



**2014 REVIEW OF
THE AACA NATIONAL COMPETENCY STANDARDS IN ARCHITECTURE (NCSA)**

Your input to the Review process would be welcome.

All responses should be addressed to ncsareview@aaca.org.au, to be received no later than 28 March 2014.

Andrew Hutson
Chair
NCSA Review Work Group



Draft

NATIONAL COMPETENCY STANDARD IN ARCHITECTURE (NCSA)

Review 2014

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Bibliography

First Edition published 1993
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Second Edition published 2008
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NATIONAL COMPETENCY STANDARD IN ARCHITECTURE

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1. Introduction

Architects Accreditation Council of Australia (AACA)

The Architects Accreditation Council of Australia (AACA) is the national body formed by the state and territory architects registration boards to consider matters of common concern or interest. It is formally constituted as a company limited by guarantee.

The main objectives of the AACA are to facilitate the recognition, accreditation and co-ordination of acceptable academic standards and registration practices in the interests of national and international professional reciprocity in architecture.

AACA has developed and is responsible for maintaining the *National Competency Standards in Architecture (NCSA)* which are recognised nationally and internationally as the benchmark standard of competency required for admission to registration as an Architect in Australia.

AACA is not a registration authority. The decision to register applicants is the sole prerogative of the state and territory architects registration boards.

Registration as an Architect in Australia

In Australia the use of the title Architect is reserved by law for those who are registered by the state and territory architects registration boards. The purpose of registration is to serve the public interest by ensuring that the standards of competence required reflect community expectations of an Architect.

Registration is the formal act that enables the name of the Architect to be entered upon a state or territory Register of Architects.

To achieve registration an Architect must be competent in the design, documentation and management of architectural projects. The Architect must also be competent in design resolution, integration of technology and procurement of complex architectural projects in a range of practice models. An Architect will have exposure to a range of building types of varying size and complexity.

The pathways to registration as an Architect are common in all Australian states and territories, and there are provisions for mutual recognition between the states, territories and New Zealand.

Typically, an Architect will have an accredited qualification in architecture or a recognised equivalent.

The final step in the pathway to registration requires all applicants to complete the AACA Architectural Practice Examination (APE).

What are competency standards?

The development of national competency standards was an important strategy in the Commonwealth Government's commitment to micro-economic restructuring for labour market and industry reform.

Competency based assessment is an approach to establishing occupationally-relevant standards of professional practice. The emphasis is on demonstrated competence in the attributes important to an occupation or profession, rather than measuring knowledge in isolation from skills, or on measuring the time that has been spent in formal professional or academic education.

AACA was engaged by the Commonwealth Government in 1990 to develop National Competency Standards in Architecture.

The National Competency Standard in Architecture (NCSA)

This document describes the overall Competency Standard that shall be met for Registration as an Architect. This document presents a benchmark which must be achieved through the demonstration of the described Elements that combine to make up the Competency Standard.

The *NCSA* should be seen as an aid in the assessment of the skill, knowledge and experience required for practice in the architectural profession. The *NCSA* is not intended to be a form of assessment but rather it is intended to provide a tool to be employed by those authorised in assessment of professional standards of an architect.

The *NCSA* is a stand-alone document which does not pre-suppose for which specific purposes it may be considered. It is acknowledged that the *NCSA* currently has a range of applications as a tool in the processes of registration of architects, in accrediting architectural qualifications and in assessing equivalents to accredited architectural qualifications.

The Professional Practitioner

The Competency Standard describes what is reasonably expected of a person who can demonstrate the standard of skill, care and diligence widely accepted in Australia as competent professional architectural practice.

Current Edition

The *NCSA* are reviewed on a five yearly cycle to ensure that they reflect significant changes in the context of architectural practice in Australia. The current document is a product of this cyclical review.

This document will replace the 2008 edition of the *NCSA*.

There have been significant changes in architectural practice since the creation of the *NCSA* over two decades ago.

The 2013-14 review was undertaken by a committee of architect practitioners, academics and administrators. Input has been received from architects registration boards, professional bodies, schools of architecture, practitioners and academics and other relevant stakeholders.

