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Landscaping: An analysis of current contracting processes and documentation

Peer reviewed

Abstract

Landscape work, forms an integral part of most land development projects, whether they are building works or civil works. Environmental protection, rehabilitation and landscape beautification are nowadays considered essential aspects in land developments.

Building contracts for the construction industry have been developed over many years through the changing needs of clients and contractors, new levels of technological skills and development of new materials and construction methods. However, the varied nature and wide scope of landscape projects often make them difficult to be reconciled with standard forms of contract commonly in use in the construction industry.

This article reviews the problem areas in the field of landscape contracting and landscape maintenance brought about by a lack of suitable forms of landscape contracts/subcontracts. Standard forms of contract generally do not allow for the circumstances that are unique to landscape contracting, and this short coming is regarded as a serious problem facing the landscape industry. This article will, therefore, also attempt to address the issue of how to effectively reconcile landscape work with standard forms of contract that are generally in use in South Africa, all of which have been written specifically for building or civil works type projects.

Keywords: Procurement, building contracts/subcontracts, model documentation, landscape projects

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Abstrak

Landskapwerk vorm 'n integrale deel van die meeste grondontwikkelings projekte, hetsy bouwerk of siviele konstruksiewerk. Omgewingsbewaring en rehabilitasie asook landskapverfraaiing word deesdae as onontbeerlike aspekte van ontwikkelingsprojekte geag.

Boukontrakte vir die konstruksiebedryf is oor baie jare ontwikkel in reaksie op veranderende behoeftes van bouhere en aannemers, nuwe vlakke van tegnologiese vaardighede en die ontwikkeling van nuwe materiale en boumetodes. Die wyduiteenlopende aard en omvang van landskapprojekte maak hulle egter dikwels moeilik versoenbaar met die standaard kontrakvorms wat algemeen in die konstruksiebedryf gebruik word.

Hierdie artikel bied 'n oorsig oor die probleemareas in die veld van landskap kontraktering en landskaponderhoud wat ontstaan as gevolg van 'n gebrek aan geskikte kontrak- en onderkontrakvorms. Standaard kontrakvorms laat gewoonlik nie toe vir die omstandighede wat eie is aan landskapkontraktering nie, en hierdie tekortkoming word beskou as 'n ernstige probleem wat die landskapbedryf in die gesig staar. In hierdie artikel word die saak aan gesprek hoe om landskapwerk effektief te versoen met kontrakvorms wat algemeen in Suid Afrika gebruik word, maar wat almal geskryf is spesifiek vir bou- en siviele werk projekte.

Sleutelwoorde: Verkryging, boukontrakte/ onderkontrakte, modeldokumentasie, landskapprojekte

1. Introduction

Pleasant visual effects created by a landscaped environment can lead to an increased attractiveness to developers, tenants and buyers, which in turn can lead to increased profitability for the building owner. It has become the norm in South Africa for office developments in particular to be set in an extensively landscaped environment and for such landscapes to be maintained at a high level. Landscape work has also over time become specific 'specialist' work and within the South African context, since 1935 has evolved into an industry with a turnover of R1.314 billion in 1999 (Staples, 1999) – employing approximately 160 000 people.

The way that the formalised building industry structures and regulates itself has led to specialist subcontractors, such as landscape contractors, being involved in an ever-increasing way. However, through expedience and a lack of widely accepted alternative forms of contract, the contractual systems developed for building work have been and are still widely used for landscape work.

The intrinsic differences of working with live plant material, as opposed to the inanimate components in all other building trades, render the forms of contract and subcontracts typically used in the construction industry in South Africa¹ to some extent unsuitable for landscape work, which can lead to financial disadvantages for clients, consultants, main contractors or specialist subcontractors.

¹ Focus Group 6 of the Interministerial Task Team for Construction Industry Development recommended that only the following forms of contract be used in South Africa to comply with the provisions of Best Practice #2: Features of a modern form of engineering and construction contract. These are:

1. FIDIC (French acronym for International Federation of Consulting Engineers) 1999
2. The General Conditions of Contract for Construction Works (GCC) 2004 (Incorporating COLTO General Conditions of Contract for Road and Bridge Works for State Road Authorities 1998)
3. The Joint Building Contracts Committee (JBCC Series 2000)
4. The New Engineering Contract (NEC also referred to as the Engineering and Construction Contract ECC).

Whereas the Joint Building Contracts Committee (JBCC), which has been developed in South Africa to suite local practices, is the preferred contract documentation system in the building industry for private projects, it does not have any representation from an organised landscape contractors' body such as the South African Landscapers Institute (SALI) or the Institute of Landscape Architects of South Africa (ILASA). The fact that the majority of large landscaping projects, i.e. commercial or industrial projects, are tied to the JBCC system exacerbates the problems experienced when using inappropriate forms of contract for landscaping.

