

Institute for Apprenticeships & Technical Education

T Level Technical Qualification in Building Services Engineering for Construction

## 8710-30 Core Report (Summer 2023)







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## Foreword

#### Summer 2023 Results

The technical qualification is made up of two components, both of which need to be successfully achieved to attain the T Level Technical Qualification in Building Services Engineering for Construction. This document covers the Core component only.

We discussed the approach to standard setting/maintaining with Ofqual and the other awarding organisations before awarding this year. We have agreed to take account of the newness of qualifications in how we award this year to recognise that students and teachers are less familiar with the assessments (<u>Vocational and technical qualifications grading in</u> <u>2023 – Ofqual blog</u>), whilst also recognising the standards required for these qualifications

## Introduction

This document has been prepared to be used as a feedback tool for providers in order to support and enhance teaching and preparation for assessment. It is advised that this document is referred to when planning delivery and when preparing candidates for the T Level Technical Qualification (TQ) in Building Services Engineering for Construction **Core** assessments.

This report provides general commentary on candidate performance in both the examination papers and Employer-Set Project (ESP). It highlights common themes in relation to the technical aspects explored within the assessment, giving areas of strengths and weakness demonstrated by the cohort of candidates who sat assessments in the summer 2023 assessment series.

The grade boundaries (and notional boundaries where appropriate) that were used to determine candidate's final summer 2023 results are also provided. For summer 2023, as per Ofqual guidance, the approach to grading recognises that these are new qualifications.

More information regarding T Levels TQ grading, awarding, UMS and rules for retakes can be found in the T Levels Technical Qualifications Grading Guide available on the <u>City &</u> <u>Guilds T Levels Resources and Support Hub</u>

## 8710-031 Paper 1

This exam paper covers the following elements of the Building Services Engineering core content:

- Health and safety in construction
- Construction design principles
- Construction and the built environment industry
- Construction sustainability principles
- Building technology principles
- Tools, equipment and materials

This exam paper allowed for candidates to demonstrate a broad range of subject knowledge within the Building Services Engineering core element.

The exam has been split into **two** sections. Below details the types of questions and marks available for each section.

**Section A** is made up of **77** marks and includes **20** short answer and medium answer questions.

Section B is made up of 33 marks and includes 3 extended response questions.

The exam is designed to provide sufficient sampling across the content and consists of a mixture of short answer questions (SAQs), some of which will be structured, and extended response questions (ERQs). The exam assesses across assessment objectives (AOs) 1a/b, 2 and 3 that will allow for the appropriate differentiation of candidates to support the reliable setting of boundaries. The assessment objectives represent the following:

- AO1 a Demonstrate knowledge
- **AO1 b** Demonstrate understanding
- AO2 Apply knowledge and understanding to different situations and context
- AO3 Analyse and evaluate information and issues

Nationally, 408 candidates sat the core exam paper 1. This was the second year (third series) for the exam component.

Overall, many candidates within the cohort were able to demonstrate knowledge of the core content, often scoring marks for recalling knowledge when asked to name, state or list information. There was a clear differentiation of performance within the cohort when candidates were asked to demonstrate understanding, application, analysis, or evaluation. Often, lower scoring candidates achieved marks by demonstrating knowledge but struggled to show any further depth of understanding of the subject. It was very noticeable by candidates' responses to some questions that technical terminology is not understood, in terms of the meaning of words/language. This misunderstanding and limited interpretation of technical terminology meant that some candidates did not answer what these questions were asking and therefore were unable to achieve allocated available marks.

Areas of strength include:

- Q1 which asked about regulations relating to construction site health and safety. Most candidates identified HASAWA, COSHH and RIDDOR, with most candidates achieving full marks.
- Q2a and 2b, which asked for implications of poor health and safety practices relevant to employees and the employer, were generally answered well with most candidates giving loss of work and prosecution/fines/prison sentence as an answer for 2b.
- Q3, which asked candidates to name two documents that may be required to be completed when implementing a safe system of work, was generally answered well with most candidates identifying a risk assessment and method statement.
- Q8a/8b, which asked candidates to describe the responsibilities of an architect and building inspector, were generally well responded to although many candidates did not identify that the building inspector would visit the site.
- Q13 which asked for an advantage of a business being a sole trader was generally well responded to with most answers relating to financial benefits.
- Most candidates responded well to Q20, which was the only maths type question in the paper, correctly determining the risk rating for the associated scenario given in the question.

In these topic areas better candidates typically responded with a little more detail and demonstrated greater breadth of knowledge.

