



WRITING TENDER SPECIFICATIONS – TIPS, TRAPS AND TECHNIQUES

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A specification is the most vital part of any contract. Without a clear and unambiguous description of the services or goods that has to be acquired during the bidding process, a contract concluded after award could necessitate the rectification of mistakes or the clarification of ambiguous statements. This may be very costly, or may even lead to litigation.

This paper provides brief overall guidelines and practical advice on how to write a good specification.

INTRODUCTION

A substantial amount of effort has been expended over the past number of years to assist local government with the standardization of bid documents. Sadly very little (if any) time has been spent in training municipal officials in the “art” of drafting a good a specification that is clear, accurate and complete. Time and time again bidders are confronted by tender documents that in all respects fully comply with the letter of the law, but then dismally fail in respect of inadequate – or sometimes missing – specifications. That in turn leads to wildly varying prices, erroneous assumptions by bidders and unfair project risk distribution. In many instances bidders are left guessing as to what the client actually requires.

A clear, accurate and complete specification is the foundation of any purchase of goods or services (including consultancies). A specification should clearly outline the requirements for these items whether the purchase is for small, simple items or large, complex projects. To ensure the best chance of getting what you want the specification needs to be very clear about what exactly is required.

BACKGROUND INFORMATION

What is the purpose of a tender specification?

It is the process of finding out and writing down what you want the bidder to understand what is exactly required.

The specification provides guidance to potential suppliers, so that they can provide your organisation with what it needs.

The specification become the basis for the contract with the supplier. It means the bidder can have a clear agreement with your organisation about what it is that is required and therefore what is supplied. The clearer the specifications, the easier it is to manage the contract. If specifications are unclear it can create inefficiency, confusion, disagreement and conflict.

Clear and complete specifications enable your organisation to evaluate whether it has received what it wanted and whether the supplier gave it exactly what was requested. For instance, if you received a service, did the supplier provide what you wanted him to? If you received work, did the service provider satisfactorily complete what you wanted?

What makes a good specification?

It is clear and easy to understand.

It is **specific**. It is detailed and describes precisely what is required. There can be no confusion. If the specifications include too much information and are too demanding, it becomes too difficult to get what you need. If the specifications do not carry enough information, and are not specific enough, then it becomes too easy to get something that you do not want.

It is **accurate**. A specification should say or specify exactly what the requirements are, not more nor less. Where possible, specifications should be written in terms of what the goods, service, work is meant to achieve (the outputs or functions to be fulfilled,) rather than listing specific

technical requirements. It is important to do research to ensure that the most recent information is used.

It is **complete and all aspects are fully covered**.

It **provides the essential requirements**. It includes those things that are essential to what is required, and critical to the performance.

It lists desirable requirements. It includes those things that are desirable, namely the things you would like, but which are not critical to performance.

It **defines function**. The specifications should emphasise what the product is meant to do rather than emphasising the technical requirements. This maintains the focus on purchasing a product or service to meet your needs and purpose. A brand name should, where possible, not be used in a specification. If there is no other option, it should be followed by the words, “or equivalent”

It is **consistent**. Specifications for similar requirements should be comparable.

In support of the aforementioned, the Supply Chain Management Guide for Accounting Officers of Municipalities and Municipal Entities states:

Section 4.5.2.9 General Provisions for Bids:

Bid content	Documents should specify clearly and precisely the work to be carried out, the location, the goods to be supplied, the place of delivery or installation, the schedule for delivery or completion, minimum performance requirements and the warranty and maintenance requirements, as well as any other terms and conditions. In addition, bidding documents should define the tests, standards and methods that would be employed to judge the conformity of equipment as delivered or works as performed, with the specifications. Drawings should be consistent with the text of the specifications and the order of precedence between the two should be specified
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Section 4.6 Invitation of Bids:

(Bids) Must be clear and precise on:

- work to be carried out
- location of the work
- goods to be supplied
- place of delivery
- place of installation
- delivery schedule
- date of completion
- minimum performance requirements
- warranty requirements
- maintenance requirements
- any other pertinent terms and conditions

