Professional ethics in the South African construction industry

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Professional codes of conduct have developed to reflect the parameters of normative behaviour within which members of the professions should operate. The professional responsibilities and obligations of members toward their peers, their clients and the general public are usually delineated within these codes of conduct. An overview of business and professional ethics within construction is provided and the ethical issues facing South African construction professions are summarized. Specifically, this paper addresses ethical issues with regard to the breach of professional responsibilities and obligations to clients and the general public, as evidenced from a questionnaire survey of architects, contractors, quantity surveyors and consulting engineers. The survey findings indicate that, notwithstanding noticeable breaches, the professions take their responsibilities and obligations seriously, and regard a balance between their obligations to clients and the general public as paramount. Breaches in professional responsibilities include conflicts of interest and the divulging of confidential and proprietary information to a third party; both professionals and clients are guilty of such breaches.

Keywords: architects, business ethics, codes of conduct, consulting engineers, ethics, personal ethics, professional ethics, professional responsibility, quantity surveyors, South Africa

Les codes de bonne conduite professionnels se sont développés de façon à refléter les paramètres du comportement normatif dans le cadre duquel les membres des professions libérales doivent exercer leurs activités. Les responsabilités et les obligations professionnelles des membres vis-à-vis de leurs pairs, de leurs clients et du grand public sont habituellement définies dans le cadre de ces codes de bonne conduite. Un panorama général de l'éthique professionnelle et des affaires dans le secteur du bâtiment est fourni et les problèmes éthiques auxquels sont confrontées les professions du bâtiment en Afrique du Sud sont y sont résumés. Cet article aborde plus précisément les problèmes éthiques concernant le nonrespect des responsabilités et des obligations professionnelles à l'égard des clients et du grand public, suite à une enquête par questionnaire auprès d'architectes, de promoteurs, de métreurs-vérificateurs et d'ingénieurs d'études. Les résultats de cette enquête indiquent que, nonobstant d'évidentes violations, ces professions prennent leurs responsabilités et leurs obligations au sérieux, et considèrent comme primordial un équilibre entre leurs obligations envers leurs clients et envers le grand public. Les manquements aux obligations professionnelles incluent des conflits d'intérêts et la divulgation d'informations confidentielles à un tiers. Les professionnels comme les clients sont coupables de tels manquements.

Mots clés: architectes, éthique des affaires, codes de bonne conduite, ingénieurs d'études, éthique, éthique personnelle, éthique professionnelle, responsabilité professionnelle, métreurs-vérificateurs, Afrique du Sud

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Introduction

Various business and professional ethical issues face the construction industry. These include those associated with conflicts of interest, customer needs and service, fair competition and compensation, and professional integrity and responsibilities. The construction industry is characterized by increasing fierce competition amongst and between professionals and contractors. Such competitive behaviour among participants in construction development has the potential to engender unethical behaviour in the relationships between professionals, their clients and the supply chain. The professional code of ethics pertaining to the construction industry assumes that professionals remain independent, objective, and avoid conflicts of interest which may threaten the credibility of the information they provide and the manner in which they conduct their professional duties.

The need for professional codes of ethics is emphasized by Davis (1991, p. 153) who notes that:

the code is there to protect each professional from certain pressures (for example, the pressure to cut corners to save money) by making it reasonably likely ... that most other members of the profession will *not* take advantage of their good conduct.

In addition, Davis notes that a code protects members of a profession from certain consequences of competition and offers a solution to coordination problems. He suggests that having a code of ethics allows an engineer to oppose pressure to produce substandard work not merely as an ordinary moral agent, but as a professional. Neil et al. (2005) note that the US public accounting profession is limited in its ability to serve the public interest by its Code of Professional Conduct in three respects: the code is input-based, requires no third-party attestation of compliance with the code, and contains no public reporting process of code compliance/non-compliance at the accounting firm level. Neil et al. propose that the accounting profession should modify its largely input-based Code of Professional Conduct to include output-based performance measurements.

Hamilton (2001) affirms that professionals have roots in guilds that promote the positive values of collegiality, concern for the group, and self-regulation. Harshman *et al.* (2005, p. 230) conceptualize the relationship between a profession and society:

as a social contract whereby the members of a profession agree to restrain self-interest, to advance the ideals of public service, and to maintain high standards of performance, while society, in exchange, permits the profession substantial autonomy for self-regulation through peer review.

Further, Harshman et al. (2005, p. 230) stated:

With these privileges, come responsibilities. These responsibilities are reflected in statements of ethics and codes of professional conduct, derived from the profession's duties under this social contract.

Hamilton (2001) maintains that to preserve the social contract and thus autonomy, the profession must articulate clear principles of professional conduct and hold members accountable for adhering to these principles.

In South Africa, professional bodies are regulated by Acts of Parliament, and the provisions of the Council for the Built Environment (CBE) (Republic of South Africa: Government Gazette, 2000a), which provide for a Professional Ethical Code of Practice. Pearl *et al.* (2004) review and analyse the professional codes of ethics of the various built environment professionals in South Africa and make a number of observations:

- the promotion of health standards, safety, environmental protection and the maintenance of a sustainable built and natural environment key ethical objectives in the CBE Act are insufficiently addressed by the individual professional codes
- most codes comprise a high proportion of administrative procedures which the various Councils need to adopt when applying their rules
- the documents evince *few* examples of appropriate rules delineating competency and performance standards for registered professionals

Within the context of business ethics and professional ethical codes of conduct, the present paper concentrates primarily on the professional obligations and responsibilities of four key professions within South African construction industry: architects, quantity surveyors, consulting engineers and contractors. The abovementioned professions are regulated by statutory councils and associated codes of practice which define responsibilities and obligations vis-à-vis the professions, clients and the general public (Pearl *et al.*, 2004).

South African context

No consideration of professional ethics within the South Africa construction industry would be complete without contextualizing the discussion within South Africa's apartheid past. South Africa is both a First World and a Third World country, where affluence and poverty co-exist. Despite significant changes within the country resulting from the dismantling of apartheid, since the late 1980s there has been little progress towards improving the low overall income levels of the majority of people and addressing the highly skewed income distribution between the different race groups. Unemployment (i.e. no formal job opportunity) is purported to be at 41% of the economically active population (Statistics South Africa (StatsSA), 2004). Income levels in South Africa still show extreme racial disparities, although these are improving slowly. It is estimated that 40% of the South African population lives below the minimum living level ('the breadline'). In a research project undertaken by the Bureau for Market Research (2000) it was established that 18 million people out of South Africa's population fall below the minimum level and that between 8 million and 9 million Blacks are 'completely destitute'.

The construction industry plays an important role in the South African economy. Given its colonial past, the formal sector of the South African construction industry is rooted in British practice. More particularly, it largely follows UK practice with regard the professional roles and responsibilities, structuring of the industry, contractual law, and procurement. The demand side of the industry is characterized by both public- and private-sector clients. The former, functioning at local, provincial and national levels, accounts for 30% of the output of the construction industry with a further 13% from public corporations (*parastatals*). In contrast, the private sector is responsible for 58% (Van Wyk, 2003; Construction Industry Development Board (CIDB), 2004).