Areas of weakness include:

- Q4 which asked candidates to list the six key stages of the design process from conception to completion was responded to poorly with many candidates describing construction stages rather than planning stages.
- Q5 asked candidates to explain two tendering methods suitable for a major maintenance contract with a Local Authority. Some candidates achieved a mark for open tender but very few could provide a description of the process. Very few gave two stage tendering as a response. Some candidates suggested closed tender, which would not be suitable for a local authority contract.
- Q12 which asked candidates to explain the purpose of toolbox talks was very poorly responded to. Many candidates suggested that toolbox talks were training sessions on using tools.
- Q16 which was about how waste packaging should be disposed of on a particular site was poorly responded to as most candidates referred to removing the BSE system rather than removing the packaging. Those that did focus on the waste packaging only responded around recycling rather than Waste Carriers' Licences and whose responsibility it was to dispose of the packaging.

• Q17 which asked candidates to describe the most suitable method of mounting a 25 kg radiator was poorly responded to, with many candidates not attempting the question. Those that did either did not provide a detailed response or focused on piping the radiator up rather than fixing it to the wall. Most points that were scored were for levelling the radiator.

Many candidates seemed to find these topic areas very challenging with some candidates not responding at all to questions. The majority of the high achieving candidates attempted theses topic-based questions, responding with some depth and detail.

Overall responses appeared to be stronger than summer 22, with fewer unanswered questions. Candidates seem to perform better with the AO1a and AO1b questions, due to the nature of this type of question asking to state or list their response, displaying recall of knowledge and demonstrating understanding.

#### Responses to extended response questions (ERQs)

Responses to the extended response questions in Section B were weak, with very limited responses given in relation to the context of the question. It is very evident from the responses given, that both candidates and providers need to focus on extended response writing structure. The ERQ questions are about candidates demonstrating some subject analysis, applying their knowledge and understanding and then demonstrating their evaluative skills. These three skills need to reflect the question requirements, with candidates exploring all aspects of the question, not focusing on one element. The inability to respond against the three skills, as well as not fully answering or exploring all question requirements hindered many candidates from achieving a higher marking band.

For example, one of the ERQ questions (Q21) asked candidates to explain how both electrical and water supplies will be isolated for a water feature located outside a supermarket. The question also wanted candidates to include the considerations to health and safety. Candidates' responses overall did not address the question fully, as responses never encompassed all question elements to access the higher marks available. Candidates were able to demonstrate knowledge of isolation processes for both electrical and water supplies, although struggled with integrating health and safety, which was generally neglected. Candidates also struggle with evaluating and analysing their responses against the question requirements. This kept the majority of candidates in the lower mark bands.

ERQ performance could be further enhanced by preparing candidates to consider in-depth explanations, analysis and evaluation on different scenarios, such as systems, processes and sequences. Candidates should also develop their ability to take their knowledge of subject matter and consider the wider impact of that concept within industry.

## 8710-032 Paper 2

This exam paper covers the following elements of the Buildings Services Engineering core content:

- Construction science principles
- Construction measurement principles
- Construction information and data principles
- Relationship management in construction
- Digital technology in construction
- Construction commercial/business principles
- Building Services Engineering (BSE) systems
- Maintenance principles

This exam paper allowed for candidates to demonstrate a broad range of subject knowledge within the Building Services Engineering core element.

The exam has been split into **two** sections. Below details the types of questions and marks available for each section.

**Section A** is made up of **77** marks and includes **20** short answer and medium answer questions.

Section B is made up of 33 marks and includes 3 extended response questions.

The exam is designed to provide sufficient sampling across the content and consists of a mixture of short answer questions (SAQs), some of which are structured, and some are extended response questions (ERQs). The exam assesses across assessment objectives (AOs) 1a/b, 2 and 3 that will allow for the appropriate differentiation of candidates to support the reliable setting of boundaries. The assessment objectives represent the following:

- AO1 a Demonstrate knowledge
- AO1 b Demonstrate understanding
- AO2 Apply knowledge and understanding to different situations and context
- AO3 Analyse and evaluate information and issues

Nationally, 406 candidates sat the core exam paper 2. This was the second year (third series) for the exam component.

Generally, responses appeared to be stronger than summer 22, with fewer unanswered questions.