2. Definition of terms

2.1 Pre-main contract

The term is used to describe those contracts that are entered into between a landscape contractor and the client for certain work to be done before and in anticipation of a main contractor to be appointed to undertake the bulk of the development project. Pre-main contracts typically include growing contracts to ensure the required number and species of planting will be available to be used in the main contract, environmental protection and rehabilitation work, and relocation and protection of existing flora.

2.2 In-main contract

The term is used to describe those landscape contracts that are entered into between the landscape contractor or subcontractor and the client or the main contractor during the duration of the main project construction contract.

2.3 Post-main contract

The term is used to describe those contracts that are entered into between the client and the landscape contractor for landscape work to be done after the main contractor, usually a building or civil works contractor, has completed the principal construction contract and it becomes difficult for him to have the landscape subcontractor under his control for an extended period normally not allowed for in the form of principal contract agreement.

3. A brief overview of the model forms of contract recommended for use in South Africa

In the South African Institute of Architects' Practice Note No. 1/1999 (SAIA, 1999) the advantages of using pro-forma contract documentation are spelled out as follows:

The advantage of using model documentation is that there is a fair distribution of risk between the parties to the agreement. A further advantage is that the parties become familiar with their obligations and are in a position to enter into the building agreement with confidence.

However, the Green Paper on Public Sector Procurement Reform in South Africa (1997) made the observation that there is little uniformity in contract documentation and delivery systems in South Africa. In works contracts, the tendency is to follow the recommendations laid down by professional associations and learned societies and to utilise standard industry documents and systems, which are adapted to suite the need, style and culture of the organisation calling for bids. Consequently the Focus Group 6 on procurement of the Interministerial Task Team on Construction Industry Development (2000) recommended that the public sector should procure engineering and construction works in terms of a limited range of standard and approved procurement documents (see footnote 1).

To assist clients and their consultants in selecting an appropriate form of contract, the Construction Industry Development Board (CIDB) has identified in its Best Practice Guideline C2 (2004: 11-12) the following factors to take into account:

- The complexity of the works;
- Management capacity, capabilities and expectation of the parties and their agents;
- Requirements for specific contracting and pricing strategies, viz:
 - construction management;
 - management contract;
 - design and build;
 - develop and construct;
 - activity schedules;

- bills of quantities;
- cost reimbursable;
- target cost; and
- partnering;
- Requirements relating to:
 - the assignment / management of risk;
 - back to back contracts for the engagement of all types of subcontractors; and
 - the management of cost and time overruns;
- The ability and capacity within the client body to handle different administrative procedures for building and civil engineering contracts, e.g. the use of JBCC on building contracts and GCC / FIDIC on civil engineering contracts; and
- Training requirements.

Figure 1 illustrates the logic to be followed in deciding which form of contract within a series is required for a specific application. Choosing the right form of contract is a strategic decision that an organisation needs to make.

There can be little doubt that the reduction in the prolific number of forms of contract in use in South Africa to the abovementioned four series of documents will assist in the elimination of many of the inefficiencies and losses associated with having to interpret the many varied approaches used to establish the risks, liabilities and obligations of the parties to a contract and the administration procedures associated therewith. The NEC and FIDIC families of contract documents are international series of documents that can be used on all types of engineering and construction contracts. The GCC and JBCC forms of contract, however, have been developed in South Africa, and are confined to civil engineering and building works, respectively. These series of documents, with the exception of the GCC, all contain short versions of engineering and construction works contracts, and collectively cover the commonly encountered contracting strategies that are currently being pursued internationally.

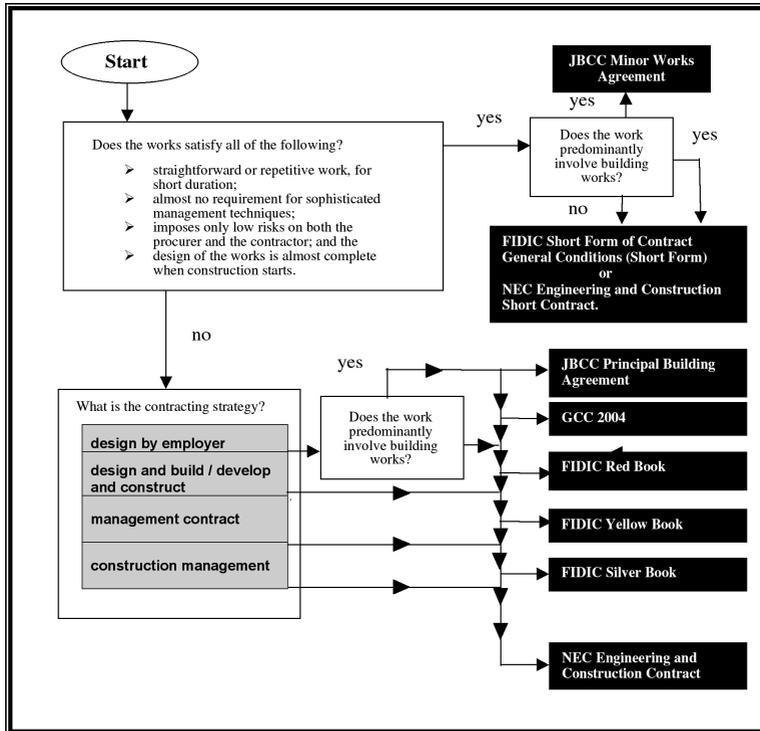


Figure 1: The selection of an appropriate form of contract for engineering and construction works
Source: CIDB Best Practice Guideline C2, 2004: 13

