

Contracts Management Manual

prepared by

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Lilongwe, May 2000

for

CARE

MALAWI

Labour-based Road Rehabilitation

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Introduction

When involving the domestic private sector in the execution of labour-based road works, there are several important issues which need proper attention during programme design and implementation. Local contractors will not provide an easy solution to road rehabilitation and maintenance problems. The development of small-scale contractors entails a series of new activities such as management training, development of user-targeted training material, development of appropriate contract procedures, streamlining of payment procedures and last but not least providing interested contracting firms with attractive market prospects and a conducive environment in which they can operate efficiently.

The contracts documents and the management procedures described in these guidelines, have been prepared for the purpose of engaging domestic small-scale contractors for the execution of rural road rehabilitation applying labour-based work methods. They can also be applied to new construction, spot improvements of existing roads as well as periodic road maintenance works.

This contracts management system has been developed for the Central Region Infrastructure Maintenance Project (CRIMP) bearing in mind the specific requirements of this project and the administrative procedures and conditions under which this project operate. Including these concerns, it has still been possible to design a system which follows standard practices and principles for contracting and which thereby allows the system to be applied for works in other similar projects where rural road construction and rehabilitation works are carried out.

This document is addressed in particular to:

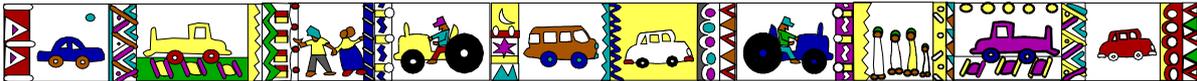
- government staff involved in the preparation, award and administration of contracts executed by private enterprises,
- engineers in charge of carrying out preliminary and final designs, preparing tender documents and supervising the work,
- training staff responsible for the training of small-scale local contractors, and
- donor organisations, NGOs and others concerned with the promotion of the domestic small-scale contracting industry.

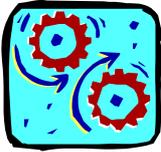
The contract documents and procedures are based on existing materials in the country as well as following general guidelines recommended by the World Bank and the International Labour Organisation when promoting the use of local contractors.

The general documents follow a standard which can be applied to all civil works in the CRIMP (i.e. gravel supply, bridges, culverts and other structures). The technical part of the contract documents have been prepared in such a way that the choice of labour-based appropriate technology is secured as the mode of implementation. As part of this consideration, the technical specifications have been carefully designed to conform with the DRIMP Technical Manual which still seems to be the main reference and standard in terms of labour-based road works in Malawi.

Contracts preparation, supervision and payment procedures are based on a system where authority is decentralised to district level, thus obtaining a more responsive and efficient system, allowing for the client to perform its duties effectively in terms of supervising works dispersed over a large geographical area.

This manual is divided into three parts. The first section describes the system as a whole and how the individual activities are linked together into a process. The second section describes in detail how each of the contract documents are used, and finally the last section contains samples of all the documents described in earlier sections.





Section 1

Contracts Procedures

1.1 General

In the implementation of rural road construction or rehabilitation works, built under contract, the four following phases can be distinguished:

Phase I Design	Identification Technical and socio-economic feasibility study Preliminary design Final design
Phase II Tender	Preparation of tender documents Invitation to tender and opening of bids Evaluation of bids Award of contract
Phase III Execution	Execution of works by the contractor Supervision of works Completion of works Maintenance of works and final handing over
Phase IV Maintenance and Operation	Setting up an effective maintenance system Inspecting the condition of the road network Executing appropriate maintenance

This guide primarily deals with the effective approach to phases II and III, using labour-based work methods carried out by small-scale domestic contractors. For maintenance of the rehabilitated roads, it is recommended to use more simplified procedures, engaging village based petty contractors (ref: the CRIMP Rural Road Maintenance Management Manual).

The following chapters deal with contracts based on Bills of Quantities. Tendering takes place largely on the basis of specifications and bills of quantities which split up the works into separate cost items. These items are described in detail in works specifications. The bidder must enter against each item a unit rate or price, resulting in a contract price which is the aggregate amount of the various quantities priced at quoted rates, to which a percentage can be added for sundries or contingencies.

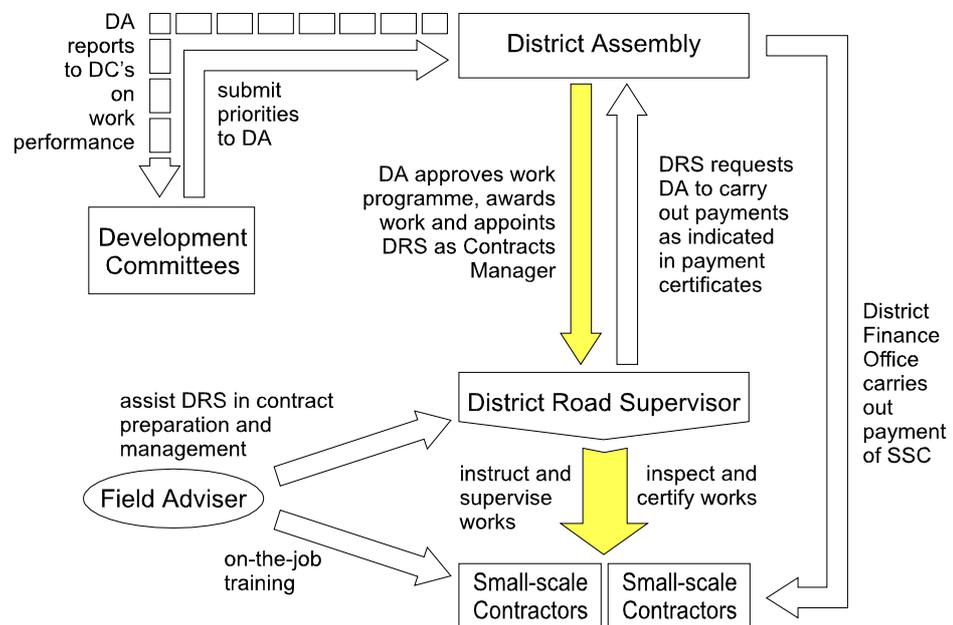
For works of a more simple nature, such as routine maintenance of rural roads, it is recommended that contract award is based on price lists drawn up by the engineer and against which the contractor is invited to accept.

For both methods of contracting, the district authorities should carefully analyse each time the unit rates entered into the tenders, and make sure that they are brought up to date with each subsequent call for tenders.

1.2 The Bidding Process

Rural road rehabilitation works are carried out through civil works contracts awarded by the district authorities. Prior to this stage, the planning and prioritisation of road works should be carried out through the various levels of development committees and finalised at district level with the assistance of the District Road Supervisor.

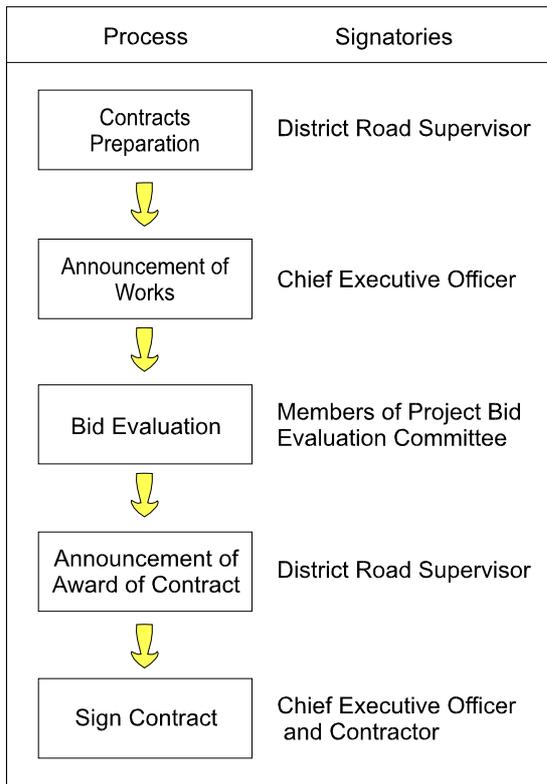
Contracts for labour-based road works are prepared by the district authorities, including announcement of bids, bid opening, bid evaluation, award of contract, inspection and supervision of works, certification and payment of works and finally issue of final completion certificates as shown in the figure below:



The District Assembly is responsible for the approval of the budget of each of the road projects, based on the estimates prepared by the District Road Supervisor.

Once bidding documents have been prepared for a specific road rehabilitation project, the works are announced by the District Assembly. Works should be awarded on the basis of bids submitted from pre-qualified local contracting firms. The main criteria for pre-qualification would be that they have been trained in labour-based road works technology.

Once bids are received, they should be examined for their accuracy and adherence to the bidding instructions by the District Road Supervisor, before they are evaluated by the project tender committee. The tender committee would consist of representatives from the District Assembly, the appropriate development committees, the District Road Supervisor and the CRIMP technical staff.



Contract agreements are prepared by the District Road Supervisor for signature by authorised representatives of the District Assembly (the Client) and the Contractor.

Considering the size of the road rehabilitation contracts, the most appropriate bidding procedure would be to invite a minimum of three bidders to quote on each contract. Contractors would be requested to submit bids based on bill of quantities where they would need to base their quoted prices on unit prices for each of the work activities.

In the pilot phase, when there are very few contractors qualified in the use of labour-based road works technology, the use of domestic canvassing is the most appropriate method of announcing works. Once this type of works programmes are expanded into larger areas covering larger portions of the road network, then the bidding procedures needs to be re-examined. In order to encourage further competition in the market it would then be appropriate to announce the works to a larger group of qualified bidders.

Domestic Canvassing

For road works contracts with a limited value, the procedures for domestic canvassing can still be applied. This basically implies that a minimum of three quotes are obtained from three separate qualified companies. This is justified by the fact that for smaller contracts, the value of works would only be attractive to firms which are based in the vicinity of where the road works will take place.

Local Competitive Bidding



Eventually, road works contracts of larger value should be announced following the procedures for local competitive bidding¹. In essence, this implies (i) that an official bid announcement needs to be carried out and (ii) that any qualified bidders may participate in the bidding process. This involves advertising the works in local newspapers as opposed to domestic canvassing where only a limited number of firms are invited to submit bids.

However, in the pilot stage, when the value of the works are still limited, it is recommended that the road rehabilitation works contracts are announced using domestic canvassing.

¹ For comparison, MASAF prescribes national competitive bidding for contract values above US\$ 30,000:-. Under this ceiling, verbal advert is recommended, obtaining a minimum of three bids.

Both announcement procedures require the same type of bidding documents and follow the same procedures for bid evaluation and award of contract. Although it is not required to advertise bids for contracts with a value less than a certain value, it may prove a useful method of attracting more contractors to submit tenders.

A secondary effect of announcing works is that it makes the programme more visible to outsiders and may spur the interest of other firms and organisations in the use of appropriate technology for the execution of rural road rehabilitation and maintenance works.

Transparency/Advertisement

Before the tenders are announced, it is recommended that the Engineer's Estimate is published. Certain project owners may be reluctant to do so because they are afraid that this encourages contractors to raise their prices. This may be a valid point, however, one is never sure that the secret will be kept from all the bidders, and the best incentive to competition is for everyone to have an equal chance.

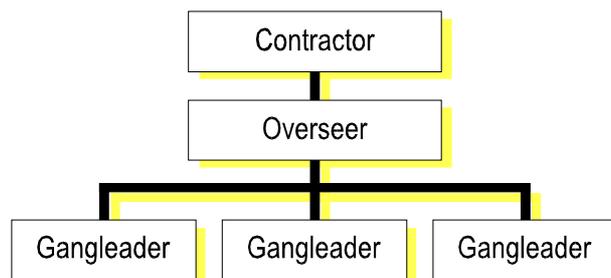
Pre-qualification

Ensuring that competitive bids are obtained from qualified bidders is a fundamental measure in attempting to assure that civil works are carried out in time and to high quality standards once a contract has been awarded. For rural road works, where labour-based work methods are used, it is important that bids are obtained from firms that are qualified to carry out the works as requested in the contract documents.

For labour-based road works, the main concern of the client is that the company possess qualified staff which is fully conversant with the use of labour-based appropriate technology. This implies that the bidders need to provide the client with evidence showing that their staff have (i) received adequate training in labour-based road works technology and (ii) eventually can show past experience in carrying out this type of works.

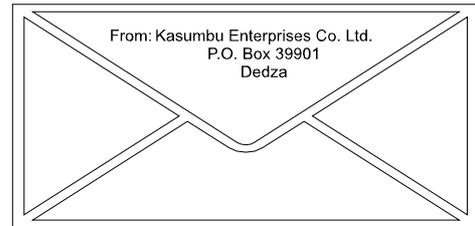
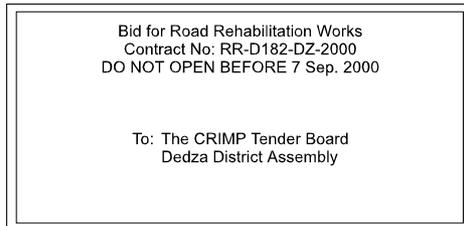
Depending on the magnitude of the works, the bidder will need to provide details of the site supervisory staff from overseers, semi-skilled workers and artisans. Furthermore, if this staff chooses to leave the company during the execution of a labour-based road works contract, the contractor will be obliged to recruit new professionals with similar work experience and training.

In order to ensure a monthly average output of 1.5 km of earth road rehabilitation using labour-based appropriate technology, the core staff required from a contractor is shown below:



Submission of Bids

Bids shall be submitted in the form as described in the Instruction to Tenderers, signed by the firm's authorised representative and shall contain three contract documents (Form of Tender, priced Bill of Quantities and List of Basic Wage Rates), with any amendments duly initialled. Bids are required to be delivered in a sealed envelope before the deadline specified in the bid announcement.



Bids which are delivered in advance of the deadline shall be stored unopened in a secure place until the bid opening ceremony. The Client is obliged to provide the bidder with a signed receipt, acknowledging the receipt of a bid which is submitted before the date and time of the bid opening.



Remember that no bids shall be accepted after the announced deadline for submission. Any bids received after the final deadline should be returned unopened to the address as marked on the envelope.

All tenderers are obliged to use the standard Form of Tender when submitting a bid. In this standardised tender form, there are two important messages:

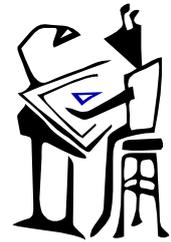
- (i) First of all, the tenderer, by signing the standard bid form, accepts all the conditions of contract. If the contractor makes reservations to any of the conditions or technical specifications in his/her tender, he/she will be disqualified. If there are obvious errors in the tender documents, these should be clarified before the deadline for submission of bids.
- (ii) Secondly, the price offered for the works includes all the work activities mentioned in the contract, including provisions for mobilisation, supervision, administration, profits, etc. In short, this amount will be the maximum amount paid for the quantities of work mentioned in the contract. The contractor will not be able to claim additional payments during the course of the works for the quantities already specified in the contract.

1.3 Contract Documents

 Contract Documents for labour-based road rehabilitation works comprise of:

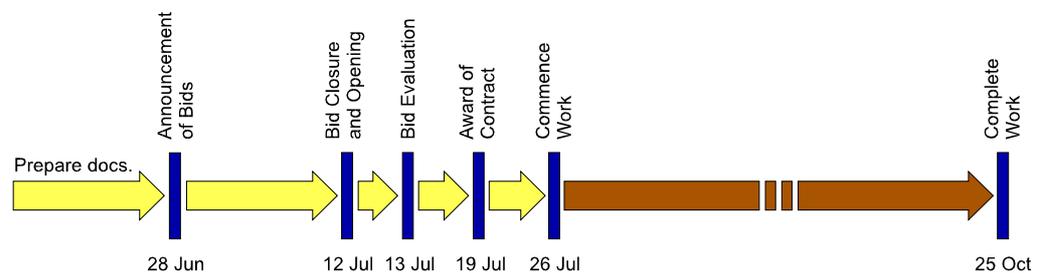
- | | |
|------------------------------|---|
| Bidding: | <ul style="list-style-type: none"> ● Notice for Invitation ● Instructions to Tenderers ● Form of Tender ● General Conditions of Contract ● Appendix to Conditions of Contract ● Special Conditions of Contract ● Form of Agreement ● List of Basic Wage Rates ● Works Specifications ● Bill of Quantities ● Technical Drawings |
| Evaluation: | <ul style="list-style-type: none"> ● Evaluation of Tenders |
| Payment Certificates: | <ul style="list-style-type: none"> ● Payment Breakdown ● Interim Payment Certificate, ● Certificate of Practical Completion, ● Final Certificate of Completion |

Section 2 of this manual describes the exact use of these documents, how they are prepared, by whom, approval and filing procedures, etc. Samples of all the above mentioned documents are found in Section 3.



Bidding documents for specific contracts are prepared by the District Road Supervisor and should be controlled and verified by the Project Field Advisers.

