

CPCCBC6001

APPLY BUILDING CODES AND STANDARDS TO THE CONSTRUCTION PROCESS FOR LARGE BUILDING PROJECTS

ASSESSMENT SUMMARY

The assessment activities for *CPCCBC6001 Apply building codes and standards to the construction process for large building projects* cover all aspects of the unit of competency. For Apprentices/Trainees, this includes supervisor completion of the Apprentice/Trainee Record (ATR).

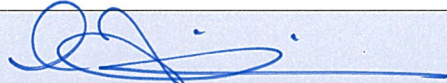
Participants must read all the information given before starting any assessment task. The assessment tasks are intended to be fair, flexible, valid and reliable. If a Participant has any questions or requires alternative arrangements to be made such requests should be directed to their Trainer/Assessor,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

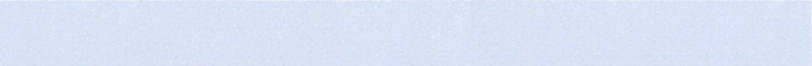
Pre-requisite unit(s) to be achieved and authenticated prior to undertaking assessment

☐ 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 CPCCBC6001	Select Date.	☐ Competent	☐ Not Yet Competent

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

- | | |
|---|---|
| ☐ Theory Exam | ☐ Workplace Quality document/s and/or Quality Assurance Template |
| ☐ Workbook | ☐ Existing building fire protection checklist |
| ☐ Practical Assessment | ☐ Site and Working Plans |

Assessor name	
Assessor signature	

CPCCBC6001

APPLY BUILDING CODES AND STANDARDS TO THE CONSTRUCTION PROCESS FOR LARGE BUILDING PROJECTS

THEORY EXAM

Participant name	Chris Olivier
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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. Explain why it is important to understand references the NCC makes to Australian Standards.

Answer	This is important for the following reasons: 1. Legal compliance – the NCC sets out the minimum requirements for design, construction and performance of buildings. 2. Quality & Safety – Australian Standards detail the minimum quality and safety standards to ensure that all buildings are compliant. 3. Technical – requirements are detailed so as to ensure all buildings are technically sound and compliant.	☐
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Q2. You have been asked to develop a tender proposal for a large government building in your State/Territory. Discuss in depth any legislation and Codes your submission must comply with?

Answer	The submission will need to comply with the following: 1.NCC – as this sets out the minimum requirements for the design, construction and performance of all buildings. 2.Building Act 1975 – which governs all building work in QLD. 3.Environmental Protection Act 1994 – which ensures all buildings are compliant with environmental, social and economic objectives. 4.Workplace Health & Safety Act 2011 – sets out requirements for the health and safety of workers and others. 5.Australian Standards – specifies technical requirements for materials, construction methods and building systems. 6.Accessibility Standards – such as disability access and compliance with the DDA. 7.Heritage Conservation – if applicable for heritage listed areas.	☐
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Q3. Describe the listed NCC compliance assessment methods used to determine compliance using a Performance Solution pathway.

Answer

Assessment method	Description
Evidence of suitability	Expert Judgement - such as the assessment of a qualified professional, statement from supplier or manufacturer which must be in compliance with all relevant Australian Standards and the NCC.
Verification methods	This could involve testing and laboratory evaluations to prove compliance with all necessary Australian Standards and NCC performance criteria.
Comparison with DTS Provisions	The proposed performance solution is compared to the DTS solution and would be deemed to comply if proven to be equal or better.
Expert Judgement	Requires the assessment from a professional who holds all necessary qualifications and experience to evaluate against all relevant performance criteria .



Q4. Discuss the importance of documenting quality assurance and quality control processes relevant to the build.

Answer Documenting QA and QC processes are essential for ensuring that construction projects meet all specified standards, regulatory requirements and client requirements. A thorough QA/QC process is important to mitigate issues with poor quality of works, defective products and materials which can lead to re-work, program delays and additional costs.



Q5. Discuss the basic principles of structural design and how stress or strain occurs.

Answer Structural design encompasses aspects of engineering such as behaviour of materials, effects of loads, load requirements and the design of structural elements allowing for worst case scenarios. Structural safety and serviceability are also key factors considered during the design.

Stress or strain occurs as a result of the application of external loads to materials, causing them to deform and potentially fracture.



Q6. Discuss compressive and tensile stresses on buildings?

Answer Compression is a force that pushes particles within a material closer together. This could be from vertical loads or supporting elements. Tensile stress is stretching or pulling apart. This could be related to loads elongating the material.



Q7. Describe considerations you make when writing workplace procedures.

Answer When writing workplace procedures you should consider:
Workplace Health & Safety
Emergency Requirements/Procedures
Licensing and qualifications
NCC
Australian Standards
Quality Requirements



Q8. Discuss the listed levels found in the NCC Performance Hierarchy.

Answer

Performance Hierarchy	Description
Objectives	The objectives of the NCC performance hierarchy aims to ensure that buildings in Australia are designed, constructed and maintained to meet essential performance standards.
Functional statements	These outline the primary purposes and objectives of each level within the hierarchy. This provides a framework for understanding the role and function of each level in achieving compliance with the NCC.
Performance requirements	This can be achieved by complying with the deemed to satisfy provisions, a performance solution or a combination of both.
Building Solutions	Building solutions are performance based and achieve compliance against relevant standards by Deemed to satisfy, performance solutions or a hybrid of the two.



Q9. Discuss two (2) properties, two (2) characteristics and two (2) limitations of concrete when used for buildings.

Answer

	Concrete
Properties	Compressive strength as it can withstand loads that compress it. Durability is high as it can withstand weathering, abrasion and chemical attacks.
Characteristics	Fineness of the cement Soundness of the cement Consistency of the cement Strength of the cement
Limitations	The tensile strength is very low It develops more cracks on the surface than other binders.

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Q10. Discuss three (3) benefits of using glass in buildings?

Answer

1. 1. It is aesthetically pleasing and give architects flexibility in design.
2. 2. It allows more natural light into the building which creates better lit spaces and more inviting environments.
3. 3. Energy efficiency and sustainability are increased.

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Q11. Describe information you can determine from the working drawings and specifications when organising the excavation for the site of a three (3) storey unit block with underground parking.

Answer

Site layouts and dimensions, foundation design and depths, utility locations and routes, geotechnical data, excavation sequencing and safety requirements.

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Q12. Who would you discuss materials and plans with to ensure compliance with NCC Performance Requirements and site safety. Provide two (2) and explain your answers.

Answer

Architects and Building Designers – as they are responsible for the overall design concept and detailed plans for the construction. They have the responsibility for ensuring that all NCC requirements are met.
Structural Engineers – as they are responsible for the structural design and ensuring that the buildings structural integrity and stability is compliant with all relevant building codes.

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Q13. Why may you need to use a combination of Performance Solutions and Deemed-to-Satisfy (DtS) solutions to comply with the Performance Requirements of the NCC

Answer

Due to complex projects and unique situations, DtS solutions may not address all performance requirements. This would then mean a performance solution would need to be developed to take into account the complexities.