Candidates again performed better with the AO1a and AO1b type questions due to the nature and type of question, as candidates must state or list their response displaying recall of knowledge and demonstrating understanding. An example of this is Q2, where candidates had to state two materials used as an acoustic barrier in the construction of a building. Most candidates achieved the maximum mark of two for this question. Areas of strength include:

- Q4 was responded well against, which involved candidates totalling some labour and material cost against a table with given values.
- Q8 was generally responded to very well with a wide range of answers. This question asked candidates to describe how a company can offer good customer service to its customers.
- Q9 which asked candidates to state two qualities needed to form a good dynamic between team members was generally responded to very well. A range of answers given covering teamwork and communication.
- Q10 asking candidates to outline the general responsibilities of an employer to their employee was generally answered well with most answers covering health and safety, welfare and pay.

Area of weakness include:

- Q5 was another math-based question asking the candidates to calculate the volume of a cylinder, with given values. A large percentage of candidates were unable to perform the calculation. Marks were mainly awarded for identifying the radius.
- Q14 candidates focused on quality control as part of an installation rather than the higher-level management quality process. The question asked candidates to describe two quality management systems or techniques used in business.
- Question 17a/b asked candidates to calculate the resistance of a circuit and then find the total current. A large percentage of candidates were unable to correctly calculate the resistance and find the current. Candidates chose to add the resistance as a series circuit, although the illustration displayed resistors connected in both a series and parallel configuration.
- Finally, Q18 asked candidates to calculate the minimum output energy of a hoist. The formula was given, although many candidates only obtained some allocated marks usually for the conversion method and identifying the gravitational effect.

Overall, there were a lot of weaker responses to these questions and some candidates did not provide a response.

Another key theme is the responding to the question command verbs given in the questions. Many candidates failed to react to the verbs when responding to the associated question. Candidates, again, as per paper 1 struggle with understanding of words and technical language used within the subject content. Some candidates failed to understand the meaning of terms, which in turn, impacts upon their response to the question. One example found was Q3, 'Define the term diffused light'. Many candidates didn't appear to understand the word 'diffused', hence responded incorrectly or didn't attempt the question.

Many candidates struggled to contextualise their responses to the question for AO2 questions and did not link their answers to the scenarios given. One example being Q19 in

which candidates were asked the following: A large building services contractor is concerned about materials going missing onsite or becoming damaged before they are installed. Where candidates were asked to 'Explain **two** cost control measures that could be implemented to reduce these concerns', many candidates only identified one control measure, as well not contextualising their response to the question meaning they were unable to achieve higher marks.

#### Responses to extended response questions (ERQs)

The most notable theme, as per paper 1, were the responses given for the ERQ questions. It is very evident from the responses given that both candidates and providers need to focus on extended response writing structure. The ERQ questions are about candidates demonstrating some subject analysis, applying their knowledge and understanding and then demonstrating their evaluative skills. These three skills need to reflect the question requirements, with candidates exploring all aspects of the question, not just focusing on one element. The inability to respond against the three skills, as well as not fully answering or exploring all question requirements, hindered many candidates from achieving a higher mark band.

For example, Q22 asked candidates the following:

A boiler system for a factory has become faulty and the parts needed are discontinued. It will take several weeks to replace the system.

Discuss suitable solutions for heating this location temporarily and what factors impact the selection of the long-term replacement heating system.

Candidates' responses overall did not address the question fully, as responses never encompassed all question elements to access the higher marks available. Most candidates focused on the temporary heating source, neglecting the long-term heating proposal. Candidates also struggled with evaluating and analysing their responses against the question requirements.

## 8710 Sub-Component: Exam

## Best practice and guidance to providers on potential areas for improving performance in assessment

It is recommended that providers utilise and deliver the sample examinations as well as past papers (Summer 2022 and Autumn 2022) as formative assessment to support candidates in preparation for summative assessment.

Providers should also be advised that there are resources available to help guide and support both provider staff and candidates. This includes a course textbook which is designed to assist in delivery of the BSE core content and exam preparation and revision.

Candidates would benefit from understanding what different command verbs are asking of them. For example, the type of response required by an 'Explain' question requires a higher level of response than a 'Describe' question. Candidates should be reminded of the need to ensure they fully read and understand all questions before responding.

Providers should support candidates in developing their skills in writing responses to questions that ask for demonstrating of understanding, application of knowledge, analysis and evaluation.

ERQ performance could be further enhanced by preparing candidates to consider in-depth explanations and analysis (including secondary implications where appropriate) on different scenarios and relating it back to the context. To score the higher bands candidates needed to include more detailed conclusions and justifications in their responses.