It is important that a time schedule is fixed and agreed before commencing on contracts preparation. Important dates include date of announcement, bid closure, commencement and completion of works.



Remember that the above dates need to conform with the overall work programme in the district as well as any other contracted works planned for each specific road project (i.e. bridges, culverts, gravel supply, etc.). It is the responsibility of the District Road Supervisor to coordinate the various components of the contracts preparation process with the overall physical works programme.

1.4 Bid Opening

Time and Venue

The time and venue for the bid opening should be the same as for the latest delivery of bids or promptly thereafter. Bids should be opened at the stipulated time, in public, i.e. bidders or their representatives should be allowed to be present. The name of the bidder and total amount of each bid, and of any alternative bids, if this have been requested or permitted, should be read aloud and recorded when opened.

Bids received after the time stipulated should not be considered. Late bids should be returned un-opened to the bidders representative.

The time and venue should be properly announced to allow the bidders to meet on time for the bid opening venue. Thereafter, it is the responsibility of the bidders representatives to arrive in time to deliver his bid and participate in the opening session.

Clarification of Bids

No bidder shall be requested or authorised to alter his bid after the first bid has been opened. A bidder may be asked to clarify a given point, for purposes of evaluation, however, he should not be requested to alter the substance or price of his bid after the bid opening session has commenced.

Examination of Bids

Following the opening of the bids, the bid opening committee should ascertain whether the bids:

- have been properly signed,
- are accompanied by the required securities,
- are substantially responsive to the bidding documents,
- contain no material errors in computation, and
- are otherwise generally in order.

If a bid is not substantially responsive, i.e. it contains material deviations from or reservations to the terms, conditions and specifications in the bidding documents, it shall be rejected and not be considered further. The bidder should not be permitted to correct or withdraw material deviations or reservations once bids have been opened.

Arithmetical Errors

The bid price read out during the bid opening should be verified and if required adjusted to correct any arithmetical errors.

1.5 Bid Evaluation

Bid evaluation should be carried out as soon as possible after the bid opening. It is important to bear in mind that the bid evaluation is a distinct exercise separate from the bid opening exercise.



While the bid opening session is open for the public to participate in, and in particular the firms from which bids have been received, the bid evaluation is an internal management meeting in which all discussions are confidential. This implies that only the members of the bid evaluation committee are present during this exercise and their final selection of most successful bidder should not be announced before any final approval of the evaluation has been obtained. Information relating to the examination and evaluation of bids and recommendations concerning awards should not be disclosed to other persons not officially concerned with this process.

Before the bid evaluation committee convenes its meeting, it is important that the District Road Supervisor carries out a series of preparatory activities. The most important duties before conducting the bid evaluation are (i) to prepare the Engineer's Estimate (if not already completed) and (ii) perform a final check of the bids for any arithmetic errors in the calculation of the total bid values.

In addition, there might be a demand for verifying the firms qualifications, whether they have the necessary capacity to carry out the works, their past performance, their staff availability, condition of tools and equipment, etc. This information should be presented in a summary table to the bid evaluation committee when it convenes, thereby assisting its individual members in making the right assessment of the bidders and finally taking the correct decision in terms of the best bid.



Once the ratings of the bidders have been decided upon, the Bid Evaluation Form is prepared and submitted for final approval. The form should list the most successful bidder, the second best, the third best, etc. (if any). If for any reason the most successful bidder decides not to carry out the contract, the evaluation committee has thereby already decided that the second best bidder will be awarded the contract.

Particular Case of Low Bids

A potential danger of competition, when it is very lively, is that bidders are encouraged to quote very unrealistic prices. The result is that contractors will be unable to complete the works, or will fail to respect quality standards for fear of losing financially. But rigid application of the minimum threshold for responsive bids is not the answer. In the first place, the desire to find out what this minimum threshold is can become so pressing that it fosters corruption. In addition, the engineer who estimated the cost of the works is not always better informed than the contractor about real costs. When a very low bid is offered, the contractor should be asked for an explanation, and if there is an obvious error of computation, the bid should not receive further consideration. But it can happen that the contractor will offer a logical explanation that still leads to a price regarded as very low.

The bid evaluation committee is not obliged to choose the lowest bid. The selection of the most successful bid should be based on several factors, bid price, past performance, staff qualifications, present capacity, etc.

Of particular importance is the contractors current capacity and availability to carry out the works during the period envisaged in the physical work plan. If it is evident that a firm cannot carry out the works between the start and

completion dates envisaged in the bidding documents, the bid should be given a lower rating or rejected.

It is important that only bids which are not rejected are entered into this form. This implies that any bid which is deemed too expensive or not qualified should not be entered into the bid evaluation form.

Finally, it should be noted that the bid evaluation committee has the authority to reject any bid or all bids. If all bids are rejected, a rebid needs to be arranged. In order to obtain more competitive prices during the second bidding round, it could be useful to invite more firms to submit bids.

1.6 Award of Contract

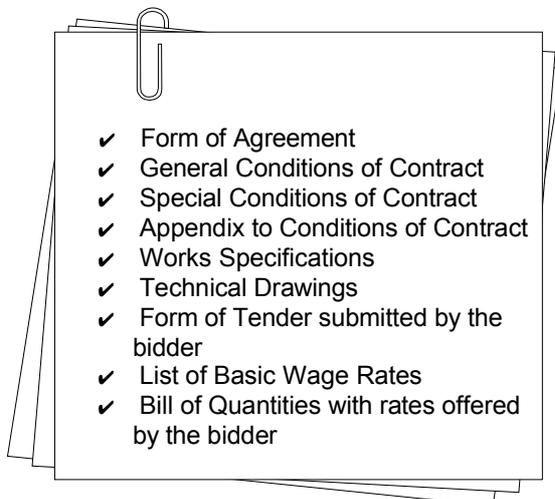
Contracts should be awarded within the period of the validity of the bids. A bidder should not be required, as a condition of award, to undertake responsibilities for work or services not stipulated in the specifications or otherwise to modify his bid.

An extension of bid validity, if justified by exceptional circumstances, can be requested from all bidders before the expiration date. However, bidders should not be requested nor permitted to change the price or other conditions of their bids. Bidders have the right to refuse to grant extensions without forfeiting their bid security (if any). If bid securities are applied, it will be necessary to extend the validity of the bid securities.

After final approval of the findings of the bid evaluation, the contract is awarded to the most successful bidder. The Contractor should then be notified immediately, thereby allowing him to mobilise as soon as possible.

The contractor is expected to mobilise immediately upon receiving the notification of award. In other words, the contractor is expected to commence works even before a contract agreement has been signed.

When issuing a contract agreement, the following documents should be included:



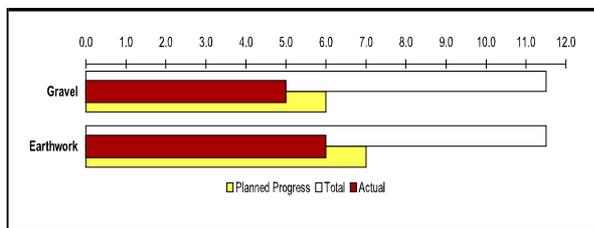
The contract is prepared by the District Road Supervisor. It is prepared based on the documents issued during the bidding process. When issuing the contract agreement, no changes should be made to the conditions of contract. Furthermore, the contract should include the Bill of Quantities, Form of Tender and List of Basic Wage Rates as submitted by the most successful bidder. Only arithmetic errors should be corrected in the documents submitted by the bidder.

The contract agreement should be signed by the Chief Executive Officer of the District Assembly, an authorised representative of the contractor and the Project Technical Coordinator. When the contract has been signed by all parties, a full copy should be sent to the Project Management Office.

The contract agreement serves as supporting evidence for any payments processed under the contract. Therefore, the original copy should be kept at the District until the works as defined in the contract have been completed, including the defects liability period.

1.7 Contract Management

Total Quant.			2000												Percent
Unit	Plan	Actual	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Compl.
Earthwork	km	11.5	6.0	Plan	0.5	1.0	1.5	2.0	2.0	1.5	1.5	1.5			11.25
				Actual	0.5	1.0	1.5	2.0	1.0						
Gravel	km	11.5	5.0	Plan			2.0	4.0	2.0		1.5	1.0	1.0		8.25
				Actual			2.0	3.0							
Cumulative Up to This Month															Percent
Earthwork	km	7	6	Plan	0.5	1.5	3.0	5.0	7.0	8.5	10.0	11.5			86
				Actual	0.5	1.5	3.0	5.0	6.0						
Gravel	km	6	5	Plan			2.0	6.0	8.0		9.5	10.5	11.5		83
				Actual			2.0	5.0							



Within two weeks of Notification of Award, the Contractor is obliged to prepare a works programme covering the entire construction period. This should be done in the fashion of time-location charts.

The work programmes should be updated at least on a monthly basis for each site, thus allowing the District Road Supervisor to incorporate these plans in the overall progress plans for the district and the road component as a whole.

The District Road Supervisor needs to carefully coordinate the road works contracts with delivery of gravel, construction of culverts and bridges and other works along the road alignment. In this respect, it is important that this planning starts already before the preparation of each individual contract. The ideal situation would be to

issue the culvert and bridge contracts first, thereby ensuring proper access when the road works activities commence.

Equally, it is important that the division of works between the various contracts are clear. As an example, it must be made clear through the provision of work activities in the Bill of Quantities, which Contractor carries out activities such as traffic and river diversions, back-filling of bridge abutments, etc.



The District Road Supervisor should on a weekly basis arrange progress meetings with the contractors where implementation issues are discussed in detail. These meetings can be held at the site or at the District Office. The DRS is responsible for calling the meetings and the Contractor is obliged according to the Special Conditions of Contract to attend these meetings.

Written minutes should be maintained on all decisions made during progress meetings with the contractors. In addition, all instructions issued to the contractors on site should also be confirmed in writing. This is best organised by requesting each contractor to have a notebook on site in which all instructions are entered. These instructions should include the quantities agreed on which deviate from the original bill of quantities and volume tables in the contract, as well as instructions issued relating to improved methods of construction, quality, replacement of staff, changes in work programme, etc. During the next site visit of the Contract Administrator, it is then important that the instructions of the previous site visit are carefully reviewed before new instructions are issued.

Labour-based road works contracts need to be monitored in the same way as force account operations. This implies that the Contractor needs to submit a Muster-roll at the end of each month as well as providing details of work outputs.

Duties of the Contract Administrator

For rural road rehabilitation works, it would be appropriate to appoint the District Road Supervisor as the Contract Administrator to supervise the works. He will be in charge of administrative, technical and financial control of the works, daily on-site supervision, issue of payment certificates and the final completion certificate. The Contract Administrator shall be responsible for the following activities:

Administrative duties:

- maintaining daily site records and preparing progress reports on the status of the project,
- ensuring proper collaboration among all parties involved,
- ensuring liaison with the local authorities and institutions, particularly on matters such as land disputes, authorisations to carry out surveys, access to quarries, etc.,
- suggesting suspension of the works to the Client in case of serious flaws,
- issuing the completion certificate and the maintenance certificate for the handing over of the works,
- playing the role of a mediator in the settlement of disputes between the Contractor and the Client,
- ensure that workers are paid according to the schedule and rates agreed, and that the Contractor adheres to prevailing safety and welfare regulations,
- keeping a full record of all correspondence with the contractor.

Financial duties:

- liaise with the clients representative to ensure regular budgetary provision for the work under contract,
- carrying out surveys with the Contractor to calculate the quantities of works actually completed in order to prepare monthly statements,
- certifying monthly statements and submitting interim certificates to the Client for payment,
- liaise with the Client's representative to ensure the timely payment of certificates.

Technical duties:

- ensure that tools, equipment, materials and labour necessary for works execution are provided by the Contractor before the commencement of works,
- ensuring that the Contractor complies with work standards, conditions of contract and the schedule of works specified in the contract,
- informing the Client promptly of any defects for which the Contractor is responsible and which could be detrimental to the quality of the project,
- observing and keeping records of the productivity rates (task rates) used for each activity,
- providing technical and managerial advice to the Contractor, as needed,

- ensuring that the Contractor respects the planned time schedule for the works,
- advising the Client on possible modifications in the plans, specifications and work methods,
- ensuring that satisfactory measures are taken to minimise obstructions for the traffic on the road, to minimise encroachment to public property and to protect the environment,
- ensuring proper execution of remedial works before final handing over of works.
- ensure that, before the Contractor vacates the site, the work areas are cleaned, camp sites are cleared, rubbish disposed of and that access roads, borrow pits, gravel pits and detours have been rehabilitated as directed by the Engineer.

Rules of conduct

The Contract Administrator shall act in conformity with the responsibilities conferred upon him by the Client in all circumstances. He shall not undertake any activity incompatible with the proper performance of his duties under the project. He shall not accept any gratuity, gift or remuneration from any source other than his employer.

1.8 Payment Certificates

Any payment made to the contractor should be based on completed works which have been measured and approved by the Contract Administrator and deemed compliant to the quality standards established by the project. Under no circumstances shall the contractor be paid for works which have not been completed or have been carried out to sub-standard quality.

During the course of works implementation, it is expected that deviations may occur from the estimated quantities. *However, the payments are based on the actual measured quantities - not the amounts as listed in the Bill of Quantities.*

Before the contractor carries out any works which deviates from the Bill of Quantities and the Technical Drawings, the Contractor needs to obtain written approval for such works from the Contract Administrator. Payment will not be approved for any additional works which have not received prior approval from the Contract Administrator.

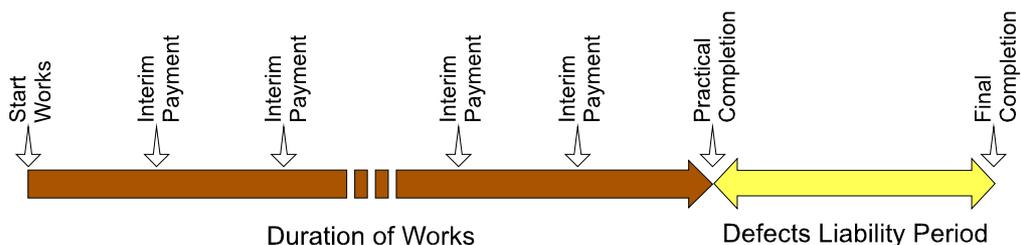


Payment of completed road works consists of the following forms which attempts to standardise procedures and ensure compliance to the Conditions of Contract as well as prescribed accounting practices:

- ✓ Payment Breakdown
- ✓ Interim Payment Certificate
- ✓ Certificate of Practical Completion
- ✓ Final Certificate of Completion

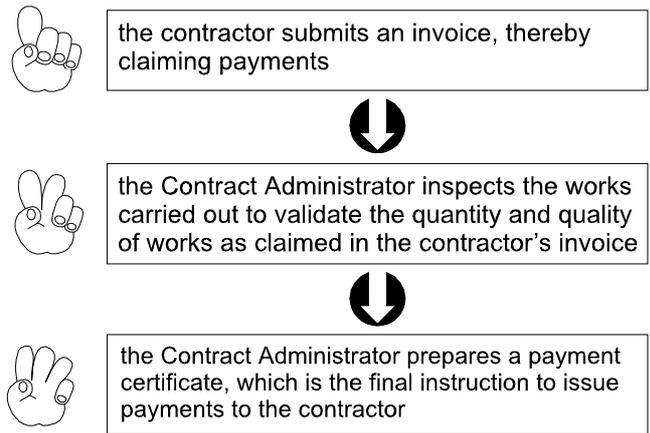
The Payment Breakdown is merely a detailed breakdown of payment according to the various activities listed in the Bill of Quantities. This form acts as a supporting document to the payment certificates.

There are three different types of payment certificates issued during the course of a contract. The Interim Payment Certificate is used for partial payments during the course of works implementation. The number of interim payment certificates to be issued depends on the duration of the contract and the payment schedule as agreed to in the Appendix to Conditions of Contract. Normally, interim payments would be carried out on a monthly basis.



When all works have been completed, the final remaining payment will be processed with the Certificate of Practical Completion. This will also be the start of the Defects Liability Period. At the end of the Defects Liability Period and after the contractor has completed any remedial works, the Final Certificate of Completion is issued.

Payment of works completed under a civil works contract is carried out according to the following three basic steps:



In order for the payment to take place, the amount of the interim certificate must be equal to at least the minimum payment amount accepted in the contract to be processed (ref. Appendix to Conditions of Contract).

Remember that retention monies are always deducted from the amount due for payment to the contractor according to the amount of works completed since the previous payment. Retention on interim payments should *not* be calculated from the total contract value.

Payment Breakdown

The Payment Breakdown contains the details for the calculation of interim payments due to the contractor. When the contractor requests payments for completed works, the Contract Administrator needs to visit the site and measure the works carried out since the previous payment.