(Bids) Must define:

- tests, standards, methods employed to judge conformity of:
- Equipment delivered;
- Works as performed

DEVELOPMENT OF TENDER SPECIFICATIONS

Preparing a Specification

Before you write a specification, you should:

- Talk and listen to the people in your organisation that will be using the product or service and find out exactly what it is they need. Some of the questions you might ask include: What do they need it for? What purpose do they want it to serve? Who will be using it? When do they need it? How long do they need it for? Customer requirements are the central to the specification.
- Research the market (by making general enquiries of suppliers or purchasers, or by placing formal advertisements for Expressions of Interest) to determine currently available solutions to requirements, likely costing and time scales.



- Identify risks. Are there any risks in the specifications such as over-ordering and wasting goods or too few suppliers who could fulfil the requirements? Then assess outcomes and how large that risk is. Is there anything that can be included in the specification to limit that risk? Or is it better to do nothing and not seek supply of the goods and services rather than take the risk?
- Determine the scope of the tender. This includes the extent and limitations of the requirements including:
 - What exactly the service provider is expected to do, such as:
 - Supply the product only?
 - Deliver the product?
 - Install and commission?
 - Provide operating and maintenance manuals?
 - Warranty, maintain and repair?
- Anything the service provider is NOT expected to do which might otherwise be expected. For instance when building a school, a contractor might be expected to paint the walls because that is what has happened with other contracts. If painting is not required that must be written in the specifications.
- The expected starting date, duration and completion date of the contract.
- Check back with the people in your organisation when you have completed the specifications to make sure they are correct.
- Set evaluation criteria and importance. Tender specifications must be accompanied by information about which requirements are the most important and how tender bids will be evaluated according to these requirements. The evaluation criteria are not a part of the specifications but must be part of the information package sent to all bidders which gives them equal opportunity to respond to your priorities.

WRITING AND FORMATTING A SPECIFICATION

Specifications will vary in length and complexity, depending on what has to be acquired.

Approach to drafting of Specifications

There is no standard template that can be used in the drafting of a specification as it will depend on what is being purchased. A specification will normally follow one of the following approaches.

- **Input approach:** This defines every activity, standard, labour, capital and materials, together with the method of delivery. This approach is usually used when drafting specifications aimed at suppliers of goods and contractors for construction services.
- **Output/Outcome approach:** This concentrates on the actual product/service that is produced, i.e. the end result, the standards, the time for achievement and the intended effect. This approach is usually used when drafting terms of reference aimed at consultants and service providers.
- **A simple example of an Input and Output approach is:**
 - Input specification – the streets shall be swept clean of rubbish every day (action orientated)
 - Output specification – the streets shall be kept in a clean condition (result orientated)

Drafting your Specification

The specification must state clearly the scope of the service to be covered, be consistent and be properly linked with the other parts of the tender. It could be structured along the following lines:

- Introduction and Context
- Include background information (if not included in the Invitation to Tender)
- Give a brief general description of the service/goods/works
- Give a brief description of the client and/or end users.

Scope of work/Specifications

This section must set out a detailed description of each element of the service/goods including, for example:

- What tasks must be carried out and how?
- Whether the service/goods/works are for a specific purpose?
- Whether the product must be a specific size, shape or colour?
- A description of what you want achieved, asking the tenderer to suggest how they would provide it.

Timetable

- How frequently it is going to be done?
- Is the time critical – must it be done at the same time every day? How critical are timing issues?
- Is once a week sufficient, with the service provider determining when in the week?
- Must the contract be completed in three weeks, months, etc.?

Working methods and codes of practice

- Are there any internal codes of practice that need to be followed?
- Are there standards across the industry nationally?
- Must the service provider state what their working methods are?

Quality and performance standards

- Are there any national quality standards/qualifications that should apply as a minimum?
- Should details of how the service provider manages/trains their staff be included?
- Is there a minimum frequency/level of satisfaction/level of performance that needs to be met?
- Is there a process for testing/inspection prior to acceptance?

Performance targets

- Are there any incentives for the service provider to do well/better?

