

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).

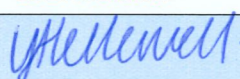
Participants must read all the information given before starting any assessment task. The assessment tasks are intended to be fair, flexible, valid and reliable. If a Participant has any questions or requires alternative arrangements to be made such requests should be directed to their Trainer/Assessor, 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	Leah Hellewell
Participant signature	

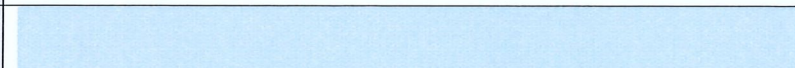
Pre-requisite unit(s) to be achieved and authenticated prior to undertaking assessment

☒ Not applicable

Task	Date completed	Assessment Results	
Theory Exam	Select Date.	☐ Satisfactory	☐ Not Satisfactory
Workbook	Select Date.	☐ Satisfactory	☐ Not Satisfactory
Practical Assessment	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) |
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Assessor name	
Assessor signature	

CPCCBC4012

READ AND INTERPRET PLANS AND SPECIFICATIONS

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. What is the significance of concept drawing/sketches?

Answer

They allow further idea to be explored more quickly, which can then be added to drawings.

They allow you to present preliminary ideas regarding the project quickly.

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

Answer

You may come across concept drawings/sketches in the planning stages of projects to allow, explore and communicate ideas before further development in the project.

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Q3. Explain what is meant by architectural plans.

Answer

Architectural plans are drawing that can be used to gather details about architectural aspects and how architectural elements are integrated to plans.

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

Answer

1. Architectural Floor Plans
2. Site Plan
3. Perspective
4. Schedule of Windows and doors

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Q5. Describe what structural plans are.

Answer

Structural plans are drawings that can be used to gather information about structural aspects of the building/design.

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

Answer

Architectural plans are more focused on the function, looks and overall feeling of the building whilst structural plans are more focused on elements that make the building stable/strong.

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Q7. Explain what a civil plan is.

Answer

Civil plans show you an overview of the construction elements and how these are intergrated into each other under the construction phase.

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

Answer

Civil plans typically included details found on both Architectural and Structural plans.
So can therefore may contain the

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Q9. What is the purpose for mechanical plans?

Answer

The purpose of Mechanical Plans is to use as a reference for when and/or where you need to locate different types of Mechanical Equipment.

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

Answer

1. HVAC Layout
2. Thermostat Type and Location
3. Size, Type and Layout of Ducting

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Q11. When would electrical plans be used?

Answer

Electrical Plans would be used to acquire information about building elements related to Electrical systems of circuits

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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 panels and switches

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Q13. What are plumbing and drainage plans used for?

Answer

Plumbing and Drainage plans are used as a guide for the installation of elements relating to installations of water supply and drainage components.

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

Answer

You may be required to seek approval from the council.

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

Answer

If the plans that are being used are not the most current version, it can potentially cause issues, such as:

- Mistakes in the developing cost estimates
- Purchase of non-compliant materials
- Faulty installation
- Incurred costs (Addressing/Rectifying Results)

Using the correct and most current version of plans can eliminate these risks.

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

Answer

- Mistakes in the developing cost estimates
- Purchase of non-compliant materials
- Faulty installation
- Incurred costs (Addressing/Rectifying Results)



Q17. Discuss what site plans are drawn to reflect.

Answer

Site plans are drawn to reflect an overview of the entire site and shows all elements to be considered in construction and allows an overview of the entire scope of work.



Q18. Discuss the purpose of reading the floor plan.

Answer

The purpose of reading a floor plan is to see a graphical representation of a building sections top view.

It shows the reader elements such as walls, doors and windows

Reading the floor plan can also allow the identification of the function of spaces and their dimensions.



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

Answer

1. Section view allows you to see through the interior of the structure, allowing you to analyse the relationships among and integration of building
2. interior elements.



Elevation shows the vertical projection of the structure. Allowing you to analyse the relationship of components only found on exterior of the structure (i.e. - wall finish)

Q20. Discuss the purpose of reading detail drawings.

