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# **EXAMINERS' REPORTS**

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## **LEVEL 1 / LEVEL 2 VOCATIONAL AWARD IN CONSTRUCTION AND THE BUILT ENVIRONMENT (TECHNICAL AWARD)**

**SUMMER 2023**

Grade boundary information for this subject is available on the WJEC public website at:  
<https://www.wjecservices.co.uk/MarkToUMS/default.aspx?l=en>

### **Online Results Analysis**

WJEC provides information to examination centres via the WJEC secure website. This is restricted to centre staff only. Access is granted to centre staff by the Examinations Officer at the centre.

### **Annual Statistical Report**

The annual Statistical Report (issued in the second half of the Autumn Term) gives overall outcomes of all examinations administered by WJEC.

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# **CONSTRUCTION AND THE BUILT ENVIRONMENT (TECHNICAL AWARD)**

## **Level 1 / Level 2 Vocational Award**

**Summer 2023**

### **UNIT 2: DESIGNING THE BUILT ENVIRONMENT**

#### **General Comments**

There was a small entry for this unit and candidates addressed the Board set assignment for the design of a community swimming pool unit at Gillsbury High School. The project brief included an accommodation schedule and site plan. The assessment brief was divided into five sections, as follows:

1. Initial report on client's requirements
2. 2D design
3. 3D presentation of the design
4. Calculations
5. Evaluation

#### **Comments on individual questions/sections**

##### **1. Initial report**

Candidates were required to write a report that interprets the information provided in the design brief and identifies project success criteria with reference to interpreting the client brief, accuracy of the design work and quality of the presentation.

Most candidates repeated sections of the project brief with limited interpretation regarding the location and relationship of the spaces included in the accommodation schedule provided.

Some reasonable attempts at stating success criteria were seen based on achieving the given floor areas but criteria were seen which referred to the stated aspirations of using modern construction methods and sustainable materials.

##### **2. 2D design**

Candidates were required to use drawing instruments or a Computer Aided Design (CAD) package design and produce, to scale:

- (a) (i) a floor plan of the proposed design.
- (a) (ii) a block plan of the proposed site layout.
- (b) a full set of external elevations, and at least one internal elevation of the main interior space of the proposed design.
- (c) a cross section and construction details of the proposed design.

Candidates were required to use the language of drafting accurately and appropriately throughout the 2D design tasks.

For this series all the candidates presented computer generated 2D designs and some very well devised and presented floor plans of the building were seen. Site plans were, generally, not as well developed. These should illustrate the site in context and include proposals for the design of external spaces, including parking areas and circulation routes.

Other areas for future improvement in the presentation of layout plans include more extensive labelling and the adding of dimensions of main spaces and external openings.

The requirement to present elevations of the design was not as well addressed and few elevations that illustrated external finishes were seen. There were no examples of the use of shading to add depth, or indication of vertical dimensions or addition of people, vehicles landscaping etc that could be used to provide context and indicate scale. The requirement to include one internal elevation had been overlooked.

The cross sections submitted presented many of the shortcomings identified for the elevations and most appeared to be unfinished. The requirement to provide construction details had also been overlooked. The cross section and construction details provide good opportunities to demonstrate familiarity with drafting conventions and therefore, cover the requirement to 'use the language of drafting accurately'.

### **3. 3D presentation of the design**

Candidates were required to develop a 3D model from 2D building drawings to illustrate:

- (a) the exterior of the building.
- (b) the main interior space within the building.

Most candidates had used the available software to generate isometric views of the exterior and interior of the building and some effective 3D work was presented.

The most effective exterior views included some indication of materials and of external landscaping, although the use of applied scenes to illustrate realistic surroundings, complete with images of vehicles, people and landscape features etc. would have enhanced the presentation of the buildings.

No perspective drawings of the designs were seen.

### **4. Calculations**

Candidates were required to calculate information relevant to the design, such as area, volume, dimensions, angles and high-level design requirements.

Most candidates addressed the assessment criteria by calculating simple floor areas, but with few examples of context and purpose for the calculations, such as volume for ventilation rates, or quantities of selected materials etc. Future assignment briefs will need to be more specific regarding this aspect of the project.