Please note that (i) it is the responsibility of the Contract Administrator to ensure that payments are made only for works which have been completed and (ii) that completed works are inspected to verify that the works have been completed to the technical standards and quality prescribed in the contract.

Finally, when measuring the completed works, make sure that the units and methods of measurement as defined in the Bill of Quantities and the works specifications are adhered to.

Interim Payment Certificate

Once works have been measured and found in good order, the total amount from the Payment Breakdown is transferred to the Interim Payment Certificate. On the basis of this amount, the percentage completion can be calculated. Make sure that the payment conforms to the Payment Schedule specified in the Appendix to Conditions of Contract.



Retention money is deducted from the total amount in the Payment Breakdown. For road rehabilitation works, it is recommended that 10 percent retention is applied. This percentage is deducted from each invoice amount (not the total contract value). By subtracting the deductions from the invoice amount, the final amount due for payment is calculated. This same figure is then used to record the expenditure in the Project accounts. At this stage the retention money should not be recorded as an expenditure. It should be recorded as a liability to the contract.

Finally, for monitoring purposes, any previous payments are recorded, together with the total contract value and the remaining contract balance.

Certificate of Practical Completion

The Certificate of Practical Completion form is used for processing payment for the last remaining works at the end of the contract. This form should also be accompanied with a Payment Breakdown, thereby documenting that the final works also has been properly completed.

Once the remaining works have been inspected and found in good order, the contractor is eligible for payment for (i) the remaining works and (ii) half of the retention monies. The amount of retention money to be paid out at this stage is half of all retention monies with-held so far, including half of the retention calculated for the final works due under this payment. The other half of the retention money should be held back until the end of the defects liability period.

Once again, only the actual payment issued to the contractor should be recorded as an expenditure. Any remaining retention money should only be recorded when it has been paid to the contractor.

The date of issuance of the Practical Completion Certificate is the starting date of the defects liability period and should be the same as when the final works were inspected and approved.

Final Certificate of Completion

The Final Certificate of Completion is issued after (i) the defects liability period has expired, and (ii) any remedial works have been inspected and found in good order.

Once payment of the remaining retention money has been made, all obligations from both parties to the contract are regarded as fulfilled. This also constitutes the final completion of the contract. Only at this stage should the final retention money be recorded as an expenditure. Any undisbursed commitments should be voided and released for other purposes.

1.9 Payment Procedures

(i) Payment of Completed Works

The timely payment of the contractors is crucial to their success and ability to operate using labour-based methods. A vital performance criteria of the payment procedures is that the contractors are paid within a maximum of one week after they have submitted an invoice and a payment certificate has been issued by the Contract Administrator. Further delay will compromise the contractor's ability to pay the workers, which in the next turn will have a detrimental effect on the job motivation of the labour force and finally lead to reduced production rates.

For these reasons, it is important that the District Road Supervisor:

- regularly liaise with the district accountant to ensure that sufficient advance transfers have been made from the central authorities/donor, and
- monitor and oversee that the district authorities process timely payment of the certificates, latest within a period of one week after certificates have been completed.

Payments are carried out by the district accountant according to the amounts calculated in the certificates.



Actual payments to the Contractor should be issued by cheque in favour of the contracting firm or its authorised representative or by direct bank transfer. Under no circumstances should the contractor be paid in cash.

(ii) Payment of Labour

Late payment of the workers is not in the interest of the Employer as it may jeopardise the schedule of works. For this reason, particular clauses have been included in the Special Conditions of Contract in order to safeguard the Client. If wage payments are delayed by the Contractor, the Contract Administrator can be authorised by the Employer to pay the workers directly and deduct these costs from any money due to the Contractor.

1.10 Disputes and Arbitration

There will always be differences between the interests of the contractor and the client regarding the interpretation of the contract documents and the way the job should be done. The interest of the contractor is on the one hand to satisfy the client, and on the other hand to make sure that a reasonable profit is achieved. In cases of dispute, it is necessary to work out a compromise between the contractor and the client.

Some general advice on how to handle disputes:

- The contractor should always inform the Employer through the Contract Administrator at an early stage of any problem or disagreement.
- Make every effort to resolve any dispute within the framework of the contract.
- Record all necessary data representing the true development of a dispute.
- Always make sure that instructions which deviate from the contract documents are issued in writing, and remember to confirm in writing oral agreements reached during discussions or meetings. Prepare minutes of meetings and make sure that all parties present sign these minutes.

Any dispute should be resolved as soon as possible, thereby allowing the works to continue. It is in the interest of both the contractor and the client to achieve this goal. Before a dispute has been resolved, works may have to stop which leads to loss of income to the contractor and delays in progress.

If a dispute cannot be resolved through direct negotiation between the contractor and the client, the next step will be for the two parties to appoint an arbitrator, as an independent third party which is then given the task of finding an acceptable solution to the conflict.

Arbitration is both a costly and time-consuming process and therefore it is in the best interest of both the contractor and the client to solve disputes before they reach this stage. For this reason, most disputes are also solved immediately when they arise. By applying the good practices mentioned above, the occurrence of disputes may be further minimised.

1.11 Contracts Register

All contracts awarded should be recorded in the Contracts Register at the District Office as well as with the project office. Not only is the contract register an important tool for expenditure forecasting - it also provides an excellent overview of all the contractors which in the past have carried out works for the project, as well as providing a summary of all the construction companies currently engaged by the project.

The contracts register is an important reference source when carrying out a bid evaluation. Through the contracts register, it is possible to establish whether a bidder has carried out works previously for the project. If contractors have been engaged by the project in the past, the contract register may provide some valuable information about their past performance, and their ability to conform to the planned time schedules agreed to in the contracts.

Also, it is possible to quickly establish whether a contractor is currently or in the process of being engaged by the project for other works. This information may affect the assessment of the contractor's current capacity to take on new work. If the contractors are already engaged by the project, they may have already committed their equipment and qualified staff to other on-going works.

All this information has a direct impact on the final selection of the best bid during a bid evaluation. As mentioned earlier, it is important that the evaluation committee selects a bid from a firm which can commence works according to the time schedule specified in the bidding documents, with the required equipment and personnel. Furthermore, if the contracts register shows that a firm has worked for the project before, it is then an important source for obtaining information regarding the firms' past performance.



1.12 Labour Issues

Before the contractor mobilises, it is useful for the project to visit the villages along the road where the works will take place. The contractor is expected to recruit its workers from these villages and an early notice to the villagers allow them to prepare themselves for work away from their normal economic activities and commitments.

During these visits, it is important to emphasise that the workers are employed by the contractors and not by the government authorities, nor the implementing agency or the donor. This implies that any grievances relating to their employment should be directed to and settled with their employer, the contractor.

However, it would still be useful for the project to brief the villagers on the general conditions of employment which the contractor is expected to abide by. These include:

- the conditions of employment, i.e. use of incentive schemes and basic wage rates, working hours,
- duration of work,
- various parties to the contractor and the roles of the Contract Administrator and the Client,
- benefits or the lack of them.

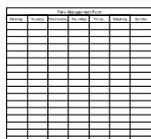
The contractor is bound by the labour regulations and social legislation which are in force in the country. In particular, he shall comply with the following rules: hours and conditions of work, minimum wages, other benefits and general health and safety regulations.

The client shall instruct the contractor to:

- recruit and pay unskilled labour locally without regard to gender,
- to comply with the existing legislation on minimum wages and collective agreements in the building and construction industry,
- to favour the recruitment of local labour and artisans.

The contractor shall keep updated records of the workers employed, the period they have worked and the wages paid. Pay sheets shall be made available to the Contract Administrator at his request.

The labour force shall be paid within two or three days after the client has paid the contractor. Should complaints arise against the contractor for non-compliance to timely payment of wages, the client may proceed with the payment of the outstanding wages by charging them against amounts due to the contractor.



Instructions to Contract Documents

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Notice for Invitation

- Purpose:** The Notice for Invitation provides the announcement to the public of works intended to be carried out using private contractors which have been prequalified to carry out road construction works applying labour-based construction methods.
- Responsibility:** The District Road Supervisor is responsible for preparing the bidding documents including the Invitation for Bids. It should be checked by the Project Field Adviser together with the other bidding documents to ensure that they have each been completed accurately, as well as being consistent with each other.
- Timing:** The Invitation to Bids should be prepared and announced only after all other bid documents have been prepared. If the procedures for local competitive bidding are applied, this announcement should also be advertised in local newspapers, *at least two weeks before the bid closing date*. If the newspaper advertisement is written in Khmer language, ensure that the information relation to the financing agency is included.
- Procedure:** The Notice for Invitation contains the most basic information relating to works for which the Client wishes to engage a construction firm. Further detailed information can be obtained at the address mentioned in the announcement and by acquiring the complete set of bidding documents. The following information should be included in the bid announcement:
- Date:** The date of announcement should be at least two weeks before bid closure, thus allowing the tenderers sufficient time to inspect the work sites and prepare their bids.
- Province:** Enter the name of the district in which the works sites are located.
- Contract No:** Establish a unique contract number for each contract. This number is used as a reference for all related contract documents, correspondence and accounting activities.
- Road Length:** Insert the exact length of the road construction works (km).
- Location:** Enter the exact location of the road, where it starts and ends.
- Address:** Insert the exact street and postal address and phone number to which requests for further information or bidding documents are directed.
- Bid Closure:** The bid closure date and time should be at least two weeks after the announcement date. Check that the date specified here, is the same as mentioned in the Instructions to Tenderers.
- Bid Opening:** Bid opening should preferably be scheduled immediately after bid closure. This provides more accountability in the bid submission and closure procedures. If it is not possible to conduct the bid opening at the date for bid closure, it is recommended that the bid closure date is changed to a suitable time when bid opening can take place.
- Approval:** The Notice for Invitation should be approved by a senior management official (i.e. the Chief Executive Officer), thus sanctioning the start of the contract announcement and award procedures.
- Filing:** The Notice for Invitation should be posted on notice boards accessible to the general public. When bids are announced in the districts, a copy should immediately be provided to the Project Management Office. A copy is also filed at the District Office in a designated file for each type of contracts.

Instructions to Tenderers

- Purpose:** The Instruction to Tenderers provides the basic rules and regulations for the bidding process. It describes in detail all the procedures for submitting a tender as well as defining the terms on which the tenders will be evaluated.
- Responsibility:** The District Road Supervisor is responsible for preparing the bidding documents including the Instructions to Tenderers. It should be checked by the Project Field Adviser together with the other bidding documents to ensure that they have each been completed accurately, as well as being consistent with each other.
- Timing:** Since the Instructions to Tenderers forms part of the bid documents, it needs to be completed and checked for its accuracy before announcement of bids. If a large number of tenderers are expected, make sufficient time allowance for photocopying the bidding documents.
- Procedure:** The Instruction to Tenderers forms part of the tender documents, and should always be provided when inviting for tenders when applying the procedures for local competitive bidding (can also be used for domestic canvassing).
- Most of this document contain standard clauses which remains valid for all type of contracts. The standard Instructions to Tenderers for labour-based road rehabilitation works require detailed information pertaining to a specific contract only in the following clauses:
- Clause 10 A reasonable period of bid validity is 60 days. If this period is changed, make sure that the bid validity period in the Form of Tender is changed accordingly.
- Clause 13 Insert the appropriate contract number and date for the bid opening. Check that this information corresponds to the details given in the Notice for Invitation.
- Approval:** The Instructions to Tenderers need no formal approval. Its contents have no substantial changes from one contract to another except for some administrative details. However, it should still be cross-checked by the Field Adviser before it is released.
- Filing:** The sole purpose of the Instruction to Tenderers is to provide information to the bidders. It is not necessary for the bidders to return this document when submitting a tender. Equally, this document does not form any part of the contract agreement, once a contract is awarded. For this reason, only one copy of this document should be filed as part of the original tender documents, made available during bid opening and evaluation sessions.

Form of Tender

Purpose: The Form of Tender provides the standard letter where the bidder states the total price of a tender. Furthermore, it provides a statement from the tenderers that they commit them self to the conditions of contract and that they guarantee the quoted price for a certain period as mentioned in the form. When the bid evaluation has been approved by the project management, the Form of Tender is used as a binding contract until a contract agreement has been signed by all parties.

Responsibility: The District Road Supervisor is responsible for preparing the bidding documents including the Form of Tender, only leaving the tender price and signature of the tenderer open. It should be checked by the Project Field Adviser together with the other bidding documents to ensure that they have each been completed accurately, as well as being consistent with each other.

Timing: Since the Form of Tender forms part of the tender documents and after contract award is construed as part of the agreement, it needs to be checked for its accuracy before announcement of bids.

Procedure: The detailed information pertaining to a specific contract which is prepared in advance of announcement of bids are as follows:

Contract Name: Enter the location of the road rehabilitation works.

Contract No: Establish a unique contract number for each contract. This number is used as a reference for all related contract documents, correspondence and accounting activities.

To: Insert the address to where the tender should be submitted. Check that this information corresponds to the details given in the Notice for Invitation and the Instructions to Tenderers.

Bid Validity: A reasonable period of bid validity is 60 days. If this period is changed, make sure that the bid validity period in the Instructions to Tenderers is changed accordingly.

On submission of their proposals, the tenderer is required to provide the following details to be inserted in the Form of Tender:

- ✓ the total quoted price, written in numbers and words under Clause (1),
- ✓ date of submission of Tender,
- ✓ signature of company representative,
- ✓ name, address and telephone of tenderer.

Filing: All bids received needs to be properly filed for later auditing. The Form of Tender of the successful bidder forms part of the contract agreement.

Form of Agreement

- Purpose:** The Form of Agreement provides the standard contract to be used when awarding a contract to the most successful tenderer. During the bidding process, a sample of this document is issued as general information to the tenderers. Tenderers do not need to fill in any information in this Form during bidding. Only once the bid evaluation has been approved, the Agreement is filled out by the Employer and issued to the Contractor for signature.
- Responsibility:** The District Road Supervisor is responsible for preparing the bidding documents including the Form of Agreement, only leaving the date, name of the Contractor and contract value open. It should be checked by the Project Field Adviser together with the other tender documents to ensure that they have each been completed accurately, as well as being consistent with each other.
- Timing:** Since the Agreement forms part of the tender documents and after contract award is construed as part of the contract, it needs to be carefully checked for its accuracy before bid announcement.
- Procedure:** The Agreement is an essential part of the tender documents, and should always be provided when tendering. The detailed information pertaining to a specific contract which is prepared in advance of announcement of bids are as follows:
- Contract No:** Establish a unique contract number for each contract. This number is used as a reference for all related contract documents, correspondence and accounting activities.
- Contract Name:** Enter the location of the road works.
- Location:** Enter the location of the road works, i.e. name of villages from where the road starts and ends, as well as the name of the District.
- After tender opening and evaluation, the following information is entered:
- Date:** Enter the date of contract issue.
- Contractor:** Enter the full company name to which this contract is being awarded.
- Contract Value:** From the Tender Form, enter the total contract value as quoted by the most successful tenderer.
- Approval:** The Agreement shall be signed by an authorised representative of the Contractor and the District Assembly in witness of the Project Technical Coordinator. Make sure to obtain the signature of the Contractor within the period mentioned in Clause 10 of the Instructions to Tenderers.
- Filing:** The Agreement forms an essential part of the Contract with the most successful tenderer, which needs to be filed to be used for justification of payments of works and finally to be subject to the annual audit.

Conditions of Contract

General and Specific Conditions of Contract

The General and Special Conditions of Contract are standard documents which need no changes from one road works contract to another. These documents only contain general clauses which relate to all road works contracts. Any details relating to a specific contract are referred to and contained in the Appendix to Conditions of Contract. All three documents form part of the tender documents as well as the final contract agreement.

Appendix to Conditions of Contract - Contract Data

- Responsibility:** The District Road Supervisor is responsible for preparing the Appendix to Conditions of Contract. This form is checked for accuracy by the Project Field Adviser.
- Timing:** The Appendix is prepared for every contract as part of the tender documents and will also be included in the final contract agreement.
- Procedure:** Key data relating to the conditions under which a contract will be carried out are contained in the Appendix to Conditions of Contract.
- At first, enter basic information relating to Contract Number, Contract Name and District at the top of the form.
- Name of Contractor:** During the preparation of the tender documents, this line is left open until the final evaluation and selection of the most successful tenderer has been carried out.
- Commencement Date:** This date should indicate when the contractor should be ready to mobilise if awarded the contract. This implies that all the necessary resources in terms of workers and tools need to be made available from this date.
- Completion Date:** This is the date when all works are expected to be completed, given the above commencement date. These dates should correspond to the overall programme of works in the District.
- Site Location:** Enter the exact location of the road works, i.e. name of villages where works starts and ends. If necessary also enter the exact chainage for the works.
- Retention:** Retention is normally fixed as a percentage with-held from the interim payments. An appropriate level for road rehabilitation works is 10%.
- Currency of Payment:** Enter the currency in which payments are made. For this project, Malawi Kwacha is the preferred currency.
- Defects Liability Period:** The defects liability period is basically the guarantee period given by the Contractor. During this period, the Contractor will be responsible for repairing any defects which are uncovered and which are caused by sub-standard execution of works. As security, the Employer will with-hold half the retention monies during this period. 3 months is normally a sufficient defects liability period.
- Minimum Amount of Interim Certificate:** To avoid the processing of payment certificates with un-reasonable small amounts, enter a minimum value for interim payments.
- Time for Payment after Issue of Certificate:** This is the maximum time for the Employer to process payments for completed works for which the Contract Administrator have issued a certificate.