Investment in infrastructure is seen as a key driver of economic growth, in that government spending improves infrastructure and in doing so enables the efficient delivery of other services, reduces business costs, and so acts as a catalyst for a higher economic growth and employment creation (National Treasury, 2004). Thus, the construction industry is seen as the principal means by which much of this infrastructure is provided and a prime target where the preferred new equity and redistribution policies can be implemented.

The construction industry accounts for some 5.1% of gross domestic product (GDP) (Construction Industry Development Board (CIDB), 2004) and contributes about 30% to gross fixed capital formation (GFCF). The industry currently employs approximately 1 million people (520 486 formally and 470 514 informally), of which the formally employed constitute 5.1% of the total formally employed population (Van Wyk, 2003). The construction industry's contribution to capital formation is set to increase drastically if projections of future infrastructure provision are realized

(Department of Public Works (DPW), 1997) and this is expected to impact dramatically on employment. The government's own expectations are that 65% of the 1 million jobs that the government has committed itself to creating over the next five years will be generated through labour-intensive infrastructure development (Van Wyk, 2003). This development activity will be almost wholly construction-driven.

Since 1994, a deluge of legislation has been passed by government as it has sought to redefine the social contract between government and the governed (and through this the business climate). Much of this is non-sector specific, although a number of acts and regulations are specifically aimed at the construction industry, most notably The Construction Industry Development Board Act of 2000 (Republic of South Africa: Government Gazette, 2000b), which established a Board with a mandate to reconstruct, grow, and develop and transform the construction industry in line with the government's Growth, Employment and Redistribution (GEAR) strategy (National Treasury, 1996). At a more general level, a large number of acts and regulations have been gazetted, of which the two most important for the construction industry are as follows:

- Broad Based Black Economic Empowerment Act (2003) (Republic of South Africa: Government Gazette, 2000c), which enables government to adopt practices that promote the empowerment of previously disadvantaged groups in society
- Preferential Procurement Policy Framework Act (2000) (Republic of South Africa: Government Gazette, 2000c), which allows for a preference in the allocation of public-sector contracts to protect and advance the interests of previously disadvantaged groups in society

The position taken by government is that addressing unemployment and poverty requires the empowerment of disadvantaged individuals (i.e. equipping them with adequate knowledge and skills) and further investment in the development of human capital. These can be achieved, albeit partially, through affirmative action in the South African construction industry and other industries. Affirmative action, a deliberate intervention on the part of government in its role of client, aims at facilitating the provision, directly and indirectly, of socio-economic opportunities (e.g. skills development or employment) to individuals who, either historically or otherwise, have been denied those opportunities, and at preventing such discrimination from occurring in the future.

The South African construction industry is seen as key to furthering the government's policies (Construction Industry Development Board (CIDB), 2004). This is summed up in the government's White Paper on

Bowen et al.

Creating an Enabling Environment for Reconstruction, Growth and Development in the Construction Industry (Department of Public Works (DPW), 1999, Section 2.4) which states government approach towards the industry as a policy and strategy that:

promotes stability, fosters economic growth and international competitiveness, creates sustainable employment, and addresses historic imbalances as it generates new industry capacity for industry development.

However, a legacy of apartheid has been a skewed business ethic which was permeated by the National Party's racist policies. The issue of the prevailing (often immoral) business culture in South Africa must be viewed against this backdrop, where international sanctions resulted in a culture of valuing unethical but effective means of doing business. In some instances this could result in the prevailing ideology of the apartheid government running contrary to the interests of business (e.g. the restriction of certain skilled occupations to particular racial groups, thus impacting negatively on business efficiency). More often than not these issues were driven by a corporation's economic self-interest rather than business morality. This meant that the prevailing business ethic became one of pragmatism driven by economic selfinterest, rather than the internalization of any values shared across society. This culture of questionable business morality was exacerbated by the immoral nature of the apartheid ideology, which deliberately sought to fragment South African society and prevent the emergence of truly shared national values. The result of this was that the majority of the (disadvantaged) population considered the apartheid socio-economic dispensation to be illegitimate and thus felt no moral obligation towards it (Rossouw, 1998, citing Massie, 1993). At the same time, many of the established economic enterprises that prospered under its shadow had their consciences lulled by their success.

Rossouw (1998) identifies five stumbling blocks that impede the development of a moral business culture in South Africa: a lack of commitment to the new dispensation; the prevailing business culture; lawlessness; the role of civil society; and a scarcity of goods. A lack of commitment to the new dispensation is characterized by citizens not identifying strongly with the newly formed society, possibly adopting a wait-andsee attitude or even passively resisting as a result of feeling resentment at their hitherto privileged position being under threat (Massie, 1993) – in essence not identifying with the changes taking place, nor accepting responsibility for the survival of the new democracy.

Insofar as economic lawlessness is concerned, whilst South Africa does not suffer from a lack of appropriate laws, it largely lacks the capacity to enforce these laws effectively, and the expertise to identify and prosecute the perpetrators of serious economic offences. The role of South African civil society in promoting and entrenching ethical social and business values has been eroded by virtue of the previous regime systematically undermining the very development of civil society.

A Department of Public Works (DPW) (2002) review of the construction industry revealed, *inter alia*, that:

- clients are often dissatisfied with the quality of the level of service of the built environment professionals
- there is a decline in demand for construction goods and services which has resulted in increased competitive pressure for work and a decline in fees earned by professionals
- the trend of clients accepting lowest cost tenders is encouraging a situation where quality assurance procedures and site supervision are inadequate, resulting in a further overall decline in quality
- contractors are facing increased competition due to the long-term real decline in demand, and many contractors have responded by shedding labour

Although the literature concerning general ethical practices in South Africa is somewhat sparse, the Public Service Commission, in collaboration with KMPG and Transparency South Africa conducted research in 2001 and 2002 on the impact of professional ethics awareness on the public service (Department of Public Service and Administration, 2003). The findings emanating from this research indicate that most public and private sector organizations have some form of 'ethics code'. However, the study showed that many organizations have failed to integrate ethics management into their existing business and management processes, and that financial risks are still given far more attention than 'reputational risks' and that a reluctance to enforce ethics codes is a problem in the public service.

Business ethics and its implications

Over the last 25 years, emphasis on ethics within business and industry generally has greatly increased. Researchers and managers have monitored the evolution and consequences of corporate ethical performance with increasing interest (Hood, 2003). This interest is generated by numerous factors, such as diminishing confidence in ethical corporate practices and a greater emphasis on quality of life (Carlson and Perrewe, 1995). Carey and Doherty (1968) noted that the general public are increasingly interested in understanding the nature of corporate ethics due to the knowledge that unethical decisions and activities frequently undermine the performance and abilities of many organizations. Over the past decade, various factors have brought ethical matters into critical focus (Hartman, 1998, p. 122), including:

- *globalization*: global expansion has brought about greater involvement with different cultures and socio-economic systems
- *technology*: the added capabilities of technology have brought a new level of transparency and immediacy to business communication
- *competition*: increasing competitiveness gives rise to added pressure to cut corners
- *public perception and the law*: there is a perceived decline in social ethics that yields uncertainty

It is important that those in business recognize the farreaching consequences of unethical behaviour, such as those identified by Reitz (1998):

- *rigidity in future negotiations* unethical behaviour has a personal cost for negotiators. If their lies, deceptions and 'puffery' yield high-outcome agreements, they will repeat those behaviours in subsequent negotiations, because such actions have paid off.
- a damaged relationship with the opponent unethical behaviour also mars the relationship between participants, causing emotional fallout (such as anger) as well as increased operational costs.
- *a sullied reputation* seldom do victims of unethical behaviour keep their own counsel or hold their tongues, and are, at times, likely to embellish. Thus, a reputation for unethical behaviour can permeate the business environment and precede or accompany the perpetrator.
- *lost opportunities* the most detrimental effect of unethical behaviour is realized in the negotiation process itself.

