

RESPONSE TO THE PRODUCTIVITY COMMISSION DRAFT REPORT OF THE REVIEW OF LEGISLATION REGULATING THE ARCHITECTURAL PROFESSION

The Productivity Commission has received a wide range of submissions – written and verbal – and consulted widely with various sections of the building industry and architectural fraternity.

At the end of the day the Commission has to determine if regulation of the practice of architecture is of benefit to the community or not.

The Commission has highlighted many shortcomings of the present method of regulation of the industry. In fairness it is probably true to say that in general terms the deficiencies are no worse than those that apply to the regulation of the practice of law or medicine or indeed to the installation of plumbing or electrical fittings in a house.

Registration of itself is no guarantee that the end product will be satisfactory to the consumer. There is no shortage of examples of registered doctors, lawyers, architects, builders and plumbers being prosecuted for malpractice.

We need to ask the question then – what is the purpose of registration? Registration is no more and no less a "licence to practice" issued to a person or entity, that in the opinion of the certifying board or entity is fit to practice the profession or trade in question.

A qualification in law, architecture, medicine, plumbing or building is a recognition of knowledge, whereas a registration or licence to practice is an indication of a much wider skill – that of putting the knowledge into practice in a responsible way. Registration or licensing therefore is usually only available to suitably qualified people at the end of some sort of practical experience or indenture period.

In motoring terms, a degree in law, architecture or medicine, or a diploma in plumbing or building are the equivalent of gaining a "p" licence. At the completion of a further period of practical experience a "full" or "open" licence is issued.

There is no guarantee that the driver with the "open" licence is necessarily a very good driver - but rather on balance is a person more skilled and experienced at driving than a person without a licence.

None of us would knowingly hand the keys of any car to an unlicensed driver.

The manager of a motor racing team such as Ferrari is going to be even more cautious about handing over the keys of a Formula 1 car. He is going to ask for a licence or registration certificate a little more substantial than an "open" Department of Transport "A" licence.

In the end, what we are talking about is "risk management". The higher the risk, the greater the need to put in place appropriate measures to manage (as opposed to eliminate) the risk.

Design and construction activities are not without risk. These risks include:

- Failure on the part of the client to adequately define his needs.
- Failure on the part of the client to understand the limitations of what the design and construction process can achieve.

- Failure on the part of the client to understand that a change of mind or a change of scope of work may have serious cost implications and in addition, may delay the project.
- Failure on the part of the designer (architect, engineer, draftsman) to understand the client's needs.
- Failure on the part of the designer to understand the cost implications of his/her design.
- Failure on the part of the designer to understand the limitations of the construction industry to achieve the design intent.
- Failure on the part of the designer to make use of new technology in material science, manufacturing technique or construction technology to optimise cost for his/her client's benefits.
- Failure on the part of the designer to understand the limitations and ramifications imposed by the various codes and standards that apply to the physical building, the construction process and the end operation of the facility.
- Failure on the part of the designer to understand that changes of mind and changes of scope can have serious consequences for the builder and owner.
- Failure on the part of the builder to understand or interpret correctly the documentation produced by the designer.
- Failure on the part of the builder to adequately price the scope of work envisaged in the design documentation.
- Failure on the part of the builder to understand the market forces, the manufacturing industry supply capability and a whole raft of events beyond his control that can impinge on cost and time components of the project.
- Failure on the part of subcontractors to meet time, cost and quality parameters defined in documentation issued to them by the builder.

Traditional procurement of building services on a "hard dollar" basis in which the owner engages an architect, a designer or an engineer to design his building, house, factory, etc., leaves the bulk of the risk with the owner.

Under this method the designer is usually engaged on a percentage fee. If there are cost escalations for whatever reason, the designer may even get an increased reward. If the designer or owner changes the scope of work the cost can only be passed back to the owner. If the design is deficient or inaccurate, or misleading, again the costs have only one place to go – back to the owner.

Most owners – especially for residential projects – have little chance of retrieving cost overruns from the designers – even when it is clearly their fault. The hard dollar builder is a "dumb builder". He prices what is shown on the contract drawings and charges for anything else as a variation.

For Design Construct (D&C), Build Own Operate (BOO), Build Own Operate Transfer (BOOT) or other variants such as Private Finance Initiative (PFI) and Private Public Partnership (PPP) the risk outcome is quite different. The risk to a large extent is transferred from the owner to the builder.

Contracts of this sort are usually "fixed price" except for changes to the scope of work initiated by the client.

The builder is the one in the hot seat as far as quality, time and price are concerned. Naturally enough, the builder needs to manage the entire process to control his risk. The builder engages the design team – whether they be architect, engineer or draftsman and the builder carefully selects his subcontractors.

Architects will be chosen on reputation, experience in the particular field of the project and, most importantly, on in-house quality assurance programs and a suitable level of professional indemnity insurance (PI).

It is most unlikely for a reputable builder to consider the engagement of anyone other than a registered architect or a chartered engineer for professional services because it is unlikely that anyone else will be able to satisfy the PI requirements.

The consultants are usually engaged on a fixed fee arrangement with a bonus payable if the actual construction costs are below the estimate.

Who then are the clients of designers who need the benefit of competition and the assurance of quality of service?

It is clearly not the major D&C, BOO, BOOT, PFI and PPP contractors. They are quite capable of developing their own registration standards if they have to. By and large they are probably satisfied with the present arrangement. They are responsible for the bulk of the public and private major projects.

This leaves the clients who choose to go down the traditional "hard dollar" route of engaging consultants to act on their behalf – basically some smaller government instrumentalities, smaller commercial and industrial owners and private residential owners.

These arguably are the clients least able to know their way around the industry and be able to make informed decisions.

