# the national competency standards in architecture

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# Edition

First Edition published 1993 Updated Version published September 2001 Second Edition published 2008

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# Introduction

## Architects Accreditation Council of Australia (AACA)

The Architects Accreditation Council of Australia (AACA) is the national body formed by the registration authorities of each state and territory to consider matters of common concern or interest. The main objectives of the Council 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 is responsible for facilitating the competency based assessment (CBA) process and maintaining the National Competency Standards in Architecture (NCSA) on behalf of the profession. AACA is not itself a registration authority. Its role is the facilitation of the assessment process, which is recognised by each of the state and territory registration authorities as a prerequisite to registration. The decision to register applicants is the sole prerogative of the registration authorities.

### Registration as an architect in Australia

In Australia the use of the title architect is reserved by law to those who are registered by the statutory authorities in each state or territory. The purpose of registration and certification of the title architect is to serve the public interest by ensuring that the standards of competence required reflect consumer expectations.

Registration is the formal act that recognises acceptable standards of competence and conduct and enables the name of the registrant to be entered upon a state or territory Register of Architects.

Upon registration an architect must be competent in the design, documentation and management of an architectural project which could be undertaken by an independent practitioner. That individual must also be competent to contribute to design resolution, to integration of technology and to 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 portability between the states, territories and New Zealand.

Typically, an individual will have an accredited university qualification in architecture. The criteria for accreditation of architecture programs include documented evidence of student outcomes that demonstrates achievement of relevant competencies from the NCSA. AACA endorses the professional responsibility of tertiary institutions for the determination of course structures and teaching methods and supports those institutions in their assertion of independence in such matters.

AACA may also formally recognise an overseas qualification in architecture as equivalent to an Australian qualification. Where no formal qualifications have been completed, an individual may undertake the National Program of Assessment where their knowledge and practical experience within the industry is assessed by the AACA.

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

### The National Competency Standards in Architecture (NCSA)

The NCSA is the document setting out the benchmark standards of competency against which an applicant for registration as an architect in Australia and New Zealand is measured. It should be seen as the measure of the knowledge, skill and experience that is required of a practitioner for entry to the profession; the NCSA should not be regarded as aspirational.

Details relating to the use of the NCSA in the processes leading to registration are contained in the following documents:

- National Competency Standards in Architecture Guide for Candidates (NCSA GC)
- Australian Architecture Program Accreditation and Recognition Procedure (AAPARP 01)

The processes contained in these documents require satisfaction of specific, but not necessarily all of the, Performance Criteria contained in the NCSA.

While the NCSA defines core competencies required for registration it is recognised that in the course of their professional development architects may elect to specialise narrow in fields of practice. It is anticipated that those architects will aspire to levels of excellence in their specialised fields, but it is not the purpose of the NCSA to identify, measure or test specialised competencies.

### **Current Edition**

This document replaces the revised 2001 edition. In this 2008 edition there is recognition of significant changes in architectural practice since the creation of the NCSA over a decade ago.

The original steering group responsible for the development of the NCSA comprised representatives from most states and territories who were nominated by the AACA, registration authorities, professional bodies, and schools of architecture. The steering group was supported by a research team comprising Neville Quarry, Helen Fisher and Lynn Crawford.

The 2006-08 review was undertaken by a committee of architect practitioners and academics with administrative assistance provided by the AACA. Stakeholder surveys were conducted and inputs were received from Australian and New Zealand registration authorities, professional bodies, schools of architecture, practitioners and academics.

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.

The editors have been conscious of the need to eliminate inconsistency of definitions and to align, as far possible, the terminology used in the NCSA with that commonly used in Australian architectural practice. The NCSA are reviewed on a five yearly cycle to ensure that they reflect significant changes in the context of architectural practice in Australia and New Zealand.

In this document there is further recognition that:

- Climate change and sustainability are increasingly significant factors in the design process.
- There is increasing specialisation in architectural practice.
- 'Traditional' client/architect relationships should no longer be regarded as the norm.
- Procurement models have become more diverse.
- Technology has impacted upon all aspects of the provision of architectural services.

