Standard of Knowledge, Skill and Competence for Practice as an **Architect**

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The Royal Institute of the Architects of Ireland
The Registration Body for Architects in Ireland

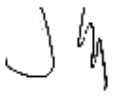
Foreword

In 2005 RIAI Council made a decision that the requirements for professional practice as an architect in Ireland should be laid out clearly in a single document reflecting national standards and integrating into the broader European and global frameworks for recognition. To carry out this task, Council convened the RIAI Competence Task Group in December 2005.

During the lifetime of the task group major legislative changes came about which had a very significant impact on the exercise. The Building Control Act 2007 was first published as the Building Control Bill in December 2005 and Directive 2005/36/EC of the European Parliament and of the Council on the recognition of Professional Qualifications was published in 2005 and came into effect in October 2007, replacing the Architects Directive of 1985. These two pieces of legislation underlined the necessity for a clearly stated Standard which could be used by all individuals eligible for admission to RIAI Membership and the RIAI Register for architects, regardless of how their knowledge, skill and competence had been attained.

The task group received very welcome advice and comment from experts in the fields of academia, architectural practice and education in Ireland and abroad, most notably the Higher Education Training and Awards Council (HETAC) and the National Qualifications Authority of Ireland (NQAI). I would like to take this opportunity to thank all of those who gave freely of their time and expertise to contribute to the development of this document. I would especially like to thank the members of the RIAI Competence Task Group, which was chaired by Liam Egan MRIAI, who invested very considerable time and effort in this exercise.

This finished document is intended to provide those seeking Registration and RIAI Membership with a clear statement of what is required for recognition as an architect at the professional level. It is also intended to provide a framework for Continuing Professional Development, keeping architects aware of the key areas of knowledge skill and competence which must be maintained for effective practice.



John Graby
Registrar

Background

The UNESCO/UIA Charter for Architectural Education states that “Architecture, the quality of buildings and the way they relate to their surroundings, respect for the natural and built environment as well as the collective and individual cultural heritage are matters of public concern” and that “. . . it is in the public interest to ensure that architects are able to understand regional characteristics and to give practical expression to the needs, expectations and improvement to the quality of life of individuals, social groups, communities and human settlements.”

The Charter also points out that the increasing mobility of architects between countries calls for mutual recognition of architectural qualifications and that such recognition must be based on objective criteria, guaranteeing that their holders have received and continue to maintain the kind of education called for in the Charter.

Since its foundation in 1839, the RIAI has committed itself to the development of knowledge required for the practice of architecture. Frameworks for the mutual recognition of qualifications are enshrined in law in the shape of the Building Control Act 2007 (which came into effect on 1 May 2008) and Directive 2005/36/EC of the European Parliament and of the Council on the Recognition of Professional Qualifications (the Qualifications Directive). In these legal contexts, the RIAI is the designated Competent Authority for architectural qualifications.

Of equal importance is the RIAI’s role in protecting the interests of clients, consumers, building users, the public interest and the quality of the built environment. This demands that architects are equipped with the necessary skills to deliver the services they offer.

Recent years have seen the opening of several new Schools of Architecture and an increase in the numbers of architects coming from countries where laws, climate, building processes, and architectural education differ from those in Ireland. New routes for admission to the profession under the Building Control Act 2007 have also expanded the ways in which individuals can register as architects and become members of the Institute.

In this context the RIAI identified the need to establish a clearly expressed Standard for entry to the Architectural Profession in Ireland based on the criteria set out in Article 46 of the Professional

Qualifications Directive which applies across the EU. Compliance with Article 46 is the criterion used in the Building Control Act for admission to the profession. The Standard provides a basis for clear understanding of the requirements and thereby supports consistent and equitable assessment of the skills required for recognition as an architect. This increased clarity benefits clients, consumers, students, schools of architecture, architects and candidates for RIAI membership and/or the RIAI Register for Architects.

Development of the Standard

The eleven elements set out in Article 46 form the reference framework for the Standard. Within this context, preparatory work for development of the Standard included review and research of documents published by the: Architects Council of Europe; Architects Registration Board UK; European Network of Heads of Schools of Architecture; European Union; Higher Education Training and Awards Council (HETAC, Ireland); International Union of Architects (UIA); National Architectural Accrediting Board (NAAB, USA); National Council of Architectural Registration Boards (NCARB, USA); National Qualifications Authority of Ireland (NQAI) South African Council for the Architectural Profession (SACAP); and the United Nations Educational, Scientific and Cultural Organization (UNESCO). Those consulted on the document as it evolved included; experts in the field, RIAI committees, RIAI Council; the Heads of the Schools of Architecture; the NQAI and HETAC.