Some of the papers had very unclear handwriting, making it difficult for the marker to read the response. Providers should encourage candidates to ensure their handwriting is legible. Writing in block capital letters is a possible solution if a candidate's handwriting is not legible or alternatively utilising a scribe.

Providers are advised to continue supporting their candidates' development with their responses to these types of questions, helping to instil a solid core subject knowledge, enabling candidates to express their subject knowledge and understanding. Providers must focus on developing candidates' question responses and how candidates should respond to command verbs. In this development, providers need to focus on the depth and detailed required, to fully answer questions. This development and tuition in this area will be a key element, enabling candidates to provide detailed and in-depth responses to the various question types within the paper.

These areas should be further developed, with providers devising their own targeted exam revision for both short answer questions and ERQ questions, as well as offering support and guidance on various answer/response techniques. Providers should be aware of using the sample and past series questions on the City & Guilds webpages to help and guide both provider delivery staff and candidates.

In conclusion, candidates must be reminded of the need to ensure they fully read all questions before responding. In particular the ERQ scenario-based questions and questions assessing both understanding and the application of knowledge and understanding. An additional focus for candidates should be applied to making sense of what is being asked of them in the question.

### Grade boundaries

The table below shows the grade mark ranges for the Exam, along with the notional boundaries for Paper 1 and Paper 2 – **for the summer 2023 series.** 

		Notional boundaries	
Grade	Mark range	Paper 1 (8710-031)	Paper 2 (8710-032)
A*	139-220	71-110	67-110
А	124-138	64-70	60-66
В	109-123	56-63	52-59
С	94-108	48-55	44-51
D	79-93	41-47	37-43
Е	64-78	34-40	30-36
Unclassified (U)	0-63	0-33	0-29

## 8710-033 Sub-Component: Employer-Set Project

The Employer-Set Project (ESP) assessment is a project comprised of a number of tasks, based on a scenario comparable to a real-life project in the industry. The assessment is designed to allow candidates to show how they can perform on a project using the core knowledge and skills. This approach to assessment emphasises to candidates the importance and applicability of the full range of their learning to industry practice.

The ESP covers the following elements of the Buildings Services Engineering core content:

- Health and safety
- Construction design principles
- Sustainability principles
- Building services engineering (BSE) systems

The Employer-Set Project allowed for candidates to demonstrate a broad range of subject knowledge within the BSE Core element.

The ESP assesses across assessment objectives that will allow for the appropriate differentiation of candidates to support the reliable setting of boundaries. The assessment objectives represent the following:

- AO1 Planning skills and strategies
- AO2 Apply knowledge and skills to the context of the project
- AO3 Analyse contexts to make informed decisions
- AO4 Use maths, English and digital skills
- AO5 Carry out tasks and evaluate for fitness for purpose

The project is based around a brief which provides information on a BSE project and specific relevant details and resources. Candidates have to draw on their Core knowledge and skills and independently select the correct processes and approaches to take to provide a solution and the evidence specified in the project brief. All tasks are completed under supervised/controlled conditions.

## Employer-Set Project tasks overview

Task	Task type	Assessment Objectives covered	Max mark	Task weighting
1.1	Research	AO1: Knowledge, AO2a: Apply knowledge, AO3: Select, AO4c: Digital	9	9%
1.2 Report	AO1: Knowledge	6		
		AO2a: Apply knowledge, AO2b: Apply skills	12	000/
	AO3: Select	2	26%	
	AO4a: Maths, AO4b: English, AO4c: Digital	6		
		AO1: Knowledge, AO3: Select, AO4a: Maths	8	0.404
1.3 Plan	AO2a: Apply knowledge, AO2b: Apply skills	16	24%	
		AO1: Knowledge, AO3: Select, AO4b: English	6	1001
1.4 Presentation	Presentation	AO2a: Apply knowledge, AO2b: Apply skills	12	18%
2.1	Collaborative Problem Solving	AO2a: Apply knowledge, AO2b: Apply skills, AO3: Select, AO5a: Realise project outcome	15	15%
2.2	Evaluation	AO4b: English, AO5b: Review outcome against brief	8	8%

#### Task 1.1 – Research

Lack of structure from candidates and meeting the full range of research linked to the specification. Limited use of digital images captured from candidates. Some candidates had very little research and underestimated the importance of this task.

The evidence offered for this task was varied. This obviously showed within the marks awarded. There was a tendency for candidates to just "cut and paste" rather than look at the content and the requirements.

