

CPCBC6001

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

ASSESSMENT SUMMARY

The assessment activities for *CPCBC6001 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	Ben Haviland
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 CPCBC6001	Select Date.	☐ Competent	☐ Not Yet Competent

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

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

The National Construction Code (NCC) is a set of technical standards that apply throughout Australia for the design, construction and performance of buildings, plumbing and drainage systems. It is important to understand references the NCC makes to Australian Standards prior to initiating construction work, as these legislative requirements ensure all work completed is both safe and compliant.



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 regulatory building standards and codes law in each State and Territory provide legal effect on the BCA. This legislation comprises an Act of Parliament and subordinate legislation that gives the government the authority to regulate certain features of buildings and structures; and provides the administrative requirements needed to carry out the legislation.

Although each state uses different OHS/WHS legislation, they all have the same requirements. Similarly, State or Territory legislation may override or apply to any provision of the BCA. As a result, the BCA must be interpreted in light of the Act. Any questions about these issues should be directed to the State or Territory authority responsible for building regulations.



Q3. Describe the listed NCC compliance assessment methods used to determine compliance using a Performance Solution pathway.

Answer

Assessment method	Description
Evidence of suitability	Although the requirements for each volume vary significantly, evidence of suitability can typically be attained through support of a proposition that a material, product, method of construction, or design meets a performance requirement deemed-to-satisfy provision (subject to limitations)
Verification methods	Verification methods prescribe alternative ways that a solution may comply with performance requirements, including: - Calculations: a mathematical comparison/assessment of factors to determine a preferred solution - tests: applying a technical procedure to directly assess one or more performance criteria of a particular solution - inspections: to verify a product or system is built, installed properly and performs adequately
Comparison with DTS Provisions	This method compares a proposed performance solution to existing deemed-to-satisfy provisions. These must both be subjected to the same level of analysis, using the same technique to make a comparison. Additionally, the performance solution must be proven to an approval authority that it conforms in a comparable or superior manner to a deemed-to-satisfy provision.
Expert Judgement	In the instance where performance criteria is difficult to measure, the application of a technical experts judgement may be accepted. Although calculation cannot test or simulate physical criteria, reference materials and papers are still required to support the conclusion.



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

Answer In every company and on every job site, compliance documentation is critical to all elements of operations. From work instructions to quality and environmental requirements, documentation sets out the type of work, the time frame for construction and the procedures for completing the task at hand. Statements including words such as “must” and “will” are often used in these documents to imply they must be adhered to. These documents are site specific and require consultation of specific relevant parties. Some examples include, but are not limited to:

- Safe Work Method Statements (SWMS)
- Safety Data Sheet (SDS)
- Project Quality Requirements
- Standard Operating Procedures (SOP)



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

Answer Structural design is the discipline of calculating the various load requirements of various structures and designing a structure capable of withstanding worst-case scenarios (eg. 100 year storm). It examines a buildings strength, stability, serviceability, durability, and ability to withstand loads (environmental loads, live loads and dead loads). These considerations are what help determine vital construction decisions regarding foundations, floors, walls, beams, roof types and quality of materials; to ensure structures are built to meet all safety requirements.



All structures undergo the influence of stress, strain, compression, bending, or combined actions; however it depends on the construction methods used that define it's coping performance

There are mainly four stages during the stress-strain behaviour of a structure. Firstly, it undergoes the proportional limit in which stress is proportional to strain. Secondly, the structure begins to go under the plastic stage but can regain its shape after unloading – this is known as an elastic limit. In the third stage, the structure reaches its ultimate stress. Finally, the stress decreases while strain increases in such a manner that the structure collapses – this is known as the fracture point.

Q6. Discuss compressive and tensile stresses on buildings?

Answer ☐

Compression is a force that pushes the particles of a material closer together. For example, when a column supports a load, it is under compression and its height shortens, albeit often imperceptibly.

Opposing this is tensile force which tends to elongate a material. When a building comes under the influence of any type of loading, it sometimes goes to compression or bending according to the type of loading. Due to compressive loading, a structure is compressed and has shortened length. In the bending condition, a structure is squashed and bent from some points, like the middle and end.

Q7. Describe considerations you make when writing workplace procedures.

