Unit 330 Producing CAD setting out details in the workplace

Level: 3

Value for TQT: 300

Unit aim:
The aim is to provide you with the necessary skills and knowledge for:

- interpreting information
- adopting safe and healthy working practices
- selecting materials, components and equipment
- producing setting out details and/or working drawings using computer aided design (CAD)

*PER – Portfolio evidence reference SO – Site observation OQ – Oral question WQ – Written question WT – Witness testimony
PS – Product supplementary PD – Professional discussion

Assessment criteria that are practical activities are highlighted in bold.

1. Interpret the given information relating to the work and resources when producing CAD setting out details.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
1.1 **interpret and extract relevant information from:**							
a. **drawings**							
b. **specifications**							
c. **schedules**							
d. **method statements**							
e. **risk assessments**							

f. **manufacturers' information**							
1.2 **Comply with information and/or instructions derived from risk assessments and method statements**							
1.3 Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented.							
1.4 describe different types of information, their source and how they are interpreted in relation to:							
a. drawings							
b. specifications							
c. schedules							
d. method statements							
e. risk assessments							
f. manufacturers' information							
g. component standards							
h. oral and written instructions							
i. sketches							
j. electronic data							
k. official guidance and current building regulations associated with producing CAD setting out details.							

2. Know how to comply with relevant legislation and official guidance when producing CAD setting out details.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
2.1 describe your responsibilities regarding potential accidents, health hazards and environment whilst working:							
a. in the workplace							
b. with tools and equipment							

c. with materials and substances							
d. with movement and storage of materials by manual handling and mechanical lifting							
2.2 Describe the organisational security procedures for tools, equipment and personal belongings in relation to:							
a. site							
b. workplace							
c. company							
d. operative							
2.3 Explain what the accident reporting procedures are and who is responsible for making reports.							
2.4 Describe the types of fire extinguishers available when producing CAD setting out details and describe how and when they are used.							

3. Maintain safe and healthy working practices when producing CAD setting out details.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
3.1 **Use health and safety control equipment safely and comply with the methods of work to carry out the activity in accordance with current legislation and organisational requirements when producing CAD setting out details.**							
3.2 Demonstrate compliance with give information and relevant legislation when producing CAD setting out details for the following:							
a. methods of work							
b. safe use of visual display equipment							
c. safe use of health and safety control equipment							
d. safe use, storage and handling of materials							
e. specific risks to health.							

3.3 Explain why and when health and safety control equipment, identified by the principles of prevention, should be used, relating to producing CAD setting out details, and the							
a. types							
b. purpose							
c. limitations of each type							
d. the work situation							
e. general work environment in relation to correct position and type of workstation equipment (anti-glare monitor, mouse arm supports, seat, keyboard).							
f. collective protective measures							
g. personal protective equipment (PPE).							
3.4 Describe how the relevant health and safety control equipment should be used in accordance with the given working instructions							
3.5 Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with:							
a. fires							
b. spillages							
c. injuries							
d. other task-related activities.							

4. Select the required quantity and quality of resources for the methods of work to produce CAD setting out details.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
4.1 **select resources associated with own work in relation to:**							
a. **materials**							
b. **components**							

c. **fixings**							
d. **tools and equipment**							
4.2 describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to:							
a. timber							
b. timber based products							
c. composite materials							
d. metals							
e. plastics							
f. fabrics							
g. glass							
h. ironmongery							
i. computers							
j. setting out programmes							
k. fitting							
l. fixings							
m. CAD equipment.							
4.3 Describe how to confirm that the resources and materials conform to the specification including:							
a. suitability							
b. moisture							
c. durability							
4.4 Describe how the resources should be used correctly and how problems associated with the resources are reported							

4.5 Explain why the organisational procedures have been developed and how they are used for the selection of required resources							
4.6 Describe any potential hazards associated with the resources and methods of work							
4.7 describe how to calculate:							
a. quantity							
b. length							
c. area							
d. wastage associated with the method and procedure to produce CAD setting out details.							

5. Minimise risk of damage to the work and the surrounding area when producing CAD setting out details.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
5.1 Maintain a clear and tidy work space.							
5.2 Dispose of waste in accordance with current legislation.							
5.3 Describe how to protect work from loss and damage from general workplace activities.							
5.4 Explain why the disposal of waste should be carried out safely in accordance with:							
a. environmental responsibilities							
b. organisational procedures							
c. manufacturers' information							
d. statutory regulations							
e. official guidance							

6. Complete the work within the allocated time when producing CAD setting out details.							
You must be able to:	*PER	SO	OQ	WQ	WT	PS	PD
6.1 Demonstrate completion of the work within the allocated time.							
6.2 Describe the purpose of the work programme and explain why deadlines should be kept in relation to:							
a. types of productivity targets							
b. time scales							
c. how times are estimated							
d. organisational procedures for reporting circumstances which will affect the work programme.							
7. Comply with the given contract information to produce CAD setting out details to the required specification.							
7.1 Demonstrate the following work skills when producing CAD setting out details:							
a. inputting data using a keyboard							
b. operating a mouse							
c. customising settings							
d. file managing							
e. backing-up information							
f. enhancing features							
g. coding components							
h. multi-layering details							
7.2 Use and maintain equipment.							

7.3 Produce CAD setting out details, by use of pre-developed programme, to given working instructions for:							
a. products straight in plan and elevation							
b. products with single curvature details							
7.4 Produce working drawings to given working instructions.							
7.5 Produce cutting lists complete with details of materials to given working instructions.							
7.6 Monitor and validate the accuracy of output of the CAD setting out details.							
7.7 Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to:							
a. set out by CAD; products straight in plan and elevation							
b. set out by CAD; products with single curvature details							
c. monitor and validate output							
d. take site and workplace dimensions							
e. produce cutting lists with materials							
f. proportion joints associated with the products to be produced							
g. requisition material							
h. present products on visual display unit equipment							

i. use visual display unit equipment (including but not limited to anti-glare monitor, mouse arm supports, seat type and position, keyboard position)							
j. provide information for Building Information Modelling (BIM)							
k. recognise and determine when specialist skills and knowledge are required and report accordingly							
l. use CAD equipment.							
7.8 Describe the needs of other occupations and how to effectively communicate within a team when producing CAD setting out details.							
7.9 Describe how to maintain CAD tools and equipment.							

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Declaration

I confirm that the evidence supplied for the above unit is authentic and a true representation of my own work. The work logged is my own work carried out during my normal work duties.

Candidate name:	
Candidate signature:	
Date:	

I confirm that this candidate has achieved all the requirements of this unit with the evidence listed. Assessment was conducted under the specified conditions and context, and is valid, authentic, reliable, current and sufficient.

Assessor name:	
Assessor signature:	
Date:	

IQA name:	
IQA signature:	
Date:	