The RIAI Standard thus describes the knowledge, skill and competence required for independent practice as an architect in Ireland. The emphasis is on the core knowledge skills and competence of the 'GP' architectural practitioner; specialist areas are not included. Most of the knowledge, skill and competence items are 'universal' or common to architects anywhere in the world. Some are 'domain specific' to practice in this jurisdiction.

It is important to note that no single indicator listed in this Standard of knowledge, skill and competence stands on its own; all are contextualised within the overall role and responsibilities of the architect. In its "Architect's Profile" the Architects Council of Europe observes that the function of the architect calls for creativity, structured knowledge, organisational skills, mediation skills, a mind capable of synthesis, an independent and ethical stance, and a vision of the world.

The capacity to reason and conceive at different scales (the detail, the building, the urban and the wider context) allows the architect to address what is often an ill-defined problem, give 'shape' to a project, not only in the physical sense, and, taking account of functional, technical, aesthetic, social, cultural, economic and environmental context and demands, reconcile divergent factors to produce a coherent and holistic solution that satisfies the needs of client, user and society.

In a situation where the profession is becoming increasingly specialised, including the development of new fields and sub-fields, the need for the architect to have an overall grasp of all of the aspects of a project is even greater than before.

Use of the Standard

The RIAI Standard of Knowledge, Skill and Competence for Professional Practice as an Architect describes the areas and levels of knowledge, skill and competence required of an architect at the professional level (capable of independent practice). To be an architect Member of the RIAI (MRIAI or FRIAI) and/or be admitted to the Register for Architects, an individual must have demonstrated that he or she has achieved this Standard, whether or not independent practice is envisaged at the time of the assessment. The Standard is applied in all RIAI examinations and assessment mechanisms and is integrated into all of the RIAI's Admission routes. In RIAI CPDEngage, the Institute's online CPD planning, provision and monitoring tool, the Standard provides the framework for Continuing Professional Development.

Reading and interpreting the Standard

The 11 elements listed under Article 46 of the EU Qualifications Directive (2005/36/EC) provide the framework for the Standard. Indicators are provided for each element in the form of manageable and clearly defined requirements that are recognisably related to the realities of architectural practice. The indicators outline the specific areas in which a candidate is expected to demonstrate expertise, and the level of that expertise.

To provide clarification and support interpretation by users each indicator has been been tagged as relating to one of the following eight major dimensions of practice: Design, Context, Technology,

Regulation, Professionalism, Procurement, Management and Communication. The tags represent the dimension of practice with which a particular indicator fits most closely although the integrative nature of architectural practice means that, in reality, most indicators could be aligned to more than one tag.

Each element and indicator of knowledge skill and competence must be exercised in the context of, and at the level demanded by, the overarching values of Design and Professionalism. The Standard is designed to apply regardless of the mode through which an individual is seeking to demonstrate eligibility for admission to RIAI Membership or to the Register for Architects e.g. five year degree plus professional practice examination; register admission examination; technical assessment or any other route.

Format of the Standard

1. The top line shows the relevant element from Article 46 of the Professional Qualifications Directive (2005/36/EC).

2. The first column to the left shows the reference number and tag for the indicator. For example "a2 Design" means this is the second indicator under element (a) of Article 46 and that it is tagged as relating most closely to Design.

3. The second column contains the text of the actual indicator of knowledge, skill and competence.

4. The third column contains the Guidance Note if one is required.

reference	**Indicator**	**Guidance Note**
Article 46.1 (a) ability to create architectural designs that satisfy both aesthetic and technical requirements.		
a1 Design	Ability to engage imagination, think creatively, innovate and provide design leadership	This includes lateral thinking and the ability to think 'outside the box'.
a2 Design	Ability to create an ordered and holistic layout of spaces that uses light, mass and form in three dimensions, based on clear conceptual thinking, that satisfies aesthetically, functionally and technically	