Answer

The purpose of reading detail drawings allows you to examine and analyse intricate details and configuration.

It lets you see and understand exactly how a job is to be properly done.



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

Answer

It is important to measure from the Datum Point as it is used as a reference for all vertical measurements that are made in the project.



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

Answer

Reduced levels are vertical measurements, which are established based on the datum.

These are established in construction drawings by:

- Using positive and negative symbols to indicate whether the RL is above or below the reference point.
- Explicitly stating whether a RL is above or below the reference point.



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

Answer

The purpose of a title block is to provide general information about the drawings and specific information about a particular

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

Answer

It is usually located at the bottom portion or at the side of the drawing sheet.

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

Answer

The purpose of using scale drawings is to use for accurately illustrating real life building components or items at fixed, reduced or/and enlarged scales.

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Q26. Describe each ratio of standard scale ranges below.

Answer

Ratio	Description
1:100	One unit of the drawing, the real size is 100x bigger or the drawing is 100x Smaller
1:2	One unit of the drawing, the real side is 2x bigger or the drawing is 2x Smaller
1:50	One unit of the drawing, real size is 50x Bigger or the drawing is 50x smaller

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Q27. Describe why examining detail drawings is important.

Answer

It is important to examine detail drawing as it allows you to determine the specifications of building components as well as corresponding methods of construction or installation.

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

Answer

Utilities Plans and Specification is about providing information supply of anything necessary for the construction phase.

Whilst Service plans and specifications are about the necessary systems for the flow of construction.

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

Answer

Drawing description	Meaning
Isometric drawings	These are 3D drawings on a 2D surface where the same scale is used for all axes.
Oblique drawings	These are the 2D projection of 3D drawings by showing true shape/form of the object based on observers point of view
Perspective drawings	3D drawings which show and approximate representation of an object as perceived by the eyes.
Orthographic drawings	When 3D images are presented in 2D. Three views typically shown.

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

Answer

CAD Drawings are drawings that have been created/modified by computer software.

CAD is used in building and construction for the creation and management of construction drawings.



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 buildings forming a single dwelling
Class 2 building	Apartment buildings where people live above and below each other
Class 4 building	A part of a building that is: - The only dwelling/residence within the building - Inside any class 5, 6, 7, 8 or building
Class 5 building	An office building used for professional or commercial purposes except of class 6, 7, 8 or 9.
Class 7b building	Warehouses, storage buildings, buildings used to display or produce wholesale goods.
Class 10a building	a private garage, carport, shed or the like



Q32. What is building information modelling (BIM)?

Answer

BIM is a 3D model-based process that utilises tools and technologies that enable the creation and management of digital representations of physical and functional characteristics of structures/Buildings/places.

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

Answer

The NCC is relevant to construction drawings as complying with these standards, is one way to achieve compliance with the governments minimum requirements.

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

Answer

It is important to comply with the standards during a project as they serve as thresholds that the project must meet to achieve safety, sustainability and proper functionality.

Referring to them during the construction phase means a greater chance of passing the standards and assessments.

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

Answer

The requirements can be found on the right half of sheet under 'Bracing' with wind bracing first and tie down under this.

They are also reflected in the building and construction specifications.

You must refer to and review the corresponding specifications document for the building and construction project you are handling.



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

Answer

You would access AS 1684.2 when reading plans and specification because as it contains the minimum standards with procedures that can be used.



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 cost items are the reasonable allowance for the supply and installation of items whose prices cannot be determined at the time a contract is entered.



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

Answer

Provisional sums are the reasonable allowance for the elements of construction work to be carried out and that are not yet defined into detail for builders to be able to establish the cost accurately.



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

Answer

They can be found in the building where the supply for these services to function are located



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

Answer

To locate connection points, you need to look at the labels in the plans and schedule of components attached at the upper right portion of the sheet



Q41. Explain how to locate fixtures from the plans.

Answer

You must refer to the section in the specification document that covers the specifications for finishes.