- Payment Schedule:** The prescribed payment schedule regulates when the Contractor may claim payments for completed works, given that the amount for payment is more than the minimum mentioned above.
- Insurance:** The Contractor is responsible for providing appropriate insurance coverage of its employees and workers. This amount is the maximum amount for which each worker should be covered.
- Filing:** The Appendix to Conditions of Contract forms part of the tender documents. All tenders received need to be properly filed for later auditing. Also, the Appendix forms part of the contract agreement with the most successful tenderer.

Technical Drawings

Technical Drawings for road rehabilitation works should contain three items:

- (i) drawings of standard cross-sections, and if required details of cross drainage structures.
- (ii) road condition inventory describing the exact location of the quantities of work, and
- (iii) a location map.

If any deviations are made from the standard drawings, then additional drawings will be required preferably before the announcement of bids and latest before the commencement of works. These deviations shall be incorporated in the Bill of Quantities.

Major deviations from the standard drawings should have written approval from the Project Management Office prior to Bid Announcement. Minor changes required during works implementation should be reported through the established progress reporting system, and reflected in the payment certificates.

It should also be noted that in addition to the above documents and the work specifications, the DRIMP Technical Manual also forms part of the contract and shall be used as a reference when the above mentioned documentation proves insufficient.

Therefore, make sure that the Contractor on site, have sufficient copies of the Technical Manual and that it is readily available to the site supervision staff.

Bill of Quantities

- Purpose:** The Bill of Quantities forms the basis for cost estimating and pricing as well as the breakdown of the major cost items in a works contract. Together with the Form of Tender, the BoQ provides (i) the price offered by the Tenderer (ii) the detailed amounts of work expected from the Contractor for which the total price is based upon.
- Responsibility:** The District Road Supervisor is responsible for preparing the Bill of Quantities after completing a detailed field survey and preparing the road condition inventory. The form is checked for accuracy by the Project Field Adviser.
- Timing:** The Bill of Quantities is prepared for every road works contract as part of the tender documents.
- Procedure:** The Bill of Quantities is based on the measured quantities from the road condition inventories, which is also included as part of the contract agreement. The activities listed in the Bill of Quantities are described in detail in the Work Specifications. Although measured quantities actually carried out may vary from the original estimates, payments are based on the agreed unit rates in the Bill of Quantities. The following information should be entered:
- At first, basic information relating to Road Name, Contract Number, District, Road Chainage and Date is entered at the top of the form.
- Item:** The Item number refers to the appropriate item number as defined in the Work Specifications. Only enter activities for which volumes of work are expected. If one activity should be priced at more than one unit rate, sub-divide the activity.
- Description:** The Description of the activity should correspond to the standard description given to an item in the Work Specifications.
- Unit:** Always use the unit of measurement mentioned in the Specifications. Remember that the Unit should always be a measured output, *not* an input.
- Quantity:** Quantities are entered in totals for each activity, covering the entire contract. This information is obtained from the road condition inventories.
- The above information is provided by the Employer as part of the bidding documents. The remaining information is filled in by the Tenderer:
- Rate:** The unit rates are the most important information submitted by the tenderer as these form the basis for the final contract value. Also, despite changes in quantities during works implementation, the unit rates will remain unchanged.
- Amount:** The amount is the product of the Quantity multiplied by the Unit Rate for each activity.
- Sub-Total:** Sub-totals provide a summary cost of each operation or group of activities.
- Contingencies:** Contingencies are entered as a percentage of the above activities to cater for any deviations from the estimated quantities.
- Signature:** Finally, make sure that the BoQ is properly signed by the Tenderer's authorised representative.
- Filing:** All bids received need to be properly filed for later auditing. The Bill of Quantities also forms part of the contract agreement with the most successful tenderer.

Road Condition Inventory

- Purpose:** This form collects the detailed information of a road condition survey. Secondly, it is where information regarding specific road repairs or maintenance interventions are recorded.
- Responsibility:** The road condition inventory form should be prepared, preferably while still in the field, by the same person which is undertaking the survey. It should be checked by the District Road Supervisor to ensure that it has been completed accurately, and that proposed improvements are in line with current technical standards.
- Timing:** The road inventory forms are used every time a new road section is to be rehabilitated or placed under maintenance. The information entered into this form will form the basis for the quantities of works in the Engineer's Estimate.
- Procedure:** For road rehabilitation and periodic maintenance contracts, the road inventory forms are part of the contract documents together with the technical drawings.
- The road inventory form consists of two parts. The upper half marked "Existing Road" is where the current condition of the road is recorded. The lower half, marked "Proposed Activities", is where improvement works are specified at a certain chainage along the road. If necessary, several copies of the form are utilised to cover the entire length of the road.
- At the top of the form, start by entering the name of the road, District and page number (if several forms are required).
- Chainage:** Mark the exact chainage where maintenance works are located and which is covered by the survey. Please note that longitudinal metres along the road centre line is marked by entering a line at the appropriate chainage. The indicated units of measurement refers to cross section features, such as width of carriage way, depth of drains, width of bush clearing, etc.
- Existing Road:** Enter key indicators for the current condition of the road. If required, additional indicators can be added.
- Proposed Activities:** Select the appropriate work activities which need to be included in the survey. Please note that the activities already listed in the form do not follow the standard codification in the work specifications, since several activities may be covered by the same work code. The standard work items, as classified in the work specifications, only need to be applied when the quantities of work are transferred to the Bill of Quantities.
- Unit:** Enter appropriate units of measurement which are easy to apply during the survey and which clearly describes the quantities of work.
- Approval:** After the above information has been recorded and checked, it needs to be signed by the surveyor and the District Road Supervisor.
- Filing:** Road condition inventories should be filed in a designated file for each road. When works contracts are awarded, these surveys form the basis for calculating and locating quantities of work, to be used for (i) overall supervision of works and (ii) a basis for measurement and payment of works.

Evaluation of Tenders

- Purpose:** The Evaluation of Tenders Form provides a standard presentation of the findings of the Bid Evaluation Committee. Once completed, this form contains the conclusions and decisions of the project bid evaluation committee, which is then submitted to the Project Management Office for final approval, before a contract is awarded.
- Responsibility:** The District Road Supervisor is responsible for preparing the Evaluation of Tenders Form based on the findings of the bid evaluation committee. It should be checked for accuracy by the Project Technical Coordinator, referring to the bidding documents of the evaluated tenders.
- Timing:** The Bid Evaluation Form should be prepared immediately during bid evaluation and checked and signed by all committee members at the end of the meeting.
- Procedure:** At first, basic information relating to Contract Number and District is entered at the top of the form.
- Rating:** This number establishes the selection of the most successful bidder (No.1) and the relative rating provided to bids which were not for any reason rejected by the Committee.
- Company Name:** Enter the name of the selected Contractors in the order they were rated by the bid evaluation committee.
- Quotation:** Enter the quoted price of the respective tenderers.
- Remarks:** Enter any specific information which is significant to the Contractor and the evaluation of its tender.
- Engineer's Estimate:** For comparison, enter the total value of the Engineer's Estimate for the contract. This figure should be prepared before bid opening and made available to the participants before the evaluation.
- Selection:** Repeat the full company name for the most successful tenderer.
- Location:** Enter the exact location of the road works.
- Justification:** Provide the justification of the bid evaluation committee for the above mentioned selection and ranking of bids. If the allocated space in the Form is insufficient, enter additional information on the back of the form.
- Approval:** The Evaluation of Tenders Form shall be signed by all members of the project bid evaluation committee. It is then submitted for final approval at the Project Management Office.
- Filing:** The Evaluation of Tenders Form shall be accompanied by copies of the evaluated tenders when it is submitted for final approval. The original tenders should be kept at the District Office.

Payment Breakdown

- Purpose:** The Payment Breakdown form provides the basic information for the Interim Payment Certificates and the Certificate of Practical Completion. These certificates should always be accompanied with a Payment Breakdown which provides a detailed record of the works which have been completed and for which payment is now being processed.
- Responsibility:** The District Road Supervisor is responsible for preparing the Payment Breakdown after inspecting works on site. The form is checked for accuracy by the Project Field Adviser.
- Timing:** The Payment Breakdown is prepared for every payment certificate when the contractor submits an invoice for completed works.
- Procedure:** The Payment Breakdown is based on the Bill of Quantities which is included in the contract agreement. Completed works are recorded in this form in order to calculate payments to the contractor. Payments are based on the agreed rates in the Bill of Quantities and the measured works completed by the contractor.
- At first, basic information relating to Road Name, Contract Number, District, Certificate Number and Date is entered at the top of the form.
- Bill of Quantity:** In these three columns, enter the agreed quantities, rates and total amounts as specified in the Bill of Quantities in the Contract Agreement for each of the work activities.
- Previous Payments:** If any previous payments have been issued under this contract, enter the total quantities and amounts for which prior payment have been made for each of the activities listed. Remember that if several payments have already been done, this column should provide the total quantities and amounts which has previously been paid.
- This Payment:** In the columns for Quantity and Amount under This Payment, enter the volume of works completed which is now due for payment, since the previous certificate. The correct amount for payment under each work activity is calculated by multiplying the measured quantity with the agreed rate from the Bill of Quantities.
- Total:** Summarise the amounts in the three columns Bill of Quantities, Previous Payments, and This Payment. Remember that the total amount under Bill of Quantities should correspond with the total contract value less contingencies, and total under Previous Payments should be equivalent to the sum of all previous payments under this contract. The total under This Payment is transferred to the payment certificate being the basis for which (i) payments are made and (ii) retention is calculated.
- Approval:** The Payment Breakdown is issued together with the payment certificate. The payment certificate needs to be signed by the District Road Supervisor, endorsed by the Project Field Adviser and approved for payment by the Director of Finance.
- Filing:** The Payment Breakdowns are kept together with the payment certificates for which they act as supporting evidence.

Interim Payment Certificate

- Purpose:** The purpose of this form is to certify payments of completed works for which a contractor has invoiced. The Interim Payment Certificate is based on the Payment Breakdown and previous payment certificates issued under a specific works contract.
- Responsibility:** The District Road Supervisor is responsible for preparing this certificate. It should only be prepared after the works for which the contractor claims have been inspected and found in good order, conforming to prescribed quality, and after the claimed quantities have been verified.
- Timing:** Interim Payment Certificates are prepared on the request of the contractor, i.e. upon the receipt of a claim. However, a certificate should only be prepared if it conforms to the agreed payment schedule described in the Appendix to Condition of Contact.
- Procedure:** A new certificate is prepared for each payment according to the agreed schedule. This form is accompanied with the Payment Breakdown which acts as the detailed justification for the Payment Certificate.
- Enter basic data relating to the contract, i.e. Road Name, Contract Number, District, Name and Address of Contractor, and agreed commencement and completion dates. All this information is found in the original contract agreement. Finally, enter the Certificate Number, which should correspond to the number of payments made so far under the contract.
- 1) Invoice Amount is the total figure in the "This Payment" column of the Payment Breakdown form. Based on this amount and the total contract value, Percentage Completed can be calculated.
 - 2) The most common deduction is the retention monies. Retention is calculated from the invoice amount (1). If necessary, any other deductions which have not been entered in the Payment Breakdown, can be placed under Item (2), (i.e. repayment of hand tools).
 - 3) Total amount due for payment is then calculated by subtracting Deductions (2) from Invoice Amount (1).
 - 4) This item is mainly informative to keep track of all payments. If any payments have been carried out before, the Amount Due from earlier certificates are entered here, and finally totalled up.
 - 5) Total Contract Value is the total amount of the contract including any amendments.
 - 6) Contract Balance is calculated by subtracting Total Amount Due (3) and Total Previous Payments (4) from Total Contract Value (5).
- Approval:** Before payments are carried out, this certificate needs to be signed by the District Road Supervisor, endorsed by the Project Field Adviser and approved for payment by the Director of Finance.
- Filing:** The payment certificates are submitted to the Project Management Office at the end of the month together with the monthly accounts. A copy is also filed at the District in a designated file for each contract.

Certificate of Practical Completion

- Purpose:** The purpose of this form is to (i) carry out the payment of the last remaining works when a contractor submits the final invoice, (ii) process payment of half of the retention monies, and (iii) set the starting date for the Defects Liability Period.
- Responsibility:** The District Road Supervisor is responsible for preparing this certificate. It should only be prepared after the works for which the contractor claims have been inspected and found in good order, conforming to prescribed quality, and after the claimed quantities have been verified.
- Timing:** The Certificate of Practical Completion is prepared on the request of the contractor, i.e. upon the receipt of the final claim.
- Procedure:** The Certificate of Practical Completion is prepared only once for any given contract and only when *all* works have been completed. This form is accompanied with the Payment Breakdown which acts as the detailed justification for the Payment Certificate.

Enter basic data relating to the contract, i.e. Road Name, Contract Number, District, Name and Address of Contractor. All this information is found in the original contract agreement. Finally, enter the Certificate Number, which should correspond to the number of payments made so far under the contract.

- 1) Remaining Payment of Works is the total figure in the "This Payment" column of the Payment Breakdown Form.
- 2) If necessary, any other deductions than retention which have not been entered in the Payment Breakdown, can be placed under Item (2), (i.e repayment of hand tools).
- 3) Retention is calculated from the Remaining Payment of Works (1).
- 4) Balance of Remaining Payment can be obtained by subtracting deductions (2) and retention monies (3) from the Remaining Payment of Works (1).
- 5) Previous Paid Amounts is obtained from the previous certificates. The total of these payments includes all previous payments made to the contractor (less deductions).
- 6) Total Retention Monies is calculated as retention with-held from all previous payments (5) plus the retention of this payment (3).
- 7) Since this is the start of the defects liability period, only half of the total retention monies are withheld from this date. This implies that half of all retention with-held on previous payments as well as this payment should be returned to the Contractor. This is easily calculated from Item (6).
- 8) Total Amount Due is in this case the Balance of Remaining Payment (4) plus Return of 5% Retention (7).
- 9) For information and easy reference, the original contract value is entered here.

- 10) The remaining retention to be paid at the end of the defects liability period will be equivalent to Item (7). The duration of the defect liability period is found in the Appendix to Conditions of Contract. The date of the final payment of remaining retention is calculated from the date of the Certificate of Practical Completion plus the defects liability period.

Approval: Before payments are carried out, the certificate needs to be signed by the District Road Supervisor, endorsed by the Project Field Adviser and approved for payment by the Director of Finance.

Filing: The Certificate of Practical Completion is submitted to the Project Management Office at the end of the month together with the monthly accounts. A copy is also filed at the District in a designated file for each contract.

Final Certificate of Completion

- Purpose:** The purpose of this form is to (i) confirm the end of the defects liability period and (ii) process payments of the remaining retention monies.
- Responsibility:** The District Road Supervisor is responsible for preparing this certificate. It should only be prepared at the end of the defects liability period after the works have been inspected on site and found in good order and conforming to prescribed quality.
- Timing:** The Final Certificate of Completion is prepared on the date of completion of the defects liability period as indicated in the Appendix to Conditions of Contract.
- Procedure:** The Final Certificate of Completion is prepared only once for any given contract and only after the defects liability period and final inspection.
- Enter basic data relating to the contract, i.e. Road Name, Contract Number, District, Name and Address of Contractor. All this information is found in the original contract agreement. Finally, enter the Certificate Number, which should correspond to the number of payments made to the contractor.
- 1) Remaining Retention Monies Withheld is the amount of retention withheld during the Defects Liability Period. The exact amount of the remaining retention should correspond to the figure entered into the Practical Completion Certificate as Balance Due after Defects Liability Period.
 - 2) Deductions are entered for any deficiencies which the Contract Administrator have detected and the Contractor have failed to correct after receiving reasonable notice. It is important to note that the deductions entered in this form, are final and the Contractor shall have no further possibility to take any remedial action, nor receive any later payments.
 - 3) Total Amount Due is the Remaining Retention Monies Withheld, less the deductions. If works have been completed to the full satisfaction of the Contract Administrator, this amount will be equal to the Remaining Retention Monies Withheld. Repeat the same figure, written in words.
 - 4) The date of practical completion is the date of issue of the Certificate of Practical Completion.
 - 5) Date of End of Defects Liability Period is calculated from the date of Practical Completion plus the defects liability period agreed in the Appendix to Conditions of Contract. If additional time is required to repair deficiencies as instructed by the Contract Administrator, this period may be extended, on the request of the Contractor.
- Approval:** Before payments are carried out, this certificate needs to be signed by the District Road Supervisor, endorsed by the Project Field Adviser and approved for payment by the Director of Finance.
- Filing:** The Final Certificate of Completion is submitted to the Project Management Office at the end of the month together with the monthly accounts. A copy is also filed at the District in a designated file for each contract.