3.1 An overview of the JBCC Series 2000 suite of documents

The JBCC was founded in 1972 and is supported by all the major professional and contracting bodies in the building industry in South Africa. The constituent bodies that form the JBCC are:

- Association of Construction Project Managers (ACPM);
- Association of South African Quantity Surveyors (ASAQS);
- Master Builders South Africa (MBSA);
- South African Association of Consulting Engineers (SAACE);

- South African Institute of Architects (SAIA);
- South African Property Owners Association (SAPOA); and
- Specialist Engineering Contractors Committee (SECC).

The JBCC documents were first published in 1991 and were replaced by the Series 2000 published in 1998. The JBCC documents are compiled in the interests of standardisation and portray the consensus view of the JBCC of good practice and an equitable distribution of contractual risk. The documents are intended to provide a clear, balanced and enforceable set of procedures, rights and obligations, which when competently managed and administered, protect the employer, contractor and subcontractor alike.

The Principal Building Agreement is the cornerstone of the JBCC Series 2000 document range, and also contains standard provisions to cater for the requirements commonly associated with government contracts.

3.1.1 The JBCC Minor Works Agreement

The JBCC minor works form of contract is aimed at projects that are comparatively small in extent, uncomplicated and where less sophisticated contractors with a low capital base can be accommodated.

The agreement is designed for use where:

- The contract is for minor works of simple content;
- The employer appoints only a principal agent to administer the contract; and
- The employer appoints direct contractors for specialised work or installations not to be undertaken by the contractor.

The agreement is suitable but not limited for use where the contractor is a small to medium enterprise, the employer carries the major liabilities related to the works, and the employer is responsible for the primary insurances related to the works.

3.1.2 Using the JBCC agreements for landscaping work

The JBCC agreements make full provision for subcontracting, whether for the contractor's domestic subcontracts, nominated/selected

subcontracts or direct contracts. The contracts within its family of contracts suited to landscape work are:

- The JBCC Nominated/Selected Subcontract Agreement for use between a main contractor and the subcontractor. The same form of agreement is used for both nominated and selected subcontracts, as the contractual relationship between the contractor and the subcontractor is the same whether the subcontractor is nominated or selected. The differences are dealt with in the Principal Agreement, as they effect the contractor's liability to the employer for the consequences of the subcontractor's default or insolvency; and
- The JBCC Minor Works Agreement that is a form of contract suitable for a direct contract between the employer and contractor/subcontractor for the landscape works. It can be used with the Principal Building Agreement as a direct contract in terms of clause 22: Employer's Direct Contractors, or as an independent direct contract on its own, or in conjunction with other subcontracts all using the same form of contract.

The principal agent administers the contract, or can delegate certain of his duties to other agents, e.g. an architect or landscape architect, to act on his behalf.

3.2 An overview of the GCC 2004 contract

The foreword of the abovementioned document states that the South African Institution of Civil Engineering (SAICE) has a strong tradition of developing, publishing and maintaining forms of contract and has over several decades published six editions of the General Conditions of Contract for Civil Engineering Works. The sixth edition, GCC 1990, was modified by the Committee of Land Transport Officials and republished by SAICE as the General Conditions of Contract for Road and Bridge Works for State Authorities (COLTO, 1998).

The GCC 2004 contract replaced the GCC 1990 and COLTO 1998 contracts, but retains the language, style, ethos and current wording of these documents. It remains a form of contract primarily for use in contracts where the contractor undertakes construction on the basis of full designs issued by the employer and bills of quan-

titles for payment purposes. It satisfies the CIDB requirements for a standard form of contract, and is suitable for use in procurement documents that are prepared in accordance with the provisions of SANS 10403, Formatting and Compilation of Construction Procurement Documents.

3.2.1 Using the GCC 2004 contract for landscaping work

In the South African Federation of Civil Engineering Contractors' newsletter No. 20/2004 (SAFCEC, 2004) the following statements are made:

COLTO 1998 is basically a revised version of the GCC 1990 document which incorporates certain standard amendments previously issued together with the GCC 1990 by individual road authorities.

There are, however, two issues which differ significantly between the two documents, namely the authority of the Engineer and the status of the nominated/selected subcontractor. The COLTO document requires the Engineer to act as the agent of the Employer and does not make provision for a nominated subcontractor.

