Australian Institute of Architects

ACT Chapter

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Submission to Environment and Planning Directorate ACT Government

Improving the ACT Building Regulatory System

SUBMISSION BY

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PURPOSE

- This submission is made by the ACT Chapter of the Australian Institute of Architects (Institute) to the ACT Government, Environment and Planning Directorate to provide comments on options put forward in the *Improving the ACT Building Regulatory System* paper dated 15 November 2015.

- Comments have been prepared in consultation with ACT Chapter members.

- At the time of this submission, the ACT Chapter President of the Institute is Andrew Wilson.

- The ACT Chapter Manager is Leanne Hardwicke.

INFORMATION

Who is making this submission?

The Australian Institute of Architects (the Institute) is the peak body for the architectural profession in Australia. It is an independent, national member organisation with around 12,000 members across Australia and overseas.

The Institute works to improve our built environment by promoting quality, responsible, sustainable design.

The Institute exists to enhance the cultural, environmental and economic well-being of the community by:

- advancing contemporary practice and the professional capability of members, and
- advocating the value of architecture and architects

1. INTRODUCTION

The Institute welcomes the ACT Government's invitation to provide comment on the review of the building regulatory system.

While it is primarily the complex interactions between financial, procedural, regulatory and procurement practices within the ACT construction industry that impact upon construction quality, we believe that many of the proposals put forward in the discussion paper will result in an improvement of the quality of residential building work.

Better regulation is needed with regard to multi-unit residential buildings, mixed use buildings and speculative commercial buildings. The Institute believes that, only fully qualified and experienced professionals should be responsible for delivery of design services and project management for these types of buildings. Different classes of licence could be issued according to building class and size.

The 2010 review in to the quality of buildings clearly stated that the quality of work undertaken by construction professionals such as architects, directly affects the quality and standard of building. The Institute is of the view that the appointment of a suitably qualified design professional throughout the building process will significantly enhance the quality of the construction outcome.

We are also of the view that bringing other design professionals such as draftsmen, building designers, project managers and the like under a regulatory regime is essential to provide better outcomes for building owners. This is particularly important given the collapse of the national occupational licensing system proposal. We also advocate for the introduction of compulsory CPD for all building professionals, and that this must be a condition of ongoing licensing or registration.

In terms of the issues raised in the paper, we recommend:

1. Setting of minimum requirements and documentation standards for construction documentation in consultation with industry.
2. Publishing guidelines for documentation and detailing to inform industry and regulators.
3. Minimum construction documentation should be provided by a licensed professional.
4. If a design review process is implemented, it should be internal to the regulatory authority and undertaken by professionals, qualified in the discipline that is under review. The process should include the Government Architect.
5. The introduction of additional construction inspection stages including waterproofing of balconies and podiums (in addition to wet areas); roof construction; and retaining walls.
6. The introduction of designated inspectors to independently monitor construction of high-risk work, such as apartment buildings, with the aim of educating builders and developers about their obligations under the building regulatory system.

7. The implementation of a mechanism where recurring problems or findings of certifiers and inspectors are conveyed to industry. The Institute would recommend that training or information sessions be held for industry to highlight problems and best practice methods on a regular basis.
8. Only fully qualified and experienced professionals be responsible for delivery of design services, documentation and project management for multi-unit residential buildings, mixed use buildings and speculative commercial buildings. Different classes of licence could be issued according to building class and size and education and experience.
9. Introducing regulation of building professionals, whether designers, draftspersons, certifiers, or quantity surveyors to provide the community protection. Regulation is particularly important for project managers as they play a major role in the design and building process.
10. Introducing a mandatory requirement for indemnity insurance to an appropriate level for all building professionals to protect the public.
11. Completing the objects of the ACT Architects Act 2004.
12. Government recognising the benefits of full architectural services and continuity of this service from briefing - design - contract documentation to superintendence, or at minimum, advice during construction.

The following provides detailed comment on the issues raised in the paper.

2. DESIGN AND DOCUMENTATION

The paper clearly recognises the need for better drawings and specifications, and the need to have more attention to at the design stage to reduce defects and improve quality.

Design and documentation requirements to deliver a successful project on site are vastly different from project to project, builder to builder and client to client. While it is possible to deliver infinite detailing and specification, industry has not been willing to fund the additional costs associated with this.