Time Location Chart

- Purpose:** The purpose of this form is to (i) present in detail the programme of works, and (ii) report progress as compared to the original work programme.
- Responsibility:** The District Road Supervisor is responsible for preparing this plan. It should be prepared after contracts award in close consultation with the successful tenderer and revised when alterations have been agreed with the Contractor during the course of the works.
- Timing:** Actual outputs of completed works are entered into the time location chart on a monthly basis.
- Procedure:** Enter basic data relating to the contract, i.e. Road Name and Number, Date and District.
- Total Quant.:** Under total quantities enter the planned total of earthworks and gravel surfacing which is covered by the contract. Next to the planned totals, enter the actual completed length of earth and gravel works.
- When starting up a new project/contract, enter the monthly planned outputs for earthworks and gravel spreading. After commencement of works, the actual monthly outputs are entered beneath the planned monthly targets for comparison.
- Percent Completion:** The last column of the spreadsheet calculates the overall completion rate of the earthwork and gravel operations and is obtained by dividing the actual total outputs with the planned total outputs.
- Cumulative:** The first column of the cumulative data section, presents the planned total output up to the current month. The actual output in the next column is the total outputs since commencement of works.
- In the following columns, the planned outputs from above is presented as cumulative figures showing the cumulative monthly totals for earthworks and gravel works. After commencement of works, the actual cumulative monthly outputs are entered beneath the planned monthly targets for comparison.
- Percent Progress:** Percent progress is an indicator of the extent of progress according to the work plan. This figure is calculated by dividing the planned cumulative figures with the actual cumulative outputs for a given month.
- Time Location Graph:** Once all planned and actual figures have been entered into the form, these figures are used to create line graphs using the months (time) as the horizontal axis and the chainage (location) as the vertical axis. One line graph is prepared for each of the operations, as well as one line graph for planned figures and one for actual outputs.
- Bar Charts:** When utilising the Excel spread-sheet, a bar chart is automatically generated, based on the total figures entered above. This bar chart summarises the actual progress of the earthwork and gravel operations to the current date, and compares it with the planned progress to date as well as the total outputs expected when the contract has been completed.

Approval: The work plan is agreed with the Contractor. Once it has been carefully reviewed by both parties it should be signed by the District Road Supervisor and the Contractor.

Filing: The work plan should be filed in a designated file for each road works contract at the District. A copy is submitted to the Project Management Office at the end of the month together with the monthly progress report.

Contract Register

- Purpose:** The Contract Register is intended to assist the Accountant and the project management to monitor progress of contracts.
- Responsibility:** The District Road Supervisor is responsible for updating the Contracts Register every time a new payment certificate is issued.
- Timing:** One Contract Register form is used for each contract and is updated as the contract progresses every time payments are made.
- Procedure:** The Contract Register is based on information obtained from the Interim Payment Certificates, the Certificate of Practical Completion and the Final Completion Certificate, depending on the progress of the contract.
- At the top of the form, enter basic information relating to District, Name and Address of the Contractor, Contract Date, Contract Number, Contract Value, Dates of commencement and completion of the contract and General Ledger Account Code.
- Reference Date:** Enter the date on which the Contract was issued. This date is found in the Contract Agreement.
- Ref. No:** Enter the contract number.
- Category:** Enter the full name of the contract including the name of the location of the work sites. Also include the budget category code.
- Invoice Amount:** Enter the payment request from the invoice submitted by the contractor. This amount should correspond to the total invoiced amount before any deductions for advances or retentions.
- Date:** Enter date of payment (ref. Payment Certificate).
- Amount:** Enter payment less deductions (ref. Payment Certificate).
- Contract Balance:** Contract Balance is calculated by subtracting the payments carried out so far, and any advance payments.
- Advances on Payment:** Enter any advance payments which were carried out at the start of the contract.
- Retention on Payment:** Enter the amount of retention deducted from the payment (ref. Payment Certificate)
- Posted on G/L:** Indicate by Yes or No whether it has been posted in the General Ledger.
- Approval:** This form needs no approval, however it should be submitted to the Project Management Office for comparison with the related payment certificates.
- Filing:** The Contract Register is kept in a designated file at the District. Copies should be submitted to the Project Management Office together with the monthly progress and expenditure reports.



Sample Documents

- 3.1 Notice for Invitation
- 3.2 Instructions to Tenderers
- 3.3 Form of Tender
- 3.4 Form of Agreement
- 3.5 General Conditions of Contract
- 3.6 Appendix to Conditions of Contract
- 3.7 Special Conditions of Contract
- 3.8 List of Basic Labour Rates
- 3.9 Work Specifications
- 3.10 Technical Drawings
- 3.11 Bill of Quantities
- 3.12 Road Condition Inventory
- 3.13 Evaluation of Tenders
- 3.14 Notification of Award
- 3.15 Payment Breakdown
- 3.16 Interim Payment Certificate
- 3.17 Certificate of Practical Completion
- 3.18 Final Certificate of Completion
- 3.19 Time Location Chart
- 3.20 Contracts Register

Central Region Infrastructure Maintenance Programme

NOTICE for INVITATION for LABOUR-BASED ROAD REHABILITATION WORKS

Date: _____

District: _____

Contract No: _____

The Government of Malawi has received a grant from the Department of International Development (DfID), executed by Cooperative for Assistance and Relief Everywhere (CARE), towards the cost of the Central Region Infrastructure Maintenance Programme, and it is intended that part of the proceeds of this grant will be applied to eligible payments under the contract(s) for *road rehabilitation works applying labour-based work methods*.

The District Assembly ("the Employer") invites sealed bids from prequalified eligible bidders for the rehabilitation of a _____ km road from

_____ to _____ (location(s)).

Bidders may obtain further information from, and inspect and acquire the bidding documents at the office of the Employer, represented by the

District Road Supervisor
_____ District

Telephone: _____

All bids must be delivered to the District Assembly in _____ District before _____ hours on _____. Bids will be opened immediately thereafter in the presence of bidders representatives who choose to attend.

Chief Executive Officer

INSTRUCTIONS TO TENDERERS

Labour-based Road Rehabilitation Works

1. Eligibility

This invitation to Tender is open to:

- (a) all civil engineering contractors registered with the National Construction Industry Council (NCIC) of Malawi and have renewed their membership, and
- (b) who have received training in labour-based road works technology at MoTPW Training Centre or any other institution accredited by the NCIC.

2. Responsibility of Tenderer

The tenderer shall bear all costs arising from the preparation and submission of the Tender. The District Assembly, hereinafter referred to as the Employer will not be responsible for, or pay for any expense or loss which may be incurred by the Tenderer in the preparation and submission of his tender.

3. Tender Documents

Persons tendering will be supplied with one complete set of Contract Documents, comprising the following:

- Instruction to Tenderers
- Form of Tender
- Sample Form of Agreement
- List of Basic Labour Rates
- General Conditions of Contract
- Appendix to Conditions of Contract
- Special Conditions of Contract
- Bills of Quantities
- Drawings
- Location Map

Tenderers are required to note that a copy of the Technical Manual of the District Road Improvement and Maintenance Project forms part of the Contract but is not supplied to the Tenderer. Instructions to Tenderers shall not form part of the Contract. It is issued to aid Tenderers in the preparation of their Tender.

4. Inspection of Site and Documents

Each Tenderer must, at his own expense and on his own responsibility visit and examine the Site and its surroundings, or cause this to be done on his behalf by a competent and responsible person, and he must obtain for himself all the information that may be necessary for compiling his tender. He must examine the Contract Documents and ascertain the matters on which he will be deemed to have satisfied himself and all the risks and obligations which the Contract will impose on the Contractor.

5. Official Site Visit

An official site visit will be conducted for the Tenderers by the Engineer and will be followed by a round up meeting. Details of the official site visit and the subsequent round up meeting will be communicated to the Tenderers.

6. Obscurity of Meaning

Should there be any doubt or obscurity as to the meaning of any of the Contract Documents, or as to anything to be done or not to be done by the Contractor or as to these instructions or as to any other matters affecting his tender, the Tenderer must set forth such doubt or obscurity in writing and submit it to reach the Engineer not later than 3 days before the date fixed for the delivery of the tenders.

For the purpose of this Tender, the Engineer shall be as nominated and advised by the Employer.

7. Circular Letters

If during the period of tendering, the Engineer issues any Circular letters to Tenderers setting forth the interpretation to be placed on a part of the Contract Documents or of these instructions or to make any change in them, such circular letters will form part of the Contract and it will be assumed that the Tenderer has taken account of them in preparing his Tender. The Tenderer must promptly acknowledge any circular letters he may receive.

Neither the District Assembly nor any agent or servant of them shall be bound by any statement made or delivered to any Tenderer unless such statement shall have been confirmed by a circular letter to Tenderers issued by the Engineer.

8. Bills of Quantities and Tender Price

The tenderer must not insert additional items in the Bill of Quantities but must provide for all his obligations under the Contract in the rates and prices entered against the items provided. Unless stated otherwise in the Tender Documents, the Contract shall be for the whole Works as described in the Contract Documents, based on the schedule of unit rates and prices submitted by the Tenderer.

9. Currencies of Tender and Payment

The monetary unit used in the Tender shall be Malawi Kwacha. The payments under the Contract shall be made in Malawi Kwacha.

10. Validity and Acceptance of Tender

Tenders shall remain valid for a period of 60 days from date fixed for public opening of Tenders. During this period the Tender is irrevocable. The employer shall notify the successful Tenderer (if any) of his acceptance by letter within this period.

In exceptional circumstances, prior to expiry of the original Tender Validity period, the Employer may request the Tenderer for a specified extension in the period of validity. The request and the responses thereto shall be in writing. Any Tenderer agreeing to the request will not be required nor permitted to modify his Tender.

The District Assembly does not bind itself to accept the lowest of any Tender nor to assign any reason for the rejection of any Tender.

Each Tenderer shall submit only one Tender either by himself, or as a partner in a joint venture. A Tenderer who submits or participates in more than one Tender will be disqualified.

Tenderers shall submit offers which comply with the documents, including the basic technical design as indicated in the Drawings and Specifications. Alternatives will not be considered.

11. Information to be Submitted with Tender Documents

The Tender must comprise the following documents, all duly completed and provided with Company's name, date and signature of the Tenderer:

- (i) A copy of each Circular Letter (if any) issued by the Engineer, each such Circular Letter being enclosed by the Tenderer.
- (ii) The Form of Tender

- (iii) List of Basic Labour Rates
- (iv) Priced Bills of Quantities

These documents shall be submitted in duplicate, one original and one copy, clearly marked as such.

12. Format and Signing of Tenders

The Tenderer shall prepare one original and one copy of the documents comprising the Tender, as described in Clause 11 of these Instructions and shall clearly mark them as "ORIGINAL" and "COPY" as appropriate. In the event of any discrepancy between them, the original shall prevail.

The ORIGINAL Tender shall be typed or written in ink and shall be signed by a person or persons duly authorised to bind the Tenderer to the Contract. All pages of the Tender where entries or amendments have been made shall be initialled by the person or persons signing the Tender. Tenderers are required, after completion of their Tender to make, by photocopying such additional copies as are necessary to comply with these instructions.

No additions, erasures or alterations to or of the text of any of the Contract Documents will be recognised or taken into account in the adjudication of the Tenders, except those to accord with these instructions. The Contract Documents must be kept intact.

13. Delivery of Tender

The Tenderer shall seal the ORIGINAL and each COPY of each Tender in an envelope, and shall duly mark the envelopes "ORIGINAL" and "COPY" as appropriate and endorse as follows:

"Tender for
Contract No: _____
NOT TO BE OPENED BEFORE _____"

(The Tenderer shall fill in the date and time of the deadline for submission of Tenders)

The envelope shall be sent by registered post to, or be delivered to and a receipt obtained from the address to where Tender documents were obtained from, to arrive not later than time and date stated in the Notice for Invitation.

The envelope shall also indicate the name and address of the Tenderer to enable the Tender to be returned unopened in case it is declared late or is otherwise unacceptable. If the envelope is not sealed and marked as instructed above, the Employer will assume no responsibility of the misplacement or premature opening of the Tender submitted. A Tender opened prematurely for this cause will be rejected by the Employer and returned to the Tenderer.

14. Late Tenders

Any Tender received by the Employer after the deadline for submission of Tenders prescribed by the Employer in accordance with Clause 13 of these Instructions will be returned unopened to the Tenderer.

15. Modification and Withdrawal of Tenders

The Tenderer may modify or withdraw his Tender after submission of his Tender provided that the modification or notice of withdrawal is received in writing by the Employer prior to the prescribed deadline for submission of Tenders. The Tenderer's modification or notice of withdrawal shall be prepared, sealed, marked and delivered in accordance with the provisions of Clause 13 herein before the submission of Tenders, with the envelope additionally marked "MODIFICATION" or "WITHDRAWAL" as appropriate.

Subject to Clause 18 hereinafter, no Tender may be modified subsequent to the deadline for submission of Tenders.

16. Tender Opening

The Employer will open the Tenders, including submissions made pursuant to Clause 15 herein before, in the presence of Tenderer's representatives who choose to attend, at the time and date at the location for the public opening stated in the Notice of Invitation. The Tenderer's representatives who are present may be required to sign a register evidencing their attendance.

17. Process to be Confidential

After the public opening of Tenders, information relating to the examination, clarification, evaluation and comparison of Tenders and recommendations concerning the award of Contract shall not be disclosed to Tenderers or other persons not officially concerned with such process.

Any effort by a Tenderer to influence the Employer in the process of examination, clarification, evaluation and comparison of Tenders, and in decisions concerning award of Contract, shall result in the rejection of the Tender.

18. Clarification of Tender

To assist in the examination, evaluation and comparison of Tenders, the Employer may ask Tenderers individually for clarification of their Tenders, including breakdowns of unit rates. The request for clarification and the response shall be in writing but no change in the price or substance of the Tender shall be sought, offered or permitted except as required to confirm the correction of arithmetic errors discovered during the evaluation of the Tenders in accordance with Clause 20 hereinafter.

19. Determination of Responsiveness

Prior to the detailed evaluation of Tenders, the Employer will determine whether each Tender is substantially responsive to the requirements of the Tender Documents. For this purpose, the Tenders will firstly be checked for completeness of the required documents to be submitted.

For the purpose of this clause, a substantially responsive Tender is one which conforms to all terms, conditions and specifications of the Tender Documents without material deviation or reservation. A material deviation or reservation is one which affects in any substantial way the scope, quality or performance of the Works, or limits in any substantial way, inconsistent with the Tender Documents, the Employer's rights or the Tenderer's obligations under the Contract, and the rectification of which deviation or reservation would affect unfairly the competitive position of other Tenderers presenting substantially responsive Tenders.

If a Tender is not substantially responsive to the requirements of the Tender Documents, it will be rejected by the Employer, who may not subsequently be made responsive by the Tenderer having corrected or withdrawn the non-conforming deviation or reservation.

20. Correction of Errors

Tenders will be checked by the Employer for any arithmetic errors in computation and summation. Errors will be corrected by the Employer as follows:

- (a) Where there is a discrepancy between the amounts in figures and in words, the amount in words will govern; and
- (b) Where there is a discrepancy between the unit rate and the total amount derived from the multiplication of the unit rate and the quantity, the unit rate as quoted will govern, unless in the opinion of the Employer there is an obviously gross misplacement of the decimal point in the unit rate, in which event the total amount as quoted will govern and the unit rate will be corrected.

The amount stated in the Tender will be adjusted by the Employer in accordance with the above procedure for the correction of errors and, with the concurrence of the Tenderer, shall be considered as binding upon the Tenderer. If the Tenderer does not accept the corrected amount of the Tender, his Tender will be rejected.

21. Evaluation and Comparison of Tenders

The Employer will evaluate and compare only Tenders determined to be substantially responsive to the requirements of the Tender Documents in accordance with Clause 19 herein before.

In evaluating Tenders, the Employer will determine for each Tender the Evaluated Sum by adjusting the Tender Sum as follows:

- (a) Making any correction for errors pursuant to Clause 20 herein before.
- (b) Excluding the defined Provisional Sums and the provision, if any, for contingencies in the Bill of Quantities.
- (c) Making an appropriate adjustment for any other acceptable quantifiable variations or deviations not reflected in the Tender Sum or in the above-mentioned other adjustments.

The Employer reserves the right to accept or reject any variation or deviation. Variations, deviations and other factors which are in excess of the requirements of the Tender Documents or otherwise result in the accrual of unsolicited benefits to the Employer shall not be taken into account in the evaluation of Tenders.