Answer ☐

There are a number of key considerations when writing workplace procedures that include:

- state the aim of the procedure
- explain the need for the procedure to be developed
- list who the procedure applies to
- state what is acceptable and unacceptable behaviour
- set out the consequences of failure to comply
- provide dated documentation of the procedure being developed and/or updated

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

Answer

Performance Hierarchy	Description
Objectives	Discuss the communities expectations for the buildings
Functional statements	Explain how the buildings will meet the goals
Performance requirements	Define the minimum level of performance that a building must achieve to accomplish the Objectives and Functional Statements
Building Solutions	The first volume of the BCA, which deals with commercial buildings, is a performance-based document with mandated 'performance requirements'. It allows for three compliance options: - prescriptive solutions (or 'deemed-to-satisfy' solutions) - performance solutions (or alternative solutions) - a combination of both approaches



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

Answer

	Concrete
Properties	1. Sand 2. Cement 3. Aggregate 4. Water
Characteristics	1. Workability: mixed, transported and placed in its final position with ease 2. Compressive strength: withstand heavy loads and stresses depending on its composition, reinforcement and curing time
Limitations	1. Low tensile strength: 1/10th of its compressive strength 2. Shrinkage: which can cause cracking and more serious damage

☐

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

Answer

1. Transparency – permits outside light to enter and allows things on the other side of glass to be seen clearly
2. Waterproof/Sealed: when installed correctly creates a weather proof barrier that protects internals from elements such as water, wind, dust, ect
3. UV Stable: durable material that can withstand the usual impacts of UV radiation (cracks, discolouration and disintegration). Also acts to shield people from harmful radiation.

☐

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

Working drawings and specifications contain dimensioned, graphical information that a contractor can utilise to construct the works or allow suppliers to fabricate, assemble and install a products. Examples of these types of drawings include architectural, structural, civil, mechanical, electrical, etc. Working drawings such as plans, sections and elevations; are two-dimensional orthogonal projections of the building or component described.

Looking specifically at organising the excavation for the site of a three storey unit block with underground parking, an entire series of multiple disciplines of drawings would be required. Initially existing drawings with heights, grades and contours would be required to determine the engineering necessary for retention systems and bearing capacity of piling systems; prior to beginning excavation. New working drawings and specifications would then need to be developed and interpreted in order to set out the excavation, ensure the dig is to depth, conducted using a safe methodology and accurate; to begin the structural construction of the building.



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

1. Engineers – to discuss the suitable and compliant options in regard to both materials and design

2. Appropriate Authorities – to seek approvals during the construction phase in regards to use of local/state/federal assets, the impacts on public and surroundings, environmental impacts, traffic management plans, etc



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

Both performance solutions and deemed-to-satisfy solutions can be utilised to comply with the performance requirements while developing a building. Often applicable in situations where a single performance requirement applies to many elements within a structure, a combination of solutions may be required to meet a single criterion of a building, plumbing or drainage system.

In doing so, the right assessment methods must be employed when implementing a combination of compliance solutions. If a performance solution is to meet a performance requirement; proof of suitability, a verification method, expert judgement, and/or comparison with a deemed-to-satisfy provisions must all be used. Evidence of suitability and/or expert judgement must also be provided if a deemed-to-satisfy solution is combined with a performance solution in design, to meet the performance requirement of the NCC.



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

WORKBOOK

Participant name	Ben Haviland
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FOR THE PARTICIPANT

Instructions

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- 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.
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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.

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

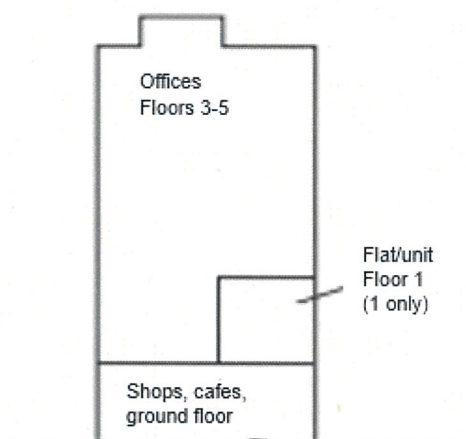
NOTE

At times, you will be provided with a specific business context to which you must respond, otherwise it is anticipated that you will use a workplace of your choosing (your own, or hypothetical) to provide the context to the task.

At all times, the responses in your assessment must reference **Australian** (Queensland or Federal) documentation, including legislation, regulations, codes of practice, standards and guidance publications.