It is a commonly held misconception that drawings for Building Approval (BA) are sufficiently detailed to inform construction. The level of documentation for BA is somewhat lower than what an architect would expect a project to need for construction. BA documents are not generally sufficiently detailed to resolve the complex junctions and interactions between parts of even the simplest building which may leak, fail fire separation requirements, and/or look unsightly.

Architects routinely separate the documentation tasks into two parts
1. BA documentation
2. Construction Documentation

The majority of construction details are prepared in the latter phase. Wall junctions, fire-rating details, waterproofing details, box-gutters, balcony details, thresholds, flashings, etc. form part of this work.

Unless qualified design professionals are engaged for this phase of work (especially on multi-unit residential buildings) this construction information is missing from the process. Without these construction detail drawings, including specifications, the quality will depend on the builder, project manager and site trades creating solutions to building complexity as they work through problems on site. Quality, or lack of it, then depends on their ability or inability to do so.

The proposal to provide guidance and education materials to better outline expectations for documentation is supported, but the Institute does not believe that this goes far enough. The Institute supports the setting of minimum requirements and documentation standards for construction documentation in consultation with industry.

The level of BA documentation does not impact building quality, whereas construction documentation does. To improve outcomes, there needs to be a focus on construction documentation, which is currently not regulated.

When it comes to documentation for assessment, the tick box mentality for what is sufficient documentation is completely inadequate as requirements differ from project to project. The more complex the requirements, the harder it is to assess, taking greater time and resources. The occurrence of failure will also dramatically increase with disagreement between designer and assessor as to what is necessary to interpret a design for approval.

There is also the problem of standards and regulations changing so fast that the industry cannot keep up with them. As well, current standards for documentation are outdated and irrelevant to current techniques and practices. For instance, AS1100 still requires coloured drawings.

Guidelines for documentation and detailing would be welcomed for clarification to standardise the industry and regulators.

The paper proposes a design review process to provide independent review of plans for apartment buildings prior to submission of a BA. The focus on the benefits of good design is applauded. Good design achieves positive outcomes to meet a range of often complex needs. It results in fit for purpose, responsive, durable, accessible, and sustainable outcomes, such as saving energy, limiting emissions, recycling water, and reducing operation and maintenance costs. The costs of poor design relates to the built fabric itself in terms of both initial capital and whole-of-life costs.

However, the Institute is concerned about the cost to the client, contractor and designer with the inclusion of a fourth party to the process. The astute client will have prepared a thorough brief for the design professional. Questions and issues should ideally be worked out through the design process.

We suggest that the proposed independent peer review process or a design review panel will add no value above the current process and will increase costs and red tape. For instance,

costly re-work of documentation is a likely outcome based on differing interpretations of regulations, standards, and views on the quality of the design.
The interpretation of what is appropriate for a project and the correct technique to be used is subjective. For the builder, designer and assessor, it is their personal preference and experience that will determine the correct procedure in any given situation. As well, another level of approval introduces delays, costs and more red tape into the process.

We are concerned that the fourth party will have no contractual liability, and would need to be thoroughly imbued in the brief, which is problematic, given that they have not been involved in the whole process. Standards for people providing a review would have to be established with a level of competence greater than the expert team already providing design advice. The reviewer/s would also require an appropriate level of insurance.

If a design review process was to be implemented, it should be internal to the regulatory authority and undertaken by professionals, qualified in the discipline that is under review. There is a role for the ACT Government Architect, and an augmented Government Architect Office to support the Government Architect in this process, particularly to ensure impartiality and consistency of approach.

3. SUPERVISION AND INSPECTION OF BUILDING WORK

Additional construction inspection stages are supported. In addition to the completion of passive fire protection, acoustic measures, pre-and-post insulation, weatherproofing and waterproofing of wet areas, we recommend additional inspections be required for waterproofing of balconies and podiums (in addition to wet areas); roof construction; and retaining walls.

Supervision of trades is an issue that has not been addressed to date. To ensure quality outcomes, builders must provide adequate documentation to tradespeople. However, it has been mentioned by Institute members that when documentation is provided, it is not understood as an essential part of the contract. Quality outcomes rely on general conditions of contract, drawings, specifications and schedules being part of the contract. When documentation is not referred to by builders, project managers and all tradesmen, plans are not adhered to, which potentially reduces quality and confuses the attribution of responsibility for the outcome.