Interface with other contracts and service providers

- How does this contract relate to any other contracts you may have?
- What communication between the service providers should there be?

Reporting Requirements

This is where you can specify how you want to monitor the contract and how you want to receive information:

- Benchmarking – should the service provider provide benchmarking data and by reference to what comparators?
- Do you wish inspections or supervision to be carried out and do you require the service provider to handle it?
- Are the inspections or supervision ad hoc, daily, weekly, monthly, quarterly, annually, etc.?
- Project meetings – do you want to meet with the service provider during the course of the contract to monitor and review it? How often is appropriate?
- Reports – what information do you want in report form and how often?
- Audit – what information should be kept for audit requirements and for how long?

Review of Procedures/Changes

- Are you likely to require any changes to the specification once the contract is in place?
- How will you deal with these?

Pricing guidelines

It is essential that the pricing methodology required be clearly explained. There should be no ambiguity or scope for misunderstanding. It is



recommended that where possible, a detailed schedule of quantities be provided. Avoid situations where the bidder is required to estimate quantities or the scope of work. All attempts should be made to keep the playing field as level as possible so that when pricing is compared, apples are compared with apples. Sound advice is to put yourself in the shoes of the bidder and ask whether you are able to price this bid adequately with the information you provided.

Payment Methods

- Payment milestones: indicate when milestones must be achieved to qualify for payment
- Retentions (if applicable)
- Invoicing: describe the invoicing procedures that must be adhered to.

Definition of Terms

Definitions of terms are usually set out in the contract. You should be aware of what they are if you use them in your specification. They normally begin with a capital letter (e.g. "Contract Period") and are useful if you need to refer to something repeatedly as it saves writing out the definition every time you use it. However, when you use them in your document you should ensure that they are consistent.

Appendices for Additional Information or Schedules

You may wish to include additional information in your specification for use in the contract, such as the format for the invoice or report or a more detailed description of tasks to be carried out. These may be drawn up as individual appendices or schedules and should be clearly labelled.

Relation to Contract Conditions

There must be a clear-cut relationship with the Conditions of Contract. Some matters may be dealt with in either place, but should be dealt with in one place only and cross referred to other aspects as appropriate. In all cases they:

- must be consistent
- should not overlap confusingly
- should not contain any gaps or dead ends –award criteria which is not tested by the specification or evaluation material is of no use.

Linking your Award Criteria

Ensure that all award criteria are linked to the specification and the pricing schedules. Your evaluation model must be derived from your criteria. Failure to do this will result in problems at the evaluation stage and possible challenges from the tenderer if they have been unable to satisfy criteria that are not clearly set out.

Linking your Pricing Schedules to your Specification

You will need to establish how you wish bids to be priced. Is a lump sum required, or do you want to know what certain individual elements of the specification cost?

If you haven't specified individual elements or have not clearly set out the pricing schedules, then it will be difficult for the tenderers to submit comparable bids. Don't forget to make provision for any discount options the tenderer may be able to offer.

It is of the utmost importance that the specifications link directly to the pricing schedules. If it's not specified it cannot be priced correctly. This is probably the primary cause of great variations in bid prices for the same tender!

GRAMMAR AND STYLE

The active voice is important in life and in bid-specifications. Active-voice language instead of passive-voice language should be used when drafting bid-solicitation documents. For example:

To clarify who does what, convert a phrase such as "The following documents must be submitted by the bidder..." (passive voice) to "The bidder must submit the following documents ..." (active voice).

Using active-voice language in bid specifications is one of a number of strategies used to achieve the ultimate goal of the bidding process: maximizing the number of responsive (and responsible) bids from bidders. To get that, the bidders need to understand what you want, do not make it hard for them.

Be clear, simple and accurate in your bid-solicitation documents. Consider this awkward phrase:

"If any persons contemplating submitting a Bid under this Tender is in doubt as to the true meaning of the specifications of other Bid documents or any part thereof, the Bidder must submit to the municipality in writing at once, but in no case later than ten (10) business days prior to the scheduled opening of the bids."