ACTIVITY 1

Access the NCC via the internet to determine the Building Classification/s that apply to the building diagram below. The building is to contain offices in the upper floors, one caretaker flat on the first floor and shops and cafes on the ground floor. Explain your findings below.



Answer

This particular building design incorporates three building classifications under the NCC

- Offices (floors 3-5): CLASS 5
- 1x only Flat/Unit (Floor 1): CLASS 4
- Shops, Cafes (ground floor): CLASS 6

**Satisfactory
Outcome**



ACTIVITY 2

Access the NCC via the internet to locate the requirements applicable to a building development in the Brisbane area, containing 6 sole-occupancy units, two (2) on each level, each being a separate dwelling.

This building includes one (1) basement level designated for car parking.

The proposed building structure requires reinforced concrete floors and columns.

Document your findings or where in the NCC the information can be located.

Building Description

Classification
Class 2
Rise in Storeys
3
Number of Storeys
3
Type of construction
Type A Construction
Climate Zone and description
Climate Zone 2 – warm humid summer, mild winter

Fire resistance and stability

Locate fire resistance information
Fire resistance information is located in the NCC 2019 Volume One Amendment 1 / Section C Fire resistance / Part C1 Fire resistance and stability. This section of the NCC provides performance requirements and deemed-to-satisfy solutions applicable to every building classification, that fire engineers utilise to design compliant fire resistance systems (eg. Fire door, sprinkler and dry fire systems).

Compartmentation and fire separation

Compliance information can be found in the NCC 2022 Volume 1 – Building Code of Australia Class 2 to 9 buildings / Section C Fire resistance / Part C3 Compartmentation and separation. It covers compartmentation to limit fire size and spread, separation to limit fire spread between fire compartments, parts with different classifications, stairways, lift shafts, equipment, electricity supplies and public corridors.

Separate fire compartments:

- each individual apartment (x6)
- corridors
- fire exit/stair
- lift shaft
- bin shoot
- basement carpark
- service risers

Fire hazard properties of materials, assemblies, fixtures and linings

The fire hazard properties of materials, assemblies, fixtures and linings can be located under the NCC 2019 Volume One Amendment 1 / Section C Fire resistance / Specification C1.10 Fire hazard properties. Some relevant examples of materials to be considered include:

- floor linings and coverings – carpet vs vinyl
- Ceiling and partition lining materials, fixings, firebox, etc
- Lift Car materials

Material requirements**Reinforced concrete requirements relative to Australian Standards**

The NCC states that reinforced concrete slabs must be designed to comply with Australian Standard AS 3600. There are numerous variables that are governed by this Australian Standard including, slab thickness's, beam sizes and design, compressive strength (MPa), reinforcement size, design and cover. Simply put and as a minimum, in order to comply with AS 3600, concrete must reach 20MPa at 28 days, have a maximum nominal aggregate size of 20mm and have a 100mm slump. Water must not be added to the mix to increase the slump to a value in excess of that specified; and the concrete must be placed, compacted and cured in accordance with good building practices

Additionally, materials used for reinforcing steel must comply with AS 2870 and be welded wire reinforcing fabric, trench mesh, or steel reinforcing bars.

In accordance with this information, engineers can develop relevant structural reinforcement drawings and concrete specifications to design a reinforced concrete structure that is compliant.

Glazing requirements specifically for windows, sliding doors with frames and balconies.

The NCC material requirements regarding glazing can be located under the NCC 2019 Volume Two Amendment 1 / Part 3.6 Glazing. This section explains the appropriate performance requirements that must be followed to install compliant glazing. Some key information in this code, relevant to the build, can be found under:

- 3.6.0 Application
- 3.6.2 Glazing sizes and installation
- 3.6.3 Fully framed glazing installed in perimeter of buildings
- 3.6.4.1 Doors

Relevant architectural glazing drawings are created outlining choices and maintaining these parameters to design compliant windows, sliding doors with frames and balcony glazing.

**Satisfactory
Outcome**



ACTIVITY 3

The building discussed in ACTIVITY 2 includes one (1) basement level designated for car parking.

Provide information required for

- Bored piling to retain the soil and enable basement walls.
- Work Health and Safety
- Water proofing
- Water ingress

Document your findings or where the information can be located.