In this revised document there is recognition of the diversity of practice models that have evolved since the creation of the *NCSA*. To the extent that it is possible to do so, the editors have tried to eliminate any preconception of a single practice model.

Format

Units

Units are a group of activities within the profession of architecture. The four Units are

- 1. Design**
- 2. Documentation**
- 3. Project Delivery**
- 4. Practice Management**

Within each of these four Units the Elements of Competency are positioned to reflect stages against which architectural activities generally occur.

The framework of the *NCSA* is to be seen as an integrated whole and the description of Units and Elements of Competency are a means for organising the criteria required to be met to demonstrate the Competency Standard. In this regard the framework is not intended to be absolute but rather a format for convenience.

Elements of Competency

The Competency Standard outlined in this document is described through a series of Elements. These Elements present aspects of architectural practice that must be demonstrated for the particular competency to be met. The demonstration of competency is guided by a series of related Performance Criteria.

Performance Criteria

These are statements that specify the performance required to demonstrate the Element of Competency. The Performance Criteria are to be seen as both individual criteria and as an incorporated whole. All are required to be achieved for the demonstration of the Element of Competency. All criteria have equal standing.

The Performance Criteria are not absolute; they may change as community values shift and as the profession reflects upon itself. They are, therefore, subject to regular review.

Context

Contexts describe the range of environments which are to be considered when assessing whether a Performance Criterion has been achieved.

The Contexts are named thus:

- Regulatory
- Social
- Sustainability
- Disciplinary Culture
- Communication

Typically each of the Contexts would apply to numerous Performance Criteria. They are arranged in a graphic matrix in association with the Performance Criteria to clearly articulate that one or a number of Contexts must be considered for each of the specific Performance Criteria.

A detailed description of these Contexts

When assessing whether a Performance Criterion has been met it is to be also assessed against the relevant Contexts.

Regulatory	<i>Regulations relevant to architectural practice including project design and project delivery are understood and addressed.</i>
Social	<i>Relevant social values and ethics are evident in architectural practice. Impacts on project users and broader communities are addressed.</i>
Sustainability	<i>Evidence of understanding of the need to sustain the natural and built environment. Broad understanding of sustainability in relation to project users and communities is evident.</i>
Disciplinary Culture	<i>Knowledge of relevant histories and theories of architecture, practice and building is evident.</i>
Communication	<i>Relevant aspects of architectural practice including project design and project delivery are clearly communicated to clients and other stakeholders.</i>

2. Guide to Terms

The NCSA requires architects upon registration to have demonstrated competence through performance in a range of architectural roles and tasks. *Knowledge, comprehension, application, analysis and synthesis are attributes or types of intellectual behaviour which are required by the Performance Criteria set out in this document.*

The following key terms are used in this edition of the NCSA.

Competency Standard	The ability to perform activities within the profession of architecture to the standard expected upon registration.
Unit	The four Units of Competency are Design, Documentation, Project Delivery and Practice Management. Each Unit comprises Elements of Competency that are sufficiently related to each other to be considered as a block of connected activities.
Element of Competency	This is a discrete activity that a competent architect must be able to perform.
Performance Criteria	These are evaluative statements, which specify the performance required to demonstrate competency.
Professional Practitioner	A Professional Practitioner is one who can demonstrate to the standard of skill, care and diligence widely accepted in Australia as competent professional architectural practice.

3. Competency Standard

UNIT 1 - DESIGN						
Element 1:						
Project Briefing	Project briefing is determining and evaluating client project objectives and requirements					
This Competency will be deemed to be met with a demonstration that Project Briefing incorporates the following:						
Performance Criteria		Contexts				
		Regulatory	Social	Sustainability	Disciplinary Culture	Communication
1.1	Establishment, analysis and evaluation of client project requirements and objectives					
1.2	Assessment of project budget and timeframe against project requirements and objectives					
1.3	Identification of factors that would impact on client project requirements and objectives					
1.4	Knowledge of the different procurement processes available and evaluation of the impact these have on the project					
1.5	Selection of procurement method for the project presented to clients and relevant stakeholders					
1.6	Project Brief approved by relevant clients and stakeholders as required					

Contexts

Regulatory

Regulations relevant to architectural practice including project design and project delivery are understood and addressed.