If the Tender of the successful Tenderer is seriously unbalanced in relation to or substantially below the Employer's estimate of the cost of work to be performed under the Contract, the Employer may require the Tenderer to produce detailed price analyses for any or all items of the Bill of Quantities to demonstrate the internal consistency of those prices with the construction methods and schedule proposed.

22. Award Criteria

Subject to Clause 23 hereinafter, the Employer will award the Contract to the Tenderer whose Tender has been determined to be substantially responsive to the Tender Documents and who has offered the lowest Evaluated Tender Sum pursuant to Clause 21 herein before. The lowest evaluated Tender is not necessarily the lowest Tender Price.

23. Notification of Award

Prior to expiration of the period of Tender validity prescribed in Clause 10, the Employer will notify the successful Tenderer in writing that his Tender has been accepted. This letter (hereinafter and in the Conditions of Contract called "the Notification of Award") shall name the sum which the Employer will pay to the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein by the Contractor as prescribed by the Contract (hereinafter and in the Conditions of Contract called the "Contract Price"). The notification of award will constitute the formation of the Contract.

The Employer will promptly notify the unsuccessful Tenderers that their Tenders have been unsuccessful.

24. Signing of Agreement

At the same time that the Employer notifies the successful Tenderer that his bid has been accepted, the Employer will send the Tenderer the Form of Agreement provided in the Tender Documents, incorporating all agreements between the parties.

Within 3 days of receipt of the Form of Agreement, the successful Tenderer shall sign the Form and return it to the Employer.

Central Region Infrastructure Maintenance Programme

FORM OF TENDER

Contract Name: *Road Rehabilitation Works at*

No:

To: The Chief Executive Officer
 _____ District Assembly

Gentlemen:

1. Having examined the Notice of Invitation to Tender, Instructions to Tenderers, Form of Tender, Form of Agreement, Conditions of Contract, List of Basic Labour Rates, Specifications, Drawings, and Bill of Quantities for the execution of the above-named Works, we, the undersigned, offer to execute and complete such Works and remedy any defects therein in conformity with the said documents for the sum of

(_____)

or such other sums as may be ascertained in accordance with the said conditions.

2. We undertake, if our Tender is accepted, to commence the Works as soon as is reasonable possible after the receipt of the Engineer's notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the Appendix to Conditions of Contract.
3. If our Tender is accepted we will immediately upon receipt of the Letter of Acceptance execute the formal Agreement.
4. We agree to abide by this Tender for the period of *60 days* from the date fixed for receiving the same, and it shall remain binding upon us as may be accepted by you at any time before the expiration of that period.
5. Unless and until a formal Agreement is prepared and executed, this Tender, together with your Letter of Acceptance, shall constitute a binding contract between us.
6. We understand that you are not bound to accept the lowest or any Tender you may receive and that you will not repay any expense incurred by us in tendering nor assign any reason for non-acceptance.
7. We acknowledge that the Appendix to Conditions of Contract forms part of our bid and that we are required to fill in all blank spaces in this Form of Tender.

Dated this _____ day of _____ 20_____

Signature _____ in the capacity of _____

duly authorised to sign bids for and on behalf of _____

Address: _____

_____ Phone: _____

Central Region Infrastructure Maintenance Programme

AGREEMENT

Contract No: _____ Contract Name: _____

This agreement made this _____ day of _____ 20____
between the District Assembly (hereinafter called the Employer) of the one part
and _____ (hereinafter called the Contractor)
of the other part.

Whereas the Employer is desirous that certain works should be executed by the Contractor, viz. The
road rehabilitation works from _____ to _____ in
_____ District, and has accepted a Tender by the Contractor for the
execution and completion of such Works and the remedying of any defects therein in the sum of:
MK _____

Now this Agreement witnesseth as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz:
 - (a) the Agreement,
 - (b) Letter of Acceptance,
 - (c) the said Form of Tender,
 - (d) such Circular Letters as may have been issued to Tenderers by the Engineer during the Tender Period,
 - (e) General Conditions of Contract,
 - (f) Special Conditions of Contract,
 - (g) Specifications and Drawings,
 - (h) List of Basic Labour Rates and
 - (i) Priced Bill of Quantities

All the aforesaid documents are hereinafter referred to as the "Contract and shall be taken as complementary and mutually explanatory of one another, but in the case of ambiguities or discrepancies shall take precedence in the order set out above.

3. In consideration of payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

In witness whereof the parties hereto have hereunto set their respective hands the day and year first above written.

Signed for and behalf of the District Assembly:

Chief Executive Officer

Signed for and behalf of the Contractor:

Duly Authorised Representative of Contractor

In the presence of:

Project Technical Coordinator

THEREFORE THE PARTIES HERETO HAVE AGREED AND HEREBY AGREE THE FOLLOWING CONDITIONS:

1 DEFINITIONS

1.1 The following have been agreed to be the definitions of terms used throughout these Conditions, notwithstanding that such terms may have alternative meanings in other usage.

- .1 "Contract Administrator" means the nominated supervising Engineer, or other person appointed by the Employer to supervise the execution of the works in this Contract.
- .2 "Contract Document" means Drawings / Sketches, Bills of Quantities and/or Specifications and/or Schedules and the Conditions herein contained, together with any circular letters sent out during the tender period and any documentation relating to post tender discussions and/or decisions, which shall be taken and read together as a whole.
- .3 "Practical Completion" means that all work contained and described in the Contract Documents together with any additional works which have arisen as a result of Contract Administrator's instruction or the expenditure of Provisional Sums and Contingency sums including any work by Subcontractors of whatever nature has been completed to the satisfaction of the Contract Administrator, and that there are no obvious defects in such work. The Works shall be regarded as practically complete notwithstanding that there may be latent defect in the work which do not appear until a later time.
- .4 "Must" means that the actions referred to are mandatory upon the person or persons to whom they refer. There shall be no element of choice or discretion.
- .5 "May" means that the actions referred to are discretionary upon the person or persons to whom they refer. There shall be an element of choice and the person or persons may execute the action described in whole or in part or may decline to execute the action in whole or in part at his discretion.

Where clause numbers are referred to throughout these Conditions they shall be deemed to refer to the Clause so numbered in these Conditions.

2 OBLIGATIONS AND DUTIES

2.1 Contractor's Obligations

The Contractor must with diligence and in good and workmanlike manner carry out and complete the Contract works shown and described in the Contract Documents and including any changes made to these in accordance with these Conditions using materials and workmanship of the quality and standards specified therein provided that where and to the extent that approval of the quality of materials or of the standards of workmanship is matter for the Contract Administrator such quality and standards shall be to the reasonable satisfaction of the Contract Administrator.

2.2 Contract Administrator's Duties

The Contract Administrator must issue any further information necessary for the proper carrying out of the works, issue all certificates, carry out all tests required or arrange for such tests to be carried out and confirm all instructions in writing in accordance with these Conditions.

3 COMMENCEMENT AND COMPLETION

3.1 Commencement and Completion

The Contract Works may be commenced and must be completed on the dates as specified in the Appendix to Conditions of Contract (hereinafter referred to as *the Appendix*).

3.2 Extension of Contract Period

If it becomes apparent that the Works will not be completed by the date for completion stated in the Appendix to Conditions of Contract, (or any later date fixed in accordance with the provision of this Clause 3.2) for reasons which are entirely beyond the control of the Contractor including compliance with any instruction of the Contract Administrator under Contract, the Contractor must notify the Contract Administrator in writing who must make such extension of the date for completion as may be reasonable. Such extension must be given in writing. In determining whether the date for completion should be extended the Contract Administrator must take into account any instructions he shall have issued which vary the scope of the works from that shown in the Contract Documents. Reasons within the control of the Contractor shall be deemed to include any default of the Contractor or of others employed by or under him in connection with the works. Where the reason for the extension is inclement weather the Contractor must prove to the satisfaction of the Contract Administrator that the weather was exceptionally inclement and was unusual having regard to the time of the year and season in which the inclement weather occurred.

3.3 Loss and Expense caused by Extension of Contract Period

Should the Contractor suffer any loss or expense due to any extension of the Contract Period then the Contract Administrator must ascertain the amount of such loss or expense and such amount be added to the Contract Sum and must be paid to the Contractor in progress payments made after such amount has been ascertained, provided that the extension of the Contract Period had been granted for any one or more of the following reasons:

- .1 The Contractor not having received in due time any information necessary for the completion of the works;
- .2 The opening up for inspection of any work covered up or the testing of any of the work, materials or goods (including making good in consequence of such opening up or testing) unless the inspection or testing shows that the work, materials or goods are not in accordance with this Contract.
- .3 The Contract Administrator's instructions issued in regard to the postponement of any work to be executed under provisions of this Contract;
- .4 Any other significant reason which the Contract Administrator may, at his absolute discretion, consider to have caused the Contractor to incur loss and expense, such reason not being within the control of the Contractor.

3.4 Completion Date

The Contract Administrator must certify the date when in his opinion the Works have reached practical completion.

3.5 Defects Liability

Any defects, excessive shrinkage or other fault in the works which appear within a period as stated in *the Appendix* after the Contract Administrator has certified that the works reached practical completion (hereinafter referred to as "the Defects Liability Period"), and which are due to workmanship which is not in accordance with the Contract must be made good by the Contractor entirely at his expense unless the Contract Administrator shall otherwise instruct.

At the end of the Defects Liability Period the Contract Administrator may prepare a final list of defects which have appeared during the defects liability period and which are due to materials and workmanship which are not in accordance with the Contract which list must be delivered to the Contractor within fourteen (14) days of the end of the defects liability period. The Contractor must then return to the works and must rectify the listed defects within a reasonable time to the satisfaction of the Contract Administrator.

Should the Contractor fail to rectify the said defects to the satisfaction of the Contract Administrator then the Contract Administrator may employ and pay others to rectify the said defects and all costs in

connection with such rectification shall become a debt due to the Employer from the Contractor. The Contract Administrator shall be empowered to deduct the said debt from monies due or to become due to the Contractor in order to settle the debt in whole or in part.

After the Contractor has rectified the said defects, if any, to the satisfaction of the Contract Administrator then the Contract Administrator must certify the date when in his opinion the Contractor's obligations under this Clause have been fully discharged.

3.6 Sectional Completion

Should the Employer wish to take over and use any part of the works prior to the whole of the works being certified as being practically completed by the Contract Administrator under Clause 3.4, then the Contract Administrator may issue an instruction to that effect specifying the relevant part of the works. Upon issue of such an instruction:

- .1 The relevant part of the works shall become the sole responsibility of the Employer.
- .2 The relevant part of the works shall be deemed to be practically complete on the date of taking over by the Employer notwithstanding that the works taken over may not be practically complete in accordance with the definition in Clause 1.1.3, and the defects liability period for the relevant part of the works shall be deemed to commence on the date of taking over by the Employer.
- .3 The Employer must allow the Contractor reasonable access to that part of the works taken over to enable the Contractor to complete the works and to rectify any obvious defects in order that the Contractor can complete the whole of the works by the date stated in Clause 3.1 or any extension thereof.
- .4 The Contract Administrator must forthwith issue a progress payment certificate which shall be subject to retention as stated in Clause 6.2 on the value of the works taken over and as stated in 6.1 on the remainder of the works. The value of the works taken over must include for work executed by Subcontractors and a proportion of the value of preliminary and general items if such are shown separated in the Contract Documents. Any amount calculated and certified by the Contract Administrator must be paid by the Employer to the Contractor within the period prescribed in *the Appendix*.

4 ASSIGNMENT AND SUB-CONTRACTING

- 4.1 Neither the Employer nor the Contractor shall assign this Contract.
- 4.2 The Contractor shall not sub-let any portion of the works without the prior written consent of the Contract Administrator, whose consent shall not be withheld unreasonably.

5 CONTROL OF THE WORKS

5.1 Contractor's Representative

The Contractor must at all reasonable time put on the works a competent person in charge and any instructions given to him by the Contract Administrator shall be deemed to have been issued to the Contractor. Such person in charge must be able to speak, read, write and understand the English language.

5.2 Exclusion from the Works

The Contract Administrator may, but not unreasonably or vexatiously, issue instructions requiring the exclusion from the works of any person employed thereon.

Contract Administrator's Instructions

5.3 The Contract Administrator may issue written instructions which the Contractor must forthwith carry out. If instructions are given verbally they must be confirmed in writing by the Contract Administrator within 2 (two) working days.

5.4 If within 14 (fourteen) days after receipt of a notice from the Contract Administrator requiring that the Contractor comply with an instruction the Contractor does not comply therewith then the Employer may employ and pay other persons to carry out the work contained in the said instruction and all costs incurred thereby may be deducted by him from any monies due or to become due to the Contractor under this Contract and shall be recoverable from the Contract by the Employer as a debt.

5.5 Variations

The Contract Administrator may instruct an addition to or omission or any other change in the Contract Works or the order or the period in which they are to be carried out. No such instruction shall invalidate the Contract. Once the instruction has been complied with, the work must be valued by the Contract Administrator on a fair and reasonable basis using the rates and prices in the Contract Documents. Such valuation must also include any direct loss and/or expense incurred by the Contractor in complying with the instruction.

5.6 Provisional Sums

The Contract Administrator must issue instructions as to the expenditure of any provisional sums and such instructions must be valued in accordance with Clause 5.5

5.7 Correction of Inconsistencies

Any inconsistencies in or between the Contract Documents must be corrected and any such correction which results in an addition, omission or change must be treated as a variation under Clause 5.5. Nothing contained in the Contract Documents shall override, modify or affect in any way whatsoever the application or interpretation of that which is contained in these Conditions unless specifically included in these Conditions. Any such modifications to these Conditions shall have no effect unless initiated by both parties.

6 PAYMENT

6.1 Progress Payments and Retention

The Contract Administrator must if requested by the Contractor, at intervals as stated in *the Appendix*, certify progress payments to the Contractor, in respect of the Works properly executed including any amounts either ascertained or agreed under Clauses 5.5 and 5.6, and the value of goods and materials which have been reasonably and properly brought on to the site for the purposes of the works and which are adequately stored against the weather and other casualties. Such progress payments shall be subjected to a retention as set out in *the Appendix* and shall be less any payments previously made by the Employer and any other amounts deductible, if any. Any amount so calculated and certified by the Contract Administrator must be paid by the Employer to the Contractor within the period prescribed in *the Appendix* after the Employer has received the certificate.

The Contract Administrator may, at his absolute discretion, include in any progress payment certificate the value of any goods or materials which are stored off site which, the Contractor has a satisfactory reason for not bringing to the site for the time being, are stored where they are protected against the weather and other casualties, are covered by insurance loss or damage howsoever Contractor has supplied a signed statement to the effect that such specified goods or materials will, once paid for by the Employer, become the property of the Employer and that the Contractor will deliver the specified goods or materials to the site in good, usable condition as and when they are required for the works without further payment by the Employer.

6.2 Penultimate Certificate

Within 14 (fourteen) days of the date of practical completion certificate the Contract Administrator must certify a penultimate payment to the Contractor which shall be the total amount to be paid under this Contract as far as that amount is ascertainable at the date of practical completion, including (i) any amounts ascertained or agreed under Clauses 5.5 and 5.6 and (ii) half of the retention to be withheld as prescribed in *the Appendix*, and shall be less any progress payments previously made by the Employer. Any amount so calculated and certified by the Contract Administrator must be paid by the

Employer to the Contractor within the period prescribed in *the Appendix* after the Employer has received the certificate.

6.3 Final Certificate

The Contractor must supply all documentation reasonably required for the computation of the amount to be finally certified by the Contract Administrator. The Contract Administrator must within 14 (fourteen) days of issue of the certificate required under Clause 3.5 issue a final certificate certifying the remaining amount due to the Contractor. Any amount so calculated shall become a debt payable from Employer to the Contractor from the fourteenth day after the Employer has received the said certificate.

6.4 Variation of Price

The Contract Sum shall be deemed to have been calculated in the manner set out below and shall be subject to adjustment as stated hereunder:

The rates and prices used to calculate the Contract Sum are based on the rates of wages payable by the Contractor to workers engaged on the works and which are stated in the List of Basic Labour Rates. Such rates of wages shall be deemed to be those current at date of tender payable to the grades of workers included on the list having regard to geographical area where works are situated.

If any of the rates of wages on the List of Basic Labour Rates shall increase subsequent to the date of tender then the net amount of such increase must be paid to or allowed by the Contractor. The net amount of increase must be ascertained by the Contract Administrator as soon as possible after the Contractor has notified that such rates of wages have increased.

An allowance of 15% (fifteen percent) must be added to the net amount of any increase. Such allowance shall be deemed to include for increases in rates of wages not shown on the List of Basic Labour Rates and for increases in all other emoluments and for office overheads. The net amount of the increase together with the addition stated above must be added to subsequent progress payments.