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a2 Design	Ability to create an ordered and holistic layout of spaces that uses light, mass and form in three dimensions, based on clear conceptual thinking, that satisfies aesthetically, functionally and technically	
a3 Design	Ability to analyse, prioritise and synthesise the project brief and context, consider design options and subject them to critical appraisal, so as to produce a coherent and well-resolved design solution	
a4 Regulation	Ability to identify, understand and incorporate applicable legislation, regulations, directives, codes and standards	This applies to all aspects of architectural design , including-building design and building procurement.
a5 Technology	Ability to develop in detail the design of a building or complex of buildings so as to satisfy client brief, and objectives: aesthetically, functionally, technically and in compliance with regulations	
a6 Design	Ability to analyse and understand the environmental, social and cultural context of a project and to respond to them in a design solution finding appropriate balance	This includes ergonomic and spatial requirements and issues of equity, participation and social inclusion.
a7 Design	Ability to incorporate and/or respond to architectural, artistic, historical, natural and built heritage precedents in appropriate ways	
a8 Design	Ability to demonstrate the processes by which designs are realised	'Realised' at this level means how the design is developed and is constructed as appropriate. Initial concept, design development, detail design and construction.
a9 Design	Ability to identify and use relevant sources of information in the process of design development	
a10 Design	Understanding of the particular nature of various materials, their appropriateness to function and their behaviour over time, and to select and incorporate them so as to realise the design concept	
a11 Technology	Awareness of contemporary issues relevant to the practice of architecture and how they may be integrated into design	

reference	Indicator	Guidance Note
Article 46.1 (b) adequate knowledge of the history and theories of architecture and the related arts, technologies and human sciences.		
b1 Context	Knowledge of architectural history and design theories, and their impact on the practice of architecture	Architectural history' embraces not only what was built, but also the physical, intellectual, economic, social and technical context in which it was produced. It also includes contemporary architectural thinking.
b2 Context	Knowledge of Irish architectural history and the influence of past and current design traditions and approaches on the built environment	
b3 Context	Awareness of the arts, technologies and human sciences as they relate to the theory and practice of architecture	This requires a basic awareness of the intersection between the arts, technology and human science disciplines and the practice of architecture; for example psychology, geography, sociology etc..
b4 Context	Awareness of the links and interactions between the creative disciplines and their potential for informing architectural design, including those specific to the local/prevailing culture	These disciplines may include among others; architecture, urban design, landscape architecture, planning, interior design, furniture design, crafts.
Article 46.1 (c) knowledge of the fine arts as an influence on the quality of architectural design.		
c1 Context	Knowledge of the links between architecture and the fine arts	Covers related fields of knowledge and practice which may inform both the context of a project and the architect's response to it. This may include painting, sculpture, dance, theatre, film, music, and may relate to the history, theory, practice or appreciation of these arts and their influence.
Article 46.1 (d) adequate knowledge of urban design, planning and the skills involved in the planning process.		
d1 Context	Ability to guide a project through the planning process	In addition to the various stages and associated processes, this includes acting within the context of the development plan.
d2 Context	Understanding of the history, principles and objectives of urban design and its interaction with architecture	As well as addressing the architect's understanding of urban design historically and in the contemporary context, this involves considering the urban design context of projects as appropriate.
d3 Context	Knowledge of local, regional, and national planning and development contexts	This covers instruments, plans, directives and other influencing factors. Also included are the processes by which development plans are formulated and agreed.
d4 Context	Awareness of international planning and development contexts	This covers relevant instruments, plans, directives and other influencing factors. Also included are the processes by which development plans are formulated and agreed.

reference	Indicator	Guidance Note
Article 46.1 (e) understanding of the relationship between people and buildings, and between buildings and their environment, and of the need to relate buildings and the spaces between them to human needs and scale.		
e1 Design	Understanding of the relationship between people and buildings, and between buildings and their environment, and of the need to relate buildings and the spaces between them to human needs and scale	This understanding should be evident in the architect's designs.
e2 Context	Understanding of the relationship between a building and its immediate context and wider environment	This includes, inter alia, the physical and climatic environment, planning, conservation & heritage, spatial quality, landscape quality, natural disaster risks, biodiversity, environmental impact of construction, life cycle of materials and issues of ecological sustainability.
e3 Context	Understanding of the enduring nature of architecture	This involves/includes an appreciation of the nature and extent of the impact of buildings which, because of their scale and lifespan, will be lasting and significant in cultural and physical terms.