A more concise alternative would be:

"Any questions about this tender must be submitted in writing, no later than 10 October 2010, to the municipality".

Avoid fancy-sounding words and legalese. Here is an actual example of legalese muddying the meaning of a tender document:

"The submission of a tender shall be prima facie evidence that the tenderer is familiar with and agrees to comply with the contents of this Tender."

Revised version:

"By submitting this tender, the tenderer confirms that he/she has read the tender and accepts the terms of the tender."

Make sure that the standard of award (for example, "lowest responsive bid" or "best interest of the municipality") is clear and easy to find, with no contradictory standards listed. As an example, consider the following three different standards of award:

"The contract will be awarded to the lowest responsive, responsible Bidder(s) whose Bid(s) conforming to the solicitation is most advantageous to the municipality."

"Award will be made to the responsible and responsive bidder whose bid is most advantageous to the municipality with price and other factors considered."

"The contract will be awarded to the bidder that supplies the service requested at the least cost to the municipality."

Use one consistent standard of award instead, such as:

"The contract will be awarded to the lowest responsive, responsible Bidder(s), considering quality, performance and the time specified for performance."

Among other principles for refining the substance of bid-solicitation documents:

If using a document from another tender as your template, carefully search for and remove all references and information that are not part of the current tender. Make sure that it's your organisation's name and not those of another entity.

Include a section that defines key terms. Capitalize, bold or italicize all defined terms throughout the document. When deciding whether or not





a word should be in the definition section. If you are using it frequently, it might be a key term. Make sure that the minimum requirements are broad enough to include as many tenderers as possible but specific enough to fit the end user's real needs. Look for hidden brand-specific requirements (such as brand names, trade names and too-specific measurements or sizes) and rewrite them by substituting performance requirements.

Use standard terms and conditions that were reviewed and approved by your organisation. Make sure that key information such as contact person, dates for bid submission and delivery addresses for bid submission are accurate and consistent throughout the document.

Formatting

The way that a bid document is formatted and organized can play a big role in whether the tender maximizes the number of responsive bids from responsible bidders. It all starts with the document title.

- use a short, descriptive document title, such as "Invitation for bids for shovels."
- Avoid long descriptive titles – the scope of the contract can be described elsewhere
- use short, descriptive section headings
- create a header or footer – with the document title, entity name and due date and time – that appears on each page
- place page numbers on each page
- use consistent fonts, line spacings, section numbering, margins etc
- double-check contact information for typos
- format headings, sections and subsections in a consistent, easy-to-follow manner
- replace all slashes ("/") with an "and" or "or." "Chairs/desks/bookshelves" could mean "chairs, desks and bookshelves" or "chairs, desks or bookshelves."
- check the entire document for typos and spelling errors
- check the document's cross-references to headings and sections for accuracy
- refrain from using double sided printing. It makes it difficult to insert supporting documents within the body of the bid document in the correct place
- keep the appearance neat and professional
- always include an index and make sure the page numbers are consistent with the index.

A well formatted bid document creates an impression of professionalism and creates respect for your organisation in the eyes of the bidder.

Proofread the bid document for readability, making sure that the document is written at about an eighth-grade reading level. Microsoft Word has a readability-check function. If the document's grade level is too high, it's probably because you were violating one of these other rules. You were using fancy-sounding words and legalese. Remember that your potential bidders cannot read your mind. They do not know what you were thinking. It is virtually impossible for you to review your own work with fresh eyes. Because you have been so involved with it from the very beginning, you will read words into it that are not there. So get someone else to read it. Get a fresh-eyes review.

CHECKING A SPECIFICATION

It is useful to have the specification checked by someone other than the author, even someone who is not an expert in the area. The person checking the specification should make sure it:

- is easy to read
- is easy to understand
- is clear
- is consistent with other similar specifications
- has a logical structure
- contains only essential information.

APPROVING A SPECIFICATION

After having been checked, the specification should be approved by your Bid Specification Committee. By giving approval, the Committee:

- certifies that the product (good, service, works) is needed and is included in the budget;
- indicates that the specification accurately defines what is needed;
- states that the specification is free from bias (and does not favour a particular company, or person) such as by using a brand name; and
- confirms that the municipality accepts responsibility for the cost of the specified goods or services.