The Institute supports the concept of designated inspectors to independently monitor construction of high-risk work, such as apartment buildings, with the aim of educating builders and developers about their obligations under the building regulatory system. These inspectors must be qualified in the discipline under review and carry adequate professional indemnity insurance.

It is important to ensure that inspectors are not only trained to identify technical issues, but they must also be able to inspect for quality

4. BUILDERS AND BUILDING SURVEYORS LICENSING

The Institute supports the proposals for revising mandatory qualifications required to obtain a builders licence.
Better regulation is needed with regard to multi-unit residential buildings, mixed use buildings and speculative commercial buildings. The Institute believes that, only fully qualified and experienced professionals should be responsible for delivery of design services and project management for these types of buildings. Different classes of licence could be issued according to building class and size.

These classifications must be partnered with training requirements and supervised experience to be eligible to obtain a licence for more complicated building types and size. There is a need to upskill the whole industry

Training and information sharing is an area that needs to be addressed that would greatly enhance quality outcomes. There should be a mechanism where recurring problems or findings of certifiers and inspectors are relayed to industry.

The Institute would recommend that training or information sessions be held for industry to highlight problems and best practice methods on a regular basis. Certifiers, inspectors and the ACT Environment and Planning Directorate (ACT EPD) could identify issues for each session. A review panel could come up with solutions from design through to certification so the outcomes would be relevant and beneficial for the whole industry. Continuing professional development (cpd) must be linked to licensing, and ACT EPD should mandate cpd sessions for areas of greatest concern

Mandated standards for education or experience for building designers, drafters, project managers and the like in the ACT is an aspect that has been omitted from the paper. Licensing or regulation of other design professionals to have an appropriate level of knowledge and experience related to the scale of projects being delivered is considered fundamental to have – a level playing field - a balanced, fair and equitable regulatory system.

For instance, building designers are generally educated through accredited TAFE building courses and/or other construction based pathways of 2-3 years duration. The skills gained in these courses are heavily focused on smaller size building, and standard construction techniques. Typically, building designers find career paths in the largest part of the construction industry, supporting the construction of individual houses and townhouse style medium density developments. Increasingly, however, some developers are approaching building designers to undertake the design and /or documentation of larger multi-unit residential developments.

While this split of service delivery is set by the market, there is no level of consumer protection applied to the services provided by those building professionals who are engaged for projects that may be outside their level of expertise. There are also no ethical/behavioural rules, via a code of conduct or similar long held measure, which apply to building and design professionals other than architects.

The Institute believes that regulation of building professionals, whether designers, draftspersons, certifiers, or quantity surveyors is essential to provide the community protection. Regulation is particularly important for project managers as they play a major role in the process.
Regulation would provide that these professionals are educated to accredited standards, hold professional indemnity insurance, abide by a code of conduct, and undertake continuing professional development, thereby increasing quality outcomes and better mechanisms for consumer protection.

An issue that has not been addressed but should be considered in the review is the role of people offering building inspection services. These services can be offered by unqualified and ill-informed persons, to the detriment of the consumer, who may be given advice about "defects "that is incorrect.

One further aspect with regard to regulation needs to be considered and that is completing the objects of the ACT Architects Act 2004. The primary reason for the enactment of Architects Acts across Australia was the need to distinguish architects from non-architects for the benefit of potential consumers.

The ACT government has accepted the need to continue to regulate architects, which means that the Territory remains consistent with all other States and the Northern Territory.

This provides a benefit to Act consumers, as consumers have the right to know that they are getting the expertise that they have expected and/or paid for. Consumers need to be able to differentiate between the levels of skill on offer in the market, and to know that an architect is – a person with an accredited tertiary qualification to the equivalent of a Masters degree, has at least 3000 hours of supervised experience, and is examined for competence.

The Act also provides benefits for the ACT architectural profession, and the building and construction industry by enabling services to be offered interstate and overseas where there are mutual recognition arrangements in place.

Depending upon the state or territory in which an architect is registered, there are obligations relating to the holding of professional indemnity insurance, adherence to a Code of Conduct and undertaking continuing professional development. The Institute believes that each of these is a necessary aspect of a model professional regulation Act.