As illustrated by Petrick and Quinn (1997), unethical behaviour can produce additional negative costs at personal, group, and organizational levels, such as: increasing customer dissatisfaction; decreasing productivity and profitability; low morale and organizational cynicism in the workplace; increasing disregard for methods and procedures; a lack of cooperation as workplace fear and distrust mounts; projects over-run time and budget constraints; and increases in employee substance abuse and absenteeism.

Business professionals often have to deal with ethical problems whilst engaged in their professional activities (Fan et al., 2001). One reason for this is the realization that good ethics is good business and that, in fact, ethical decision-making can have a positive influence on profits. Another reason is the mandate of social responsibility that has evolved from public pressure to perform ethically (Dean, 1997). The consequences of an individual's direct and indirect perceptions and behaviour directly affect the organization. Furthermore, personal judgement based on internal criterion systems reflect one's true beliefs and values, which serves to act as a reflection of the organization's image (Christabel and Vincent, 2003). During the 1980s and 1990s, dishonourable conduct has challenged the ethics of business-oriented professions.

Any organization that wishes to survive and flourish must be in constant and dynamic interaction with the wider environment. An organization that constantly creates a negative ethical impact may encounter a diminishing market for its services and withdrawal of public approval. The potential for illegal and unethical behaviour within business to impact adversely the welfare of society is great. As Schochet (1979, p. 22) observes, the importance of ethics in business cannot be understated as:

the consequences of corporate activity have a greater impact on lives. Business is becoming as much a social institution as an economic one.

Professional ethics in construction

Professionals have always been linked with the notion of 'service'. This perceived relationship provides the basis for those who describe a profession as a group of people organized to apply a body of specialized knowledge in the interests of society (Appelbaum and Lawton, 1990). Savan (1989, p. 179) supports this view in describing professions as 'groups that apply special knowledge in the service of a client'. Bowie (1991) argues that this altruistic spirit of a genuine profession cannot be achieved without an ethics component.

Bayles (1989) defines professional ethics as a system of norms. It therefore deals with both the morality and behaviour of professionals in their day-to-day practice, and ascribes moral responsibility to all professionals practising in a particular profession rather than to an individual. This automatically ties up with the more practical concepts and expectations of the public, encompassing issues such as competence, responsibility and willingness to serve the public (Carey and Doherty, 1968).

Bowen et al.

As the number of professions and professionals increase and the work environment becomes more ethically sensitive, the adoption of ethical principles and the enforcement of standards become matters of increasing societal importance (Fan *et al.*, 2001). Thus, when lapses in ethical behaviour occur, the credibility of the entire profession is jeopardized. The problem facing any professional community is one of ethical quality control: how can a professional community regulate itself effectively simultaneously to justify its autonomy and ensure that its clients, and society as a whole, are not victimized but enriched by the activities of both the profession and the professionals? (Brien, 1998).

The architectural profession has examined its own ethical position in response to a belief on the part of many that the moral mission of architecture in terms of its relationship with society has declined over the past three decades (Spector, 2001). Spector (2005) focuses on codes of ethics and coercion in the architectural profession in the US, claiming that codes of ethics are largely devoted to instructing the membership to obey the law. As such, these codes of ethics are regarded as adding little value to architects in terms of the 'struggles within the profession'. Spector argues that one should not assume that everyone within the profession is largely of one mind and that an appropriate question to ask of a code would be 'whose values does it serve?' rather than 'what values does it express?'

In South Africa the professional Acts regulating the built environment professional sector were totally overhauled in the late 1990s, with a new suite of professional Acts promulgated in 2000. The Acts are organized under the Council for the Built Environment, empowered as the umbrella body for the sector. One of the primary functions of this organization is to promote and protect the interests of the public by applying ethical standards in accordance with the tenets of a sustainable built and natural environment.

A primary feature of this suite of Acts is the necessity for each professional body to draft a code of conduct applicable to its members. This document is commonly referred to as a code of ethics. Several studies (e.g. Benson, 1989; Trevino, 1990; Weaver, 1993; Kohls *et al.*, 1999) confirm that many large companies, as well as industry and professional associations, have prepared codes of ethics or codes of conduct. In this regard, Ferrel and Fraedrich (1991, p. 110) observe:

A profession's code of ethics is perhaps its most visible and explicit enunciation of its professional norms. A code embodies the collective conscience of a profession and is testimony to the group's recognition of its moral dimension.

Such a code is generally accepted as a means of assuring the public, clients and colleagues that members of a

profession are competent, have integrity, and intend to maintain and enforce high standards (Ward, 1993). Apart from convincing external parties of the integrity of the profession, codes play an important role in forcing members of a profession to consider their values (Meyers, 1987).

According to Davison and Kock (2005) a profession enjoys the following advantages when implementing a code of ethics: clearly defined ideals and responsibilities for the profession; a *de facto* regulatory effect; protecting both clients and professionals; an improved profile; practitioners motivated and inspired by a clearly identified *raison d'être*; guidance for acceptable conduct; raised awareness and consciousness of issues; and improved quality and consistency.

Davis (1991) gives four reasons why professionals should support their professions' codes of conduct. First, it helps protect them and those they care about from being injured by the actions of other professionals. Second, it assures practitioners of a pressure-free working environment where they can decline tasks about which they are uncomfortable. Third, a code helps to ensure that a profession can be practised without embarrassment, shame, or guilt. Finally, a code of ethics imposes an obligation of fairness on all professionals to behave in a manner consistent with maintaining these benefits for all practitioners.

Whether or not the adoption of such codes results in improved ethical conduct is open to much debate. For instance, Maitland (1985) states that the self-regulatory action of developing ethical codes of conduct represents an honest attempt to demonstrate corporate social responsibility. In this sense the corporate ethical values embodied in the code provide a foundation for the ethical climate in a particular organization. However, others, e.g. Bowie (1982) and Starr (1983), suggest that codes of ethics can be little more than 'window dressing' and self-serving, public relations efforts.

Within the construction sector contractors have been the most common focus of studies into unethical practices (e.g. Vee and Skitmore, 2003). However, other construction professions have also been involved in instances of unethical behaviour (Fan *et al.*, 2001). Such professional deficiencies have greatly tarnished the image of an industry in which professional bodies proclaim to serve the interests of both clients and the general public.

