

CPCCBC4014

PREPARE SIMPLE BUILDING SKETCHES AND DRAWINGS

ASSESSMENT SUMMARY

The assessment activities for *CPCCBC4014 Prepare simple building sketches and drawings* cover all aspects of the unit of competency. For Apprentices/Trainees, this includes supervisor completion of the Apprentice/Trainee Record (ATR).

Participants must read all the information given before starting any assessment task. The assessment tasks are intended to be fair, flexible, valid and reliable. If a Participant has any questions or requires alternative arrangements to be made such requests should be directed to their Trainer/Assessor, who should note such arrangements in the 'Assessor Comments' on the affected assessment. If a Participant feels they are not yet ready to be assessed, they should discuss their options with their Trainer/Assessor.

To satisfactorily complete the assessment, the Participant is required to answer all questions correctly and demonstrate their skills to industry standards. If a Participant does not answer all questions or perform all tasks, they will be deemed 'Not Satisfactory' for the task and 'Not Yet Competent' for the unit of competency.

The Trainer/Assessor can provide the Participant with additional information on interpreting the assessment outcomes and guide the Participant's options. If a Participant is still deemed 'Not Satisfactory' they will have the opportunity to undertake a supplementary assessment or appeal the result as per the process in the Student Handbook.

By signing below, the Participant acknowledges:

- They understand the assessment instructions and requirements, and consent to being assessed.
- The work submitted is to be their own work – with the work of/with others needing to be clearly acknowledged and documented.
- They consent to any photo/video recording of their work that occurs during assessment.

Participant name	Leah Hellewell
Participant signature	

Pre-requisite unit(s) to be achieved and authenticated prior to undertaking assessment

☒ Not applicable

Task	Date completed	Assessment Results	
Theory Exam	Select Date. 21/8/24	☐ Satisfactory	☐ Not Satisfactory
Practical Assessment	Select Date.	☐ Satisfactory	☐ Not Satisfactory
Outcome for CPCCBC4014	Select Date.	☐ Competent	☐ Not Yet Competent

Evidence requirements checklist (ticked by assessor and evidence supplied to RTO)

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|---|---|
| ☐ Theory Exam | ☐ Planning sheet |
| ☐ Practical Assessment | ☐ Sketch/drawing of 1 structural component |
| ☐ Compliance review | ☐ Sketch/drawing of 1 non-structural component |

Assessor name	
Assessor signature	

CPCCBC4014

PREPARE SIMPLE BUILDING SKETCHES AND DRAWINGS

THEORY EXAM

Participant name	Leah Hellewell
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FOR THE PARTICIPANT

Instructions

- You will complete written questions as outlined on the following pages. You must attempt all questions and provide enough detail in your responses to demonstrate your knowledge.
- It is anticipated that you should complete this assessment within two (2) hours, but additional time may be allowed upon negotiation with the Assessor.
- You must complete all questions unassisted by the Assessor or other personnel but may refer to reference material as needed. All questions must be answered correctly for a 'Satisfactory' assessment outcome to be awarded.
 - An oral examination may be allowed under certain circumstances, whereby your answers will be documented by another party.
 - Any written questions that are incomplete, or not answered satisfactorily will need to be completed again after further training support.
 - If you answer a question incorrectly but modify your response, put your initials next to the written change (or the Assessor must initial a verbal change).

Resources required

Pen

FOR THE ASSESSOR

Instructions

- Where oral examination has occurred, ensure that this is acknowledged in writing (e.g. FT001 and Assessor Comments)
- All questions must be satisfactorily demonstrated by the Participant for a Satisfactory determination (indicated by an Assessor tick to the right of the question).
- Assessors are to complete marking in pen of a different colour to the Participant.
- If the Participant verbally modifies their response, write in the modified response verbatim and put your initials next to the written change.

ASSESSOR COMMENTS

As necessary, outline:

- Details on reattempts, alternative arrangements or reasonable adjustments made.
- Where a Participant is deemed 'Not Satisfactory', provide recommendations for future training.

Q1. Describe each of the following types of plans and explain what they are used for.

Answer

Type of plan	Description	Use
Presentation drawings	Presentation drawings include tones and hatches to represent different material. They are not intended to appear realistic. Basic presentation drawings typically include people, vehicles and trees.	Presentation drawings are used to explain a scheme and to highlight features. They describe the design and are generally shown during design processes.
Isometric drawings	An Isometric is a 3D drawing set out using 30-degree angles. The foreshortening of the axes is equal. Therefore, the final image produced is not distorted	Isometric drawings provide a 3D representation of an object, building or design on a 2D surface.
Orthographic drawings	Orthographic drawings are 2D. The Object is viewed along parallel lines that are perpendicular to the plane of the drawing. (eg. Top view, side view and front view.	Orthographic Drawings show an object from all angles to help builders and contractors plan the construction.
Perspective drawings	Perspective drawings approximate the flat surface of an object.	Perspective drawings accurately depict spatial depth or perspective and accurately depicts a 3D object onto a 2D plane.



Q2. A client doesn't understand where or how two (2) wall inserts would look beside a window in the designated living room. What type of drawing could you draw to assist in their understanding?

Answer I would show them the Architectural Plan and select the floor plan. This will allow them to see the building spaces, positions, and dimensions. ☐

Presentation Drawings

Q3. What type of drawing would you need to present to builders or contractors to give a visual aid of all angles of the building?

Answer You would need to give them Elevation and Sections Plans of the building. ☐

Orthographic Drawings

Q4. What type of drawings are used to demonstrate landscape features such as trees, rocks and shrubs?