### Format

The NCSA recognises four major areas, or Units of Competency, in the competence of an architect, namely:

Unit 1 Design Unit 2 Documentation Unit 3 Project Management Unit 4 Practice Management

# Relationship of NCSA with the practice of architecture\*

|                              |                            | Unit 3 Project management |
|------------------------------|----------------------------|---------------------------|
| Pre-design                   |                            |                           |
|                              | Unit 1 Design              |                           |
| Design                       |                            |                           |
| mentation Detailed<br>design |                            |                           |
| Documentation                | Unit 2 Documentation       |                           |
| Contract<br>administration   |                            |                           |
|                              | Unit 4 Practice management |                           |
| Practice                     |                            |                           |

Each Unit is further subdivided into:

- Contexts of Competency
- Elements of Competency
- Performance Criteria

<sup>\*</sup> An expanded diagram may be referenced at pages 15 and 16

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                       | The ability to perform activities within the profession of architecture to the standard expected upon registration.  |
|----------------------------------|--|
| Unit of Competency               | The four Units of Competency are Design, Documentation, Project Management<br>and Practice Management. Each Unit comprises Elements of Competency that are<br>sufficiently related to each other to be considered as a single block of connected<br>activities. Units are groups of activities, which are likely, amongst experienced<br>practitioners, to become the focus of specialisations.  |
| Context of Competency            | A description of the professional setting within which architects perform<br>and where the Units of Competency are related to the comprehensive process<br>of producing architecture.  |
| Element of Competency            | This is a discrete activity that a competent architect must be able to perform.  |
| Performance Criteria             | There are 149 evaluative statements, which specify the performance required to demonstrate competency.   |
| Design Concept                   | This involves the exploration of ideas and options inspired by analysis of all the given facts, contextual issues and constraints and is informed by precedent and personal architectural philosophy. Drawing from a range of ideas and facts and the application of judgement, the design concept evolves into a Schematic Design.  |
| Schematic Design                 | This is the design concept advanced to a level of legibility sufficient to gain client approval, receive consultant advice and provide the basis for the preparation of a reasonable estimate of cost. Client approval at the end of this phase leads to preparation of the Detailed Design.   |
| Detailed Design                  | This is an expansion of the Schematic Design and creation of preliminary<br>construction details. It includes investigation and selection of materials and finishes,<br>establishing equipment layouts and preliminary design of built-in furniture and<br>fittings for client approval. The architect receives more detailed consultant advice<br>and undertakes a detailed cost analysis.  |
| Independent Practitioner         | In this document an independent practitioner is one who has the competencies<br>to complete the design, documentation and management of an architectural project.<br>The independent practitioner will have the competencies expected of one leading<br>a practice group of not more than five persons.  |
| Complex Architectural<br>Project | A complex architectural project may involve single or multi-level construction and require highly specialised knowledge and skills. It may be demanding in its ordering and organisation of multiple occupancy and/or special purpose user requirements in terms of people and vehicular circulation; complicated in its spatial articulation; difficult in the planning and co-ordination of sophisticated construction systems, larger spans requiring specialised or innovative structural solutions, materials, building services and fittings; and challenging in site configuration and existing features. |
|                                  | It will involve an understanding of the impact of the building on the natural and built environment and require an informed response to the urban or rural context and the physical, topographical and climatic context.   |
|                                  | A small building can be complex in the organisation of its components and functional requirements, for example, a residence. Alternatively, a building can be large in area but simple in its make up and performance needs eg an airplane hangar.   |
|                                  | The realisation of a complex architectural project generally requires specialist input<br>for the resolution of structural and technical design components and special purpose<br>provisions, and the collaboration of an experienced professional team for the<br>preparation of project documentation and contract administration. The procurement<br>of the project is dependent on an appropriate practice structure and adequate<br>professional and financial resources for its achievement.   |
|                                  |  |

# <u>Units of</u> <u>competency</u>

# Unit 1 Design

An architectural design evolves through exploration and reappraisal of a range of ideas and propositions that lead progressively to the eventual resolution of a coherent design proposal. Evidence of this progressive process must be demonstrated in each of the successive stages of Design from design concept through to schematic and detailed design.

Although listed separately for convenience and reference, the Elements of design constitute a system, a set of incidents, which are dynamically related. The Elements are given in the sequence in which they often occur, but they may merge, repeat and inform one another throughout the design process and cannot be considered or assessed in isolation.

Upon registration, an architect is required to demonstrate an ability to design a complex architectural project.