Currently in the ACT, the *Architects Act (2004)* has not been quite implemented in that it does not mandate these requirements. Instead:

- While an existing regulation under the Act may be used to adopt a code of conduct, the Act does not refer to a code that must be adhered to upon registration
- It requires architects to divulge to clients the level of professional indemnity insurance held (but does not prohibit that insurance being 'none', or for an inadequate amount)
- It does not mandate compulsory continuing professional development

Many architects registered in the ACT are also registered in NSW and are thereby regulated by our neighbour state's pre-requisites for registration. The *NSW Architects Act (2003*) does mandate all of the above requirements. The Institute believes that adoption of the requirements currently stipulated by the NSW Act into the ACT Act would:

- Enhance the protection of consumers in the ACT
- Be a relatively simple and cost-effective way of doing so (as existing legislative structures will require only minor modification)
- Bring consistency with the ACT's larger neighbour

Australia is in a minority among comparable countries on not having any general legal reservation of architectural function (although Australia does reserve architectural title).

Country	**Reservation of Architectural Function**	**Scope** Refer attachment for full details
USA	Reservation of architectural function provided for at state level.	Architects required for all buildings except: • Single residential, timber frame, max. 2 storey + basement • Multi residential up to 4 units, timber frame, max. 2 storey + basement • Garages and agricultural buildings
Canada	Reservation of architectural function provided for at state level.	Architects required for all buildings except: • Multi residential up to 4 units • Commercial less than 470m^2
Japan	Reservation of architectural function.	Architects required for all buildings greater than 13m high or 300m^2.
Italy	Reservation of architectural function.	Architects required for all designated buildings of heritage value (most buildings), concrete or metal structures, and buildings in earthquake zones.
France	Reservation of architectural function.	Architects required for all buildings greater than 170m^2.
Spain	Reservation of architectural function.	Architects required for all buildings except 'simple' single storey.

Further detail is provided in attachment 1.

5. CONTRACTS FOR RESIDENTIAL BUILDINGS AND BUILDING WORK

The Institute supports the following proposals:

- Clear definition of 'stages of work' and required deliverables within contracts to avoid dispute
- Removing the ability for a builder to appoint the certifier in building contracts
- Extending building warranties to include residential buildings of all sizes (currently limited to 3 storeys) and to include basement carparks

- Ongoing accountability for builders and developers who attempt to avoid liabilities arising from apartment building construction

6. PROJECT FUNDING, PAYMENT CLAIMS AND RETENTIONS

No comment

7. ALTERNATIVE DISPUTE RESOLUTION

No comment

8. BENEFITS OF FULL ARCHITECTURAL SERVICES TO BUILDING QUALITY AND MINIMUM REQUIREMENTS FOR CONSTRUCTION DOCUMENTATION

There is truth in the saying "prior preparation and planning prevents poor performance." Architects tasks are to provide the development and building industry drawings, schedules and specifications - 'the documents' - that are the necessary prior preparation and planning that prevents poor performance.

At issue in the building industry are:

- Architects are not always engaged to prepare documents for all stages of the design and documentation process and this lack of continuity is, in the Institute's opinion, one of the key contributors to building quality issues.
- Increasingly, since the advent of project management, the 'documenting architect' has not had a role in supervision, or even a quality inspection role during construction.
- Misinformation in the community and building industry that documentation issued 'for BA' is all that is required of the design and documenting architect or that the level of construction documentation can be reduced to decrease cost without impact on building quality. 'For BA' documents are insufficient for construction, in that they lack sufficient detail, the institute advocates for minimum construction documentation provided by a licensed professional

An architect's services in documentation 'for construction', describes the 'known knowns' (for example walls, windows and doors), yet there will be 'known unknowns', like latent conditions such as in-ground rock, water, and the like for which the builder will be due additional cost. There are also 'unknown unknowns' that will arise due to many factors. For example, a changed method and sequence of construction by the builder may require alternative detailed design to respond to that method or sequence. Each of the three conditions requires ongoing architect and builder communication, clarification or, in the last example, re-documentation at additional design services costs.

The Institute advocates the benefits of full architectural services from briefing - design - contract documentation to superintendence, or at least advice during construction, and advocates the benefits to building quality because we know that an architect's documents used in a contract with the continuous engagement of the design and documenting architect

throughout design and construction provides the best value for money in the long run and the best formula for a quality outcome for all.

