Silver - Unit 22 - Understanding the social and environmental impact of architecture and construction (3 Credits)

Relevant LINKS

BACK TO ITQ UNITS **[1]**

Handbook home page **[2]**

Overview

Understanding the social and environmental impact of architecture and construction at Silver Level requires the candidate to have a good understanding of the environmental issues involved in building and sustainability, as well as the material involved. They also need to be aware of who has what roles and responsibilities in construction projects and be abe to work as part of such a team. Unfamiliar aspects will require support and advice from other people.

A work activity will typically be 'straightforward or routine' because:

The task or context will be familiar and involve few variable aspects. The techniques used will be familiar or commonly undertaken.

Example of context – Creating a simple environmental building design for a local community project.

Support for the assessment of this award [3]

Example of typical IT work at this level **[4] (coming)**

Assessor's guide to interpreting the criteria (under development)

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

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Requirements

- Standards must be confirmed by a trained Silver Level Assessor or higher
- 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 award, the candidate's success will be confirmed and the unit certificate will be printable from the web site.
- This unit should take an average level 1 learner 30 hours of work to complete.

Assessment Method

Assessors can score each of the criteria L, S, H. N indicates no evidence and is the default starting position. L indicates some capability but secure capability has not yet been achieved and some help is still required. 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. Candidates should be helped and encouraged to reference their work to the assessment criteria using assessment for learning process. e.g. IPU 1.1.2 for IPU Level 1 criterion 1.2. This will make it easier to provide the evidence required for the QA procedures when requested by the Account Manager. There is support for this from learner account profiles on the INGOT web site. PLTS is used to denote where there are opportunities to develop personal learning and thinking skills.

Expansion of the assessment criteria

1. The candidate will behave responsibly in relation to environmental issues

1.1 I can identify sustainability issues related to the local environment

Evidence that the candidate knows the basic issues of sustainability.

Evidence: Web pages of reflections or written digital materials.

Additional information and guidance

Candidates should explore ways in which their local community is affected by issues of sustainability. They can investigate how local systems operate and research the environmental, economic and

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social health benefits of creating a more sustainable future. They can investigate the ways electricity, water, sewage treatment, refuse collection and other council services are provided, and how sustainable these services are. They can analyse human behaviour in their school and community with regard to recycling, litter, wellbeing, tolerance, inclusion and social cohesion.

1.2 I can relate sustainability issues to plausible solutions

Once issues are identified, there should be evidence that solutions have been explored.

Evidence: Reflections and observations from assessors.

Additional information and guidance

Candidates will not be expected to have fully worked out solutions as many of the issues will be complex and multi-layered, but they should have some evidence that they know enough about th topics to offer some types of solutions, no matter how small or seemingly insignificant.

1.3 I can support the use of evidence in sustainable recommendations

Candidates should be able to work with a varying degree of sources to provide supporting evidence.

Evidence: Reflective journals and project work. Assessor feedback.

Additional information and guidance

Candidates will need to look at a wide range of information in order to understand the full nature of what they are investigating. Making recommendations about construction work is likely to affect a huge range of people so evidence will need to be considered from all sides. The more evidence they can gather, the more convincing their recommendations will be.

1.4 I can identify effects of local and global procurement on local and global communities

Candidates should demonstrate they understand some key impacts of ethical and sustainable procurement both locally, nationally and globally..

Evidence: ePortfolios 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

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Another excellent resource regarding industry and sustainable procurement can be found here [5].

1.5 I can classify construction materials based on their properties

Evidence here of an awareness and understanding of the materials they are likely to come in contact with.

Evidence: A database with basic properties.

Additional information and guidance

Candidates should be able to create a database to show they know all the main materials they encounter and how they can be used, some of their main properties etc.

1.6 I can identify energy efficiently as an important factor in sustainable buildings

Evidence that they understand the main attributes rating to energy efficiency.

Evidence: A database with basic properties.

Additional information and guidance

Candidates should know the main building materials they are likely to use and be able to identify how efficient they are in different circumstances and how much of an impact this might have on a building project. Most manufacturing companies will have this information on their own websites relating to products they sell or manufacture. A small research project would suit this criterion, perhaps working in teams to gain information about groups of products which can then be shared with the entire group.

2. The candidate will collaborate effectively when working in a sustainable engineering construction project

2.1 I can identify community needs related to a construction project

Candidates will need to appreciate that all interests will need to be considered before, during and after a project.

Evidence: Planning notes and reflections. Assessor observations.

Additional information and guidance

Candidates will need to research around a proposed project to see what everyone's views are so that they can be addressed. This could be carried out with secondary research by looking at similar projects and concerns, either in their community or more nationally. They can also carry out primary research by creating and administering surveys and questionnaires and compiling the results.

2.2 I can support the engagement of stakeholders in a construction project

Candidates needs to demonstrate their willingness and ability to act as support for the project.

Evidence: Reflective journal notes and personal blogs.

Additional information and guidance

Candidates will need to demonstrate that they have talked to or given information out to the main stake-holders. They will be people that are for and against the project. The different parties will require different levels of engagement and information. At the simplest level it will mean attending

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meetings and public forums and offering some comments and advice where appropriate.

2.3 I can identify professional roles in a construction project

A knowledge of the main people and their roles is required at this level.

Evidence: A database with roles and responsibilities.

Additional information and guidance

Candidates at this level only need to list and identify some of the main professionals that work on construction projects, such as architects and project managers and don't need to know too much detail about what they do, just a general sense of their role.

2.4 I can act as a team member contributing to project tasks

Candidates should try different roles in teams to appreciate what is required.

Evidence: Pre-set project with assessor comments and feedback.

Additional information and guidance

Candidates will likely need to role play some of the roles as it may not be possible to carry them all out. At the very least they need to have a role in the project team with some responsibility, even if it is collecting or transporting information. The more exposure to team roles they can gain the better their overall understanding and the clearer their descriptions of what is happening.

2.5 I can identify skills in others needed for sustainability

Candidates should show a good understanding of the skills needed to complete projects successfully.

Evidence: Database of roles and responsibilities.

Additional information and guidance

Candidates will need to know the full extent of a projects' requirements, which will also mean that they know where to find the resources they need if they are up against deadlines. In some cases, they may not have the people in their team required to make the project work. In this case, they need to have some understanding of where they an go to resource this skills shortage or expertise requirement.

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 assessors judgements are sound. In the event of missing evidence, the assessor will be requested to gather appropriate information before the award can be made.

Source URL: https://theingots.org/community/sil1u22x

Links

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[1] http://theingots.org/community/ITQ_unit_development
[2] https://theingots.org/community/handbook2
[3] http://www.theingots.org/community/ITQcourse1
[4] https://theingots.org/community/sites/default/files/uploads/user4/pupila.pdf
[5] http://www.ciria.org/service/Web_Site/AM/ContentManagerNet/ContentDisplay.aspx?Section=Web_Site&ContentID=19278

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