

## SAMPLE ASSIGNMENT BRIEF

### UNIT 4 - CREATE THE BUILT ENVIRONMENT: STRUCTURES



## **Construction and the Built Environment Higher (Level 2) Unit 4 Create the built environment: structures (CBE2U4)**

### **Sample Assignment Brief (Approximately eighteen hours under controlled conditions)**

#### **Introduction**

The purpose of this unit is to help you develop an understanding of ground works, substructure, superstructure and external works. You will use technical information and have the opportunity to investigate a range of methods, techniques, plant and tools used to construct the above.

This unit, alongside the others within the Level 2 Principal Learning in Construction and the Built Environment, has been designed to allow you the opportunity to develop a range of Personal, Learning and Thinking Skills (PLTS), and to demonstrate these on more than one occasion. This approach will allow you to build towards a full range of PLTS.

#### **Learning Outcomes:**

- 1 To understand the technical information used in the construction of the built environment
- 2 To know about the construction methods, techniques and equipment used at different construction stages
- 3 To identify when to use in-situ methods of construction and when to use partial pre-fabrication off-site.

#### **Assignment brief**

You will be expected to spend about **18 hours** on this internally assessed assignment.

Marking of the assessment will be determined by the criteria set out on the assessment grid. The unit is assessed through this centre set and marked assignment. Internal assessments are subject to moderation by our awarding body which is: AQA-City & Guilds.

Your assignment report should be a word processed A4 document and will be included in your portfolio. Photographs and other images to support your work may be included in your assignment report. Should you wish to include any drawings or sketches then they should be no larger than A3 sheets. If there is the opportunity to talk with or interview experienced construction workers, you should ask them for their opinions, reflect on them and include them in the report to support and provide case studies for your work.

Each page of your portfolio should be numbered and include the following information:

- candidate name; candidate number; centre name and centre number.

You should concentrate your efforts on these requirements in order to help maximise your final marks for this unit. When you work in teams you should clearly identify your own contributions.

### **Assignment Task:**

#### **The assignment task is in three parts**

##### **Part A**

Plan a group presentation using a range of demonstration techniques including electronic databases, hard copies and multimedia to share a range of examples of construction drawings, specifications, schedules, pictures and models relating to your selected construction projects.

##### **Part B**

Identify methods and techniques used within selected construction projects at each stage of construction. Compare and contrast the plant, tools, equipment and work methods used at each stage.

##### **Part C**

Evaluate and compare the construction methods, materials, plant and tools in use on at least **two** different construction projects.

## **Assignment structure**

A suggested assignment structure, which would allow you to meet the evidence requirements, may include the following steps:

### **Part A (assignment criteria topic 1)**

Working in a small group, collect examples of a variety of construction drawings, specifications, schedules, pictures, and models relating to the selected construction projects. Use these to plan a group presentation and deliver the presentation to classmates, your teachers and any construction managers that can attend. Use a range of electronic databases, hard copies and multimedia in the presentation as appropriate. Learners do not have to produce any of the technical information themselves, but should make the following things clear in the presentation:

- the source of the information
- why it is important
- who would use it
- what they would use it for.

You will have to be prepared to answer questions both during and after the presentation.

### **Part B (assignment criteria topic 2)**

Identify and describe the construction methods being used at each stage of construction within the selected projects. Compare and contrast the plant, tools, and equipment and work methods used at each stage and link what is being used to the stage of construction you are examining.

### **Part C (assignment criteria topic 3)**

(a) Evaluate the construction methods, materials, plant and tools in use on at least **two** different construction projects. Classify the type of construction into two groups:

- traditional construction
- modern construction.

Compare the two groups in terms of labour requirements, speed, use of pre-fabrication and quality of work. Make a list of the advantages and disadvantages of each method.

(b) Use any examples of working at height or working below ground level to produce a risk assessment and method statement. Comment on how modern methods of construction have made both of these areas of work safer.

## Possible evidence to be included in your portfolio

In this assignment, you will need to produce evidence of achievement of the assessment criteria.

In the assignment you could produce:

- 1 a report based on two construction projects that involve buildings or other structures under construction, and two construction projects that have already been completed. These should be within the local community and the projects chosen must show a range of on-site and off-site construction techniques. The techniques should be classified and compared in terms of their advantages and disadvantages
- 2 a team presentation on the standard sources of technical information used in the two projects, including drawings, specifications, schedules and models
- 3 method statements and risk assessments relating to two projects.

In order to attain a high mark in this unit, you must address all of the above. It may, however, be possible to achieve a pass mark without producing every one of the evidence requirements. A table showing how the assessment topics are weighted is included below.