Social

Relevant social values and ethics are evident in architectural practice.

Impacts on project users and broader communities are addressed.

Sustainability

Evidence of understanding of the need to sustain the natural and built environment.

Broad understanding of sustainability in relation to project users and communities is evident.

Disciplinary culture

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Communication

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UNIT 1 - DESIGN

Element 2:

Pre-Design

Pre-Design is evaluating the feasibility of the client project requirements and objectives to enable progress to Conceptual Design

This Competency will be deemed to be met with a demonstration that **Pre-design** incorporates the following:

Performance Criteria		Contexts				
		Regulatory	Social	Sustainability	Disciplinary Culture	Communication
2.1	Analysis and integration of information relevant to the siting of the project					
2.2	Knowledge and application of principles controlling planning, development and design for the project site					
2.3	Knowledge and evaluation of factors influencing and methods of estimating project cost					
2.4	Analysis of project brief in relation to project budget and timeframe.					
2.5	Establish and obtain approval from client of project budget and timeframe before proceeding to Conceptual Design					
2.6	Preparation and analysis of project development options in response to Project Brief					

Contexts

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UNIT 1 - DESIGN

Element 3:

Conceptual Design

Conceptual Design is the development of design strategies and options to enable progression to Schematic Design

This Competency will be deemed to be met with a demonstration that **Conceptual Design** incorporates the following:

Performance Criteria		Contexts				
		Regulatory	Social	Sustainability	Disciplinary Culture	Communication
3.1	Design response to the physical location and relevant wider issues of urban or rural context	Yes	Yes	Yes	No	No
3.2	Application of creative imagination, aesthetic judgment and critical evaluation in formulating design options	No	No	No	Yes	Yes
3.3	Application of ordering, sequencing and and modelling of three-dimensional form and spatial content	No	No	No	Yes	Yes
3.4	Investigation of economic factors, building systems and materials	Yes	Yes	Yes	No	No
3.5	Design response to relevant legislation, codes, industry standards	Yes	No	Yes	No	No
3.6	Application of manual and digital graphic techniques and modelling to explore and describe three dimensional form and spatial relationships	No	No	No	Yes	Yes

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UNIT 1 - DESIGN

Element 4:

Schematic Design Schematic Design is the development of coherent project design outcomes to enable progression to Detailed Design

This Competency will be deemed to be met with a demonstration that **Schematic Design** incorporates the following:

Performance Criteria		Contexts				
		Regulatory	Social	Sustainability	Disciplinary Culture	Communication
4.1	Evaluating Conceptual Design options in regard to project requirements	Yes	Yes	Yes	No	No
4.2	Inclusion of relevant specialists and consultants in developing the project design	Yes	No	Yes	No	No
4.3	Investigation and integration of appropriate construction and service systems in the project design	Yes	No	Yes	No	Yes
4.4	Investigation and integration of appropriate material selection for the project design	Yes	Yes	Yes	No	Yes
4.5	Analysis of Schematic Design in regard to cost planning and timeframe to comply with project requirements	No	No	No	No	No
4.6	Application of creative imagination, aesthetic judgment in producing a coherent project design	No	Yes	No	Yes	Yes

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UNIT 2 - DOCUMENTATION

Element 5

Detailed design Detail Design is the development of a resolved, cohesive and integrated project design to enable progression to project documentation

This Competency will be deemed to be met with a demonstration that **Detailed Design** incorporates the following:

Performance Criteria		Contexts				
		Regulatory	Social	Sustainability	Disciplinary Culture	Communication
5.1	Resolution of project design including specific spatial relationships, circulation requirements and other arrangements for building occupancy and function	Yes	Yes	Yes	Yes	Yes
5.2	Evaluation and integration of information provided by relevant consultants, specialists and manufacturers	Yes				
5.3	Evaluation and integration of structural and construction systems in resolved project design	Yes		Yes		
5.4	Evaluation and integration of materials and components based on an understanding of their physical properties	Yes		Yes		
5.5	Evaluation and integration of mechanical, electrical, hydraulic and transportation service systems	Yes		Yes		
5.6	Integration of appropriate active and passive environmental systems including for thermal comfort, lighting and acoustics	Yes	Yes	Yes		
5.7	Detailed Design is described through appropriate representation techniques to facilitate relevant approvals and progression to documentation					Yes

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UNIT 2 - DOCUMENTATION

Element 6:

Documentation Documentation is the preparation of appropriate information and material to enable progression to project delivery.