# Context 1.1 To create an architectural design through the exercise of knowledge, imagination, judgement and professional responsibility

|       | Element  |    | Performance Criteria   |
|-------|--|----|--|
| 1.1.1 | Generate a design concept<br>that can be realised as   | 01 | The design concept demonstrates an analysis of and response to the design brief, user intent and built purpose   |
|       | a building   | 02 | The design concept demonstrates a considered response to the physica location and addresses the relevant wider issues of urban or rural context  |
|       |  | 03 | The design concept demonstrates the exercise of critical choice, aesthetic judgement and creative imagination  |
|       |  |    | The design concept demonstrates a clear and coherent design approach   |
|       |  |    | The design concept demonstrates sensitivity to the ordering,<br>sequencing and articulation of three-dimensional form and spatial<br>content is evident  |
|       |  | 06 | The design concept demonstrates an understanding of architectural history and building traditions  |
|       |  | 07 | The design concept demonstrates an understanding of relevant social, cultural and environmental issues   |
|       |  | 08 | The design concept demonstrates an appreciation of economic factors, building systems and materials  |
| L.1.2 | Recognise the need to sustain<br>the natural and the built<br>environment, and the needs<br>and aspirations of building<br>users and the community,<br>in the formulation of a design<br>concept | 09 | The design concept demonstrates respect for the natural environment and awareness of the issues of sustainability  |
|       |  | 10 | The design concept demonstrates an assessment and understanding of the impact of the project on building users and community   |
|       |  | 11 | The design concept demonstrates an understanding of issues of national and regional planning and their relationship to local demography and resources  |
|       |  | 12 | The design concept demonstrates the observation of society's values influencing health, safety, welfare and use of the built environment   |
| L.1.3 | Comply with the law and<br>regulations governing<br>planning, building design,<br>procurement and the practice<br>of architecture  | 13 | The development of the design concept demonstrates knowledge of the ethical basis, laws and statutes that regulate the practice of architecture  |
|       |  | 14 | The design concept demonstrates compliance with the law, relevant codes, regulations and industry standards for development, design, construction and services   |
| 1.1.4 | Communicate the design concept clearly   | 15 | The development of the design concept utilises freehand drawings,<br>diagrams, other graphic techniques and modelling (physical and/or<br>computer simulated) to explore three-dimensional form and<br>relationships |
|       |  | 16 | The design concept is described through drawings and/or three-<br>dimensional representation, computer simulation or other visual and/or<br>written techniques   |

# Context 1.2 To formulate an architectural design in response to a project brief, sufficient to obtain endorsement of overall objectives and design concept by a client and other interested parties

|       | Element   |    | Performance Criteria   |
|-------|---|----|--|
| 1.2.1 | Interpret project brief and decide design objectives and  | 17 | The architectural design demonstrates a critical response to budget and time frame based on an analysis of the project brief   |
|       | parameters with the client  | 18 | The architectural design demonstrates a consideration of the feasibility of the project brief and a review of alternative options  |
|       |   | 19 | The architectural design demonstrates a critical response to spatial and functional requirements and relationships, including access   |
|       |   | 20 | The architectural design demonstrates an investigation of the interests of building users and reconciles those interests with the project brief  |
|       |   | 21 | The architectural design demonstrates an investigation of human, social, environmental and contextual issues   |
|       |   | 22 | The architectural design demonstrates the implications of physical, technical, cost and regulatory constraints   |
|       |   | 23 | The architectural design demonstrates the process of collaboration and integrates sources of specialist information and expertise  |
| 1.2.2 | Develop a schematic design<br>through a repetitive process<br>of hypothesis, evaluation and<br>re-appraisal | 24 | The schematic design demonstrates that the program has been<br>analysed, priorities evaluated, problems defined, strategies formulated<br>and a theoretical design approach considered |
|       |   | 25 | The schematic design is progressively investigated, emerging issues researched, experiential, material and aesthetic options considered and alternatives explored, tested and refined  |
|       |   | 26 | The schematic design satisfies the project brief, site analysis, user requirements, design parameters, and identifies constraints  |
|       |   | 27 | The schematic design is validated by technical considerations,<br>integrating structure, construction technologies and service systems<br>into a functionally effective whole          |
|       |   | 28 | The schematic design is informed by theoretical considerations, and intellectual and aesthetic judgement   |
| 1.2.3 | Communicate the schematic<br>design clearly   | 29 | The development of the schematic design utilises freehand drawings,<br>diagrams, other graphic techniques and modelling to explore three-<br>dimensional form and relationships        |
|       |   | 30 | Describe the schematic design through drawings and/or three-<br>dimensional representation, computer simulation or other visual and/or<br>written techniques                           |
| 1.2.4 | Agree the schematic<br>design with the client and<br>interested parties                                     | 31 | The schematic design proposals are evaluated and tested to enable agreement on selection and commitment to the development of a preferred design                                       |
|       |   | 32 | The design approach, concept and conditions are articulated to inform a client and other interested parties  |
|       |   | 33 | Client expectations and limitations are reconciled, differences resolved, consequences recognised , alternatives ordered and responsibility for decisions assumed                      |
|       |   | 34 | The agreement of client to proceed to the detailed design stage is obtained  |