The COLTO document was used as the point of departure, being the most recent edition, for the revision of the GCC 2004 contract and, therefore, follows closely the provisions of the equivalent sub-clauses of COLTO. As stated above, this had the result that the term "nominated subcontractor" has disappeared from the new document, being replaced by the term "selected subcontractor". All subcontractors, such as for landscape work, will be appointed in terms of clause 6: Subcontracting, the contractor being fully responsible for their performance. It is important to note that under the GCC 1990 contract, the nominated subcontractor could be selected by either the engineer or the employer, whereas under the GCC 2004 contract, the appointment is the exclusive preserve of the contractor and the employer; the engineer now being precluded from participating in the selection process.

There is no short form of contract as the Procurement and Delivery Management Panel resolved that the Short Conditions of Contract (1996) for minor works be withdrawn.

The engineer administers the contract, but can nominate a person as his representative, or can delegate certain of his duties to others, to act on his behalf.

3.3 An overview of the FIDIC family of contracts

FIDIC was founded in Belgium in 1913 and is an association of national member associations. At present membership is drawn from more than 60 countries, of which more than 10 are from Africa – South Africa being one of the early members. The documents prepared and published by FIDIC are widely used internationally, mostly for civil engineering and process plant projects. It includes both professional-driven and contractor design and construct variants.

Since its formation FIDIC has addressed a whole range of professional issues affecting consulting engineers, but it has become known outside that profession, particularly amongst client bodies, the international financing institutions, lawyers and contractors because of its work in preparing and publishing standard forms of contract, often referred to as the 'FIDIC Rainbow'. In 1999 FIDIC extended its ambit into other disciplines with the publication of first editions of a new family of contracts comprising four new standard forms of contract:

- Conditions of Contract for Construction;
- Conditions of Contract for Plant and Design-Build;
- Conditions of Contract for EPC / Turnkey Projects; and
- Short Form of Contract.

In addition to the above documents FIDIC has produced a number of other documents for use by its members. These include:

- Tendering Procedure;
- Model Services Agreement between Employer and Consultant;
- Joint Venture Agreement;
- Sub-consultancy Agreement; and
- Various Guides and Supplements.

3.3.1 Using the FIDIC contracts for landscaping work

According to Ahier (2004) the FIDIC Short Form of Contract is particularly well-suited to small construction projects and landscaping work. Being a member of the FIDIC family of standard form con-

tracts it uses the same philosophy, format and terminology as other members of the family. It is basically a contract between the employer and the contractor with the provision of an employer's representative, such as the architect/engineer, an optional extra. It also deals with the provision of design by the contractor, which is often the situation in landscaping contracts.

The employer may administer the contract himself, or may delegate any of his actions to others, such as an architect or landscape architect, to act on his behalf.

3.4 An overview of the NEC family of documents

The NEC family of documents is an integrated and multi-discipline set of contracts for engineering and construction projects covering both construction and the associated professional services. The documents were first conceived in 1985, when the Council for the London Institution of Civil Engineers (ICE) approved a recommendation from its Legal Affairs Committee to lead a fundamental review of alternative contract strategies, with the objective of identifying the needs for good practice. This recommendation arose out of the belief of many engineering and construction professionals that there was an urgent need for a whole new approach to contracting, in line with modern approaches to project management.

A consultative version was published in 1991, which after use and feedback resulted in the issue of the first edition in 1993. The ICE published a second edition in 1995, which incorporated refinements and changes prompted by comments from the industry and feedback from projects that had been executed under the first edition.

The NEC is the title for the complete family of documents that comprises:

- Engineering and Construction Contract (ECC) – the 'Black Book';
- ECC Guidance Notes – the 'Brown Book';
- Engineering and Construction Subcontract;
- Flow Charts;
- Main options A – F;
- Secondary options G – Z;

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- NEC Professional Services Contract;
- Adjudicator's Contract; and
- Engineering and Construction Short Contract (ECSC).

The NEC system is designed to be suitable for use anywhere in the world and by any organisation, whether public or private.

3.4.1 Using the NEC contracts for landscaping work

According to Baird (2004) the NEC has four contracts within its family of eight contracts, suited to landscape work. They are:

- NEC Engineering & Construction Short Contract (ECSC) that would be used between an employer and contractor for the design and construction of typically straight forward work, which does not require a high degree of project management;
- NEC Engineering & Construction Short Subcontract (ECSS) that is a back-to-back form of subcontract for use with the above document, when the landscaping contractor is required to subcontract any of the construction or installation work;
- NEC Professional Services Contract (PSC2) that is a form of contract suitable for the appointment of professionals of any discipline. This contract would be used on larger projects where a landscaping professional is appointed to carry out scheme design, and perform services for an employer on a fiduciary basis; and
- NEC Term Services Contract (TSC1) that is a form of contract used by an employer with a contractor for the management and/or maintenance of an existing facility for a term of say two to five years. It also includes provision for a certain amount of design during that period.

The form most likely to be used would be the ECSC. Being a member of the NEC family of standard form contracts it uses the same philosophy, format and terminology as other members of the family. A set of Guidance Notes and Flow Charts is also available to assist preparation and administration of contracts using the form, and its back-to-back subcontract, the ECSS.

As with the FIDIC contracts, the employer may himself administer the contract, or may delegate any of his actions to others.

