

CPCCBC4012

READ AND INTERPRET PLANS AND SPECIFICATIONS

ASSESSMENT SUMMARY

The assessment activities for *CPCCBC4012 Read and interpret plans and specifications* 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	Kandy-Lee Ashby
Participant signature	

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

☒ Not applicable

Task	Date completed	Assessment Results	
Theory Exam	19/03/24 Select Date	☐ Satisfactory	☐ Not Satisfactory
Workbook	19/03/24 Select Date	☐ Satisfactory	☐ Not Satisfactory
Practical Assessment	20/03/24 Select Date	☐ Satisfactory	☐ Not Satisfactory
Outcome for CPCCBC4012	Select Date.	☐ Competent	☐ Not Yet Competent

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

- | | |
|--|--|
| ☐ Theory Exam
☐ Workbook
☐ Practical Assessment | ☐ Slab Plan for Activity 3 (HO3 available)
☐ Cost Estimation Sheet for Prac (HO5 available) |
|--|--|

Assessor name	
Assessor signature	

CPCCBC4012

READ AND INTERPRET PLANS AND SPECIFICATIONS

THEORY EXAM

Participant name	<i>Kandy-Lee Ashby</i>
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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. What is the significance of concept drawing/sketches?

Answer

Concept drawings / sketches are simple free hand drawings that provide an idea of the project. This is the first step of the design process.



Q2. Discuss when you may come across concept drawings/sketches.

Answer

These drawings will be shown in the initial planning of the project.



Q3. Explain what is meant by architectural plans.

Answer

Architectural plans show the overall building from the outside.



Q4. Provide four (4) plans that are considered part of the architectural plans.

Answer

1. Site plan
2. Architectural floor plan
3. Elevations
4. Perspective



Q5. Describe what structural plans are.

Answer

Structural plans are the bones of the building. They provide information on the specifications for load carrying and structural components.



Q6. How is a structural plan different from an architectural plan?

Answer

Structural plans focus on the details that make the building stable against external forces. While the architectural is the overall look of the building.



Q7. Explain what a civil plan is.

Answer

Civil plans show the inground works for the project. They show storm water connections, pits and drains. They show how they connect and work together.



Q8. Discuss how civil plans may be similar to other plans.

Answer

Civil plans show details similar to the structural and architectural plans. They show the overall construction site elements, an overview of the building and landscape.



Q9. What is the purpose for mechanical plans?

Answer

Mechanical plans show the specifications for the mechanical equipment. This includes heating, cooling, ventilation and all vertical transportation.



Q10. Discuss three (3) details you may find in mechanical plans.

Answer

1. HVAC layout.
2. Ducting - size, type and layout.
3. Thermostat type and layout.



Q11. When would electrical plans be used?

Answer

The electrical plans are used when installing the electrical systems in the building. These include lighting, switches. We also use these plans to identify the type of lighting to be installed in specific areas.



Q12. Provide three (3) examples of details contained in electrical plans.

Answer

1. Wiring layout for power.
2. Wiring layout for lighting.
3. Location of the switches and panels.



Q13. What are plumbing and drainage plans used for?

Answer

Plumbing and drainage plans are used to identify the location^{and} sizes for pipework. They show water supply and drainage components of the site.



Q14. Discuss what may be needed when plans display council pipework.

Answer

When the plans display council pipework we need to submit a form 32, plans and drawings to Urban Utilities for works approval.



Q15. Why is it important to check and ensure that the plans you are using are the current version?

Answer

It is important to make sure all of the project, consultants and subcontractors are working on the correct version of drawings. The reason for this is if we are working on out dated drawings the project could be built incorrectly.



Q16. What can occur if an outdated version of the plans is used?

Answer

If working off outdate drawings this could lead to the project being built non-compliant, ~~the~~ faulty products being installed. If it is built incorrectly, costs will incur to address and rectify the faults from using outdated plans.



Q17. Discuss what site plans are drawn to reflect.

Answer

Site Plans provide an overview of the site. These show the block location, proposed building, existing trees/fences, contour lines and levels.



Q18. Discuss the purpose of reading the floor plan.

Answer

Floor plans provide a top view of the building. These plans identify the location of walls, doors, windows and columns.



Q19. Discuss two (2) key differences between elevation view and section view.

Answer

1. Elevation view provides a ~~new~~ vertical view of the building from the outside (front, back and sides).
2. Section View allow us to see through the interior of the structure.



Q20. Discuss the purpose of reading detail drawings.

Answer

Detail drawings provide a large scale view of components of the building. These drawings provide a detailed view of the intricate components of the building and can be used to see and understand how to build it correctly.



Q21. Why is it important to measure from a datum point?