Not all elements of the project brief were considered by the candidates whilst conducting their research. Some candidates did not research everything specified in the list, despite the task instructions saying they needed to, which limited their access to higher mark bands. many focused too much on research for the ground source heat pumps along with water saving technologies, and neglected health and safety, full isolation across water, gas and electrics and removal of waste, many found research websites however struggled to link it to the research discussion, and why they used it.

Those that did reference sometimes did so with US websites and \$ currency.

Many candidates missed the opportunity to reference standards such as WRAS, Building Regulations etc.

#### Task 1.2 – Report

Correct information was included within the reports, however many candidates failed to link this to the project/brief and how it can have an impact etc. Some candidates struggled with having any form of structure and inclusion of digital and maths skills.

Evidence offered tended to be similar to 1.1. There are a lot of marks to be gained in this task but, most candidates did not have a sequential plan in the work offered. Also, the mathematical offerings for AO4 were quite different.

Some candidates just copied and pasted large parts of the research notes rather than word it themselves.

Some candidates struggled to elaborate on the research and at times did not reference the brief requirements fully.

Some candidates produced a significant volume of work which was not always relevant to the brief which left them insufficient time to fully include the identified items.

Some candidate's reports were not well laid out, so the items were not distinct from each other.

Most candidates did not include layouts and diagrams to support the information in the reports, while others embedded the drawings from the brief.

Word counts sometimes were well short of what was expected.

Mathematical calculations are restricted to the cost of the Infrared taps and very few candidates expanded on this area.

Technical inaccuracies were common throughout the reports indicating a lack of understanding of the core knowledge.

#### Task 1.3 – Project plan

Candidates appeared not have a full breadth of knowledge to complete this task to high standards and achieve higher marks. Some Gantt charts did not provide sufficient information and the report to support did not always include the relevant information as detailed in the task brief. Most managed to capture the basic elements of the programme but many not fully understanding of the other trades and time scales involved.

Some candidates did not submit a Gantt chart.

Several candidates were unable to demonstrate their understanding of core knowledge and a number of others didn't meet the brief.

Provision of electrical heating and water supplies was not detailed sufficiently in several cases.

#### Task 1.4 – Presentation

Some candidates failed to meet the brief and perhaps misunderstood the requirements, however some good examples of how candidates were addressing the audience in relation to the project/brief. Some presentations had too much information and some candidates were just reading from the presentation and very little interaction with the audience.

Some candidates delivered their presentations sat at a desk via Teams/Zoom. This approach is not in accordance with guidance for this assessment and made it impossible to judge their presenting skills.

There were instances of learners not highlighting a name or candidate number before the task.

Length of video ranged from a short couple of minutes up to 20+ minutes.

Questions at the end of task 1.4 recording did not seem to vary away from the standard questions in the provider pack.

Some providers engaged with the task well and played the role of the committee member which was well received.

Students from some centres seemed to have pre prepared for the evaluation task with already written notes which left the recording short.

When questioned on the content several were unable to answer or demonstrate an understanding of the core knowledge.

#### Task 2.1 – Collaborative problem-solving

Most candidates performed well in this task and appeared to fully engage in the process, some were comfortable taking a leading role in the discussions.

Some candidates failed to have any form of structure to their email, and some didn't make any notes for the task. Overall interaction was good from candidates and discussions were valid. There were some issues with audio quality. Some providers had more than the allowed 2-3 candidates in the group for the collaborative problem solving task, which is against provider guidance for this task and meant that it was harder for some candidates to get involved in the discussions.

#### Task 2.2 – Evaluation

Structure of the responses was generally good however a mixed range of responses. Some candidates fell into the habit of explaining what they were required to do instead of evaluating their performance, not being able to reflect and explain what went well and what didn't go so well and how they could improve on performance (all linked to the brief).

Most candidates did not reflect much on the project brief but concentrated on what they liked and did not like doing. Learners still not quite grasping the outcome of the task, more what they did well and what they needed to improve on (Self-reflection)

## Best practice and guidance to providers on potential areas for improving performance in assessment

It is recommended that providers utilise and deliver the sample ESP as well as past ESPs (Summer 2022 and Autumn 2022) as formative assessment to support candidates in preparation for summative assessment.