# Context 1.3 To develop a detailed design which is consistent with the design concept

|       | Element  |    | Performance Criteria  |
|-------|--|----|---|
| 1.3.1 | Investigate and analyse<br>detailed requirements for<br>organisation of spaces, areas<br>and circulation within and<br>around a building | 35 | The detailed design determines specific spatial requirements and relationships for building occupancy and functions   |
|       |  | 36 | The detailed design investigates internal and external patterns of circulation and project implications are assessed  |
|       | 0  | 37 | The detailed design demonstrates the integration of construction and technical systems in the spatial arrangement   |
|       |  | 38 | The detailed design interprets, assesses and incorporates information and recommendations provided by consultants, specialists and manufacturers  |
| 1.3.2 | Consider options and decide<br>the disposition and assembly<br>of the structural system,   | 39 | The detailed design investigates and evaluates the choice of structural system, based upon an understanding of structural principles and their application                              |
|       | construction elements,<br>materials and building<br>components   | 40 | The detailed design investigates and evaluates construction elements based upon an understanding of technical performance and the requirements of building standards                    |
|       |  | 41 | The detailed design is assessed for consistency with design concept   |
|       |  | 42 | The detailed design investigates and evaluates materials and building components based upon an understanding of their physical properties-strength, performance and durability          |
|       |  | 43 | The detailed design demonstrates a considered judgement of the visual and contextual qualities of the structural system, construction elements, materials and building components       |
|       |  | 44 | The selection of building materials is consistent with, and appropriate to, the structural and construction system proposed and details of assembly are technically proficient          |
|       |  | 45 | The selection of fittings, fixtures and finishes is suitable for the purpose, cost and assembly   |
|       |  | 46 | Specialists are consulted as necessary  |
| 1.3.3 | Establish requirements for building service systems  | 47 | The active and passive service systems selected for thermal comfort,<br>lighting and acoustics are suitable for the occupation, function and<br>environmental parameters                |
|       |  | 48 | The mechanical and electrical, hydraulic and transportation systems selected are suitable for the occupation, function and environmental parameters and appropriate to time constraints |
|       |  | 49 | Specialists are consulted as necessary  |
|       |  | 50 | Appropriate technical and mechanical systems and equipment is integrated with the schematic design  |
|       |  |    |   |

# Context 1.4 To resolve a detailed design sufficient to obtain agreement and authorisation to proceed to documentation for its translation into built form

|       | Element  |    | Performance Criteria   |
|-------|--|----|--|
| 1.4.1 | Progressively finalise all<br>decisions relating to the<br>assessment of specialist<br>information, design detail,<br>material choice and building<br>costs and management | 51 | The detailed design demonstrates the consideration and resolution of each aspect of the project brief  |
|       |  | 52 | The detailed design demonstrates that all building elements are sufficient and appropriate for construction intentions and environmental sustainability                        |
|       | strategies   | 53 | The detailed design demonstrates consistency between the proposed building elements, construction systems, project budget and time constraints                                 |
|       |  | 54 | The detailed design demonstrates the integration of specialist information and expertise   |
|       |  | 55 | The detailed design demonstrates continuing consideration of the interests of building users, the community and other relevant groups  |
| 1.4.2 | Communicate the detailed<br>design clearly   | 56 | The development of the detailed design utilises freehand drawings,<br>diagrams, other graphic techniques and modelling to explore three-<br>dimensional form and relationships |
|       |  | 57 | The detailed design is described through drawings and/or three-<br>dimensional representation, computer simulation or other visual and/or<br>written techniques                |
| 1.4.3 | Negotiate and agree the detailed design proposal with  | 58 | Clear and accurate professional advice is provided on the detailed design response to each aspect of the project brief   |
|       | the client and other interested parties  | 59 | The reasons for any departure from the project brief are explained and agreed  |
|       |  | 60 | All other outstanding issues are resolved in readiness for commencement of the construction documentation  |
| 1.4.4 | Prepare for start of   | 61 | A strategy and program for construction documentation are adopted  |
|       | construction documentation   | 62 | The requirement for any additional specialist consultants is identified and their scope of work defined  |