REVIEWING A SPECIFICATION

When a contract is about to be renewed, or after delivery of the goods or services, the specification should be reviewed. This review should check whether the specification accurately defined what was needed to be achieved or completed.

This review should be completed because:

- the information will be valuable when preparing specifications for similar purchases in the future
- it should form the basis of reviewing the contract before renewing it
- it will help to identify any changes in what is required since the first specification was written.

If changes are made, the issue number or revision status of the specification must be updated.

MAKING USE OF EXTERNAL ASSISTANCE

Using external consultants to draft specifications on your behalf

When using consultants, you are using their technical expertise. Do not allow them to make management decisions. Before using a consultant make sure that they:

- declare any actual or potential conflict of interest; and
- are fully aware of the procurement policy of the municipality.

Consulting with other users and purchasers

Municipalities can save a lot of time and money by collaborating with other municipalities with the same or similar requirements. Benefits of consultation include:

Learning from other specifications by consulting with procurement colleagues. This avoids duplication of effort in drafting specifications. For instance there are common goods that every municipality uses: cars, IT, furniture.

Using the work of others but continually improving and developing specifications to produce clearer and stronger documents. When you are using the specifications of another municipality, do not just accept that they are the best. Review and modify them to suit your own situation.

Standardise requirements where appropriate. For instance it is useful if all municipalities use the same paper for photocopies, as much as possible.

Opportunities for strategic (or group or collaborative) procurement (especially during cooperative or concurrent tendering). If several municipalities require the same goods or service it may be possible to share the costs or negotiate better prices if the requirements of many municipalities are purchased as a single lot. A reduction in the time and costs for bidders, resulting in a reduction of the cost of the goods, services or works (some bidders spend 20-40% of their paid time on tender proposals and the cost is passed on to the purchaser).

EVALUATION CRITERIA

Tender specifications are usually accompanied by information about which requirements listed in the specification are the most important and how tender bids will be evaluated according to these requirements. The evaluation criteria are not a part of the specifications but must be



part of the information package sent to all bidders to give them all the same opportunity to respond to municipal priorities

PRICING SCHEDULES

The compilation of a pricing schedule should be undertaken with the same diligence and care put into the drafting of the specification. The schedule must reflect exactly the intent described in the specification. It is imperative to structure a pricing schedule in such a manner that the items to be priced are accurately described and quantified. If the item cannot be quantified (e.g. travelling distances), insert a provisional quantity or amount in the schedule.

For example:

No.	Description	Unit	Quantity	Rate	Amount
1	Provision of Resident Engineer to provide full-time site supervision	Months	12	R	R
2	Provision of accommodation for RE	Months	12	R	R
3	Travelling costs for RE (provisional)	km	3 000	R	R
4	Provisional amount for internet and cell phone services	Sum			R10 000-00

PRACTICAL EXAMPLE OF A SPECIFICATION

Title: Quote for Consulting Engineering Services

C3: Scope of Work

Description of the Project

The Middelburg Scheme is supplied by two WTWs, the Vaalbank WTW (44 Ml/d) and the Kruger WTW (6 Ml/d). The Vaalbank WTW is fed by the Middelburg Dam on the Klein Olifants River.

Water is pumped from the dam to the RMB reservoirs from where the Vaalbank WTW is fed. The Skietbaan and Nasaret reservoirs are the main receiving reservoirs with Graspan, Rietfontein and Kanonkop reservoirs providing additional storage basically constituting a ring-feed system for the bulk water supply network. From the Kruger WTW water is supplied to the Vliegvelde Reservoir from where it feeds into the CBD retail network.

A 10 Ml storage reservoir will be constructed on municipal land at the existing Skietbaan reservoirs.

Design criteria

The design criteria and standards must be proposed by the consulting engineer for approval by the Senior Manager: Civil Engineering Services.