The final report can be presented through whatever media is seen as suitable, as long as all of the evidence requirements are met and the task can be moderated by AQA-City & Guilds.

## Weighting of assessment criteria topics

Assessment criteria topic	Weighting	Marks
1 Technical information used in construction and the built environment	37.5%	18
2 Construction methods, techniques and equipment	37.5%	18
3 On-site and off-site construction	25%	12
<b>Total</b>	<b>100%</b>	<b>48</b>

## **Personal, Learning and Thinking Skills (PLTS)**

The list below is indicative of the way this unit supports the development of PLTS, as opposed to the achievement of PLTS that are possible through the assessment. The unit supports the development of more PLTS than are covered through the assessment criteria alone.

Alternative approaches could be selected.

### **Independent enquirers**

- demonstrating the advantages and disadvantages of homes being part-fabricated off-site, including improved design, reductions in construction times, site costs and quality control

### **Creative thinkers**

- adapting, extending and updating their understanding of the methods used to perform construction tasks as a result of exposure to new and emerging operations, processes, methods and materials

### **Reflective learners**

- abstracting technical information from a range of sources including electronic databases

### **Team workers**

- working with others towards common goals when sharing technical information to improve mutual understanding of how designs are used to create buildings and structures

### **Effective participators**

- proposing practical, manageable ways forward, to a small group, after feedback from the teacher on progress with risk assessments for working at heights and below ground.

## Assessment grid

Assessment criteria topic	Band 1	Band 2	Band 3
	The learner has:		
<b>1 Technical information used in construction and the built environment</b>	<p><b>0 – 6 marks</b></p> <p>Demonstrated a basic knowledge and understanding of the technical information used in two different projects by making a minor contribution to a team presentation.</p> <p>Used a limited range of technical information and presentational techniques to demonstrate some evidence of the provenance, importance and uses of such information.</p>	<p><b>7 – 12 marks</b></p> <p>Demonstrated a partial knowledge and understanding of the technical information used in two different projects by making an effective contribution to a team presentation.</p> <p>Used a wide range of technical information and presentational techniques to demonstrate clear evidence of the provenance, importance and uses of such information.</p>	<p><b>13 – 18 marks</b></p> <p>Demonstrated an in-depth knowledge and understanding of the technical information used in two different projects by making a major contribution to a team presentation.</p> <p>Used a comprehensive range of technical information and presentational techniques to demonstrate detailed evidence of the provenance, importance and uses of such information.</p>
<b>2 Construction methods, techniques and equipment</b>	<p><b>0 – 6 marks</b></p> <p>Demonstrated a basic knowledge and understanding of the different construction methods, techniques and equipment used in two different projects by identifying and briefly describing a limited range of examples of each.</p> <p>Related these examples to the appropriate stage of the construction process in a superficial but generally accurate fashion.</p>	<p><b>7 – 12 marks</b></p> <p>Demonstrated a partial knowledge and understanding of the different construction methods, techniques and equipment used in two different projects by identifying and clearly describing a wide range of examples of each.</p> <p>Related these examples to the appropriate stage of the construction process in a clear and accurate fashion.</p>	<p><b>13 – 18 marks</b></p> <p>Demonstrated an in-depth knowledge and understanding of the different construction methods, techniques and equipment used in two different projects by identifying and briefly describing a comprehensive range of examples of each.</p> <p>Related these examples to the appropriate stage of the construction process in a thorough and detailed fashion.</p>
<b>3 On-site &amp; off-site construction</b>	<p><b>0 – 4 marks</b></p> <p>Correctly classified a limited range of on-site and off-site construction methods, techniques and equipment as being examples of either traditional construction or modern construction.</p> <p>Produced an elementary evaluation of the advantages and disadvantages of the two groups or classifications in terms of either the relative quality of the work done, or the savings in time and cost, using either simple risk assessments or method statements to support the work.</p>	<p><b>5 – 8 marks</b></p> <p>Correctly classified a wide range of on-site and off-site construction methods, techniques and equipment as being examples of either traditional or modern construction.</p> <p>Produced a clear and relevant evaluation of the advantages and disadvantages of the two groups or classifications in terms of both the relative quality of the work done and the savings in time and cost, using simple risk assessments and method statements to support the work.</p>	<p><b>9 – 12 marks</b></p> <p>Correctly classified a comprehensive range of on-site and off-site construction methods, techniques and equipment as being examples of either traditional or modern construction.</p> <p>Produced an in-depth evaluation of the advantages and disadvantages of the two groups or classifications in terms of both the relative quality of the work done and the savings in time and cost, using detailed risk assessments and method statements to support the work.</p>