4. Problem areas encountered in landscape contracts

In South Africa the following problem areas can be identified in the field of landscape contracting and landscape maintenance:

- A lack of suitable forms of landscape contract, which, allow for the specific circumstances and problems encountered in the landscape industry in respect of pre-main contract, in-main contract and post-main contract landscape work – refer to the definition of terms hereinafter;
- More specifically, there is a lack of suitable forms of contract between a client and a landscape contractor for landscape work to be undertaken before a main building contractor is appointed and where such landscape contractor may eventually be a subcontractor to the main contractor for the further execution of the landscape work;
- There is also a lack of suitable forms of contract between a main contractor and a landscape subcontractor. Such contracts should however be compatible with the standard construction industry forms of contract generally in use;
- The lack of suitable forms of contract between an employer and a landscape contractor for continuing landscape maintenance and development work to be done after the main building works contract, in which the landscape contractor was a selected or nominated subcontractor. In the absence of a landscape maintenance programme, embodied in an appropriate form of contract between the employer and the landscape contractor, the value or cost of the original landscape installation can be negated within a single season;
- The current JBCC and similar forms of subcontract between a main building or civil works contractor and a landscape subcontractor do not cater for the specific circumstances and problems pertaining to landscape work. An example that can be given is the issue of interim landscape main-

tenance to be done before practical completion has been certified:

- The current JBCC and similar forms of contract between an employer and a main contractor and between the main contractor and his landscape subcontractor do not allow for the continuation of landscape maintenance work between practical completion and the end of the defects liability period nor after the defects liability period had ended:
- The landscape subcontractor having to complete his work in areas already in use by the employer; and
- Financial implications for the employer and main contractor when only the landscape portion of work is incomplete and which delays the issue of the practical completion certificate. This issue becomes pertinent if the value of the outstanding landscape work is very small against the loss of income for the employer and late completion penalties for the contractor.

5. Proposed conceptual contractual systems for the landscaping industry in South Africa

5.1 Pre-main landscape contracts

The landscape contractor may be appointed by the employer to do certain work, before a main contractor is employed, for the following purposes:

- Pre-main contract growing or procurement of plant material; and
- Pre-main contract removal, relocation and conservation of on-site flora and other natural features.

The awarding of one or both of these contracts to a specific landscape contractor does not necessarily imply that this contractor will be awarded the landscape installation or construction contract, which normally is associated with the main project construction contract.

For any of these pre-main contracts, the landscape contractor will most often enter into a direct contract with the employer under

the direction of the project manager and/or landscape architect on the employer's behalf. The latter will undertake work inspections and issue payment certificates.

5.1.1 Growing contracts

The objectives of a growing contract could be one or more of the following:

- To procure or collect the specified plant species at a lower cost, say due to their smaller size, than that of the same species obtainable in retail nurseries shortly prior to their being planted;
- To have the correct species and required number of plants available at the specified time;
- To have plants at the required size available at the specified time;
- To have the plants acclimatised to the intended planting conditions; and
- To provide replacement stock for landscape maintenance on big contracts.

In a growing contract the conditions that will require special attention are:

- Transfer of ownership;
- Work/material insurance;
- Guarantees/liability for planting material – ceases on acceptance of material by the in-main contract landscape contractor; and
- Payment conditions – costs of procurement and plant growing/maintenance costs.

In the technical specifications of a growing contract the essential issues to be addressed include:

- The size plants that will be required on delivery date;
- Specific growing conditions for plants to be cold acclimatised; and

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- Specific horticultural requirements, such as pruning, root development, propagation methods, regular replanting to bigger containers and fertilizing.

5.1.2 Conservation contracts

The objectives of a conservation contract could include:

- To conserve existing flora under threat of building/construction activities;
- To relocate, maintain and replant existing flora;
- To propagate rare endemic species from those that have to be relocated to allow building / civil works activities; and
- To create site conditions before and during site constructions that would prevent environmental degradation such as:
 - Plant cover loss;
 - Soil erosion;
 - Sedimentation of water bodies and courses;
 - Lowering of water quality; and
 - Increase in stormwater runoff.

The following aspects of a conservation contract need to be addressed by means of appropriate contract conditions:

- Where necessary, the transfer of ownership of plant material to be relocated;
- Work/material insurance;
- Guarantees/liabilities for plant material relocated, conserved and replanted; and
- Payment conditions.

In the technical specifications of a conservation contract the essential issues to be addressed should include:

- Authorisations or permits to be obtained from Provincial Government to remove and transport specified rare endemic species covered by law; and

- Specific horticultural requirements of existing flora, such as pruning, root development, propagation and regular replanting to bigger containers.

5.2 In-main landscape contracts

The types of contracts entered into for landscaping work to be undertaken during the period that the main building or civil works contract is executed can be divided into:

- Direct contract between the client and landscape contractor;
- Nominated or selected landscape subcontract between main contractor and landscape subcontractor; and
- Domestic subcontract between main contractor and landscape subcontractor.