Bored piling to retain soil and enable basement walls

Typically bored piers are a type of bored foundation, made of bored piles of reinforced concrete, used to support structures with heaving vertical loads. In this case specifically, bored piling is also utilised in a retention system to retain soil and enable basement walls. Under an engineered design, certain diameter piers are bored and poured at required depths and centres around the building's perimeter prior to the bulk excavation. Bulk excavation is then completed in approved stages, allowing shotcrete to be placed between piles along the way and retain the soil behind. In some cases a rock anchoring system must also be installed.

AS 2159 – 2009: Piling Design And Installation is the Australian standard that governs all parameters involving these types of works.

Work Health and Safety

During the construction phase of in-ground works such as a basement designated for carparking, there are a number of specific workplace health and safety matters/risks to be considered. Some of these include, but are not limited to:

- Moving plant operation (excavators, piling rigs, cranes, etc)
- Potential asbestos findings
- Dust suppression requirements
- Shoring/Benching/Battering and Retention Propping requirements

Water proofing

For in-ground stages of works such as this, the relevant water proofing applications will include under-slab vapour barriers that are tied into external positive retaining wall membranes.

From a hydraulics drainage perspective, ag-lines with drainage material must be installed prior to backfilling retaining systems to ensure underground water is drained rather than building up and breaking down membranes.

Compliance information regarding vapour barriers can be found in the NCC 2019 Volume 2 Amendment 1 / Part 3.2 Footings and Slabs / 3.2.2.6 Vapour Barriers.

Water ingress

The waterproofing applications considered above are conducted during in-ground works to prevent water ingress throughout underground basements. Even in a single level basement, especially beneath the water table or close to river systems, the basements slab and retaining structure will succumb to external water pressures. In the possible event that one of these systems was to fail, epoxy injections are often utilised as a 'Plan B' to aid cease seepage issues.

Additionally, the buildings hydraulic design, particularly drainage, can play a vital role in preventing water ingress. Strip drainage at the bottom of ramps and perimeter spoon drainage are examples of this.

NCC 2022 Volume One – Building Code of Australia Class 2-9 buildings / Section F Health and Amenity / Part F1 Surface water management, rising damp and external waterproofing; provides fundamental compliance solutions in water ingress prevention.

**Satisfactory
Outcome**



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PRACTICAL ASSESSMENT

Participant name	Ben Haviland
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FOR THE PARTICIPANT
Instructions
• The tasks outlined on the following pages will require performance of normal workplace activities, as a result of a structured activity set by an Observer in the workplace or a simulated activity set by your Assessor/Observer. • The timeframe for these tasks will be established by your Assessor/Observer, in consideration of location conditions and industry requirements. • You must complete all tasks unassisted by the Assessor or other personnel, unless the steps note this assistance. • You must attempt all tasks (and itemised steps) for a 'Satisfactory' assessment outcome to be awarded. ○ For any observation conducted that is incomplete, or without satisfactory performance, the observation will need to be completed again after further training support.

FOR THE ASSESSOR/OBSERVER
Instructions
• The following observation record should be used to judge and record your observations of the Participant as they complete the task(s) set. You must record your observations of the Participant's performance. ○ For each occasion, indicate the task performed and whether it was a simulation or workplace-based task. ▪ Any simulated assessment must ensure the Participant still performs under workplace conditions which reflect industry standards. ○ In the comments, provide clear detail regarding the task that the Participant was required to do (e.g. PPE used, materials handled, attachments connected, plant types). • All steps must be satisfactorily demonstrated by the Participant for a 'Satisfactory' determination (indicated by an Assessor tick to the right of each itemised step, or an Observer tick to the right of each itemised step, and confirmation by an Assessor in the Assessor Comments). ○ Where you have determined that one or more task steps have not been satisfactorily demonstrated, provide the Participant with additional support and outline details of such assistance in the Assessor/Observer Comments. Allow the Participant two (2) further opportunities to demonstrate the task again to allow an opportunity for a 'Satisfactory' assessment outcome to be achieved. ○ If after three (3) attempts the Assessor determines that the Participant cannot demonstrate the required steps, a 'Not Satisfactory' outcome is to be determined.

