L3 - BIM - Unit 5 - Evaluating and Documenting a Sustainable Construction Project

Overview

The candidate can document and evaluate a major construction project. They will compare and contrast a wide range of construction methods and practices and make judgements on their suitability with examples. They will explain through a wide range of reports some of the areas of strength and weakness across the entire range of the project. They will summarise the entirety of their project to a selection of critical stake-holders and defend their decisions and actions throughout.

A work activity will typically be 'non-routine or unfamiliar' because the task or context is likely to require some preparation, clarification or research to separate the components and to identify what factors need to be considered. For example, time available, audience needs, accessibility of source, types of content, message and meaning, before an approach can be planned; and the techniques required will involve a number of steps and at times be non-routine or unfamiliar.

Example of context – candidates can critically evaluate and explain to an audience their project, especially from a sustainable perspective.

Assessor's guide to interpreting the criteria

General Information

RQF general description for Level 3 qualifications

- Achievement at RQF level 3 (EQF Level 4) reflects the ability to identify and use relevant understanding, methods and skills to complete tasks and address problems that, while well defined, have a measure of complexity. It includes taking responsibility for initiating and completing tasks and procedures as well as exercising autonomy and judgment within limited parameters. It also reflects awareness of different perspectives or approaches within an area of study or work.
- Use factual, procedural and theoretical understanding to complete tasks and address problems that, while well defined, may be complex and non-routine.
- Identify, select and use appropriate skills, methods and procedures.
- Use appropriate investigation to inform actions.
- Review how effective methods and actions have been.
- Take responsibility for initiating and completing tasks and procedures, including, where relevant, responsibility for supervising or guiding others.
- Exercise autonomy and judgement within limited parameters information and ideas.

Requirements

- Standards must be confirmed by a trained Platinum Level Assessor or higher

- Assessors must at a minimum record assessment judgements as entries in the on-line mark

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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 and files 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 judgment.

- 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 3 learner 60 hours GLH to complete.

Assessment Method

Assessors can score each of the criteria N, L, S or H. N indicates no evidence. L indicates some capability but some help 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 a S on all the criteria to achieve the full award.

Expansion of the assessment criteria

1. Candidates will make objective comparisons between construction methods.

1.1 I can compare construction methods on the basis of aesthetics and appropriateness to design intent

Candidates will produce a construction method evaluation on the basis of aesthetics and appropriateness to design intent.

Evidence: will be provided directly from portfolios of evidence.

Additional information and guidance

Learners will consider a range of construction techniques and make comparisons based on aesthetics. The end user and/or client will have a personal view on what is aesthetically pleasing (i.e. is a delightful/beautiful building) and perhaps here the candidate could collaborate with peers or seek the comments of a professional visitor. Design intent was established in the formulation of a design brief in Unit 1, and again, candidates should conform to the brief when evaluating construction methods. Candidates should present evaluations in a written report. They will come to specific conclusions and present these as judgements that are supported by the evidence.

1.2 I can compare construction methods on the basis of cost

Candidates will produce a construction method evaluation on the basis of cost.

Evidence: will be provided directly from student portfolios.

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Additional information and guidance

Based on research undertaken throughout the course, candidates should present evaluations in a written report in their portfolios that presents the evidence and comparisons in a clearly understandable format. They will come to specific conclusions and and present these as judgements that are supported by the evidence.

1.3 I can compare construction methods on the basis of sustainability

Candidates will compare construction methods on the basis of sustainability.

Evidence: will be provided directly from student portfolios.

Additional information and guidance

Based on research undertaken throughout the course, candidates should present evaluations in a written report in their portfolios that presents the evidence and comparisons in a clearly understandable format. They will come to specific conclusions and and present these as judgements that are supported by the evidence.

1.4 I can compare construction methods on the basis of endurance and reliability

Candidates will compare construction methods on the basis of endurance and reliability.

Evidence: will be provided directly from student portfolios.

Additional information and guidance

Based on research undertaken throughout the course, candidates should present evaluations in a written report in their portfolios that presents the evidence and comparisons in a clearly understandable format. They will come to specific conclusions and and present these as judgements that are supported by the evidence.

1.5 I can compare construction methods on the basis of reduction of operating costs

Candidates will compare construction methods on the basis of reduction of operating costs.

Evidence: will be provided directly from student portfolios.

Additional information and guidance

Based on research undertaken throughout the course, candidates should present evaluations in a written report in their portfolios that presents the evidence and comparisons in a clearly understandable format. They will come to specific conclusions and and present these as judgements that are supported by the evidence.