Any in-main landscape contract should recognise in its intent and clauses that the installation of the landscape is the first of a two-part process and should allow for a smooth and practical transition to a landscape maintenance contract being implemented afterwards.

5.2.1 Direct contract between the client and landscape contractor

This type of contract requires the landscape contractor to enter into a contract directly with the client, and not through any main contractor, although, normally, a main contractor would be working on the site at the same time.

The purpose of such a contract would be for the client to contract directly with a landscape subcontractor.

The advantages of this form of contract are:

- For the client: no mark up, or attendance, on the landscape contractor by the main contractor;
- For the client: this contract can easily be an extension of a pre-main contract; and
- For the landscape contractor: direct and earlier payment of monies certified.

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The disadvantages of this form of contract are:

- There is normally no contra-responsibility between the main building or civil contractor and the landscape contractor. However, it is possible to make reference and state responsibilities in one contract to the other;
- It can be difficult to prove liability or responsibility for damages to landscape work caused by other contractors working in the same areas due to the nature and timing of landscape work in typical commercial type developments. Because of the absence of co-responsibility brought about through a main and subcontractor relationship, the various contractors often do not display due care and consideration for the landscape work in progress. Examples include trenching through landscaped areas, trampling newly planted shrub beds, and damaging irrigation pipe lines; and
- For the landscape architect administering the contract on behalf of the client, it creates an undefined, difficult and time-consuming relationship between himself and other consultants such as the client's principal agent, architect or project manager.

The contractor should also be made aware at tender stage of the fact that other contractor(s) will be working simultaneously in the same area. The tender documentation could provide an item to be priced by the landscape contractor to allow for this situation and possible ramifications.

5.2.2 Nominated / Selected landscape subcontract

The use of nominated / selected subcontracts is very common on larger type construction contracts in South Africa. In this regard Finsen (1999: 117-118) notes that

employers saw the opportunity of getting the best of both worlds, and the nominated subcontract was introduced which enabled the employer to have the benefit of a principal contractor to control the entire building operation (and to assume the risks that went with it) while yet being able themselves to choose specific subcontractors to undertake specific work...

The objective of the nominated/selected landscape subcontract is to facilitate landscape work on a construction project, and where the agreement is made between the main contractor and the landscape subcontractor. In this case it is the main contractor that desires the landscape subcontractor to execute the landscape subcontract works, but normally under the direction and supervision of the landscape architect.

With this form of contract the main building/civil contractor on the instruction of the client's principal agent, typically the project manager, architect, or occasionally the landscape architect, appoints the landscape contractor. The form of contract most commonly used between main contractors and landscape subcontractors in South Africa is the JBCC.

It should be noted that according to the JBCC nominated/selected subcontract agreement only the main contractor and principal agent may issue instructions to a subcontractor. This has the effect that a consultant such as the landscape architect may not issue instructions direct to the landscape subcontractor. The principal agent may however delegate this authority to the landscape architect. It is a recommended practice to have the main contractor countersign all written instructions from the consultant to a subcontractor in order for the main contractor to remain up to date with project variations.

Nominated/selected subcontract agreements have been developed for the more 'traditional' building trades, such as masonry, steelwork and carpentry, and do not cater for the specific nature of landscape work. The following are some of the inherent differences between these traditional building trades and landscape work and the contracts that govern them:

- Using inanimate components as opposed to live matter, such as plants;
- The defects liability for landscape work cannot be applicable if the landscape construction contract is not linked to a maintenance contract;
- For the same reason the standard three-month defects liability period cannot be applicable without some form of maintenance contract after practical completion; and
- Longer-term maintenance contracts are not catered for.

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These intrinsic differences seem to suggest that, although contracts can be changed to suit specific circumstances, these contracts have not been designed to deal with landscape work.

Advantages of the nominated/selected subcontract are:

- The main contractor still retains overall control of the execution of the works; and
- The main contractor has the authority to ensure all subcontractors adhere to the construction programme.

Disadvantages of the nominated/selected subcontract are:

- It is not designed for, nor does it address, the inherent differences between 'building' and 'landscape' work. As retention or a construction guarantee for landscape work is not really applicable after practical completion, the main contractor often holds these against the landscape subcontractor and does not pay certified monies. If a three month maintenance agreement is included in the subcontract – to coincide with the defects liability period of the main contract – it will, unless special provisions have been made, require additional monthly maintenance payment certificates, which could conceivably delay the completion of the final account; and
- The subcontractor often encounters the following problems within the subcontract agreement with the main contractor:
 - Late payment of certified monies to the subcontractor by the main contractor;
 - Unfair treatment by the main contractor in the sense of being denied certain rights stated in the subcontract and then through intimidation by the main contractor being unwilling to insist thereon;
 - Main contractors going insolvent and not paying over certified monies; and
 - In practice, given that landscape work is mostly executed at the end of a building or civil works project, the main contractor will invariably use the period allocated for landscape works to absorb delays caused by other works to the disadvantage

of the landscape subcontractor, thus forcing the landscape contractor to complete the work in unrealistic time and site circumstances.