For homeowners it will be the largest purchase of their life time – and they will not be able to see the end product in a showroom or drive it around the block. They are flying blind!

They have the same problem that most of us have when it comes to choosing a medical specialist – they simply do not have (in most cases) the knowledge and experience to make an informed judgement.

Thankfully, building buildings is rarely a matter of life and death, and a poor choice of architect or engineer or quantity surveyor is rarely fatal.

However, there is a lot to be said for some sort of registration process to give the consumer some reasonable assurance that the provider of the services not only has a theoretical knowledge of the business, but has a "licence to operate" based on a number of practical aspects of design, management, construction and accountability.

The fact that the present system is far from satisfactory is hardly surprising considering the number and make-up of the present registration boards.

The Productivity Commission in its draft report is suggesting the abandonment of registration entirely. The Commission is in danger of throwing out the baby with the bath water in this approach.

The system certainly needs a complete overhaul and there is no earthly reason why one measure of competency should not suffice for the whole of Australia.

I agree entirely with the concept of the "board" or "registration entity" having a diverse make-up representing a full spectrum of stakeholders in the construction business. The UK model may be a good starting place from which to develop an Australian model.

I also believe that there needs to be some caution in the terminology used by people to describe their services. Calling oneself a doctor or an architect on the golf course is entirely their own affair, but to purport to be an architect, an engineer or a doctor (medical) on a letterhead or during the course of business is another matter. The public has a right to expect that professional providers of service are competent and that an engineer is an engineer rather than a motor mechanic or a fitter and turner.

Whilst an informed client is not going to be taken in by a "dodgy" practitioner, an uninformed client about to embark on the procurement of his dream home may well be.

As far as competition is concerned, there is no shortage of qualified architects and engineers in the market place. Only the unwary and uninformed clients pay "too much" in such a situation.

One problem I see in the industry – from my position in a very large Design and Construction company – is that architects and, to a lesser extent, engineers are more likely to underestimate their fees "in order to get the job" – than to overestimate or overcharge.

The reality then is that the consultants cannot afford the time to design, evaluate, redesign and refine the design in order to optimise the time, quality and cost equation with the builder.

To put it into perspective let us consider the cost of an architect's fees in relation to the capital and operational cost of a public facility such as a hospital.

For example, a 250 to 300 bed community hospital will have a capital cost of approximately \$100m.

The operational cost over the hospital's first 20 years will be approximately \$2,000m \pm 5% depending on the efficiency of the design. The range of operational cost is therefore from \$1,900m to \$2,100m. The architectural fees payable for the design of the facility will be in the range of 5% to 8% of the capital cost depending on how competitive the market is. In dollar terms, this equates to \$5m to \$8m.

It can easily be seen from this that competition or rather over competition in the design market may well be totally counter productive from the client's point of view. A saving of \$3m in fees up front can easily be dwarfed by a blow out in operational cost through inadequate exploration of operational alternatives.

If the hospital in question were to be procured through a BOO, BOOT, PFI or PPP process, then the whole of life (20 years in the above case) cost would be managed by the BOO, etc., contractor or consortium. As noted elsewhere, under this arrangement the consultants (engineers and architects) may well be engaged on a fixed fee plus bonus arrangement.

Most of the major Design and Construct (etc) builders use outside consultants for the design aspects of projects. Lend Lease is perhaps the only exception – having from time to time its own in-house design team.

Other companies usually have in-house "design managers" who may be architects, engineers or building graduates. Such staff are usually covered by PI. Registration of in-house architects is usually regarded as beneficial in negotiating PI premiums.

As noted in my written submission to the Productivity Commission in November last year, the design and construction industry is undergoing significant change. This is driven by the

need to reduce the cost of owning and operating infrastructure in Australia in order for Australian companies to remain viable in the Global Market Place.

Thiess – the largest multi-discipline construction company in Australia aims to secure at least one third of its business from overseas operations. It currently has projects in Indonesia, New Zealand, South America, the West Indies and Malaysia. It can only compete in overseas markets whilst it has a successful business "at home".

Its success "at home" has been achieved in a highly competitive market place through innovation. It employs more professional architects, engineers, building graduates, legal staff, accountants, and human services graduates than any of its competitors by a long margin. It delivers over 80% of its projects on a D&C, BOO, BOOT, PFI, or PPP basis. This will be a continuing trend for the industry as a whole.

Thiess has a very keen interest in the training and accreditation of its staff at all levels. It prides itself on its programs for the training of indigenous Australians in remote areas. It has developed exchange programs internationally for technical and administrative staff. It offers scholarships to foreign students to train in Australian Universities; and it has a joint venture with the University of Queensland to provide modules of industry experience to undergraduate engineering students. The University and Thiess interchange staff as part of the process.

I would see programs of this sort to be equally applicable to the development and accreditation of architects wanting to contribute to, and participate in, design and construction in the future.

Current registration, as the Commission has rightly concluded, is irrelevant to the future of the business and I would suggest that no registration is potentially irresponsible. What I believe we can do collectively is simplify the process and introduce a strong element of applied architecture to improve the efficiency of the whole design, construction, ownership and operation equation – not just "mess about" with one element at a time. Architecture needs to be "re-engineered" or even "value engineered" in modern management parlance.

Whether "registered", "chartered", "accredited" or "licensed to operate", architects under this program will be relevant to the future, will be eminently employable, and will deliver better value to their clients.

The "one off" or "occasional" users of such architects will have a "quality certification" that the person he engages has been tested in the market place by a bunch of hard nosed business people and other professionals. The present system or no system cannot do that.

As before, I would be pleased to discuss the above matters with you. The opinions are mine and do not necessarily reflect the opinion of Thiess as a whole.

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