Answer You would use a Site Plan as it gives an overview of an entire property. ☐

Presentation Drawings

Q5. What type of information can you interpret from a site plan?

Answer Site plans provide an overview of an entire property. It can be used for: ☐

- Identifying Adjacent Roads.
- Identifying the location of Project Site.
- Determining what needs to be retained or demolished.
- Determining orientation and building layout

Q6. What is building information modelling (BIM)?

Answer BIM is a digital process that uses 3D models to create and manage information about a building/project.
It is used for creating, managing, and analysing building information models.



Q7. Explain how the NCC is relevant to construction drawings.

Answer It provides the minimum mandatory requirements for safety, health, amenity, and sustainability for building works of both new and existing buildings throughout Australia.



Q8. Discuss the importance of complying with standards during a building and construction project.

Answer Complying with the standards during a building and construction project is important to ensure a safe and sustainable environment for everyone.
It also ensures high quality construction and creates consistency throughout projects.



Q9. Why is it important to confirm that construction plan information complies with building and construction regulations.

Answer Confirming that construction plan information complies with regulations is important as it ensures that the building/project meets legal and safety standards/requirements. It can also help with preventing unwanted incidents from occurring, (Accidents/Injury, Reworks, etc).

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Q10. When selecting information from plans to present to others, what will determine the format of the information you wish to present?

Answer It is determined based on the purpose of the presentation, the needs of those you are presenting this to and the level of detail that you are required to present.

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Q11. What is involved when inspecting drawing equipment for serviceability?

Answer When you are inspecting drawing equipment for serviceability, you are looking out for the below:

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- Checking for Jams or faults in manual tools (Cracks, dents, and chips)
- Check Maintenance logs on equipment to determine last time it was serviced.
- Check if software is up to date.
- Conduct a pre-start check on tools and/or equipment.

If any faults or issues are identified during this process, make sure you document these.

Q12. Listed below are common drawing conventions. Provide a brief explanation of each.

Answer

Drawing convention	Explanation
Sheet layout	Refers to arranging all details in the drawing sheet.
Title Block	Provides vital information to assist in reading and understanding the document.
Line types	Pertains to the visual manner or design used for representing line variations in a drawing.
Symbols	Refers to icons commonly used to convey information.
Dimensions	Numerical values expressed in units of measurements.
Dimension lines	Indicate the main objects measurements.
Abbreviations	Shortened forms if common construction terminologies.



Q13. Explain what is learned and confirmed by reading AS 1100.101.

Answer AS 1100.101 outlines key parts of technical drawings, and the importance of clarity, consistency, and accuracy in construction. By following these guidelines, we can ensure that drawings adhere to industry standards and regulations, ultimately contributing to the success of a construction project.

**Q14. Provide a brief explanation for the following building and construction methods.**

Answer

Methods	Explanation
Solid brick construction	This refers to masonry construction that utilizes layers, referred to as wythes, of brick with header bricks to hold them together.
Brick veneer construction	This refers to the method wherein a wooden or steel frame is concealed with a single layer of bricks as the exterior layer.
Framing	This refers to the method of fitting together separate structural pieces or components to give a structure support and shape.
Post and beam construction	This refers to the method of using heavy timbers instead of dimensional lumber, Connections in this method are usually made with plates or bolts.



Q15. Define the following construction terminology.

Answer

Term	Definition
Nogging	This is a horizontal piece of timber fixed between studs in a framed wall
Pilot hole	This is a hole drilled to receive a nail or a screw
Masonry	This means Brick, concrete, stone, artificial stone, or terra cotta laid in mortar.
Admixture	These are materials added to mortar or concrete to achieve modifications to the normal properties of the basic material.



Q16. Discuss what different types of information you must gather to create effective sectional drawings and sketches from building plans.

Answer

To create effective sectional drawings and sketches from building plans, you must gather information on the buildings structure, floor plan, wall composition and foundation details.
You may also need to get information of placements for windows, doors and other openings as well as material used for floors, walls and roofs.



Q17. What type of information might you need to effectively draw bracing details for a wall adjacent to ceiling joists?

Answer To effectively draw bracing details for a wall adjacent to ceiling joists you need information on the wall structure and orientation of the ceiling joists. You will also need to know the type of bracing required.

Other things you may need to consider is load path & connection hardware or any site-specific factors (e.g. Weather).



Q18. Discuss the importance of adding labels to the drawing discussed in Q17.

Answer It is important to add labels as it ensure clear communication of intent, allowing anyone to accurately understand specifications and connections. Having the clarity of labels also reduces the risk of any errors occurring during the construction process.



Q19. Why should the drawing be created 'to scale'?

Answer It should be created 'to scale' so that those viewing the plans can accurately represents the proportions/relationships between different elements. It allows you to see how all components fit together as intended.



Q20. When using symbols and abbreviations, how can you ensure that each reader of the plans understand what they mean?

Answer You can create a 'Legend' where you can create a list of abbreviations and symbols and their meaning/description that those reading the plans/drawings can refer to. ☐

Q21. Discuss the sheet layout and information included to present elevation drawings to the local council for approval.

Answer When submitting elevation drawings to local council, the sheet layout should include a title block with the project details, clear scale, and an orientation marker. ☐
The drawing should show all relevant building elevations, showing materials, finishes, and key dimensions along with height and levels.

Q22. What format would you produce construction plans to present to each of the following recipients?

Answer ☐

Recipients	Format (hard copy/ digital)
Client	Digital (BIM)
Builder/ Contractor	Digital (CAD) & Hardcopy Print
Local Council	Digital CAD & BIM)