5.2.3 Domestic subcontract

The objective of the domestic subcontract is for the client to have landscape work executed under the main contract. Furthermore, the client may elect not to nominate or select a landscape subcontractor due to the following:

- Small size/simplicity of the landscape work;
- Insufficient time to follow the nominated or selected subcontract tender procedure; and
- Insufficient pre-planning of contract programming.

In this form of contract the main contractor appoints the landscape subcontractor directly without any approval by and instruction thereto by the landscape architect or principal agent. No prime cost (PC) amounts are allowed in the tender documents and the subcontractor prices the work from scheduled items. The MBSA non-nominated subcontract, which is compatible with the JBCC Nominated/Selected Subcontract Agreement, is often used – the JBCC does not intend to publish its own domestic subcontract.

The disadvantages of the domestic subcontract are:

- The landscape architect has very little input on the appointment of the landscape subcontractor; often the landscape architect is not even involved in the contract management and works inspections;
- In terms of the MBSA non-nominated subcontract, instructions issued to the subcontractor by the client, or any person acting on the client's behalf, such as the landscape architect, shall have no authority unless authorised by the main contractor; and
- The main contractor loses securities from the subcontractor when interim completion of subcontract works is certified, which has resulted in main contractors being reticent to use this form of subcontract.

5.3 Post-main contracts

For landscape projects the need often exists for a post-main contract after installation of the landscape work to maintain the work through its first critical period. In areas where extreme climatic conditions such as frost and droughts can occur, the survival of the plant material is largely affected by the maintenance care the landscape work receives in this initial period.

Examples abound of so-called 'construct-and-run' projects where speculative developers install the minimum landscaping and on-sell the projects as soon as possible. A typical example of such landscaping is the laying down of instant lawn over soil contaminated by concrete or other cementitious material or compacted by construction activities. Trees are often also planted in minimal size holes without a proper growth medium backfill. In both these examples the short-term appearance will probably deceive an observer, but the landscaping will soon display wilted and discoloured grass and stunted trees. The long-term owners more often than not then have to totally re-construct the landscaping, thereby incurring abortive costs. It is clear that such speculative developers will not appreciate the need for any landscape maintenance contract after completion of the project.

The post-main landscape contract is entered into by the client and the landscape contractor, and is distinctly separate from the landscape installation contract where the landscape contractor was most likely a subcontractor to a main building or civil works contractor.

The landscape maintenance contract cannot be a construction type contract, as issues such as liability for damages to plants due to vandalism and insufficient maintenance need to be spelled out. This is especially applicable for projects that are open to the public and subject to vandalism. It is unrealistic to expect of the landscape contractor to give a landscape construction guarantee, and to accept liability for the landscape installation if there is no maintenance contract between the client and the landscape contractor who installed the landscape originally.

This post-main or maintenance contract, ideally of 12-month duration, must preferably be awarded to the landscape contractor that installed the landscape work in the first place. Various reasons can be given for this recommendation, such as:

- The responsibility for plant defects should be borne by the landscape contractor as he is still on site and cannot disclaim liability for patent, latent or maintenance defects;
- The irrigation systems often require adjustments to cater for differing micro-climatic conditions, such as local swirling winds and overshadowing. The position, direction and height of irrigation emitters also need to be adjusted to cater for growth in plant material;
- Water features, often constructed at huge costs, are notorious for falling into disrepair if not maintained with due care. A period of care by the specialist installer is necessary, also for training the employer's own maintenance staff;
- Constructed ecological systems, such as artificial wetlands and water purification systems often require man's intervention to be sustainable;
- In projects of significant environmental value, long-term environmental maintenance is often an identified environmental issue. The planning and construction approval of large projects are usually conditional upon complying with an Environmental Management Plan (EMP) in which the landscape maintenance and environmental auditing are specified. The landscape maintenance contractor is best placed and qualified to ensure compliance with such requirements; and
- In instances where the employer is able, through his own staff and resources, to maintain the landscaping, a reduced maintenance contract, typically of six-month duration is however still recommended. This maintenance contract's specification can so be worded that there is an overlapping period during which the landscape contractor works alongside the employer's maintenance staff to point out the working of systems and any specific horticultural requirements.

In the specification that accompanies any landscape maintenance agreement, the following items typically need to be addressed:

- Upkeep, adjusting and replacing defective irrigation components;

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- Accepted horticultural practices, such as pruning, fertilising and staking;
- The required programme of lawn mowing, veld slashing, cutting and burning; and
- Seasonal planting of annuals.

6. Recommendations

The following advice is offered to the parties that are involved in landscape work:

6.1 To the developer

- Consider well in advance of the construction of the project if there could be benefits or requirements to have plant material grown for the project or to protect and conserve existing flora on the site. If so, a professional landscape architect is probably the best independent person to advise on the most appropriate form and conditions of contract; and
- Consider the issue of landscape maintenance after the construction phase is finished. Allow in the operational budget of the project for landscape maintenance that will ensure a sustainable landscape or risk the chance that all money spent on the landscape installation could be worthless within a short time. There are distinct benefits to have the landscape contractor that installed the landscape also take on the responsibility of maintaining it for a certain critical initial phase.