reference	Indicator	Guidance Note
Article 46.1 (f) understanding of the profession of architecture and the role of the architect in society, in particular in preparing briefs that take account of social factors.		
f1 Design	Ability to collaborate with and lead other specialists in the field as required during the realisation of proposals, so that concepts are developed and implemented appropriately	The requirement for leadership will vary according to the project, but the architect as lead designer should have the capacity to provide it. This capacity should extend to knowing when additional/specialist input is required.
f2 Professionalism	Ability to identify and evaluate information, apply critical judgment and formulate objective, competent advice and/or strategies for action	Ability to provide objective competent advice to the client and/or the users and exercise due care and attention when acting on behalf of the client, having due regard to the interests of society as a whole. This may, on occasion, involve addressing conflict between the client's interests and those of society at large.
f3 Management	Ability to formalise appointments between architect and client, and between the client and other consultants	This requires an understanding of the different forms of procurement of architectural and other professional services.
f4 Communication	Ability to impart, receive, understand and use information clearly and effectively	This requires sufficient command of textual, numerical, verbal, graphic and electronic modes among others.
f5 Communication	Ability to communicate clearly effectively and appropriately with all of those who have a role in the design and construction process	This includes the capacity as team leader or team member: to communicate and engage with client, public, colleagues, authorities and other parties with diverse roles, perspectives and objectives; and to act in a manner appropriate to the circumstances including the ability to communicate effectively in local language of commerce.
f6 Professionalism	Ability to regularly review personal performance against good practice, carry out critical self-appraisal, recognise limitations of knowledge, expertise and performance and take necessary steps to seek advice, update knowledge and make good any deficiencies	This may involve undertaking CPD or recommending that the client engage additional expertise as appropriate.
f7 Context	Understanding of society and the social context in which built environments are procured	This covers national, local and community context. It includes the role of architectural design in securing equality and participation for all in relation to the built environment. It also includes input into the design process for all of those who have an interest in it or are affected by it.
f8 Professionalism	Understanding of the obligation to act with honesty, integrity and impartiality in all matters arising from the practice of architecture, including associated or related activities such as teaching and research	This includes all relevant, including fiduciary, duties and responsibilities.

reference	Indicator	Guidance Note
Article 46.1 (f) understanding of the profession of architecture and the role of the architect in society, in particular in preparing briefs that take account of social factors.		
f9 Context	Awareness of the economic context of development	This includes the general economic background as well as the development appraisal of particular sites.
f10 Context	Awareness of the place of the construction industry in relation to other sectors of the national and international economies, and the effects of the architect's role within that context	
f11 Context	Awareness of current societal concerns, their changing nature and their integration into the practice of architecture	
f12 Professionalism	Awareness that 'good practice' may extend beyond legal requirements	This involves appreciation of the spirit and the letter of the law and related societal and environmental concerns.
f13 Professionalism	Awareness of resolution mechanisms for disputes	Includes: Conciliation; Mediation; Adjudication, Arbitration; Litigation.
f14 Professionalism	Awareness of the requirement for personal safety in the practice of architecture	This includes personal safety in relation to construction sites, fabrications works, site surveys, building condition surveys and potentially dangerous environments.
Article 46.1 (g) understanding of the methods of investigation and preparation of the brief for a design project.		
g1 Design	Ability to undertake appropriate investigation for the preparation of the design brief for a project	
g2 Design	Ability to analyse and interpret the client's needs and requirements and so produce an appropriate project brief or to critically review a brief prepared by others	
Article 46.1 (h) understanding of the structural design, constructional and engineering problems associated with building design.		
h1 Technology	Ability to critically assess technical and construction issues and devise an appropriate course of action	
h2 Technology	Understanding of construction and engineering design principles, and the ability to assess the 'buildability' of a project and adopt appropriate solutions	This includes: understanding of construction techniques; (current & historical) and their appropriate application; understanding of structural principals; understanding of the processes of technical design and ability to integrate knowledge of key technical factors (e.g. structure, construction technologies and services systems) into a functionally effective whole.
h3 Technology	Understanding of the properties and appropriate use of materials in the context of building performance over time	This includes awareness of the interface between materials, components and assemblies.

reference	Indicator	Guidance Note
Article 46.1 (i) adequate knowledge of physical problems and technologies and of the function of buildings so as to provide them with internal conditions of comfort and protection against the climate.		
i1 Technology	Ability to provide, through design and technology, appropriate conditions of comfort in response to environmental context and climate	This requires, in addition to the ability to undertake technical design as described, an awareness of why it is necessary to do so.
i2 Technology	Ability, through design technology, to manage the impact of structures, when built and in their ongoing operation, on the physical and natural environments	Current considerations include: conservation and waste management systems; design and service life of materials; ecological sustainability; passive systems; environmental issues; sustainable design.
Article 46.1 (j) the necessary design skills to meet building users' requirements within the constraints imposed by cost factors and building regulations.		
j1 Design	Ability to produce design solutions which reconcile the relationship between design, technology, environment, regulatory issues and costs while meeting user requirements	This requires and ability to develop and work to a cost schedule appropriate to client resources and project objectives and requires an awareness of costs appropriate to particular building types; the choices to be made relating to the immediate and longer terms costs of specifying particular materials and systems (e.g. when considering energy performance) and the need for cost checking at each key stage of a project.
j2 Regulation	Understanding of core legislation, codes, standards, regulations and processes	These include contemporary: planning; building control, including technical guidance documents; environment; health and safety; etc.
j3 Regulation	Knowledge of legislation and regulations relevant to a specific project or activity	This relates to current non-core legislation and regulations of relevance to specific projects and fields of activity. Examples include: environment; waste management; universal access; equality; property; heritage; procurement/competition; EU directives; and specific legislation relevant to particular building types and functions, such as hospitals, crèches, restaurants etc. Ongoing review of developments in the legislative and regulatory environments throughout the course of a project is essential.

