentation or web based reflections.

Additional Guidance:

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In order to be persuasive, especially to people who may not agree with your findings for financial or political reasons, the candidates need to be able to have strong arguments with good evidence to back up what they are proposing. They may need some guidance on what good quality evidence might be and how to gather and organise it in a clear way.

1.4 I can explain the effect of local and global procurement on local and global communities

Candidates need to demonstrate a wider understanding of the impacts of construction projects.

Evidence: Written evidence or reflections on paper or web based systems.

Additional Guidance:

The whole world is dependent on construction. The building of houses requires a lot of resources and labour. Once built, the houses will need to be bought and then furnished which drives the economy as people buy things. procurement is the buying of the main elements to make all of this happen. On a small scale, it may not seem like it makes much of a difference, but if all new houses and buildings are built with local materials, this create a great deal of work and wealth for local people. If it all comes from other nations, what impact does this have on their countries and ours. A general overview here of some of the impacts of these different elements will suffice here as candidates can go into more details later. 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 [2]http [2]:// [2]www [2]. [2]ciria [2]. [2]org [2]/ [2]service [2]/ [2]Web [2]_ [2]Site [2]/ [2]AM [2]/ [2] ContentManagerNet [2]/ [2]ContentDisplay [2]. [2]aspx [2]? [2]Section [2]= [2]Web [2]_ [2]Site [2]& [2]ContentID [2]=19278 [2]

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1.5 I can explain why some construction materials are more sustainable than others based on their properties

There is a good vehicle with this criterion for cross curricular work in looking at material properties.

Evidence: A table of evidence, or video material showing different properties. Perhaps a database.

Additional Guidance:

The candidates can work with the science and DT departments to investigate the properties of materials and evaluate these in terms of their wider understanding of the construction industry. What properties make for good sustainability. Does more sustainability mean less quality. What are the trade offs between long lasting and durable and negative environmental impacts etc.

1.6 I can describe ways of making buildings more energy efficient

Candidates need to show that they are really competent in their understanding of the qualities required for energy efficiency.

Evidence: Written documentation and reflections on paper or web based systems.

Additional Guidance:

The candidate's will need to describe in some detail how they would address making buildings more energy efficient. What materials are required and where they would be deployed. They could perhaps show comparisons with other materials to show why these choices are so much more effective, but also some of the down sides.

2. Collaborate effectively when working in a sustainable engineering construction project.

2.1 I can respond to identified community needs with specific solutions

Candidates should consider the issues related to accessibility of the meeting with targeted solutions.

Evidence: Assessor witness statement or ePortfolio evidence.

Additional Guidance:

Candidates should consider how they will engage and include those who may not be able to attend meetings or have access to the internet, e.g. those at work during the day, the elderly, parents with small children, disabled and those who do not speak English.

2.2 I can present a case for a specified construction project

Candidates need to show that they are comfortable enough with the terminology and ideas to present a suitable case to an audience.

Evidence: Assessor witness statement or video evidence.

Additional Guidance:

Once they have determined the construction project and researched all of its aspects, the candidates need to put together a case which shows clearly why it is the best solution. This needs to be detailed and well researched and be able to meet all potential objections with some justifications.

2.3 I can describe the contributions of professional roles in a construction project

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Candidates need to show a detailed summary of all the main players in a construction project.

Evidence: Written evidence or a database of details about roles and responsibilities.

Additional Guidance:

A construction project will involve a large number of professionals and in order to be able to manage a project, candidates will need to understand what all of these people can or should do. They will need to detail in their own words the roles and responsibilities of architects, facilities managers, site engineers etc.

2.4 I can take a lead in debating a contentious issue

Candidates need to show that they can take charge of a project and lead from the front.

Evidence: Assessor witness statement or video evidence.

Additional Guidance:

Many construction projects, with or without an environmental angle, elicit a great deal of emotional response from local communities. Some people might object to the cost, others might be politically motivated against the project, such as "NIMBYs" (Not In My Back Yard), who just don't want things spoiling their view and their property value. The project lead, in this case the candidates, will need to deal with all of these objections in a professional and non-judge mental manner. In large projects, most of the time a project manager will be dealing with the press and local activists, so this allows the team to get on with their work.

2.5 I can agree appropriate actions to conclude a successful planning application

Candidates should be prepared to present supporting evidence at a planning committee meeting.

Evidence: Assessor witness statement or video/ePortfolio evidence.

Additional 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_ [3]http [3]:// [3]www [3]. [3]planningportal [3]. [3]gov [3]. [3]uk [3]/ [3]

2.6 I can describe the skills needed in a construction team to support sustainability

Candidates need to describe the team member roles and how this helps the project be sustainable.

Evidence: Written evidence and reflections in journals, documents and ePortfolios.

Additional Guidance:

Candidates will discuss the merits of working as a team and the skills and benefits of integration, communication and sharing ideas. Successful project development and delivery stems from a range of professionals working closely together with the client to achieve a greater outcome than working independently. A successful team collaborates from start to finish. Examples of good teamwork can come from anywhere - sport, expedition, the running of a successful school. Roles will include generic skills such as leadership, researcher, evaluator as well as specific professional skills to make the team work. Candidates will investigate the function of each team member and how each might contribute to the ongoing sustainability of the project. They will promote positive behaviour and excellent governance practices throughout the lifecycle of the project. For example, as an easy target, the team may agree to limit the use of paper, car share to site visits, hold meetings by Skype or similar, and commit to a range of energy efficiency and waste reduction measures. Candidates

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will encourage the team to lead by example, influencing suppliers and opting for sustainable products and services wherever possible.

Moderation/verification

The assessor should keep a record of assessment judgements made for each candidate and make notes of any significant issues for any candidate. They must be prepared to enter into dialog 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 and through signed witness statements associated with the criteria matching marks in the on-line markbook. Before authorizing certification, the Account Manager must be satisfied that the assessors judgements are sound.

Source URL: https://theingots.org/community/sil2u22x

Links
[1] http://theingots.org/community/QCF_levels
[2] http://www.ciria.org/service/Web_Site/AM/ContentManagerNet/ContentDisplay.aspx?Section=Web_Site&ContentID=19278
[3] http://www.planningportal.gov.uk/

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