6.2 To the employer's principal agent and/or landscape architect

- Advise the client of the advantages of appointing a landscape architect as part of the consultant team;
- Advise the client of the benefits of pre-main landscape contracts such as growing contracts or conservation contracts. Ensure that the critical issues such as transfer of ownership, works and materials insurance, and guarantees are addressed in any such contract;

- If the client can be convinced of the benefits of a landscape maintenance contract, ensure that the tender documents for both the landscape construction and maintenance contracts are simultaneously let. Tenderers are to be made aware of the fact that in evaluating the tenders, although they will be tendering for two separate contracts, the combined tender prices will be considered, and that the successful tenderer will be appointed for both contracts;
- Advise the client to budget for a post-main landscape maintenance contract in the operational phase of the project; and
- Consider the implications of the practical interface of a landscape subcontract with a landscape maintenance contract. Issues to be considered are:
 - Interim landscape maintenance before practical completion;
 - Landscape maintenance in the three-month defects liability period; and
 - Cancellation of the performance or construction guarantee of the landscape subcontractor and settlement of the final account between the main contractor and the landscape subcontractor once practical completion has been certified. It serves little purpose for a main contractor to hold a performance guarantee or any form of retention on the landscape subcontractor if the latter has no mandate to maintain the landscape during the defects liability period.

6.3 To the contractors, both as main and subcontractors

- Ensure that the responsibility for interim landscape maintenance before practical completion is covered with regard to aspects such as cost of water and electricity used and damages to sections of landscaping already completed;
- Reach agreement between the main and subcontractor on when and under what conditions the landscape subcontract will terminate; and

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- The subcontractor should advise the main contractor if he would be able to guarantee the landscape work and be responsible for defects if there is no landscape maintenance contract in place.

7. Conclusion

From the analysis of the forms of contract for landscape works currently in use in South Africa, and the associated problems that have been identified, the authors conclude that whereas all the researched forms of contract have versions that can be used for specialist subcontract works, the specific requirements for a landscape works contract have not been addressed. It is suggested that an addendum titled General and specific conditions for landscape (sub)contract works, be prepared and appended to such contracts.

References

Anier, T.B.C. 2004. Personal communication. 22 April, Pretoria.

Boird, A. 2004. Personal communication, 11 May, Pretoria.

Committee of Land Transport Officials (COLTO). 1998. *General Conditions of Contract for Road and Bridge Works for State Authorities*. Republished by the South African Institution of Civil Engineers (SAICE). Halfway House.

Construction Industry Development Board (CIDB). 2004. *Best Practice Guideline C2: Choosing an appropriate form of contract for engineering and construction works*. Morch, Pretoria.

Fédération Internationale des Ingénieurs Conseils (FIDIC). 1999. *FIDIC Conditions of Contract for Construction for Building and Engineering Works designed by the Employer*. Lousanne, Switzerland.

Finsen, E. 1999. *The Building Contract. A commentary on the JBCC Agreements*. Cape Town: Juta.

Institution of Civil Engineers (UK). 1995. *The Engineering and Construction Contract: An NEC document*. 2nd Edition. Thomas Telford, London.

Joint Building Contracts Committee (JBCC). 2001. *JBCC Series 2000 Minor Works Agreement*. Edition 2. April 2001. Johannesburg.

Joint Building Contracts Committee (JBCC). 2005. *JBCC Series 2000 Principal Building Agreement*. Edition 4.1, Morch 2005. Johannesburg.

Joint Building Contracts Committee (JBCC). 2005. *JBCC Series 2000 Nominated/Selected Subcontract Agreement*. Edition 4.1, March 2005. Johannesburg.

South Africa. Department of Public Works. 2000. *Features of a modern form of engineering and construction contract*. Report on procurement by Focus Group 6 of the Interministerial Task Team for Construction Industry Development. Government Printing Works. Pretoria.

South Africa, Ministries of Finance and Public Works. 1997. *The Green Paper on Public Sector Procurement Reform in South Africa*. Pretoria: Government Printing Works.

South African Council for the Landscape Architectural Profession (SACLAP). 2002. *Practice Guidelines and Code of Conduct*. Pretoria.

South African Federation of Civil Engineering Contractors (SAFCEC). 2004. *SAFSEC Newsletter Ref. No. 20 / 04*. Bedfordview.

South African Institute of Architects (SAIA). 1999. *Practice Manual*. Johannesburg.

South African Institution of Civil Engineering (SAICE). 2004. *General Conditions of Contract for Works of Civil Engineering Construction (GCC 2004)*. 1st Edition. Halfway House.

Staples, C. 1999. Extract from unpublished PhD thesis entitled: *Identifying critical success factors for customer satisfaction in the interior and exterior plantscaping industries*. Published in Parks & Grounds Issue 125, February/March 2002.