Research methodology

The survey described in this paper documents the application of professional ethics within the South African construction industry. The stimulus for this study is the paper by Vee and Skitmore (2003) conducted in Australia. Considerable debate arose about

 Table 1
 Company and professional ethical codes of conduct

	Company ethics	Professional ethics
Architects ($n = 26$) Contractors ($n = 33$) Quantity surveyors ($n = 28$) Engineers ($n = 20$)	11 (43.30%) 21 (63.60%) 13 (46.40%) 15 (75.00%)	100% 93.90% 100% 100%
Total ($n = 107$)	60 (56.10%)	105 (98.13%)

whether to modify the Australian document to suit South African conditions. The participants in the local exercise finally decided upon a two-stage approach to the study. Stage one comprised adopting the unaltered Australian survey document (with nominal changes in terms of identifying comparable local professional organizations in a few specific questions). The purpose in adopting this strategy was to facilitate the process of conducting an identical comparative study of opinions across national and geographical boundaries. The second stage of the South African study is intended to build upon the findings of the first phase in order to gain a deeper understanding of the subject within the contextual limitations that impact upon the South African construction sector.

The survey involved an initial random selection of potential participants from the listings of professional and the South African Master Builder Association membership registers. The group of respondents comprise 26 (24.3%) architects, 33 (30.9%) construction managers (mainly contractors), 28 (26.2%) quantity surveyors and 20 (18.9%) consulting engineers. Overall, 107 professionals responded to the questionnaire out of 193 mailed questionnaires, representing a 55.4% response rate. More than 94% of the respondents have over ten years' experience in the construction industry. The questionnaire comprises both open and closed questions. Closed questions are analysed using descriptive statistics while responses to open questions are compiled and presented in this paper based on the four selected groups. Key points and common themes derived from the open questions are extracted using content analysis.

Table 1 shows that 98.3% of the respondents surveyed belong to one or more professional bodies that have

Professional grouping	Professional bodies	п	%
Architects	South African Council of Architects	19	73.08
	South African Institute of Architects	9	34.62
Contractors	Master Builders Association	25	75.76
	Chartered Institute of Building	7	21.21
	Association of South African Quantity surveyors	2	6.06
	South African Council for the Project and Construction Management Professions	1	3.03
	Building Industries Federation of South Africa (BIFSA)	5	15.15
	South African Federation of Civil Engineering Contractors (SAFSEC)	1	3.03
	Personnel Board of Practice	1	3.03
Quantity surveyors	South African Council for the Quantity Surveying Profession	27	96.43
	Association of South African Quantity surveyors	3	10.71
	Royal Institution of Chartered Surveyors	1	3.57
	South African Council for the Project and Construction Management Professions	1	3.57
Consulting engineers	South African Association of Consulting Engineers	12	60.00
	South African Institute of Civil Engineers	10	50.00
	Engineering Council of South Africa (ECSA)	5	25.00

 Table 2
 Professional groupings represented by respondents

Table 3 Witnessed or experienced breaches in 'professional responsibilities'

Breach	Architects	Contractors	Quantity surveyors	Engineers	Total	Percentage of grand total
Conflict of interest	10	8	15	5	38	32.20
Confidentiality and propriety information	9	4	13	2	28	23.73
Environmental damage	9	6	7	4	26	22.03
None	5	10	2	9	26	22.03
Total witnessed/experienced	33	28	37	20	118	100.00

Architects	Contractors	Quantity surveyors	Engineers
Contractors removing trees marked for keeping	Professionals undertaking their own developments – dangerous for contractors	Revealing builders' rates to others	Officials paid to ignore environmental damage
Revealing costs to competitors or favoured contractors; removing indigenous trees because it suits the design parameters	Attitudes of all parties involved concerning environmental issues are almost non-existent, but over the last few contracts there does seem to be an improvement	Disclosure of important tenant information to competitors for a new development proposal	Councillor for the local authority is also the contractor
Specifying hardwoods; poor planning (e.g. excessive space); destroying heritage objects	Neither the client nor the employer divulges a vested interest in a project until after the agreement is entered into	On a particular contract the contractor used 'poisonous' ash as filling, which subsequently had to be removed	Consultant quantity surveyor has friends as contractors who are involved in negotiated projects
Architects' 'shop talk'	Collusion between architects and clients to squeeze the builder	Use of other designer's drawings without permission	Engineer works for the client and the contractor on the same project
Professionals specifying goods from a company in which they have an interest (without declaring it)	Professionals siding with the clients in situations of dispute, as their fees are paid by the client	Government, clients, planners or developers abusing pristine areas	Clients and consultants have mutual or personal interests in a project
Site planning that does not respect the ecology of a site	Destruction of fauna and flora	Nature and extent of an interest not disclosed	Clients revealing information to contractors prematurely
Building contractors having an interest in subcontracting companies	Disregard for municipal bylaws and regulations	Bulldozing through wetlands under the supervision of environmentalists	Divulging finances or budget to pre-tender contractors
The situation where one professional is dismissed by a client for whatever reason and another professional steps in without any reference to the first	Consultants have an interest or equity in contractors' operations; and tender prices not publicized, leading to negotiations	No disclosure of gaining approval amongst bidders and developers	Client unawareness of environmental issues
Client's common interest in conflict with the public interest	Developer and architect having the same interests	Leaking of tender information	
False promises with reference to awarding a contract and then (1) re-tendering or (2) using another contractor	Using a contractor's prices and 'shopping it' to a competitor	Client waives a consultant's copyright (documents, plans, etc.)	
Client disregard for copyright	Quantity surveyor, who is also developer, not paying what is due to the contractor	Contractor has a personal share or interest in a project	
Disclosure of negotiation fees with a client. Destruction of protected flora	Client and consultant revealing confidential information to competitors	Client divulges information to other contractors to negotiate	
Unnecessary removal of fauna and flora from a site without regard for sustainability	Contractor prices given to competitors to obtain a better price	Consultant subsequently becomes the project developer/constructor	
Disregard for fauna, and waste dumping	Client releasing tender prices to competitors and thereafter negotiating with the lowest tenderer	Client has no regard for flora	
Client leaks information to the contractor		Client and consultants differ considerably on some issues	
Contractor dumps surplus material indiscriminately Contractor destroys fauna by dumping waste Consultant gains personally from a venture		199009	

Table 4 Types of breaches of 'professional responsibilities' witnessed or experienced

professional codes of conduct. Table 2 shows that these findings span the various professional bodies within the South African construction industry and, in some instances, bodies outside of South Africa (e.g. the Chartered Institute of Building and the Royal Institution of Chartered Surveyors - both UK institutions) with affiliation to local professional bodies. In essence it can be inferred that the respondents have recourse to professional bodies that provide guidelines for business and professional behaviour and ethics; this is in addition to the 56.1% of companies, represented by the respondents, that espouse company ethics. A company could draft a code of ethical business practices to enumerate the core values of the company (i.e. the company's key beliefs and responsibilities), personal values and corporate integrity, shared responsibility to uphold responsible business practices and ethical commitments and to specify guidelines for customers, business partners, shareholders, competitors, communities and government.