Purpose and Recipients

The municipality needs to provide additional storage capacity to cater for the increasing future industrial water demand in the distribution areas served by the Skietbaan reservoirs.

Estimated value of the project

The estimated value of the construction component of the project is R10 970 000 VAT inclusive.

Information to be obtained by the Consultant

- Geotechnical survey
- Detailed topographical survey
- Location of existing services
- EIA Scoping Report

Information to be provided by the Employer

- Format of Inception report
- Format of Preliminary Design report
- Format of Tender Adjudication report
- Format of Monthly Progress reports

- Format of Close-out report
- Site layout plan of the Skietbaan reservoir site
- As-built drawings of the existing Skietbaan reservoirs
- Technical reports relating to the existing Skietbaan reservoirs
- Standard construction tender document template
- GRAP 17 accounting standards – asset management

Scope of Services

The Scope of Services required shall be in terms of the Guideline Scope of Services and Tariff of Fees for Persons Registered in terms of the Engineering Profession Act, 2000, (Act No. 46 of 2000), published in Government Gazette No 31749 of 2 January 2009.

This shall include the following:

- Inception Stage, including the following:
 - Consultation with relevant state departments regarding the EIA process
 - Scoping report for approval by the Employer
- Concept & Viability Stage: Preliminary Design Report, including geo-technical and topographical surveys and location of existing services
- Design and Development Stage
- Documentation & Procurement Stage, including submission of complete draft document to Specifications Committee for approval
- Contract Administration & Inspection Stage, including Level 3 construction monitoring
- Close-out stage, which shall include a Close-out Report, As-built Drawings and submission of the details of the assets, broken down into components as per the applicable accounting standards (GRAP 17). Such components must be costed in accordance with actual expenditure and balanced back to the total cost of the project

Fees and supervision

Tendered Professional fees shall be payable in terms of the following schedule:

1. Inception	5%
2. Concept and viability	25%
3. Design Development	30%
4. Documentation and Procurement	15%
5. Contract Administration and Inspection	15%
6. Close-out	10%

Expenses and Costs

Expenses and costs shall include all expenses actually incurred by the consulting engineer and members of the consulting engineer's staff in rendering their services and all other costs incurred on behalf of and with approval of the client

Recoverable expenses shall include:

- Travelling expenses for the conveyance of the consulting engineer or a member of the consulting engineer's staff.
- Travelling time on the basis of the Time Rates set out in the Schedule of Fees for all time spent in travelling by the consulting engineer or members of his staff for all time spent in travelling minus the first three hours per return journey.
- Accommodation and subsistence expenses incurred by the consulting engineer or a member of his staff.
- Costs of typing, production, copying and binding of contract documents, feasibility reports, preliminary design reports, final reports and manuals, excluding general correspondence, minor reports, contractual reports, progress reports, draft reports etc. As well as:
 - geotechnical investigations
 - laboratory testing
 - topographical and land surveys
 - supply of specific equipment





- specialist sub-consultants
- environmental investigations and studies
- land acquisitions, expropriation, way leaves, servitudes.
- Expenses on special reproductions, copying, printing, artwork, binding and photography, etc. requested by the client.

Site supervision

Level 4 site supervision shall be provided by the consulting engineer.

Insurance for Liability and Indemnity

The Consultant shall carry and maintain professional indemnity insurance to twice the amount of fees payable to him under this agreement, excluding reimbursements and expenses for the duration of the contract and for one year thereafter.

Contract

The appointed consultant will be required to enter into a Professional Services Contract with the Employer, based on the Professional Services Contract of the Construction Industry Development Board, available on their website.

CONCLUSION

Writing a specification is to a certain extent an art, but it is a skill that can be acquired and improved through practice. It does however require a certain level of mastery of the English language, which can be particularly challenging when it is not the author's first language. It is therefore imperative that all efforts be made to continuously strive to improve that skill by means of continuous research, reading, training and self-improvement. Mastery comes with practice, practice and more practice!

REFERENCES

- *National Treasury. 2005. Supply Chain Management. A guide for accounting officers of municipalities and municipal entities.*