reference	Indicator	Guidance Note
Article 46.1 (k) adequate knowledge of the industries, organisations, regulations and procedures involved in translating design concepts into buildings and integrating plans into overall planning.		
k1 Procurement	Ability to translate design concepts into buildings within the Irish procurement context	Includes knowledge of: EU procedures; private and public sector procedures. Also includes awareness of how the actions of third parties, including statutory authorities and adjoining owners, may affect the construction project.
k2 Procurement	Ability to advise clients on the appropriate selection and use of various procurement systems and contracts	Includes: knowledge of traditional procurement systems using relevant forms of contracts; awareness of other procurement systems, including design and build, management contracting, PPP; awareness of issues arising from design by contractors and subcontractors; understanding of risk allocation and risk management; knowledge of insurances relating to building contracts; knowledge of collateral warranties.
k3 Management	Ability to manage the design process from conception to completion of the project	This involves: Ability to programme and manage the flow of information within the practice and the project team throughout the entire building project process; Ability to undertake a systematic problem-solving approach to the resolution of issues and the achievement of tasks; Understanding of the resources required to translate the design intent into production drawings and specifications and the realisation of the design in built form; Ability to prioritise tasks and achieve programme dates whilst working within cost parameters. This ALSO requires an Awareness of the fragmented nature of the building design and procurement processes, involving many parties with differing objectives and an understanding of how, in this context, design quality is achieved.
k4 Management	Ability to lead, motivate and/or work within a team as appropriate	Involves a basic appreciation of: motivation; group dynamics; staff appraisal and reward structures; communication; goal setting; coaching; coping; delegation and the vision to see beyond the immediate in the context of project and practice objectives.
k5 Procurement	Ability to undertake effective project management	This involves a knowledge of the rationale behind and procedures used within project management as well as skills in pragmatic problem solving.
k6 Procurement	Ability to organise information flow and documentation control	Includes: understanding of the need for appropriate lines of communication in relation to the specific responsibilities of design and construction teams; ability to manage and record documentation for administration of the building contract; knowledge of reporting systems, including site meetings, minutes, reports; knowledge of financial control systems.
k7 Technology	Ability to produce and co-ordinate, comprehensive and effective specification documents	This involves a clear understanding of the requirement for such documents and their purpose, as well as the ability to prepare them.
k8 Procurement	Ability to prepare and co-ordinate tender documentation	Involves the ability to identify and incorporate necessary and relevant information, including construction site restrictions and an understanding of mobilisation.
k9 Procurement	Understanding of construction programming, materials manufacturing and delivery timeframes	Includes knowledge of measures (such as pre-ordering elements) to minimise delay.
k10 Procurement	Understanding of building commissioning and handover	Includes: planning for service-life management; testing, sampling and quality control; client demonstrations; O&M manuals and safety file; resolution of defects.

reference	Indicator	Guidance Note
Article 46.1 (k) adequate knowledge of the industries, organisations, regulations and procedures involved in translating design concepts into buildings and integrating plans into overall planning.		
k11 Management	Understanding of the general principles of management and of the particular management issues arising in architectural practice	This involves an understanding of how design quality is achieved and the application of general and specific management principles within the context of architectural practice.
k12 Procurement	Knowledge of the implications of relevant Health and Safety regulations	Includes, inter alia, duties of client, designer, PSDP and PSCS.
k13 Management	Knowledge of the context, structures and resources required to provide an effective, efficient and creative environment for Architectural practice	This involves the synthesis of a variety of strands of knowledge to achieve an understanding of how design quality is achieved including an awareness of: employment law; financial management; company law; contract law; taxation; employers' health & safety responsibilities; risk management; resources (human, technical, financial, IT, etc.) needed to complete a task; staff education and training policies.
k14 Context	Awareness of the overlapping roles of organisations with a responsibility for, or interest in, the built environment	These include: national and international government; consultative, advisory and voluntary bodies and interest groups which play a part in the development of policy, directives, laws, guidelines and regulations; and an awareness of how they interact with each other and impact on architectural practice.