TASK OUTCOME					
Task	Date	Task Type (Tick)	Location	Task outcome (Tick)	
				Satisfactory	Not Satisfactory
Task 1	Select Date.	☐ Workplace ☐ Simulation		☐	☐

ASSESSOR COMMENTS: GENERAL

As necessary, outline:

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

ASSESSOR COMMENTS: PRACTICAL TASK 1

- ☐ Individual student (as named on cover page)
☐ Multiple students [☐ All from Attendance Report, ☐ Specific students involved – identify students]

Task	Provide detail
1.1A.	Specify how scope of work was determined:
1.1A.	Specify how general requirements and prescriptive requirements of the NCC were determined and documented:
1.1B.	How were relevant Australian Standards identified and located:
1.2A. 1.2B. 1.3A. 1.3H. 1.5C. 1.5D.	Specify (✓) where building classifications, criteria requirements and performance solutions were documented: ☐ Workplace Quality document ☐ Quality Assurance Template ☐ Other (please specify): ☐ Document attached as evidence
1.3F.	Specify (✓) who was consulted regarding compliance options: ☐ Project management ☐ Relevant tradesperson ☐ Builder ☐ Supplier ☐ Other (please specify):
1.4A. 1.4B.	Specify (✓) where NCC requirements for passive and active fire protection and performance solutions were documented: ☐ Workplace Quality document ☐ Quality Assurance Template ☐ Other (please specify): ☐ Document attached as evidence

ASSESSOR COMMENTS: PRACTICAL TASK 1	
1.4C.	Specify existing buildings checked for compliance with active fire protection requirements: ☐ Is checklist used attached as evidence?
1.5A. 1.5B.	Specify (✓) communication methods applied to manage construction and other trades compliance: ☐ Emails ☐ Schedule ☐ Memos ☐ Daily meetings ☐ Site induction ☐ Other (please specify):
1.5E.	Specify how non-confirming building materials and products were managed using evidence of suitability:

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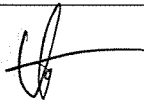
Practical Task 1

Description of task:

The participant must demonstrate the skills and knowledge to make a range of critical decisions in relatively complex situations while applying building codes and standards to one (1) building project over three (3) storeys, with below ground construction to meet the requirements of the National Construction Code (NCC) prior to the build commencing. The participant must also inspect existing buildings for fire compliance. Assessor and observer will be looking for evidence including:

- Interpret relevant codes and standards' requirements.
 - Determine the scope of works and NCC general requirements and Performance Requirements to achieve a DtS solution.
 - Identify Australian Standards referenced in the NCC Relevant to the build and confirm the requirements.
- Classify the building/s.
 - Determine the use and arrangement of the building and apply the appropriate NCC classification/s.
 - Locate and document NCC requirements for multiple classifications.
- Apply solutions to construction problems.
 - Determine the range of NCC criteria required to ensure project compliance.
 - Identify alternative, compliant solutions for construction problems to comply with NCC Performance Requirements.
 - Meet the Performance Requirement of the NCC by applying a Performance Solution supported by one or a combination of the Assessment Methods.
 - Use a Deem-to-Satisfy (DTS) solution supported by one or a combination of Assessment Methods to meet NCC compliance.
 - Use a combination of Performance Solutions and DTS solutions to comply with the Performance Requirements of the NCC.
 - Discuss compliance options with relevant construction personnel to ensure compliance with NCC Performance Requirements.
 - Identify and complete relevant documentation to meet Performance Requirements of the NCC.
- Apply fire protection requirements.
 - Read the NCC requirements to determine fire resistance required for all classes and types of buildings.
 - Identify and apply NCC requirements with respect to passive and active fire protection to all classes and types of buildings.
 - Check existing buildings for compliance with passive and active fire protection requirements according to NCC requirements. (See HO2 and NCC to create checklist)
- Implement strategy to manage construction compliance.
 - Establish strategies to manage construction compliance of large, complex and high-rise buildings with the NCC.
 - Implement and coordinate the work of professionals involved in the development and management of the building process.
 - Seek effective design solutions for buildings of more than three storeys to meet the needs of clients and ensure compliance with the NCC.
 - Design and implement quality assurance processes to ensure effective and compliant management of the construction process.
 - Detect non-conforming building materials and products and manage the evidence of suitability as required in the NCC.

These tasks may be simulated or real. The Participant is to gather evidence of how they have completed each component of the Practical Task, which is to be submitted with this Practical Assessment sheet. Evidence includes site plan and workplace documents covering the information required. A template is available.