Research findings

Breach of profession responsibilities in construction

Vee and Skitmore (2003) describe professional responsibilities as being a 'grey area', which may represent unethical practice under certain circumstances. Table 3 shows that 22–32% of the respondents have experienced breaches in professional responsibilities with respect to a 'conflict of interest' (32%), followed by breaches of confidentiality and propriety information (24%). Overall, 78% of the respondents have experienced one form of breach of professional responsibility or another which might tend to suggest that this should be a major concern to the industry.

 Table 5
 Witnessed or experienced instances where

 competitors have breached professional obligations to the public

	Yes	Νο	Not completed
Architect ($n = 26$) Contractor ($n = 33$)	12 (46.2%) 18 (54.5%)	13 (50.0%) 13 (39.4%)	2 (6.1%)
Quantity surveyor ($n = 28$) Engineer ($n = 20$)	10 (35.7%) 6 (30.0%)	17 (60.7%) 13 (65.0%)	1 (3.6%) 1 (5.0%)
Total (<i>n</i> = 107)	46 (43.0%)	56 (52.3%)	4 (3.7%)

Interestingly, quantity surveyors have experienced significantly greater violations of professional responsibilities than the other professions. This could be attributed to the fact that this particular profession is in greater contact with both the upstream (clients and other consultants) and downstream (contractors, suppliers, subcontractors) participants in the construction supply chain. Table 4 shows the type of professional responsibilities breached in terms of conflict of interest, the divulging of confidential and propriety information, and environmental damage.

Breaches with respect to environmental damage include unawareness of environmental issues, removal of marked trees, destruction of heritage items, disregard for environmental regulations, unauthorized removal and destruction of fauna and flora on site, and construction design specifications which include the use of hardwoods. The tables show that all parties are in breach of confidentiality and propriety information, which include divulging contractor tender information to competitors and disregarding copyright privileges. Conflict of interest encompasses the mutual interest of client and consultants in the same project, the consulting engineer working on the same project for the client and the contractor, and local councillors awarding council contracts to companies in which they have a financial interest.

Of particular concern to contractors is the leaking of tender information by clients and consultants. Architects, on the other hand, are concerned about damage caused by contractors to the environment. The various groups generally blame the clients for many of these breaches.

Professional obligations

Those affected by the activities of professionals and interacting within the structure of a profession are classified into three groups (Bayles, 1981, p. 19): 'the professionals themselves, their clients and the general public'. These three groups, as identified by Bayles (1988), are also related to the three groups identified by Raiborn and Payne (1990) to which business owes fiduciary duties, namely, the community (all people and organizations comprising the community in which an entity exists), the equity interests of the firm (i.e. professionals) and the customers (i.e. clients).

 Table 6
 Aspects of 'professional obligation' that should take precedence

Professional obligations	Architects	Contractors	Quantity surveyors	Engineers	Total	Percentage of grand total
Your obligations to the client	1	2	6	0	9	8.4
Your obligations to the public	2	1	0	5	8	7.5
Balance between both the above	23	30	21	14	88	82.2
Not completed	0	0	1	1	2	1.9

Table 7 Explanation for the 'professional obligation' that should take precedence

198

Precedence	Architects	Contractors	Quantity surveyors	Engineers
Your obligation to the client	You have their best interests at heart	For my business all work received is by referral only and without advertising. In order to produce a competitive price and a good job, the plans and specifications, etc., must be concise. This is needed because too many 'architects' do not produce sufficient detail and dimensions on the drawings, probably to limit their usable time and to deflect responsibility. Town Planning authorities and municipalities are also at fault for passing substandard drawings Ultimately the client pays and so we abide by him in order to survive	Client/customer relations. Client pays for service, which includes public obligation. Look out for the client's best interest. As a quantity surveyor my first obligation is to my client; that is why a client requires quantity surveyor services. Both are necessary, but the primary obligation is to the client and the client's interests	
Your obligation to the public	Benefit for all or the public at large	Client is financially driven with little regard for safety and environment		Public safety is non-negotiable. They are the end users
				Public interests are paramount; the client's interest is contractual The public is at greater risk if not considered
				The public effect has a greater impact on society
Balance of obligations to the client and the public	Whilst the client is represented by the professional, the wider public interest must be recognized	Safety is paramount. Client designs do not take this into account. Both are important as neither exists in isolation	The client pays you. Normal duty to the public (nation)	Ignoring Occupational Health and Safety Act (OHSA) requirements
	Because it is balanced, no party should have priority	We have a role to play in society; therefore, we should balance obligations	You may be employed by the client, but your professional integrity should never be compromised	For safety reasons
	Your primary obligation is to the client, but you owe a broader obligation to the public as a professional	You have an obligation to provide the service required by the client as well as to ensure that you abide by all bylaws and regulations as set out in the relevant Acts	Healthy balance is always required between business and public interests	Both are equally important
	It is in accordance with the Institute's code of conduct	To ensure fairness and equity in all sectors. All have equal rights. There has to be a balance for successful results	I would think that this is obvious provided you subscribe to the view that 'he who pays does not also call all the tunes'	Have an obligation to both

Bowen et al.

Precedence	Architects	Contractors	Quantity surveyors	Engineers
	The public good, the need for development, and the client's investment often clash; the professional has an obligation to all of these	Client expects a quality product and we need him in return. Safety, integrity, ISO Standards	True nature of quantity surveying is to be correct and that means impartiality	Provide a service to the client but have an obligation to the public
	Duty is to fulfil the client's needs, however at all times, within the needs of the public, i.e. not against the public good	Client, contractor, and public all have rights and all deserve fair treatment, and none should be compromised	As professionals we are responsible to both. Responsible to both parties	Our obligation is to provide the best for all
	One cannot place a client's benefits before safety and security of the general public (of which we are part)	Client has a right to develop his/her property, but not at the expense of safety. The contractor is bound by the contract but at the same time cannot flout the law in terms of safety to the public and his own personnel	Professional favours the entity that pays its fees (the client), which might prove detrimental to the public who are not party to the contract or development and, therefore, have no control over the professional's actions	The two go hand in hand
	Most clients are pretty hard on one if one does not support them unequivocally; they use the 'we are paying you so you work for us' kind of mentality	One has to be aware of both parties' requirements and ensure that the one does not override the other. The building has an impact on the public as well as on the client	Professional obligation cannot and should not be compromised	Client is also part of 'general public'
	Buildings have an impact on the public while at the same time must serve the client's interests	You have to build your company profile by being obligated to the client and the public to gain their trust	An obligation to the public is paramount, but often lobby groups go 'overboard' in resisting development	Both form part of society and the community
	It is essential to navigate between the architect and society. Both play an important role in construction when balanced	We are all in the industry to make money, but this must be balanced against offering the client a fair deal, i.e. the right quality at the right price in the required time – the public (e.g. neighbours, etc.) must be taken into account when attempting to achieve these goals	Experienced clients insisting on 'hiding' payments due to contractors despite the final account clearly showing that more money is due to the contractor	The public is what makes building profitable so both are important
	Obligations to the client have an impact on the general public	Architect manipulates the zoning condition at the expense of the environment, but to the advantage of the client	Should maintain ethics and be impartial	
	Equal responsibility as built forms impact on everyone Buildings have an impact on the	Both the client and the public are our source of work Occupational health and safety is	We have to act fairly to all parties Client often blinded by money –	
	public as they are the ones who use it (in terms of commercial buildings)	important to both the client and the public – the client must provide sufficient financial resources for this purpose	public often uninformed	