However, some building owners/developers will still take the cheapest architects fee if the price disparity is significant, breaking continuity, rather than engaging a competent and recognised practitioner and valuing this continuity. This disparity in fees is exacerbated by the much reduced overhead costs that some project professionals/para professionals have because they are not required to undertake continuing professional development (CPD) to retain registration or to have and maintain professional indemnity insurance. Many project professionals/para professionals are not tertiary qualified in the discipline that is undertaken by them.

Where there is discontinuity of service, there is a higher risk of poor quality outcomes. While continuity of service cannot be mandated, some mechanism needs to be in place that highlights that this is a point of risk in the process, so that these risks can be managed appropriately.

A study needs to be undertaken to provide information about the source of the problem. Of the buildings bought to the attention of the ACT Government as having building quality issues, it would be of benefit to find out how many have continuity of service by the one Architect and how many have construction documentation services delivered by a different Architect or para professionals. The outcome would enable remedial action to be taken to address the problem.

The preparation of architectural Construction Documentation represents one of the major core competencies of architects. The work requires knowledge of principles, conventions, standards, applications, and restrictions pertaining to the manufacture and use of construction materials, components, and assemblies. In the documentation process, the architect must be able to make technically concise descriptions and execute drawings and other documentation for the proposed design. Construction drawings are normally prepared based on the drawings produced in design/design development, obviously this is much easier and likely to produce a higher quality outcome if you were involved in the design and design development process and have ownership in the outcome.

This knowledge and sets of skill is developed by Architects during their education and work experience and assessed during their registration process. These skills include the following:

- *Construction Detailing:*

  This is perhaps one of the most crucial skills used in construction documentation. This is because the nature and quality of architectural detailing contributes to how the building is built, what it will look like, what it will cost, how long it may take to build and contribute ultimately to the quality of the building. For these reasons, staff involved in the documentation process should have a thorough understanding of the methods and techniques used in building construction. This includes knowing how various materials are connected or attached and how they interact when brought together. An understanding of how air, water, and other elements interact with buildings is also crucial to quality construction documentation.

- *Delineation of Drawing Elements*:

  This means that documentation staff should have an understanding of how drawn objects, and relationships between drawing elements individually and collectively contribute to how clearly the overall drawing reads.

- *Architectural Processes*:

  Architects, graduate architects, drafters, CAD operators, and other documentation staff must interpret and make design decisions as they develop detailed working drawings based on design documentation supervised by the project architect.

- *Effective communication and coordination:*

  The documentation staff may work with the client, designer, project architect, project manager, and specifications staff in order to coordinate production issues and decisions. In this process, the ability to communicate effectively verbally as well as in writing is important.

To assure a project participant has these set of skills the institute advocates that only fully qualified and experienced professionals should be responsible for delivery of design services, documentation and project management for multi-unit residential buildings, mixed use buildings and speculative commercial buildings. Different classes of licence could be issued according to building class and size and education and experience. The regulation of all building industry professionals/para-professionals, and trades is an option for Government to assure participants have the relevant skills and experience to address built outcome quality issues.

The Institute believes the current system of registration for Architects should be the guide for this regulation/licensing process. This registration process is well established and underpinned by a rigorous process of accreditation required for registration. This is further supported by the Australian Institute of Architects (AIA), which runs ongoing professional development programs and events noting (this is not currently compulsory in the ACT).

We contend that unlike some other professional / para-professionals:

- Architects are already regulated in the ACT (the Architects ACT 2004).
- It is a legal requirement that any person using the title 'Architect' or offering services to the public as an Architect, must be registered with the Architects' Board in that jurisdiction including :
  - Having a recognised academic qualification in architecture or a pass in the National Program of Assessment (NPrA), or a pass in the relevant Registration Board Prescribed Examinations where offered
  - Having a minimum period of 2 years of post-graduate practical experience under the supervision of a registered architect followed by successful completion of the AACA Architectural Practice Examination (APE) and followed by examination by interview

- Applying for registration to the Architects' Board in the State or Territory in which registration is sought including an onerous process to achieve registration

Other means that may deliver Government better built outcome quality could be: qualification based selection of designers and builders; examination of fair trading practices in the building industry; and examination of balanced and insurable conditions of contract for use in the building industry.