# Context 1.5 To continuously comply with the project brief and meet contractual agreements throughout the course of implementation of a design project

|       | Element  |    | Performance Criteria   |
|-------|--|----|--|
| 1.5.1 | Resolve, in detail, all<br>components of the design in               |    | The detailed design demonstrates a clear and coherent design approach has been maintained  |
|       | order to prepare instructions<br>for their construction<br>or supply |    | Decisions made are timely and conform to the agreed contractual and administrative program |
|       | 0.0499.9   | 65 | The ongoing contribution of consultants and suppliers is co ordinated                      |

# Unit 2 Documentation

Documentation prepared for the construction, contract management and handover of an architectural project, including architectural drawings, specifications and schedules, must conform with relevant codes and industry standards.

The compliance of documentation, supplied by consultants, with codes and regulations is to be verified.

The consistency of all project documentation (in the selection and disposition of building elements, components, finishes and fittings) with design objectives and budgetary constraints must be demonstrated.

Upon registration, an architect is required to demonstrate documentation competencies at a level which could be undertaken in the circumstances an of independent practitioner.

# Context 2.1 To generate documentation and clearly communicate information for an architectural project so that it can be costed, built and completed in accordance with the brief, time frame, cost and quality objectives

| Element   |    | Performance Criteria   |
|---|----|--|
| Establish a documentation   | 66 | Participants in the documentation process are identified   |
| process   | 67 | Approach and procedures for the documentation process are identified   |
|   |    | Time schedules for the completion of documentation are established   |
|   | 69 | Monitoring and checking protocols are established  |
| Prepare architectural drawings with regard to the location,                   | 70 | Materials, products and systems are selected and descibed in accordance with the detailed design   |
| extent of building elements,<br>components, finishes, fittings<br>and systems | 71 | Timely, accurate, complete and comprehensible drawings are produced for consultants, building contractors and relevant authorities   |
|   | 72 | Design changes which evolve during the documentation process are communicated to the client for approval   |
| Prepare architectural specifications and schedules                            | 73 | Timely, accurate, complete and comprehensible specifications<br>and schedules are produced for consultants, contractors and<br>relevant authorities                            |
|   | 74 | The specifications and schedules nominate type, quality and performance standards with regard to selected materials, finishes, fittings, components, systems and special items |
|   | 75 | The specifications and schedules identify and describe the type and extent of work of separate building trades and sub-contractors   |
|   | 76 | The specifications, schedules and drawings are cross-referenced and co-ordinated   |
| Co-ordinate the documentation of the project                                  | 77 | The architectural and consultants' documentation are checked for consistency and compatibility   |
|   | 78 | The architectural and consultants' documentation are checked and confirmed for consistency with the detailed design and with quality, cost and time parameters                 |
|   | 79 | The documentation is consistent with the type of building contract and/or procurement procedure that has been selected for the project   |
| Agree on the documentation with the client and other                          | 80 | The client is provided with a clear explanation and understanding of the documentation   |
| interested parties  | 81 | The documentation is resolved and agreed in readiness for<br>commencement of construction  |

Context 2.2

### 2 To provide documentation for effective occupation of the project and as a future reference source

|       | Element                                      | Performance Criteria  |
|-------|--|---|
| 2.2.1 | Provide handover advice and as-built records | A clear explanation and documentation of building operation and systems is provided   |
|       |  | Accurate documents are prepared that record the location and extent of<br>building elements and services, including those changes which occurred<br>during the construction process |

# Unit 3 Project Management

Project Management processes of creating, maintaining and monitoring systems that must achieve timely, efficient and cost effective delivery of the architectural project.

Project Management may establish project teams, the development of client and project team agreements, the identification and implementation of appropriate contractual administration and compliance monitoring regimes, and project record keeping.

Upon registration, an architect is required to demonstrate project management competencies at a level which could be undertaken in the circumstances of an independent practitioner.