- Providers should ensure files and documents are named better to ensure consistency and ease of access. This also includes the use of assessment component headers.
- Providers are strongly encouraged to use evidence headers for each task, to allow for ease of identification of candidate evidence and efficiency in marking. All information within the task headers should be completed. Candidate evidence should be included within the header document and not as a separate file.
- Observation records should be submitted as separate documents for each task and not scanned into one document.
- The 'what must be presented for marking' section of each task outlines the minimum expectations of evidence that must be submitted for marking. Providers must detail where evidence has not been submitted.
- Providers are advised that individual tasks are marked in isolation and that each task has been weighted in relation to the assessment objectives covered. This information is detailed in the qualification Specification. As all tasks are marked separately, where evidence produced by a candidate is contained in another task, that evidence will not be considered.
- The only evidence considered for the marking of an individual task is what is listed within the 'what must be produced for marking' section within the assessment materials. Evidence for another task that may demonstrate knowledge or skills will not be considered when marking that task.
- Providers are advised to ensure the tutor and candidate both sign and date declarations prior to uploading evidence.
- Providers should request that candidates include a word count for all written reports and tasks where applicable.

#### Task 1.1 – Research

Providers are advised to ensure candidates are briefed in relation to task requirements and to ensure they understand the requirements of each task. Providers are also advised to work with candidates to improve their skills in relation to research and correct referencing. As this task forms the foundation of later tasks it is important that all elements are researched.

#### Task 1.2 – Report

Providers are reminded of the published guidance which states that no internet access is allowed for Task 1.2. Candidates should use only their research from Task 1.1, when writing their report.

Providers are advised to ensure candidates have the opportunity to develop their report writing skills including providing justifications where required.

Providers are advised to ensure candidates have the opportunity to develop their digital skills including layout of reports to include tables, calculations and images.

#### Task 1.3 – Project plan

Providers are advised to ensure candidates have the opportunity to develop the skills required, to plan a project including the production of Gantt charts and programme of works. Candidates need to know how a Gantt chart works in terms of sequencing, durations and logic. This requires scheduling trades and activities into a coherent programme relative to time/dates relative to the brief.

Supporting statements should justify the considerations that have been taken into account when constructing the project plan.

#### Task 1.4 – Presentation

Providers are advised to ensure observation reports are consistent, some providers used verbs and vocabulary from the marking grid which was helpful to markers, but most providers only made short comments.

Providers are reminded that observation records must be completed and uploaded as part of the evidence upload. These must be based on the candidate's performance using the terminology from the sample marking grids. Notes must be detailed, accurate and differentiating. They should identify areas of strength and weakness to distinguish different levels of performance quality.

Providers are advised to consider the layout of the room and where the tutor/marker and the candidate are positioned.

#### Task 2.1 – Collaborative problem-solving

Providers are advised to support learners in how to put emails together including key requirements and layout.

Providers should introduce candidates or give them ID sheet when working on the collaborative task to enable easy identification of candidates.

Providers should be aware that group discussions must be held between either 2 or 3 candidates. Having 4 or more candidates is against provider guidance for this task and could lead to an unbalanced discussion and may disadvantage candidates.

#### Task 2.2 – Evaluation

Providers are advised to ensure candidates have the opportunity to develop their selfevaluation skills, including evaluation their performance against the requirements of each task, and how they could improve. This also included making reference to the project brief.

### Grade boundaries

The table below shows the grade mark ranges for the Employer-Set Project – **for the summer 2022 series**.

Grade	Mark range
A*	76-100
А	67-75
В	58-66
С	49-57
D	41-48
E	33-40
Unclassified (U)	0-32

# 8710-30 Building Services Engineering for Construction Core

The T Levels Technical Qualification (TQ) in Building Services Engineering for Construction core is made up of the below sub-components (and weightings):

- Exam (70%)
- Employer-Set Project (30%)

### **UMS grade boundaries**

The table below shows the UMS values available for grades in the sub-components. It also shows the UMS values required to achieve each grade for the overall Core. This table will not vary across the series, the values are fixed for this TQ.

Grade boundary	Exam sub- component	ESP sub- component	Overall Core
A*	252 – 280	108 – 120	360 – 400
А	224 – 251	96 – 107	320 – 359
В	196 – 223	84 – 95	280 – 319
С	168 – 195	72 – 83	240 – 279
D	140 – 167	60 – 71	200 – 239
E	112 – 139	48 – 59	160 – 199
Unclassified (U)	0 – 111	0 – 47	0 – 159



### Get in touch

The City & Guilds Quality team are here to answer any queries you may have regarding your T Level Technical Qualification delivery.

Should you require assistance, please contact us using the details below:

Monday - Friday | 08:30 - 17:00 GMT

T: 0300 303 53 52

E: technicals.quality@cityandguilds.com

W: http://www.cityandguilds.com/tlevels

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