2. Candidates will communicate outcomes from professional perspectives.

2.1 I can explain the strengths and weaknesses of the design from a facilities management perspective

Candidates will produce an evaluation of the building in the role of a facilities manager.

Evidence: will be provided directly from portfolios of evidence.

Additional information and guidance

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Based on research undertaken throughout the course, candidates should present evaluations in a written report. Guidance and evaluation may be sought through collaboration with peers and/or from a visiting professional.

2.2 I can explain the strengths and weaknesses of the design from an architectural perspective

Candidates will produce an evaluation of the building in the role of an architect.

Evidence: will be provided directly from student portfolios.

Additional information and guidance

Based on research undertaken throughout the course, candidates should present evaluations in a written report. Guidance and evaluation may be sought through collaboration with peers and/or from a visiting professional.

2.3 I can explain the strengths and weaknesses of the design from a structural engineering perspective

Candidates will produce an evaluation of the building in the role of a structural engineer.

Evidence: will be provided directly from student portfolios.

Additional information and guidance

Based on research undertaken throughout the course, candidates should present evaluations in a written report. Guidance and evaluation may be sought through collaboration with peers and/or from a visiting professional.

2.4 I can explain the strengths and weaknesses of the design from a building services engineering perspective

Candidates will produce an evaluation of the building in the role of a building services engineer.

Evidence: will be provided directly from student portfolios.

Additional information and guidance

Based on research undertaken throughout the course, candidates should present evaluations in a written report. Guidance and evaluation may be sought through collaboration with peers and/or from a visiting professional.

2.5 I can explain the strengths and weaknesses of the design from an end user perspective

Candidates will produce an evaluation of the building in the role of an end user.

Evidence: will be provided directly from student portfolios.

Additional information and guidance

Based on research undertaken throughout the course, candidates should present evaluations in a written report. Guidance and evaluation may be sought through collaboration with peers and/or from a visiting professional. Candidates are particularly encouraged to present their design to a group of end users who operate in a similar existing facility.

3. Candidates will make a presentation of a summary report to a critical

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audience.

3.1 I can support a presentation with appropriate digital technologies

Candidates will present their project using appropriate digital technology.

Evidence: will be provided directly from portfolios of evidence and assessor observations.

Additional information and guidance

Learners will present a project summary to a group of professionals. They should provide an assessment (and make recommendations where appropriate) of the selected technology they have adopted in terms of functionality, ease of use, reliability, flexibility, accuracy, responsiveness, availability of appropriate tools, how realistic, visualisation capability, speed, collaboration opportunity, interoperability, import/export functionality, compatibility with existing hardware.

3.2 I can compare the client brief to the finished project and communicate to a professional audience

Candidates will present a client brief v. final design appraisal.

Evidence: will be provided directly from student portfolios and assessor observations.

Additional information and guidance

Learners will present a project summary to a group of professionals. They should focus on key elements of the design brief and provide an honest evaluation of their ability to adhere to the brief.

3.3 I can compare social, economic and environmental outcomes with planned intentions

Candidates will compare sustainable outcomes to planned intentions.

Evidence: will be provided directly from student portfolios and assessor observations.

Additional information and guidance

Learners will present a project summary to a group of professionals. They should focus on key elements of their commitments to sustainability outlined in Unit 1 and provide an honest evaluation of their ability to confirm to these commitments.

3.4 I can assess and validate the project’s major strengths and weaknesses with supporting evidence

Candidates will present an evaluation of strengths and weaknesses.

Evidence: will be provided directly from student portfolios and assessor observations.

Additional information and guidance

Learners will present a project summary to a group of professionals. They should focus on key strengths and weaknesses and provide an honest evaluation. Strengths could focus in a number of areas, for example a candidate might comment on a particular sustainable feature, or an ability to demonstrate innovate design solutions for a particular purpose. Conversely a candidate may feel his/her technical ability restricted creativity or they lacked confidence to present their project in an articulate, informed manner.

3.5 I can make clear judgements about the success of the project and lessons learned for the future

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Candidates will present an evaluation of the project.

Evidence: will be provided directly from student portfolios and assessor observations.

Additional information and guidance

Learners will present a project summary to a group of professionals. They should focus on providing an honest evaluation of their experience, their aptitude for certain skills and the lessons they have learned, or still need to learn, for the next project they undertake. They should comment on their aspirations for the future, and how they see their place in the industry.

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.

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