# Context 3.1 To confirm objectives and conditions at inception of project

|       | Element  |    | Performance Criteria  |
|-------|--|----|---|
| 3.1.1 | Establish and evaluate identified requirements,  | 84 | Project requirements are established, evaluated and assessed and priorities allocated   |
|       | perceptions and priorities   | 85 | Project budget and time constraints are confirmed following an analysis of the project brief and factors affecting delivery                 |
|       |  | 86 | The project brief is monitored and assessed against the budget, program and external factors  |
| 3.1.2 | Establish site conditions  | 87 | The limitations of the site and its environs are investigated, identified and opportunities recorded  |
|       |  | 88 | Site access and utility connections are identified and considered   |
|       |  | 89 | Specialist input is identified and obtained   |
|       |  | 90 | The options for re-use and life cycle costing and, where relevant, the conservation of existing buildings and infrastructure are considered |
| 3.1.3 | Assess potential<br>interaction between the<br>project, the environment<br>and the community | 91 | The implications of environmental factors are investigated, assessed and reported   |
|       |  | 92 | The implications of cultural factors are investigated, assessed and reported  |
|       |  | 93 | Opportunities for engagement with community participation processes are investigated and recommendations made                               |
| 3.1.4 | Assess regulatory context  | 94 | The implications of the law, relevant codes, regulations and industry standards are identified, understood and assessed                     |
| 3.1.5 | Consider construction systems and materials options  | 95 | Construction systems, service systems and material options consistent with the project brief and the design objectives are considered       |

# Context 3.2 To establish an appropriate procurement method and complete contractual arrangements with all participants

|       | Element   |     | Performance Criteria   |
|-------|---|-----|--|
| 3.2.1 | Establish terms of agreement with client                    | 96  | Services to be provided to the client and professional fees are identified and clearly communicated  |
|       |   | 97  | A method of engagement is established, appropriate to the scale and nature of the project and the scope of services to be provided                 |
| 3.2.2 | Establish project procurement options                       | 98  | The advantages and disadvantages of procurement options are considered   |
|       |   | 99  | Project opportunities and constraints are assessed, key issues identified and recommendations made to the client                                   |
| 3.2.3 | Prepare preliminary project                                 | 100 | Project scope is clearly defined   |
|       | evaluations, programs and feasibility studies               | 101 | A project cost analysis is undertaken which reflects an understanding of procurement method, contractual arrangements and other project parameters |
|       |   | 102 | Time, cost, and quality requirements are recognised and balanced against client needs and priorities   |
| 3.2.4 | Establish project information<br>management systems         | 103 | Recording and information systems are established to satisfy all requirements of the contract of engagement  |
|       |   | 104 | Systems are established to ensure the flow of information, instructions, approvals and agreements between all participants                         |
| 3.2.5 | Establish requirements for,<br>and co-ordinate, specialists | 105 | The need for consultants, contractors and suppliers is established   |
|       |   |     | The scope of specialist services is specified and briefs prepared  |
|       |   | 107 | The selection of specialists including fee arrangements is negotiated and client agreement secured   |
| 3.2.6 | contractual agreements and                                  | 108 | The types of construction contracts are considered and assessed and recommendations made to the client   |
|       |   | 109 | The financial arrangements for project construction proposed by the contractor are analysed  |
|       |   |     | Contractor qualifications are evaluated prior to selection   |
|       |   |     | The terms and conditions of the contract are reviewed, negotiated and finalised  |
|       |   | 112 | Ethical practices are followed   |

# Context 3.3 **To provide contract administration for the construction of a project**

|       | Element  |   | Performance Criteria  |
|-------|--|---|---|
| 3.3.1 | Administer a standard<br>form construction contract                          | 113   | Administrative processes are established and maintained which ensure progressive fulfilment of requirements of contract documents |
|       |  | 114   | Construction progress is systematically monitored and compliance with the contract provisions and budget ensured                  |
|       |  | 115   | Progress claims, variations and extensions are evaluated and certified  |
|       |  | 116   | Problems and uncertainties are resolved and advice provided   |
|       |  | 117   | Defects are identified and rectification by the builder is monitored  |
|       |  | 118   | Instructions are issued   |
| 3.2   | contract documents and<br>requirements of relevant<br>regulatory authorities | 119   | Authority approvals are obtained as required  |
|       |  | 120   | A mechanism is established for regular progress reporting to the client on variations to the program, budget and quality          |
|       |  | Compliance with contract documents and requirements of regulatory authorities is verified at completion of the contract |   |

# Context 3.4 Before, or on completion of the contract, to compile and document information and responsibilities for future operational use

|       | Element   |     | Performance Criteria   |
|-------|---|-----|--|
| 3.4.1 | Assemble project maintenance and operation manuals                              |     | Warranties, maintenance agreements, certificates and approvals are obtained and handed over          |
|       | as required by the contract   | 123 | Maintenance and operation manuals are prepared and provided  |
|       |   | 124 | Client responsibilities at handover are identified and advised                                       |
| 3.4.2 | Undertake post occupancy<br>evaluation and assess<br>for future operational use | 125 | Performance information is systematically acquired, analysed, reviewed and disseminated as necessary |

# Unit 4 Practice Management

Practice Management ensures that appropriate systems are in place, and sufficient resources available, to maintain an architectural practice.

