

<b>Domain</b>	<b>CARPENTRY</b>	<b>Unit ID: 1605</b>
<b>Title:</b>	<b>Produce computer aided project drawings</b>	
<b>Level: 4</b>		<b>Credits: 5</b>

### Purpose

This unit standard specifies the competencies required to produce computer aided project drawings. It includes planning and preparing for work, identifying object to be drawn, establishing drawing criteria and limitations, producing computer-aided drawings to line stage, detailing the computer-aided drawing, drafting initial drawing, verifying detailed drawing and producing hard copy of final drawing.

This unit standard is intended for those who work as carpenters.

### Special Notes

1. Entry information:  
Prerequisite:
  - *1157-Demonstrate basic knowledge of workplace health and safety or demonstrated equivalent knowledge and skills.*
2. This unit standard is to be delivered and assessed in the context of carpentry operations and should be assessed in conjunction with other relevant technical unit standards selected from this domain.
3. To demonstrate competence, at a minimum, evidence is required of producing computer aided project drawings.
4. Project production drawing includes but not limited to computerised orthographic, isometric, oblique, perspective and 3D designs.
5. Equipment includes but not limited to computers with a drawing program and printer.
6. Assessment evidence may be collected from a real workplace, or simulated real workplace in which carpentry operations are carried out.
7. Glossary of terms:
  - *'Medium'* - refers to software, equipment and all related instruments required to produce computer aided drawings.
8. Regulations and legislation relevant to this unit standard include the following:
  - Labour Act No 11, 2007 as amended;
  - Public and Environmental Health Act No 1, 2015;
  - Occupational Health and Safety Regulations No. 18, 1997 and all subsequent amendments.

## **Quality Assurance Requirements**

This unit standard and others within this subfield may be awarded by institutions which meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training Authority and which comply with the national assessment and moderation requirements. Details of specific accreditation requirements and the national assessment arrangements are available from the Namibia Qualifications Authority on [www.namqa.org](http://www.namqa.org) and the Namibia Training Authority on [www.nta.com.na](http://www.nta.com.na).

## **Elements and Performance Criteria**

### **Element 1: Plan and prepare for work**

#### **Performance criteria**

- 1.1 Safety requirements are followed in line with safety plans and policies.
- 1.2 Equipment selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement.
- 1.3 Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use.
- 1.4 Environmental protection requirements are identified and applied in line with environmental plans and regulatory obligations.

### **Element 2: Identify object to be drawn**

#### **Performance criteria**

- 2.1 Purpose and operational characteristics of the object to be drawn are identified.
- 2.2 Production materials and method are identified in line with workplace procedures.

### **Element 3: Establish drawing criteria and limitations**

#### **Performance criteria**

- 3.1 Drawing to be completed is identified.
- 3.2 Drawing requirements including dimensions, angles, shapes and finished sizes, are established and documented.
- 3.3 Drawing conventions and specifications to be noted on the drawing are identified.

- 3.4 Appropriate medium for drawing is identified and selected.

#### **Element 4: Produce computer-aided drawings to line stage**

##### **Performance criteria**

- 4.1 Computer-aided drawings commands to perform drawing operations are used and applied.
- 4.2 Elevations and parameters are drawn to scale and positioned to suit design.
- 4.3 Views are projected according to the requirements of the brief.
- 4.4 Relevant dimensions and assemblies are constructed in accordance with final design requirements.
- 4.5 Constructed drawing conforms to selected views and layout.
- 4.6 Drawing complies with codes of practice for engineering drawing.
- 4.7 Multiple sheet drawing layouts are cross-referenced according to organisational requirements.
- 4.8 Drawing title block, layout, number, type of views and reference data to suit the task are selected.

#### **Element 5: Detail the computer-aided drawing**

##### **Performance criteria**

- 5.1 Symbols and logos are identified, produced and positioned to comply with requirements.
- 5.2 Drawing notes and presentation detail are added where required by the task to comply with requirements and code of practice.
- 5.3 Drawing is saved to file according to workplace procedures.

#### **Element 6: Draft initial drawing**

##### **Performance criteria**

- 6.1 Dimensions are plotted from criteria and documented specifications.
- 6.2 Dimensional points are connected to match appropriate drawing views.
- 6.3 Production notes or special requirements are noted.
- 6.4 Drawing conventions and specifications are noted on the documentation.

## **Element 7: Verify detailed drawing**

### **Performance criteria**

- 7.1 Draft copy is printed and checked against brief to ensure compliance, and any necessary modifications are identified and authorised.
- 7.2 Angles, shapes and dimensions are checked.
- 7.3 Drawings are modified, where necessary, to ensure completeness and compliance.
- 7.4 Drawing is verified and meets job requirements.

## **Element 8: Produce hard copy of final drawing**

### **Performance criteria**

- 8.1 Paper size, orientation, scale and format are selected to ensure compliance with standards.
- 8.2 Final copy is printed and meets brief and requirements and within agreed time frames.
- 8.3 Final administrative and office procedures are carried out according to workplace requirements.

## **Registration Data**

<b>Subfield:</b>	General Construction
<b>Date first registered:</b>	08 June 2016
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<b>Body responsible for review:</b>	Namibia Training Authority