The Contractor must provide all information that the Contract Administrator may reasonably require in order to ascertain the net amount of increase as stated above. Only items on the list of Basic Labour Rates will be allowed for the purposes of ascertaining of increase. All other items are deemed to be covered by the percentage additions stated above.

7 STATUTORY OBLIGATIONS

7.1 Statutory Obligations, Notices, Fees and Charges

The Contractor must comply with, and give all notices required by any statute, statutory instrument, rule, order, regulation or bye-law application to the works (hereinafter called "the Statutory Requirements") and must pay all fees and charges in respect of the works legally recoverable from him.

If the Contractor finds any divergence between the statutory requirements and any instruction of the Contract Administrator he must immediately give notice of the same to the Contract Administrator specifying the divergence. Subject to this obligation the Contractor shall not be liable to the Employer if the works do not comply with statutory requirements where and to the extent that such non-compliance of the works results from the Contractor having carried out work in accordance with the Contract Documents or any instruction of the Contract Administrator.

7.2 Prevention of Corruption

The Employer may cancel this Contract and may recover from the Contractor the amount of any loss resulting from such cancellation if the Contractor shall have offered, given or agreed to give any person connected with the works any gift or consideration of any kind whatsoever with the intention of improperly influencing the said person's actions or decisions with regard to the works.

8 INJURY, DAMAGE AND INSURANCE

8.1 Injury or Death of Person

The Contractor shall be liable for and must indemnify the Employer against any expense, liability, loss, claim or proceedings whatsoever arising from any statute or at common law in respect of personal injury to or death of any person whomsoever arising out of or in the course of the carrying out of the works, except to the extent that the same is due to any act or neglect of the Employer or of any person for whom the Employer is responsible. Without prejudice to his liability to indemnify the Employer, the Contractor must take out and maintain and must cause any Subcontractor to take out and maintain all insurance which are required to cover any liability arising under the Workers Compensation Act 1990 (No. 21 of 1990) and any statutory orders made thereunder or any, amendment or re-enactment thereof and in respect of any liability for person injury or death shall be such as is necessary to cover the liability of the Contractor, or as the case may be, of such Subcontractor.

8.2 Injury or Damage to Property

The Contractor shall be liable for and must indemnify the Employer against any expense, liability, loss, claim or proceedings in respect of any injury or damage to the works to any property heritable or moveable (other than injury or damage to the works) in so far as such injury or damage arises out of or in the course of or by the reason of carrying out the works and to the extent that the same is due to any negligence, breach of statutory duty, omission or default of the Contractor, his servants or agents, or any person employed or engaged by the Contractor upon or in connection with the works or any part thereof, his servants or agents.

Without prejudice to his obligation to indemnify the Employer the Contractor must take out and maintain and must cause any Subcontractor to take out and maintain insurance in respect of the liability referred to above in respect of injury or damage to any property heritable or moveable other than the works which must be for an amount as stated in *the Appendix* for any one occurrence or series of occurrences arising out of an event, the number of such occurrences being unlimited.

8.3 Evidence of Insurance

The Contractor must produce and must cause any Subcontractor to produce such evidence as the Employer may reasonably require that the insurance referred to in Clauses 8.1 and 8.2, have been taken out and are in force during the Contract Period or during any extension granted thereto.

9 DETERMINATION

9.1 Determination by Employer

The Employer may, but not unreasonably or vexatiously determine the employment of the Contractor, by notice of registered post or recorded delivery to the Contractor under this Contract if the Contractor shall make default in any or more of the following respects:

- .1 If the Contractor, without reasonable cause, fails to proceed regularly and diligently with the works or wholly suspends the carrying out of the works before completion.
- .2 If the Contractor becomes bankrupt or makes any composition or arrangement with his credit or has a proposal in respect of his company for a voluntary arrangement for a composition of debts or scheme of arrangement approved, or has an application made in respect of his company to the court for the appointment of the Administrator or has his estate sequestrated or becomes apparently insolvent or enters into a trust deed for his creditors or has a winding up order made or (except for the purposes of reconstruction) has a resolution for voluntary winding up passed or received or manager of his business or undertaking is duly appointed or has an administrative receiver appointed or possession is taken by or on behalf of any holder of any debenture secured by a floating charge.

Provided that the determination of the Contractor shall not be determined under Clause 9.1.1 unless the Contractor has continued the default for 14 (fourteen days) after receipt by registered post or recorded delivery of a notice from the Employer specifying such default.

In the event of the Employer determining the employment of the Contractor as aforesaid, the Contractor must immediately give up possession of the said works and the Employer shall not be bound to make any further payment to the Contractor until after completion of the works.

If the Employer incurs any loss or expense whatsoever due to his determining the employment of the Contractor as aforesaid then the amount the Contract Administrator shall ascertain in the amount of such loss or expense and the amount so ascertained, if any, shall become a debt payable by the Contractor to the Employer. The Employer shall be empowered to use any monies due or to become due to the retention monies held by the Employer in order to settle such debt. Provided always that the right of determination shall be without prejudice to any other rights or remedies which the Employer may possess.

9.2 Determination by Contractor

The Contractor may, but not unreasonably or vexatiously determine the employment of the Contractor, by notice of registered post or recorded delivery to the Employer under this Contract if the Employer shall make default in any or more of the following respects:

- .1 If the Employer fails to make any payment due under the provisions of Clauses 6.1 and 6.2 within 14 (fourteen) days of such payments being due.
- .2 If the Employer or any person for whom he is responsible interferes with or obstructs the carrying out of the works or fails to make the site available for the Contractor on the date stated in Clause 3.1.
- .3 If the Employer suspends the carrying out of the works for a continuous period of at least one month.

In the event of the Contractor determining the employment with the Employer as aforesaid, the Employer must pay to the Contractor, after taking into account previously paid, such sum as shall be fair and reasonable for the value of work begun and executed, materials on site and removal of all temporary buildings, plant, tools and equipment. Provided always that the right of determination shall be without prejudice to any other rights or remedies which the Contractor may possess.

10 SETTLEMENT OF DISPUTES - ARBITRATION

10.1 If any dispute or difference concerning this Contract shall arise between the Employer or the Contract Administrator on his behalf or the Contractor either during the progress or after the completion or abandonment of the works or after the determination of the employment of the contractor, which cannot be resolved by mutual agreement, such dispute or difference must be and is hereby referred to the arbitration of a person to be agreed between the parties or failing agreement within 14 (fourteen) days, after either party has given the other a written request to, concur in the appointment of an Arbitrator, appointed at the request of either party by the Chairman of the Board of Engineers, in Malawi.

The Arbitrator shall without prejudice to the generality of his powers, have power to direct such measurements and/or valuations as in his opinion be desirable in order to determine the rights of the parties and to ascertain and award any sum which ought to have been the subject of or included in any certificate and to open up, review and revise any certificate, opinion, requirement or notice and to determine all matters in dispute which shall be submitted to him in the same manner as if no such certificate, opinion, decision, requirement or notice had been given, and to assess and award damages.

10.2 It is agreed that this contract shall be regarded as a Malawi Contract and the Laws of Malawi (CAP 6:03) shall apply to all arbitration's items of this clause.

10.3 The Award of the Arbitrator shall be final and binding on the parties.

Central Region Infrastructure Maintenance Programme

APPENDIX TO CONDITIONS OF CONTRACT - CONTRACT DATA

Contract No: _____

Contract Name: *Labour-based Road Rehabilitation Works*

Employer: District Assembly

Contract Administrator: District Road Supervisor in collaboration with
Project Field Advisers

Traditional Authority: _____

Name of Contractor: _____

Date of Commencement: _____

Date of Completion: _____

Site Location(s): _____

Amount of Retention Money: 10 percent

Defects Liability Period: 3 months

Minimum Amount of
Interim Certificate: MK 5000:-

Time for Payment to be Made
after Issue of Certificate: 1 week

Payment Schedule: Payment can be claimed on a monthly basis, however
first payment can be claimed two weeks after
commencement of works.

Minimum Insurance Cover for
Workers Compensation:

Central Region Infrastructure Maintenance Programme

SPECIAL CONDITIONS OF CONTRACT for Rural Road Rehabilitation Works

1 Labour-based Appropriate Technology

The Contractor shall carry out the Works using a labour-based technology which will maximise the use of effective labour and minimise the use of plant and equipment consistent with the Contractor's obligations regarding standards of work and all other provisions of the Contract.

The Contract Administrator shall advise the Contractor, if requested to do so, on the most practical working methods to be adopted in order to fulfil this requirement.

2 Detailed Work Programme

Following the notification of the award of the Contract, the Contractor shall prepare, in such detail as shall be satisfactory to the Contract Administrator, a work programme indicating the mix and balance of labour, plant and equipment which the Contractor intends to use for the Works. The Contractor shall not commence the Works until the work programme has been approved by the Contract Administrator.

3 Limited Use of Plant

The Contract Administrator shall have the power to limit the use of any plant or equipment engaged on the Works and the Contractor shall not bring any plant or equipment to the Site without the prior approval of the Contract Administrator, except for plant and equipment approved in the works programme.

4 Employment Records

The Contractor shall keep full, complete and accurate records of the employment of labour at the Site of Works. These shall include the names, ages, gender, home village, identity number, payments and deductions (if any). These records shall be available for inspection at all reasonable times and summarised on a monthly basis.

5 Contract Administrator's Power to Inspect

The Contract Administrator or his authorised representative shall have the power to inspect the employment records and pay sheets of the Contractor's labour force, at any reasonable time, without prior notice to the Contractor. The Contract Administrator may suspend works where it is found that workers are not engaged in accordance with the labour law and regulations of Malawi and being paid less than the established minimum wage.

6 Labour Inspectorate

The designated officers of the labour inspectorate of the Ministry of Labour shall have the right to visit the site of the Works at any reasonable time for the purpose of inspecting labour records and otherwise checking the Contractor's compliance with labour laws and regulations. The inspectorate shall also have the right to call for meetings of the workers for the purpose of explaining their rights and obligations under the statutory regulations.

7 Labour Law of Malawi

The Contractor shall be thoroughly conversant with the provisions of the Labour Law of

Malawi and its statutory additions and amendments. The Contractor shall ensure that the regulations pertaining to the employment of labour for the Works are fully understood and effected during the period of the Contract. In particular, he shall take note of those regulations regarding employment of women and children, equal pay and conditions, payment of workers, recruitment procedures and right of free association.

The Contractor may be entitled to operate a task work, daily wage or other system of remuneration which is allowed for in the Labour Law regulations.

8 Employer's Power to Pay Workers

In the event of default by the Contractor in paying the labour after not more than one month of working, the Employer shall have the power to pay the outstanding wages and allowances (if any) in accordance with the pay sheet records and to deduct the amount from any monies due to the Contractor. Continuing default by the Contractor may be a cause for suspension of work under the provisions of the contract.

9 Immediate Payment of Wages

At the request of the Contractor for immediate payment of the labour wages, the Employer may agree to certify, at intervals of not less than one month, the total amount of the Contractor's labour wages and allowances (if any) in accordance with the pay sheets, with an additional 10 percent for administrative overheads. The Employer shall pay the certified amount to the Contractor within three days of the receipt of the certificate.

The Contractor shall pay the amount of the wages and allowances (if any) to the workers within three days of receiving the amount from the Employer. Failure by the Contractor to pay within this time may result in the withdrawal of this payment arrangement by the Employer. The Employer shall have the power to discontinue this payment arrangement if it is decided that it is no longer required for the satisfactory completion of the Contract.

The amount of any payment made under this Clause shall be deducted from any monies due to the Contractor, for work completed, under a subsequent interim payment certificate.

10 Recruitment of Workers

As far as reasonably possible, the Contractor shall recruit his un-skilled labour force from areas adjacent to the Works and in any case within reasonably walking distance of the site. The Contractor shall recruit new labour from time to time as the work progresses.

11 Deductions

The Employer shall have the power to deduct from monies payable to the Contractor under the Contract any amount due from the Contractor in respect of Advance Payments made; tools or equipment received; or materials delivered, whether subject to an agreed repayment schedule or not. The Employer shall take due account of any reasonable request from the Contractor for an agreed repayment schedule.

12 Sub-Contractors and Nominated Sub-Contractors

The Contractor shall be responsible for the performance of any sub-contractor in the execution of Works as if it was the performance of the Contractor and the provisions of the Contract shall equally apply.

A Nominated Sub-Contractor shall be deemed the same as a sub-contractor except that the Contractor shall not be obliged to accept the employment of a sub-contractor, nominated by the Employer, against whom the Contractor may raise reasonable objection.

13 Progress Meetings

The Contract Administrator shall have the right to call the Contractor to regular progress meetings at not less than one month intervals to review the construction. If required to do so the Contractor shall submit revised and updated work plans indicating how he intends to complete the Works within the contract period. Failure to submit satisfactory plans may result in the Contract Administrator withholding payment due under the Contract for such a period as considered appropriate.

14 Contractor's Staff

The Contractor shall employ site supervision staff who are sufficiently experienced in labour-based construction technology. All staff shall be approved by the Contract Administrator before being engaged on site and the Contract Administrator shall have power to require the removal from site of any staff considered insufficiently skilled for the type of works.

15 Technical Manual

The Contractor shall be expected to follow the methods and standards set out in the DRIMP Technical Manual and the Employer shall provide the Contractor with sufficient copies of the Manual for this purpose.

Central Region Infrastructure Maintenance Programme

LIST of BASIC LABOUR RATES

Contract No: _____

Name of Contract: _____

With reference to Clause 6.4 of the Conditions of Contract, the Tenderer shall insert below the basic rates of wages on which he has based his tender. Such rates shall be substantiated should the Contract Administrator so require.

Category of Employee	Unit	Basic Rate (MK)
Unskilled Labour	day	
Semi-skilled Labour	day	
Supervisor	day	
Other		

Name(s) of Supervisory Staff:	

Signed: _____ Date: _____

Name and Position: _____
(Tenderer or his Representative)

Central Region Infrastructure Maintenance Programme

WORK SPECIFICATIONS for ROAD REHABILITATION

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I GENERAL

Preamble

The Works specified under this contract shall include:

- preparatory and general works, materials and work of any kind necessary for the due and satisfactory construction, completion and maintenance of the works to the intent and meaning of the Drawings and this Specification and any further drawings and orders that may be issued by the Contract Administrator;
- compliance by the Contractor with all Conditions of Contract, whether specifically mentioned or not in this Specification;
- all materials, apparatus, plant, machinery, tools, fuel, water, strutting, timbering, and tackle of every description; transport, offices, stores, workshops, staff, labour;
- the provision of proper and sufficient protective works, temporary fencing, lighting, and watching required for the safety of the Public and the protection of the works and adjoining land;
- the provision and maintenance of first aid equipment, sanitary accommodation for the staff and workers;
- the effecting and maintenance of all insurance, the payment of wages, salaries, fees, royalties, duties or other charges;
- the clearance of rubbish, reinstatement and clearing up and leaving the site in good condition.

Extent of Contract

The Works to be executed under the Contract comprise the rehabilitation of existing earth and gravel surfaced roads. Generally, the works comprise the following:

- (a) Maintenance of existing roads and passing of traffic through the Works. Where deviations are unavoidable, the construction and maintenance thereof.
- (b) Earthworks: The locations and extent of earthwork requirements, including reshaping of the road body and drainage system as well as raising current levels of embankments, as prescribed in the standard drawings and Bill of Quantities or identified by the Contract Administrator in the course of the works.
- (c) Construction of a gravel wearing course.
- (d) Repairs and reconstruction of existing surface water drainage facilities and protection works.
- (e) Repairs to existing road furniture and the provision and erection of a limited amount of new road furniture.

These Specifications are written on the basis that the Works shall be constructed using a labour-based works technology. The Contractor will be expected to maximise the use of labour for all operations where it can be effectively used to attain the required standards. To comply with the construction standards required using labour-based technology, the Contractor will be expected to make extensive use of a variety of setting out and other construction aids. These shall include:

- ranging rods
- profile boards
- pegs and string lines
- line levels
- ditch templates

The Contractor shall set out, using pegs and string lines, the various construction operations in sufficient detail to ensure that the required standards and tolerances are achieved, and in such a way that any task work system adopted may be easily checked by the Contract Administrator.

Drawings

The drawings referred to in the contract document are the standard cross sections of the road.

The Technical Manual for the District Road Improvement and Maintenance Project shall be construed to form a part of these specifications, and shall be referred to for any item not covered in this Works Specification. The Employer shall provide the Contractor with sufficient copies of the Manual for this purpose.

Typical Cross Section

The "Standard Cross Sections" given in the drawings are provided as a guide only. The locations and extent of works to be undertaken will be ordered by the Contract Administrator on site.

Provision of Land

The Employer shall make available free of charge to the Contractor all land on which the works are to be executed or carried out; all as indicated on the Drawings or as detailed in this Specification. Such land shall include the road reserve, road deviations, borrow pits outside of the road reserve and access roads thereto but shall exclude any land required by the Contractor for his own camps, offices, houses, other temporary works or any other purpose.