Administrative and accounting systems must facilitate the efficient, timely and profitable provision of professional services. Management of staff, technical and financial resources enable the scope of, and demand for, a practice's professional services to be met. Quality systems must monitor client satisfaction and data should be continuously collected and reviewed to improve performance.

The conduct of an architectural practice must comply with the law and regulations and observe professional and community standards.

Upon registration, an architect is required to demonstrate practice management competencies at a level which could be undertaken in the circumstances of an independent practitioner.

Context 4.1 To establish and maintain an architectural practice

|       | Element  |     | Performance Criteria   |
|-------|--|-----|--|
| 4.1.1 | Define practice objectives and<br>establish a practice structure<br>and strategies for their | 126 | Knowledge is demonstrated of alternative practice models, such as sole<br>practice, partnership, company, joint-venture, multi-disciplinary,<br>secondary consultancy and networking |
|       | achievement  | 127 | An appropriate practice structure is established in response to anticipated scope and demand for professional services   |
|       |  | 128 | A business plan is developed and a strategy established for performance review   |
|       |  | 129 | Professional, technical and financial resources adequate and appropriate for the practice structure and strategies are adopted   |
|       |  | 130 | Engagement procedures are identified   |
|       |  | 131 | Client satisfaction and project performance is monitored and information for improvement of future services recorded   |
| .1.2  | Establish and maintain practice management systems   | 132 | A practice management system is established to report, monitor and review financial performance of the practice  |
|       |  | 133 | Accounting procedures are established and maintained   |
|       |  | 134 | Specialists for practice management advice are consulted as necessar   |
|       |  | 135 | Administrative systems and quality management standards are<br>established and applied to facilitate the efficient, timely and profitable<br>provision of professional services      |
|       |  | 136 | All practice management systems are regularly analysed and reviewed  |
|       |  | 137 | A comprehensive library system of information and material essential for practice is established and maintained  |
| .1.3  | Deploy and manage staff  | 138 | Staff numbers and skills are managed to meet practice needs  |
|       |  | 139 | Staff responsibilities are clearly defined and their understanding ensure  |
|       |  | 140 | Personnel records are maintained to ensure efficient administration of the terms and conditions of employment  |
|       |  | 141 | Opportunity is provided for staff to undertake personal and professiona development  |
|       |  | 142 | Ethical practices are followed   |
| .1.4  | Comply with the law and regulations governing the conduct of an architectural                | 143 | Compliance with the law and regulations governing the conduct<br>of an architectural practice, as a business entity and as an employer<br>is demonstrated                            |
|       | practice   | 144 | Compliance with the law and regulations governing accounting and financial matters is demonstrated   |
|       |  | 145 | Compliance with common law and duty of care provisions, and the laws of contract and tort is demonstrated  |
|       |  | 146 | Compliance with copyright law and the protection of intellectual property is demonstrated  |
|       |  | 147 | Specialists are consulted as necessary for financial, legal, professional and other practice advice  |
| 4.1.5 | Observe the standards of conduct expected by the   | 148 | An understanding of the legal responsibilities of an architect, with regard to registration, practice and building contracts is demonstrated   |
|       | community of a professional in the practice of architecture                                  |     | An understanding of professional ethics and ethical practice is demonstrated   |