## **5. Evaluation**

Candidates were required to:

- (a) Evaluate your 2D design drawings and 3D presentation against the requirements of the design brief and personally set success criteria, suggesting improvements where appropriate.
- (b) Evaluate your building design against the needs of end users including their safety, suggesting improvements where appropriate.

Some candidates produced reasonably detailed reviews of their work and included sensible suggestions for further improvement of the building layout and presentation of the design. Less successful candidates provided descriptions of work completed and concentrated on the sequence followed during its preparation.

### **Summary of key points**

- Consider other areas of the brief, in addition to the accommodation schedule, when stating success criteria.
- Illustrate external finishes on elevations.
- Use background features to enhance the 3D presentation work.
- Use the required cross section and construction details to demonstrate familiarity with 'the language of drafting'.

# **CONSTRUCTION AND THE BUILT ENVIRONMENT (TECHNICAL AWARD)**

## **Level 1 / Level 2 Vocational Award**

**Summer 2023**

### **UNIT 3: CONSTRUCTING THE BUILT ENVIRONMENT**

#### **General Comments**

The majority of candidate work sampled this series was of a good standard. Evidence of the practical skills was also generally of a good level and demonstrated a good standard of finish and detail.

There were some instances of centres awarding high marks for the practical work, but this was not accompanied with clear evidence to support this level of achievement. Centres need to be focused on the candidates gaining a high level of skill and producing work at a similarly high level if such achievement is to be realised. This can only be achieved if candidates are given sufficient time to be taught the skills and are encouraged to develop them over time.

It was apparent that several centres did not spend sufficient time organising candidates work into appropriate file formats featuring accurate naming conventions prior to uploading the sample which greatly hampered the moderation process.

#### **Comments on individual questions/sections**

The practical tasks should relate to the indicative scope for each skill chosen, as outlined within the candidate brief. Some flexibility is anticipated here, especially where the brief has noted that certain requirements are subject to the availability of materials and/or other resources. There should be no adaptation or deviation from the Descriptions set for Task 1. Failure to adhere to this requirement will adversely affect future submissions.

#### **Task 1**

In order to gain a higher mark for Task 1 it is important that candidate work clearly demonstrates how they have calculated the quantities based on the scale/area that have been outlined. These calculations should not be based on the cost of individual items required for the practical task.

#### **Task 2**

The application of valid and detailed success criteria which is used to accurately evaluate practical work should also be given stronger emphasis in candidates work and should focus on measurable elements, such as tolerance, rather than broad statements wherever possible. These success criteria should be as individualised as possible for each candidate and clearly set by each candidate. Centres should refrain from providing generic success criteria for candidates.

Much like success criteria, timescales should be individually identified, realistic and include contingency times.

### **Task 3(a)**

This section was generally well covered, but it is important that the sequencing of tasks uses realistic time scales, minutes, and hours and not days/weeks. PPE and tools should be relevant to each task.

### **Task 3(b)**

This section was generally well covered, but it is imperative that centres provide adequate detail in their observation documentation, and clearly reference the methods which were utilised by candidates to ensure that they carried out each task safely.

### **Task 3(c)**

This section was in some instances poorly evidenced. It is important that candidates clearly identify the different materials used in each task, then describe in detail how they can either be reused or recycled. The candidates' responses should provide sufficient depth to warrant the higher marks available. In order to reach higher marking bands, candidates should provide specific examples of how materials will either be re-used or recycled.

### **Task 4**

Centres should ensure there is clear and detailed evidence of candidates' self-evaluation for each practical skill. These evaluations should clearly reference the success criteria identified by the candidate. Evaluations should take the form of extended writing and not bullet pointed lists.

It is essential that at least one photograph is provided of the final candidate work for each of the skills undertaken and that any photographs presented should be clear and in colour. Photographs taken throughout the practical process also greatly assist in the moderation process.

### **Summary of key points**

Centres are strongly advised to:

- Focus on the development of practical skills.
- Place more emphasis on detailed and measurable success criteria which is clearly referred to in the evaluation of practical tasks undertaken.
- Justify assessment decisions made in the associated documentation.
- Adhere to the practical tasks outlined in the specification and do not adapt or reduce scale of tasks.
- Ensure that work uploaded contains no more than 5 files (Preferably PDF format) and that each file is named appropriately and clearly indicates the content of that file.
- Be aware of and adhere to WJEC deadlines.



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