(Table continued)

Table 7 Continued

Precedence	Architects	Contractors	Quantity surveyors	Engineers
	Need to be responsible for both – both are important	Where all are affected or concerned; there should be a balance of fairness	Client obligation is paramount, provided no breach of public responsibility occurs	
	Client obligation provides work and public obligation creates good relationships	Should not differentiate between the client and the public. Neither is more important than the other	Be fair to all parties	
	Client obligation must incorporate public obligation for a positive outcome	Render service to the client, but also to the public (do not endanger them)	Fair to all. Both are necessary for a harmonious environment	
	Public and client should gain in the end. Architecture encompasses both the client and the public	It is in the long-term interest of the company, future work and company image	Contract with client and obligation to the public	
	Anything built has an effect on people and the environment	Buildings must comply with standards and regulations for safety reasons. The building has an impact on the public	To guide the client to be responsible for his/her own property as well as for public safety	
	Service to both are interlinked and equally important	Public and the client both involve people – hence, both are equally important. Need to serve both	Obligation to the client includes public obligation	

Table 5 shows that 30.0-54.5% of the groups have witnessed or experienced breaches in professional obligations to the public. A majority of the respondents (82.2%) see a balance between professional obligations to the client and the general public as being very important (Table 6). Only 8.4% of the respondents thought obligations to the client should take precedence compared with 7.5% that considered obligations to the public as being paramount. Of the nine respondents that felt professional obligations to the client should take precedence, six were quantity surveyors who reasoned that, as the client pays for the service, it was important to maintain client/customer relations and safeguard client best interests. Alternatively, consulting engineers are more concerned with obligations to the public, particularly in relation to general public safety and well being.

the balance between professional obligations to the

general public and to clients.

Table 7 evinces the reasons offered for a balance in professional obligations between the client and the general public. Most respondents believe that 'it is difficult to separate one from the other'. There are rules, regulations and standards that bind professionals and civil society which should not be circumvented despite the needs of the client; rather, the needs of the client should be accommodated within these established norms. Some respondents regard it as part of their professional responsibilities and obligations to maintain this balance which should not be compromised. One architect stated that 'client obligation provides work and public obligation creates good relationships.'

When it comes to balancing obligations, all groups consider general public safety and security as paramount. Respondents also expressed concern for the fair treatment of all and the need to protect the rights of all concerned and affected by construction development. Professional integrity is another important theme. One respondent stated that 'a professional has a duty to provide a contracted service to the client but has an obligation to the public.' Others feel that the balance is demanded by their professional charters. In order for a project to be regarded as being successfully completed and for the construction industry to receive the respect of the general public, it is important that construction client obligations incorporate public obligations. Obligation to the public, not at the expense of client obligations, is considered important for the long-term survival of a company.

Business ethics versus personal ethics

People tend to have two ethical standards (personal and professional) that may differ substantially (Tsalikis and Fritzsche, 1989). Tsalikis and Fritzsche argue that the personal level of ethics is more exacting than the professional level given that professional ethics may be compromised because of the need to succeed and to meet corporate goals. The respondents were asked whether, in a business context, business ethics (decisions which enhance the business financially, etc.) should take precedence over 'personal ethics' (how we treat others in our day-to-day lives). This question tested the claim that construction professionals apply a higher level of ethics to their personal lives than to their business or professional lives (Dubinsky and Ingram, 1984).

Table 8 shows that a majority (86%) of the respondents considered that personal ethics should take precedence over business ethics. This position, however, contradicts the Eastman et al. (1996) study which showed that insurance professionals are more likely to engage in unethical behaviour in order to benefit professionally rather than personally, suggesting that their business ethics take precedence over their personal ethics. Eight of the ten respondents who indicated that business ethics should take precedence over personal ethics were contractors. In essence, the contractors group has a tendency to place more emphasis on business ethics compliance than those dealing with personal conviction. One explanation for this could be that this group face more stringent competitive business pressure from lowest cost contract awards by construction clients compared to the three other professions. Table 9 presents the reasons offered by the respondents who claim that business ethics create good working relationships, allow work to be carried out according to the signed contract, and that personal ethics form the basis for business ethics. Alternatively, various reasons were provided (Table 9) as to the superiority of personal ethics over business ethics. Some of these reasons include statements such as: personal ethics are a foundation and integral part of successful business; this is morally right; this is about conscience; personal ethics create business success and are good for a

 Table 8
 'Business ethics' should take precedence over 'personal ethics'

	Yes	No	Not completed
Architects ($n = 26$) Contractors ($n = 33$) Quantity surveyors ($n = 28$)	0 (0.0%) 8 (24.2%) 1 (3.6%)	23 (88.5%) 24 (72.7%) 26 (92.9%)	3 (11.5%) 1 (3.0%) 1 (3.6%)
Engineers ($n = 20$)	1 (5.0%)	19 (95.0%)	0 (0.0%)
Total (<i>n</i> = 107)	10 (9.3%)	92 (86.0%)	5 (4.7%)

Precedence	Architects	Contractors	Quantity surveyors	Engineers
Yes		We believe our business comes first – it provides our 'daily bread'	There has to be morality in peoples' conduct	Reputation is affected; what comes around goes around – it always gets back to you
		Because we work according to contracts between the parties so in fairness to all, we would apply the principles of the contract If business ethics are 'correct' then personal ethics will follow automatically, and vice versa		
		Good working relationships Unethical to profit from this sort of behaviour		
		Different roles and responsibilities, therefore different ethics in business environment and personal lives		
No	The world becomes a 'free for all'	A person should stand by his/her morals and never compromise on the same even if he/ she loses a deal	It always catches up with you	You receive what you put in
	They are indivisible	People manage our industry. By compromising people, the business ethic declines	Personal ethics take precedence	People are the most valuable asset
	Personal ethics form a foundation for successful development of business trust	Formation of relationships and creation of trust is the key to future business and repeat business	Your personal value systems will dictate how you do business	Cannot have two sets of rules
	Personal ethics feed business ethics	If this was the case we would need attorneys constantly by our side, there would be no trust between consultants, contractors or clients. At the end of the day if everyone believed in business ethics only, we would have a 'dog eat dog' situation with everyone, relatively speaking, no better off	For me this is a matter of one's personal philosophy and I would find it very difficult to live and work in an environment that continually challenges my conscience. That sort of incongruence would rather have me leave the industry	Business should prosper in a healthy environment. Good business management and a successful business is one that does not compromise on ethics
	Personal ethics form an integral part of business as this influences work	The two go hand in glove if one wants to	Good personal ethics lead to good business ethics	People are what make a business successful
	How we conduct ourselves in business should carry the same ethical principles as how we behave ethically generally	maintain a good reputation The market is small and the word goes around very quickly. If it is an employee of a large firm the damage is limited, but for smaller firms clients often know who owns the business	If one acts ethically on a personal basis I am sure that one would act equally ethically on a business basis	Personal ethics govern business ethics and relationships
	You have got to have a little of both. They function side by side	Good personal ethics lead to good business ethics	The purpose of business is to enhance and develop people	Ethics are ethics, irrespective of where they are applied

Table 9 Do you believe that 'business ethics' should take precedence over 'personal ethics'?