Answer

It is important to ensure the project team, consultants and subcontractors are working from a consistent height. This also ensures you're not relying on the works completed before you.



Q22. Discuss what reduced levels (RL) are and how these are established in construction drawings.

Answer

Reduced Levels is a height above or below the site datum point. On the construction plans they can use a positive or negative symbol to show if the item is above or below a reference point (+2m or -2m).



Q23. Describe the purpose of the title block and what it contains.

Answer

The Title block provides general information on the set of drawings and detailed information on the specific drawing. It contains project information, name of draftsman, date created, client name and sheet number.



Q24. Where is the title block usually located on the plans?

Answer

The title block is usually located at the bottom right portion of the page.



Q25. Describe the purpose of using scale drawings in construction.

Answer

Scale drawings provide a detailed overview of the project while fitting it all on one page.



Q26. Describe each ratio of standard scale ranges below.

Answer

Ratio	Description
1:100	for one unit, the real size is 100 times bigger than the drawing
1:2	for one unit the real size is double the size on the drawing
1:50	for one unit the real size is fifty times bigger than the drawing.



Q27. Describe why examining detail drawings is important.

Answer

Detailed drawings provide a detailed list on how the building is to be ~~built~~ built. It provides dimensions and construction methods. It is important to review this to make sure nothing is missed.



Q28. What is the difference between utilities plans and specifications and services plans and specifications in the context of building construction?

Answer

Utilities plans provide details on water, electricity, gas and sewage. The items that are in the initial construction phase.
Service plans provide information on lighting, security, fire etc. These items are used once construction is complete.



Q29. Describe what is meant by each of the following drawing descriptions.

Answer

Drawing description	Meaning
Isometric drawings	- 3D drawings on a 2D surface the same scale is used for all axes.
Oblique drawings	- 2D projection of 3D drawings that show the true shape and form of an object.
Perspective drawings	3D drawings that provide a realistic view.
Orthographic drawings	3D images shown in 2D that provide top, front and side views.



Q30. What are CAD drawings? Explain how CAD is used in building and construction.

Answer

CAD drawings are project drawings created using a computer software program. These drawings are easily viewed and modified by engineers, architects and site staff.



Q31. Provide a brief description of the given classes of buildings according to the National Construction Code.

Answer

Building Class	Description
Class 1a building	one or more single dwelling.
Class 2 building	Apartment buildings
Class 4 building	The only dwelling within the building inside any class 5, 6, 7, 8 or 9 buildings.
Class 5 building	Office building used for commercial or professional purposes. Except for building class 6, 7, 8 or 9.
Class 7b building	Warehouses, storage or buildings to produce wholesale goods.
Class 10a building	A private garage, carport or shed.



Q32. What is building information modelling (BIM)?

Answer

Bim is a 3D model program to design, create and maintain digital drawings.



Q33. Explain how the NCC is relevant to construction drawings.

Answer

NCC provides the standards for the design and construction of projects. They provide minimum level of standards for building, building elements and plumbing and drainage that we must meet.



Q34. Discuss the importance of complying with standards during a building and construction project.

Answer

Complying with standards during construction of the project is the best way to achieve ~~with~~ government requirements. The standards are the safest and most sustainable way to build a project.



Q35. Discuss how you would identify wind bracing and tie-down requirements from construction plans.

Answer

To identify the wind bracing and tie-down requirements of the building I would review the roof plan and compare it to the detail drawings.
Reviewing the plans and confirming they are accurate with the wind bracing table.



Q36. Discuss why you would access AS 1684.2 Residential timber-framed construction, Part 2: Non-cyclonic areas, when reading plans and specifications.

Answer

If you were building in a non-cyclonic area to confirm your plans are ~~fully~~ compliant to AS 1684.2.



Q37. Reasonable allowances are made by builders for the different construction items in a building project. Discuss what Prime Cost (PC) items are.

Answer

Prime Costs is a figure that is reasonable for the supply and install for items that didn't have a set price in the contract. These could include items not finalised such as appliances, fixtures or hardware.



Q38. Explain what Provisional Sum (PS) items are.

Answer

Provisional sums are an allowance to cover work or materials that the builder has not defined.



Q39. Explain how to locate installation points of the services to the building from the plans.

Answer

To locate the services to the building, first I would review the floor plan which clearly shows in the legend codes for Dishwashers, ovens, microwaves and other items. Secondly I would review the reflective floor plan to locate fans, smoke alarms, lighting etc.



Q40. Explain how to locate connection points of services to the building from the plans.

Answer

To locate the connection points of the services to the project. Review the floor plan and the schedule of components.



Q41. Explain how to locate fixtures from the plans.

Answer

When we are locating the fixtures of the project, we need to look at the construction plans and the schedules. Then make note of the labels.