9. FURTHER INFORMATION

The Institute is grateful for the opportunity to present its views on improving the ACT building regulatory system.

If you would like further information on any aspect of this submission or on related matters, please contact the ACT Chapter Manager, Leanne Hardwicke on (02) 6121 2010 or email: leanne.hardwicke@architecture.com.au

Attachment 1

Reservation of architectural function in Australia and other jurisdictions

AUSTRALIA

Australia's relatively free market for building design services brings choice to consumers – and likely influences prices for design services – but also brings risk. Firstly, domestic and small business consumers may not be fully aware of the distinctions between architect and building designer, and may not take account of the experience and quality assurance that the architect registration process provides. Secondly, there is a risk that work undertaken by a building designer will lead to problems down the track – particularly for more complex buildings – as poor design features and limited functionality become apparent over time. This could include, for example, sub-optimal planning responses and construction detailing. Non architects can offer cheaper services as they do not need to amortise the costs of a 5 year education and 2 years minimum supervised experience; costs of registration, continuing professional development and Professional Indemnity insurance – ie the costs associated with being an independently accredited and recognised professional.

Australia is in a minority among comparable countries on not having any general legal reservation of architectural function (although it does reserve architectural title).

NSW PLANNING REQUIREMENTS

SEPP65 is a NSW planning policy that is a step towards reservation of architectural function and is generally regarded as yielding positive outcomes. SEPP65 has three main pillars: design guidelines for units, architect involvement, and the option of peer review through design panels.

In terms of advocacy, therefore, one starting point would be adoption of measures akin to SEPP65 on a national basis. However, SEPP65 seems anomalous internationally in applying specifically to apartment (BCA Class 2) buildings and not to other communal dwellings. For example, why would it not apply to aged care facilities, hotels/hostels or large scale townhouse developments, or for that matter to schools and hospitals?

It may be worth considering for Australia something like the Canadian Architect's Acts, which specify a matrix of classes and sizes of building reserved for architects. As one example, Australian legislation could specify a public building (BCA Class 9) that is more than two stories or 300 square metres should require the involvement of an architect, and so on for classes 2-8. The actual classes called up and the scale of building in each class reserved for architects would obviously require expert input and wide consultation.

USA

Reservation of architectural function is provided for at the state level. In California, for example, architects are required for all projects other than –

- single-family dwellings of wood frame construction not more than two stories and basement in height;
- multiple dwellings containing no more than four dwelling units of wood frame construction not more than two stories and basement in height;
- garages or other structures attached to buildings described above, of wood frame construction not more than two stories and basement in height; or
- agricultural and ranch buildings of wood frame construction, unless the building official having jurisdiction deems that an undue risk to the public health, safety, or welfare is involved.

CANADA

Reservation of architectural function is provided for at the state level. For example, in British Colombia an architect must be engaged for any –

- commercial building greater than 470 square metres in floor area;
- residential building with 5 or more units;
- hotel with 11 or more guest rooms;
- school;
- public building exceeding 275 square metres or exceeding 235 square metres if more than one storey; or
- hospital or aged care facility with more than 12 beds.

JAPAN

In Japan, only a 1st-class Kenchikushi (the closest equivalent to an architect) can design and perform construction administration for a building greater than 13m in height or greater than 300 square metres in floor area (or any wooden building greater than 13m in height or 1000 square metres in floor area) or any building to be used as a school, a hospital, a theatre, a grandstand, or a public hall.

ITALY

In Italy, engaging an architect is mandatory for work on all designated buildings of heritage value (the mainstay of the local architectural sector), metal or concrete structures, or buildings situated in earthquake zones.

FRANCE

In France, buildings larger than 170 square metres require the planning application documents to be produced by an architect (this does not exactly align with floor area as certain areas are excluded and others are included according to specifics such as intended use of the space).

SPAIN

In Spain, only qualified architects are allowed to design new buildings, other than one storey buildings of 'technical simplicity', or to oversee major renovations that alter façades, structure, building services, etc.

At the same time, a number of European countries do not protect the architectural function, including Greece, Austria, Holland, the UK and all the Nordic countries. Germany does not have national protection of architectural function; however in practice the profession is protected by the building acts of most Lander, which dictate that for complex construction projects only a registered architect or engineer may submit permit applications.