Precedence	Architects	Contractors	Quantity surveyors	Engineers
	If your personal ethics are correct you will find that your business ethics should automatically benefit and improve your company's standing in the industry	We all tread the tightrope on a daily basis and we should all do the 'right thing'. Sometimes 'the right thing' costs the contractor a little cash, but ultimately it will benefit the contractor	No amount of money can help you live with yourself at the end of the day	Personal ethics define how I interact in business
	Personal relations are the foundation of any good business	Otherwise we would loose our sense of moral values	There is only one right	The way I treat people will determine how they respond
	Personal ethics come before business; if you are going to have two sets of ethics, how can you live with yourself?	Ethics remain ethics. Business ethics remain in the eye of the beholder, i.e. Enron, Anderson Consulting, etc.	Both are compatible, otherwise we are guilty of compromising values	Important that you treat people based on interpersonal relations, not profit
	Ethics are ethics	Personal ethics above all	People are more import than money	Ethics are ethics
	All have to make their own way in life	Personal relationships are more important	Personal ethics would impact on business ethics	People are more valuable than the task or project
	Principles of ethics form the backbone of business relationships	People are more important than money and business	Believe in fair practice	
	Personal ethics are the basis for a successful business	Personal ethics are most important. Business ethics need to fit in with personal ethics	Business ethics flow from personal ethics	
	What goes around comes around	Treat others as you would like to be treated	Business ethics are an extension of personal ethics	
	Personal ethics equals business ethics	Personal ethics should be the same as business ethics	If personal ethics are right, the business is steered in a positive direction	
	Ethics are interlinked in all aspects of life	Both involve people, therefore equally important	Treated equally	
	Personal ethics included in business ethics	Treat others as you would like to be treated in personal and business relations	Ethics deals with people irrespective of who they are	
	Business success reflects your own ethics	The bottom line should not be at the expense of personal ethics	Personal ethics reflect business ethics	
	Professional integrity	Fairness and decency first, second profit and money	Cannot differentiate between the two – ethics are ethics	
	Business is about people; hence, treat others as I want to be treated	Business ethics incorporate personal ethics	Individual brings personal ethics to work	
	Morals and ethics are incorporated in one's daily life	Good personal ethics lead to good business relationships	Personal ethics determine behaviour and values in life	
	I am responsible for my attitude and behaviour that impact on business	Compromising personal ethics could lead to a decline in business	Whatever I give out, I receive	
	Ultimate level of all ethics	Ethics cannot be defined as separate for business		
	Own personal value determines business value	Personal ethics form an integral part of oneself; one cannot separate the two		

healthy business environment; people are the most valuable asset; trust and personal relationships are more important; the need for professional integrity; fairness is most important; business ethics flow from personal ethics and individuals bring personal ethics into the work environment. One respondent commented:

A person should stand by his morals and never compromise on same even if he loses a deal.

Conclusions

From the literature it is clear that the need for construction professionals (architects, quantity surveyors, consulting engineers and contractors) to acquit themselves of their professional responsibilities and obligations cannot be over emphasized. Clients and the general public expect construction professionals to exhibit professionalism in the performance of their duties. At the most fundamental level, the client must be able to trust the professional to operate in the client's best interest, and it is the professional's obligation to do so.

This study was based on a survey of construction professionals (service providers) and as such represents their perceptions and views. It is acknowledged that these opinions and beliefs may vary from those emanating from a survey of clients or the public at large at service users). The results from this study have shown that, on occasions, professional responsibilities in relation to conflict of interest, divulging of confidential and propriety information, and environmental damage, are breached by construction professionals, with the conflict of interest being predominantly breached by clients and consultants. Respondents cited the removal of fauna and flora from the site as the most common form of environmental damage. The breach of confidentiality and propriety information includes both the client and the consultants leaking tender information to other contractors. Although Chonko and Hunt (1985, p. 341) suggest that ethical conflict occurs:

when people perceive that their duties toward one group are inconsistent with their duties and responsibilities towards some other group

the respondents are very clear where their interests lie when it comes to making a choice between personal ethics and business ethics; personal ethics will usually take precedence over business ethics.

The importance of balancing professional obligations to clients and the general public is emphasized by a majority of the respondents. The impacts on business success, profit, professional integrity and morality are some of the reasons given for achieving this balance. These findings are intertwined with the supremacy of personal ethics over business ethics in the decisionmaking processes of professionals. The respondents generally concede that their professional responsibilities and obligations are sometimes influenced by clients, particularly in relation to environmental issues and the divulging of confidential and proprietary information.

This presents a persisting challenge to professionals who are supposed to demonstrate professionalism, morality and social responsibility. In as much as the professionals have professional responsibilities to their clients, it is important that this relationship is not abused by the client. Much of the current situation could be improved by educating clients in respect of ethical behaviour in the course of construction project development. In addition, the professional bodies have a responsibility to ensure that their members comply with their professional charter of ethics.

As the conflict of interest principle is the most violated professional responsibility within the construction industry, it is important that professional bodies and business entities develop and continue to emphasize the need for policy in this regard. Such policy is required to safeguard stakeholder trust and confidence in the professional practices of the construction industry.

Finally, the entire issue of professional ethics needs to be reconsidered and expanded to encompass such issues as the role of the professions within society; resource consumption; social cohesion and equity; social health; and resilience – these are far more important (meta-level) matters for a profession to be grappling with.

References

- Appelbaum, D. and Lawton, S. (1990) *Ethics and the Professions*, Prentice-Hall, Englewood Cliffs, NJ.
- Bayles, M.D. (1981) Professional Ethics, Wadsworth, Belmont, CA.
- Bayles, M.D. (1988) Trust and the professional-client relationship, in A. Flores (ed.): *Professional Ideals*, Wadsworth, Belmont, CA, p. 67.
- Bayles, M.D. (1989) Professional Ethics, 2nd edn, Wadsworth, Belmont, CA.
- Benson, G. (1989) Codes of ethics. Journal of Business Ethics, 8, 305-319.
- Bowie, N. (1982) Business Ethics, Prentice-Hall, Englewood Cliffs, NJ.
- Bowie, N. (1991) Business Ethics as an Academic Discipline in Business Ethics: The State of the Art, Oxford University Press, Oxford.
- Brien, A. (1998) Professional ethics and the culture of trust. Journal of Business Studies, 17, 391-409.
- Bureau for Market Research (2000) The South African Provinces: Population and Economic Welfare Levels. Report No. 276, Bureau for Market Research, University of South Africa, Pretoria.