This Competency will be deemed to be met with a demonstration that Documentation incorporates the following:

Performance Criteria		Contexts				
		Regulatory	Social	Sustainability	Disciplinary Culture	Communication
6.1	Identification and adoption of a strategy, program and process of project documentation to enable project delivery	■		■	■	
6.2	Coordination of contribution of relevant consultants, specialists and suppliers			■		
6.3	Documentation to reflect the project requirements and objectives in accordance with the approved Detailed Design	■		■		■
6.4	Timely completion and communication of accurate and comprehensible documents that will include as required, drawings, models, specifications, schedules and other relevant modes of information					
6.5	Nomination of type, quality and performance standards with regard to selected materials, finishes, fittings, components, systems	■				
6.6	Identification and description of the type and extent of work of separate building trades and sub-contractors as required					■
6.7	Quality control systems established to ensure completeness, consistency and compatability of project documentation					■
6.8	Quality control systems established to ensure consistency of documentation with parameters of project timeframe and budget.					■
6.9	Ensure consistency of documentation with type of building contract and/or procurement procedure selected for the project	■				

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UNIT 3 - PROJECT DELIVERY

Element 7:

Procurement Procurement is the process and system to provide contractual framework for project delivery.

This Competency will be deemed to be met with a demonstration that **Procurement** incorporates the following:

Performance Criteria		Contexts				
		Regulatory	Social	Sustainability	Disciplinary Culture	Communication
7.1	Knowledge of the different procurement methods available and their application relevant to the project	Yes			Yes	Yes
7.2	Knowledge of the impact different procurement methods have on design, documentation and construction				Yes	
7.3	Knowledge of how the contractual arrangements are influenced by the selected project procurement method				Yes	Yes
7.4	Knowledge and application of scope of services required including those for secondary consultants for the selected procurement method				Yes	
7.5	Knowledge of types of relevant contracts, administration and principles required by selected procurement method	Yes			Yes	Yes

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UNIT 3 - PROJECT DELIVERY

Element 8:

Construction Stage Construction stage is maintaining and monitoring systems that achieve timely, efficient and cost effective project delivery.

This Competency will be deemed to be met with a demonstration that Construction incorporates the following:

Performance Criteria		Contexts				
		Regulatory	Social	Sustainability	Disciplinary Culture	Communication
8.1	Knowledge and application of the processes needed to fulfil professional obligations under project contract	■	■		■	
8.2	Construction progress is systematically monitored and compliance with the contract provisions and project budget ensured					
8.3	Knowledge and application of certification needed for progress claims, variations, extensions of time and instructions or directions					■
8.4	Knowledge and application of systems to ensure project requirements and objectives as described in project documentation are met					■
8.5	Knowledge and implementation of method of making regular inspections to establish compliance with project contract					
8.6	Knowledge and application of ongoing record keeping and maintenance of drawing revisions					■
8.7	To the extent required under the project contract, ensure that warranties, maintenance schedules, as built documentation, certificates, approvals and other required project information are	■				■
8.8	Undertake post occupancy evaluation as required under the project contract and client architect agreement					■

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UNIT 4 - PRACTICE MANAGEMENT

Element 9:

Practice Management Practice Management is the delivery of professional architectural services in the interests of the client and stakeholders.

This Competency will be deemed to be met with a demonstration that **Practice Management** incorporates the following:

Performance Criteria		Contexts				
		Regulatory	Social	Sustainability	Disciplinary Culture	Communication
9.1	Knowledge of the legal and ethical obligations relating to copyright and intellectual property requirements	■	■			
9.2	Understanding and implementation of practice systems and quality management systems to facilitate efficient and timely delivery of architectural services		■		■	
9.3	Understanding and implementation of project team and practice structures required to deliver the project in a timely manner				■	■
9.4	Access and provision of appropriate levels of relevant professional and technical information to undertake the project			■	■	
9.5	Knowledge of legal requirements and obligations in regard to architectural practice and registration as an architect	■	■			

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