Practical Task 1	
The Observer is to provide detailed comments on the tasks completed by the Participant (on the Observer Comments, overleaf). The Assessor is to verify the Observer's comments, noting their findings in the Assessor Comments (on the back of the Practical Assessment cover page) and provide the assessment outcome.	
Resources required: Construction schedules, plans, drawings and specifications for one (1) building project over three (3) storeys, with below ground construction; workplace quality policies and procedures; technology to access building and related industry codes, standards and manufacturer product information and materials specifications; Technology to access the NCC and current relevant Acts and Regulations. PPE as required.	
Observer details	
Name of observer:	LUOYD EVANS.
Role of observer (Confirm suitability to sign)	PROJECT MANAGER
Email address of observer	levanse@besixwatpac.com
Signature of observer:	
Date:	Select Date. 14/5/24.

When completing the task, did the Participant:	Tick if satisfactorily completed. Provide comments if left unticked.
1 Interpret relevant codes and standards' requirements	
1.1A. Determine the scope of works and NCC general requirements and Performance Requirements to achieve a DtS solution.	☒
1.1B. Identify Australian Standards referenced in the NCC Relevant to the build and confirm the requirements.	☒
2 Classify the building	
1.2A. Determine the use and arrangement of the building and apply the appropriate NCC classification/s.	☒
1.2B. Locate and document NCC requirements for multiple classifications.	☒
3 Apply solutions to construction problems	
1.3A. Determine the range of NCC criteria required to ensure project compliance.	☒
1.3B. Identify alternative, compliant solutions for construction problems to comply with NCC Performance Requirements.	☒
1.3C. Apply a Performance Solution supported by one or a combination of the Assessment Methods to meet the Performance Requirement of the NCC.	☒
1.3D. Use a Deem-to-Satisfy (DTS) solution supported by one or a combination of Assessment Methods to meet NCC compliance.	☒
1.3E. Use a combination of Performance Solutions and DTS solutions to comply with the Performance Requirements of the NCC.	☒
1.3F. Discuss compliance options with relevant construction personnel to ensure compliance with NCC Performance Requirements.	☒
1.3G. Lead discussions to explore solutions to complex design problems with relevant construction personnel.	☒
1.3H. Identify and complete relevant documentation to meet Performance Requirements of the NCC.	☐

When completing the task, did the Participant:	Tick if satisfactorily completed. Provide comments if left unticked.
4 Apply fire protection requirements	
1.4A. Read the NCC requirements to determine fire resistance required for all classes and types of buildings.	☒
1.4B. Identify and apply NCC requirements with respect to passive and active fire protection to all classes and types of buildings.	☒
1.4C. Check existing buildings for compliance with passive and active fire protection requirements according to NCC requirements. (See HO2 and NCC to create checklist)	☒
5 Implement strategy to manage construction compliance	
1.5A. Establish strategies to manage construction compliance of large, complex and high-rise buildings with the NCC.	☒
1.5B. Implement and coordinate the work of professionals involved in the development and management of the building process.	☒
1.5C. Seek effective design solutions for buildings of more than three storeys to meet the needs of clients and ensure compliance with the NCC.	☒
1.5D. Design and implement quality assurance processes to ensure effective and compliant management of the construction process.	☒
1.5E. Detect non-conforming building materials and products and manage the evidence of suitability as required in the NCC.	☒

Observer comments:

- Ben was able to demonstrate that he could interpret code and standard requirements relevant to the scope of works. In doing so he was able to achieve deemed-to-satisfy solutions that aligned with Australian Standards and the NCC
- Ben successfully determined the classification and implied NCC requirements of the building by considering its use and arrangement
- After determining the NCC criteria applicable to the project, Ben was heavily involved in finding and applying compliant solutions to meet NCC performance requirements. These solutions included performance solutions, deemed to satisfy solutions and a combination of both. Relevant construction professionals were engaged to discuss more complex design issues to ensure NCC compliance.
- Ben was active in applying NCC fire protection requirements to determine the fire resistance and both passive and active fire protection applicable to this NCC building classification requirement
- Ben was able to assist during the process of implementing strategy to manage compliance on a number of fronts for this construction. This consisted of input with various relevant professionals including engineers, DDA compliance certifiers, fire engineers, etc to develop solutions that maintain performance requirements and assure quality. Non-conformances were discovered and managed in this process.