- Carey, J.L. and Doherty, W.O. (1968) *Ethical Standards of the Accounting Profession*, American Institute of Certified Public Accountants, New York, NY.
- Carlson, D. and Perrewe, P. (1995) Institutionalisation of organisational ethics through transformative leadership. *Journal* of Business Ethics, 14(10), 829–838.
- Chonko, L.B. and Hunt, S.D. (1985) Ethics and marketing management: an empirical examination. *Journal of Business Research*, **13**, 339–359.
- Christabel, H. and Vincent, N.G. (2003) Quantity surveyor's background and training, and their ethical concepts, conceptions and interest considerations. *Construction Management and Economics*, 21, 43-67.
- Construction Industry Development Board (CIDB) (2004) SA Construction Industry Status Report – 2004: Synthesis Review on the South African Construction Industry and its Development. Discussion Document, CIDB, Pretoria.
- Davis, M. (1991) Thinking like an engineer: the place of a code of ethics in the practice of a profession. *Philosophy and Public Affairs*, 20, 150–167.
- Davison, R. and Knock, N. (2005) *Professional Ethics* (available at: http://www.is.cityu.edu.hk/research/resources/ isworld/ethics/) (accessed July 2005).
- Dean, P.J. (1997) Examining the profession and the practice of business ethics. *Journal of Business Ethics*, 16, 1637– 1649.
- Department of Public Service and Administration (2003) Country Corruption Assessment Report (available at: http:// www.pmg.org.za/docs/2003/appendices) (accessed August 2006).
- Department of Public Works (DPW) (1997) Green Paper: Creating an Enabling Environment for Reconstruction, Growth and Development in the Construction Industry. Policy Green Paper, Department of Public Works, Pretoria.
- Department of Public Works (DPW) (1999) White Paper: Creating an Enabling Environment for Reconstruction, Growth and Development in the Construction Industry. Policy White Paper produced in collaboration with the Departments of Transport, Water Affairs and Forestry, Housing, and Constitutional Development. Government Gazette, 407 (20095), May, Pretoria.
- Department of Public Works (DPW) (2002) Status of the Construction Industry in South Africa, July (available at: http://www.csir.co.za/websource/ptl0002/docs/boutek/ akani/2002/jul/01.html) (accessed August 2006).
- Dubinsky, A.J. and Ingram, T.N. (1984) Correlates of sale peoples' ethical conflict: an exploratory examination. *Journal of Business Ethics*, 3(4), 343-353.
- Eastman, K.L., Eastman, J.K. and Eastman, A.D. (1996) The ethics of insurance professionals: comparison of personal versus professional ethics. *Journal of Business Ethics*, 15, 951–962.
- Fan, L., Ho, C. and Vincent, N.G. (2001) A study of quantity surveyors' ethical behaviour. Construction Management and Economics, 19, 19–36.
- Ferrel, O.C. and Fraedrich, F. (1991) Business Ethics: Ethical Decision-Making and Cases, Houghton Mifflin, Boston, MA.
- Hamilton, N. (2001) Academic tradition and the principles of professional conduct. *Journal of College and University Law*, Winter, 611–612.
- Harshman, E.M., Gilsinian, J.F., Fisher, J.E. and Yeager, F.C. (2005) Professional ethics in a virtual world: the impact of the Internet on traditional notions of professionalism. *Journal of Business Ethics*, 58, 227–236.
- Hartman, L.P. (1998) Perspectives in Business Ethics, Irwin McGraw-Hill, Blacklick, Ohio.
- Hood, N. (2003) The relationship of leadership style and CEO values to ethical practices in organisations. *Journal of Business Ethics*, 43, 263–273.
- Kohls, J.J., Buller, P.F. and Anderson, K.C. (1999) Resolving cross-cultural ethical conflict: an empirical test of a

decision-tree model in an educational setting. *Teaching Business Ethics*, 3, 37–56.

- Maitland, I. (1985) The limits of business self-regulation. California Management Review, 27, 132.
- Massie, R.K. (1993) Understanding corruption. Die SuidAfrikaan, August/September, 38-41.
- Meyers, P. (1987) Ethical Journalism, Longman, New York, NY.
- National Treasury (1996) Growth, Employment and Redistribution: A Macroeconomic Strategy, National Treasury, Pretoria.
- National Treasury (2004) National Treasury PPP Manual, National Treasury, Pretoria.
- Neil, J.D., Scott, S.O. and Jinkerson, D.L. (2005) A critical analysis of the accounting industry voluntary code of conduct. *Journal of Business Ethics*, 59(1), 101–108.
- Pearl, R.G., Crompton, D.W., Gungapersad, N. and Bowen, P.A. (2004) A critical review and evaluation of the ethical standards existing in the built environment professions. Paper presented at the 18th ICEC Congress and 4th World Congress, *Proceedings: Value Beyond Cost*, International Cost Engineering Council, Cape Town.
- Petrick, J.A. and Quinn, J.F. (1997) Management Ethics Integrity at Work. Thousand Oaks, CA, Sage.
- Raiborn, C.A. and Payne, D. (1990) Corporate codes of conduct: a collective conscience and continuum. *Journal of Business Ethics*, 9, 879–889.
- Reitz, H.J. (1998) Ethics in Negotiation: Oil and Water or Good Lubrication? (available at: http://www.findarticles.com/ cf_0/m1038/m3_v41/2082506/print.jhtml) (accessed October 2002).
- Republic of South Africa: Government Gazette (2000a) *Council* for the Built Environment Act. Act No. 43 of 2000. Government Printer, Pretoria.
- Republic of South Africa: Government Gazette (2000b) The Construction Industry Development Board Act. Act No. 38 of 2000. Government Printer, Pretoria.
- Republic of South Africa: Government Gazette (2000c) *The Preferential Procurement Policy Framework Act.* Act No. 5 of 2000. Government Printer, Pretoria.
- Rossouw, G.J. (1998) Establishing moral business culture in newly formed democracies. *Journal of Business Ethics*, 17, 1571–1653.
- Savan, B. (1989) Beyond professional ethics: issues and agendas. *Journal of Business Ethics*, 12, 179–185.
- Schochet, G.J. (1979) Social responsibility, profit and the public interest. Society, 16(23), 22.
- Spector, T. (2001) *The Ethical Architect: The Dilemma of Contemporary Practice*, Princeton Architectural Press, New York, NY.
- Spector, T. (2005) Codes of ethics and coercion, in N. Ray (ed.): Architecture and Its Ethical Dilemmas, Routledge, London.
- Starr, W. (1983) Code of ethics towards a rule-utilitarian justification. *Journal of Business Ethics*, **2**, 99–106.
- Statistics South Africa (StatsSA) (2004) Labour Force Survey (P0210) (available at: http://www.statssa.gov.za) (accessed on 2 February 2005).
- Trevino, L.K. (1990) A cultural perspective on changing and developing organizational ethics. *Research in Organization Change and Development*, 4, 195–230.
- Tsalikis, J. and Fritzsche, D.J. (1989) Business ethics: a literature review with a focus on marketing ethics. *Journal of Business Ethics*, 8(9), 695–744.
- Van Wyk, L. (2003) A Review of the South African Construction Industry, CSIR (Boutek), Pretoria.
- Vee, C. and Skitmore, M. (2003) Professional ethics in the construction industry. *Journal of Engineering, Construction* and Architectural Management, 10(2), 117–127.
- Ward, S.P. (1993) Certified public accountants: ethical perspectives, skills and attitudes on ethics education. *Journal of Business Ethics*, 12, 601–610.
- Weaver, G.R. (1993) Ethics programs in global businesses: culture's role in managing ethics. *Journal of Business Ethics*, 30(1), 3-15.