# Competency standards in architecture practice

| Pre             |         |       |  |
|-----------------|---------|-------|--|
|                 | Unit 1  |       | Design   |
|                 | Context | 1.1   | To create an architectural design through the exercise of knowledge, imagination, judgement and professional responsibility  |
|                 |         |       | Generate a design concept that can be realised as a building   |
|                 | Element | 1.1.2 | Recognise the need to sustain the natural and the built environment, and the needs and aspirations of building users and the community, in the formulation of a design concept             |
|                 | Element | 1.1.3 | Comply with the law and regulations governing planning, building design, procurement and the practice of architecture  |
|                 | Element | 1.1.4 | Communicate the design concept clearly   |
|                 | Context | 1.2   | To formulate an architectural design in response to a project brief, sufficient to obtain endorsement of overall objectives and design concept<br>by a client and other interested parties |
|                 |         |       | Interpret project brief and decide design objectives and parameters with the client  |
| _               | Element | 1.2.2 | Develop a schematic design through a repetitive process of hypothesis, evaluation and re-appraisal   |
| Design          | Element | 1.2.3 | Communicate the schematic design clearly   |
| De              | Element | 1.2.4 | Agree the schematic design proposals with client and interested parties  |
|                 |         |       |  |
|                 | Context | 1.3   | To develop a detailed design which is consistent with the design concept   |
|                 |         |       | Investigate and analyse detailed requirements for organisation of spaces, areas and circulation within and around a building   |
|                 | Element | 1.3.2 | Consider options and decide the disposition and assembly of the structural system, construction elements, materials and building components  |
|                 | Element | 1.3.3 | Establish requirements for building service systems  |
|                 | Context | 1.4   | To resolve a detailed design sufficient to obtain agreement and authorisation to proceed to documentation for its translation into built form  |
|                 | Element | 1.4.1 | Progressively finalise all decisions relating to the assessment of specialist information, design detail, material choice and building costs and management strategies                     |
| ign             |         |       | Communicate the detailed design clearly  |
| des             | Element | 1.4.3 | Negotiate and agree the detailed design proposal with the client and other interested parties  |
| be<br>be        | Element |       | Prepare for start of construction documentation  |
| Detailed design | Context | 1.5   | To continuously comply with the project brief and meet contractual agreements throughout the course of implementation of a design project  |
| Dei             | Element | 1.5.1 | Resolve, in detail, all components of the design in order to prepare instructions for their construction or supply   |
|                 | -       |       |  |

Unit 2

Documentation

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|---------|-------|---|
| Context | 3.1   | To confirm objectives and conditions at inception of project          |
| Element | 3.1.1 | Establish and evaluate identified requirements, perceptions and price |
| Element | 3.1.2 | Establish site conditions   |
| Element | 3.1.3 | Assess potential interaction between the project, the environment a   |
| Element | 3.1.4 | Assess regulatory context   |
| Element | 3.1.5 | Consider construction systems and materials options                   |
| Context | 3.2   | To establish an appropriate procurement method and complete cont      |
| Element | 3.2.1 | Establish terms of agreement with client                              |
| Element | 3.2.2 | Establish project procurement options                                 |
| Element | 3.2.3 | Prepare preliminary project evaluations, programs and feasibility stu |
| Element | 3.2.4 | Establish project information management systems                      |
| Flement | 3.2.5 | Establish requirements for, and co-ordinate, specialists              |

Element 3.2.6 Prepare and conclude contractual agreements and negotiations for p

| Context | 2.1   | To generate documentation and clearly communicate information for an architectural project so that it can be costed, built and completed<br>in accordance with the brief, time frame, cost and quality objectives |
|---------|-------|---|
| Element | 2.1.1 | Establish a documentation process   |
| Element | 2.1.2 | Prepare architectural drawings with regard to the location, extent of building elements, components, finishes, fittings and systems   |
| Element | 2.1.3 | Prepare architectural specifications and schedules  |
| Element | 2.1.4 | Co-ordinate the documentation of the project  |
| Element | 2.1.5 | Agree on the documentation with the client and other interested parties   |
|         |       | To provide documentation for effective occupation of the project and as a future reference source   |
| Element | 2.2.1 | Provide handover advice and as-built records  |
|         |       |   |

Context 3.3 To provide contract administration for the construction of a project Element 3.3.1 Administer a standard form construction contract Element 3.3.2 Monitor compliance with contract documents and requirements of re Context 3.4 Before, or on the completion of the contract, to compile and docume

Element 3.4.1 Assemble project maintenance and operation manuals as required b

Element 3.4.2 Undertake post occupancy evaluation and assess for future operation

Unit 4Practice ManagementContext 4.1To establish and maintain an architectural practiceElement 4.1.1Define practice objectives and establish a practice structure and strategies for their achievementElement 4.1.2Establish and maintain practice management systemsElement 4.1.3Deploy and manage staffElement 4.1.4Comply with the law and regulations governing the conduct of an architectural practiceElement 4.1.5Observe the standards of conduct expected by the community of a professional in the practice of architecture

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architects accreditation council of australia

PO Box 236 Civic Square ACT 2608 Australia Telephone: 612 6230 0506 Facsimile: 612 6230 7879 Email: registrar@aaca.org.au

www.aaca.org.au