The Contractor shall be responsible for the payment of compensation for crops, structures and any other costs in respect of land temporarily acquired, including the Contractor's spoil areas outside of the road reserve, work areas outside of the road reserve for camps, offices, temporary works, etc. The Contractor should allow in his rates for making such compensation payments for land temporarily acquired as no separate payment will be made.

Programme of Work

The programme of work required in terms of the Special Conditions of Contract shall be submitted to the Contract Administrator not later than 15 days after issuing the Contractor the Notification of Award.

The programme shall be in the form of a time/location chart and shall clearly show the anticipated quantities of work to be performed each month, as well as a plan of labour inputs over the programme period. The contractor should update the programme each month. However, in cases where quantities fall substantially below targets, the Contract Administrator may request the contractor to submit a revised programme within 7 days.

If the programme is to be revised by reason of the Contractor falling behind his programme, he shall produce a revised programme showing the modifications to the original programme necessary to ensure completion of the works or any part thereof within the time for completion as defined in the Appendix to Conditions of Contract or any extended time granted pursuant to Clause 3.2 of the Conditions of Contract. Any proposal to increase the tempo of work must be accompanied by positive steps to increase production by providing more labour and tools on site, or by using the available labour and tools in a more efficient

manner.

Failure on the part of the Contractor to work according to the programme or revised programmes, shall be sufficient reason for the Employer to take steps as provided for in the Conditions of Contract and shall be construed, as not executing the Works in accordance with the contract.

Workmanship and Quality Control

The onus rests on the Contractor to produce work which complies in quality and accuracy of detail with the requirements of the Specifications and Drawings. The Contractor must, at his own expense, institute a quality control system and provide experienced technical staff, together with all transport, instruments and tools, to ensure adequate supervision and positive control of the works at all times. The Contractor must provide assistance and labourers for the Contract Administrator to carry out checks on the works.

The costs of all supervision and process control, including testing carried out by the Contractor, shall be deemed to be included in the rates tendered for the related items of work except that the cost of certain tests and the provision of certain items of testing and sampling equipment will be paid for separately as provided for in those sections of the Specifications where this applies.

Signboards

The Contractor shall provide, erect and maintain at least two sign boards per road in a format acceptable to the Contract Administrator. Each sign shall be of no less than 2 m² area and comprise black lettering on a white background. The boards should be perforated to discourage theft.

The following information should be given on each sign:

- Project Title (Central Region Infrastructure Maintenance Programme)
- Name of District Assembly
- Name of Funding Agency (Department for International Development)
- Name of Executing Agency (CARE)
- Contractor's Name

These signboards shall be erected at locations to be selected by the Contract Administrator.

The signs are to be erected as the Contractor commences work on a particular Project road. The Contractor shall be responsible for removing the sign at the end of the Defects Liability Period.

Erection of Site Camp

A proper camp shall be established at the work site. The size and location of the camp must be agreed with the Contract Administrator before any activities are commenced regarding the camp establishment. The areas for parking and camp structures must be levelled. A stores building with a surface of about 20 m² shall be provided for the Contractor's hand tools and materials. The store must be in such a way that daylight can provide sufficient light inside the building. The surface material under the store shall be of good quality which keeps dry and hard. Suitable shelves shall be erected in the stores for cement and other materials to be protected from the humidity on the ground.

Removal of Site Camp

Upon completion of the Contract, and after receiving approval in writing from the Contract Administrator, the Contractor shall take down and remove all structures forming part of his own camp, yard and workshops including removal of all drains and culverts, back-filling of

trenches, filling of pit latrines, etc. and shall restore the site, as far as practicable, to its original condition and leave it neat and tidy.

Liaison with Government Officials

The Contractor shall maintain close contact with the police and other local officials of the area regarding their requirements as to the control of traffic and other matters and shall provide all assistance or facilities which may be required by such officials in the execution of their duties.

Maintenance of Traffic

Throughout the duration of the Contract, traffic shall be maintained over a reasonable smooth travelled way which shall be marked in such a manner that any person who has no knowledge of the conditions may safely and with a minimum of inconvenience and discomfort, drive or walk, day or night, over all or any portion of the road under rehabilitation - provided that such a section of the road was passable to traffic prior to the Contractor having taken possession of the site.

Unless approval in writing has been obtained from the Contract Administrator, no road shall be closed to traffic or public access.

Temporary Works

The Contractor shall allow in his rates where appropriate, for provision and maintenance of any temporary works including structures and deviations, and for the provision, erection and maintenance of the road signs for the safe passage of traffic during rehabilitation of the road and ancillary works.

Unless provided for separately the accommodation of traffic shall be included in the general rates except that any detours required and instructed by the Contract Administrator shall be paid for under the appropriate items in the Bills of Quantities.

Land Compensation

The Contractor shall not take possession of the site, nor enter any land or commence any operations until such time as he receives formal confirmation from the Contract Administrator. Should the Contractor enter land or commence any operations without first obtaining this confirmation he shall be solely liable for all additional costs and/or legal charges which might arise there from.

The Employer shall be responsible for the assessment and reimbursement of payment of compensation (if any) in respect of land to be permanently acquired and incorporated in the works within the road reserve, together with all buildings, crops, trees and any other properties so defined from the land.

The Contractor shall be responsible for payment of compensation in respect of land temporarily acquired, Contractor's spoil areas and working areas, sites for Contractor's accommodation, and land acquired for gravel quarries.

Measurement

(a) Units of measurements

All work shall be measured in accordance with the S.I. System of metric units.

(b) Bill of Quantities

The quantities set out in the Bill of Quantities are estimated quantities and are used for the comparison of Tenders and awarding the Contract. It must be clearly understood that only the actual quantities of work completed or materials supplied will be measured for payment, and that the billed quantities may be increased or decreased as provided for in the Conditions of Contract.

(c) Measurement of completed work

(i) All distances along the centre line of the road as shown on the Drawings are horizontal distances and these distances will be used in calculating the quantities of fill, sub-bases, shoulders and surfacing for payment purposes. All cross sections shall be taken in vertical plane.

(ii) All material which are specified to be measured in the vehicle shall be hauled on vehicles of such type and size that the actual contents may be readily and accurately determined. Unless all vehicles are of uniform capacity, each vehicle shall bear a plainly legible identification mark indicating its specific capacity.

(d) The contractor should allow in his rates for compliance with all requirements of this Specification for which separate payment is not made under the Contract.

Payment

(a) Contract rates

In computing the final contract amount, payments shall be based on actual quantities only of authorised work done in accordance with the Specifications and Drawings. The tendered rates shall apply, subject to the provisions of the Conditions of Contract, irrespective of whether the actual quantities are more or less than the billed quantities.

(b) Prices to be inclusive

The Contractor shall accept the payment provided in the Contract and represented by the prices tendered by him in the Bill of Quantities, as payment in full for executing and completing the work as specified, for procuring and furnishing all materials, labour, supervision, tools and equipment, for wastage, transport, loading, off loading, handling, maintenance, temporary work, testing, quality control including process control, overheads, profit, risk and other obligations and for all other incidentals necessary for the completion of the works and maintenance during the Contract Period.

This Clause shall be applicable in full to all pay items except as these requirements may be specifically amended in each case.

(c) meaning of certain phrases in payment clauses.

(i) where any of the words "supply", "procure" or "furnish" (material) are used in the description of a pay item it shall mean the supply and delivery to the point of use of all materials of any kind required for the work covered by the particular pay items, including all tax, (unless otherwise notified by the Contract Administrator) purchase costs, claims, damages, royalties and transport costs involved excluding overhaul. In the case of gravel, stone and sand, it shall also include all negotiations with owners concerned, royalties, excavating, producing, preparing, processing, testing, hauling and delivering the material to the point of use; the

construction, repair, maintenance and making good after completion of all access roads, and all work required in opening, using and finishing borrow pits to ensure that soil and water from these do not interfere with the adjacent road or give rise to erosion more generally and in all respects do not have un-aesthetic appearances, which is not covered by other pay items in the Bill of Quantities.

(ii) "Placing material"

The phrase "placing material" shall mean the off-loading, spreading, blending, processing, watering, mixing, shaping and compacting (where specified) the material in the road prism as procuring, furnishing, applying and mixing of water; breaking down oversize material, removing which cannot be broken down, correcting irregular or uneven surfaces or deficient thickness, finishing off to within the specified tolerances, refilling test holes and maintaining the completed work.

(d) Pay items

The descriptions under the pay items in the various sections of the Specifications, indicating the work to be allowed for in the tendered prices for such pay items, are for the guidance of the Contractor and do not necessarily repeat all the details of work and materials required by and described in the Specifications.

These descriptions shall be read in conjunction with the relevant Specifications and Drawings and the Contractor shall, when tendering, allow for his prices to be inclusive as specified in Sub-clause (b) above.

Specifications

The following Specifications issued by widely recognised bodies are referred to in this Specification:

BS British Standard

AASHTO American Association of State Highway and Transportation Officials

II PAY ITEMS

The item numbers used in this section corresponds to those used in the bills of quantities.

A PRELIMINARIES

A.10 SETTING UP CAMP

Description of Work

Set up an appropriate camp at the work site and maintain it throughout the contract period.

Execution of Work

The Contractor shall establish his camp on the Site. This will include all accommodation, sanitary conveniences, plant stores, materials stores, etc. The works comprise the establishment of a store and office buildings for the site management, shelter for watchman and a pit latrine - all as described under GENERAL in this Specification.

The Contractor shall move all necessary tools and personnel to the Site preparatory to starting work.

Necessary steps shall also be taken to comply with the terms in the Conditions of Contract, particularly in respect of the insurances and indemnities required.

Measurement and Payment

The payment shall be made as a lump sum payment payable only once, when the camp is installed to the satisfaction of the Contract Administrator.

A.20 REMOVAL OF CAMP

Description of Work

Remove the camp after completion of the contract.

Execution of Work

The removal shall be carried out as described under GENERAL in this Specification.

Measurement and Payment

The payment shall be made as a lump sum payment payable only once, when the camp is removed to the satisfaction of the Contract Administrator.

B SETTING OUT AND SITE CLEARANCE**B.10 SETTING OUT HORIZONTAL AND VERTICAL ALIGNMENT****Description of Work**

Setting out the horizontal alignment and elevation levels shall consist of the provision and placement of ranging rods and profile boards to determine the exact alignment of the road. The ranging rods and profile boards shall be of good quality metal and their finish of such a standard that they can be used for good and correct setting out. The setting out shall include vertical as well as horizontal alignment. The contractor shall ensure that the setting out is maintained for the entire period required to achieve the dimensions of the road according to the drawings.

Execution of Work

Setting out of alignment shall be carried out following the instructions of the Contract Administrator. The setting out shall ensure that the dimensions of the road are according to the drawings and shall be maintained by the contractor for the time required to complete the works.

Both alignments shall follow as closely as appropriate to the existing terrain and road lines and they shall be established by pegging the centre line, edge of carriageway and ditch lines. Reference pegs shall be provided at intervals outside the roadway to allow for the reestablishment of the alignment during construction. Chainage shall be clearly marked on pegs at not less than 100 metre intervals.

The Contractor shall set out, using pegs and string lines, the various construction operations in sufficient detail to ensure that the required standards and tolerances are achieved, and in such a way that any task work system adopted may be easily checked by the Contract Administrator.

Measurement and Payment

The unit of measurement for setting out is the metre (m). The quantity shall be measured as the length of the road section where setting out has been carried out.

No extra payment shall be made for the re-placement of pegs, profile boards or any other setting out materials which are removed from the site prior to instructions of the Contract Administrator.

B.20 CLEAR SITE OF GRASS AND BUSH INCLUDING TREES AND CLEAR AWAY**Description of Work**

Clearing shall consist of the removal of trees, bushes, other vegetation, rubbish, defunct structures and all other superfluous material including the disposal of all material resulting of the grubbing. Clearing shall not include removal of boulders covered under C.10.

The road alignment shall be adjusted where possible to minimise the destruction of trees and no tree of more than 0.5 metre girth shall be cut without the approval of the Contract Administrator. All debris shall be stored and disposed of in a manner acceptable to the Contract Administrator.

Execution of Work

Areas to be cleared: The portions of the road reserve that fall within the limits of the road prism, as well as borrow areas shall be cleared. The Contract Administrator shall designate the areas to be cleared and such areas to be cleared shall not necessarily be limited to those mentioned above.

No clearing shall be done other than on written instructions of the Contract Administrator who shall designate in detail the exact areas to be cleared and the time at which it shall be done. The Contractor shall note that in order to avoid re-clearing, the clearing may have to be done at the last practicable stage of construction.

The clearing shall be done by means of labour and appropriate hand tools. No extra payment will be made for haulage in connection with clearing.

Measurement and Payment

The unit of measurement for clearing is square metres (m²). The quantity shall be taken as the area in square meters designated by the Contract Administrator, and cleared in accordance with these specifications.

All cleared material shall, unless otherwise provided for in the Contract, be the property of the Employer.

B.30 GRUBBING AND REMOVAL OF STUMPS AND ROOTS

Description of Work

All stumps and roots larger than 75 mm in diameter shall be removed to a depth of not less than 600 mm below the finished road level and a minimum of 75 mm below original ground level. Where the road bed has to be compacted, all stumps and roots including matted roots shall be removed to a depth of at least 200 mm below the cleared surface. Except at borrow areas the cavities resulting from the grubbing shall be back-filled with approved material and compacted to a density not less than the surrounding ground.

Execution of Work

Areas to be grubbed: The portions of the road reserve that fall within the limits of the road prism, as well as certain borrow areas. The Contract Administrator shall designate the areas to be cleared and such areas shall not necessarily be limited to those mentioned above.

No grubbing shall be done other than on written instructions of the Contract Administrator who shall designate in detail the exact areas to be grubbed and the time at which it shall be done.

Measurement and Payment

The unit of measurement for grubbing is square metres (m²). The quantity shall be taken as the area in square meters designated by the Contract Administrator and grubbed in accordance with these specifications.

The tendered rate shall include full compensation for all work necessary for the removal and grubbing of trees and tree stumps, cutting of branches, back-filling of cavities, demolishing and disposal of structures except when elsewhere provided for, and the removal, transporting and disposal of material all as specified in this section.

B.40 REMOVE TOPSOIL TO A MAXIMUM DEPTH OF 150 MM

Description of Work

Remove topsoil which is not suitable for road base use.

Execution of Work

Written approval from the Contract Administrator shall be obtained to carry out this activity in any location. The topsoil to be removed shall be deposited in a suitable location and consideration shall be given to reuse the topsoil to cover side slopes, etc., while carrying out

finishing works towards the end of the road rehabilitation works.

Measurement and Payment

The unit of measurement for removal of topsoil is square metres (m²).

B.50 REMOVE UNSUITABLE MATERIALS AT DEPTHS EXCEEDING 150 MM

Description of Work

If unsuitable material is encountered at or below subgrade level in cut areas or at or below embankment foundation level in fill areas, it shall be excavated to limits as directed by the Contract Administrator and be back-filled with suitable materials in accordance to instructions provided by the Contract Administrator

Execution of Work

Written approval from the Contract Administrator shall be obtained to carry out this activity in any location. The unsuitable material to be removed shall be deposited in a suitable location as directed by the Contract Administrator.

Measurement and Payment

The unit of measurement for removal of unsuitable material is cubic metres (m³).

B.60 TREE FELLING AND REMOVAL

Description of Work

Tree felling shall consist of removal of trees, including the removal of the roots to a depth of 1 metre below the existing surface. The Contract Administrator shall designate the trees to be cut. All debris shall be stored and disposed of in a manner satisfactory to the Contract Administrator. The road alignment shall be adjusted where possible to avoid the destruction of trees, and no tree shall be removed without the prior approval of the Contract Administrator.

Measurement and Payment

The unit of measurement for tree felling is the number of trees removed (no.). Measurement shall not include works covered under B.20.

C EARTHWORKS**C.10 EXCAVATE, BREAK AND REMOVE BOULDERS/ROCK AND DISPOSE****Description of Work**

This activity shall include the removal and disposal of weathered as well as hard rock that obtrude, encroach or otherwise obstruct the work within the road prism. The moving of a certain amount of soil may be inherent to or unavoidable during the process of clearing and no extra payment will be made for this.

Execution of Work

The rock shall be excavated and broken into pieces small enough to be removed normally. The work shall be carried out using labour and appropriate hand tools. Only if agreed with the Contract Administrator will equipment such as compressor or explosives be used.

Measurement and Payment

The unit of measurement for this activity is cubic metres (m³). The quantity shall be agreed to by the Contract Administrator.

C.20 EXCAVATE SIDE DRAINS IN SOIL**Description of Work**

The work includes excavation of side drains in soil to the standard according to drawings and placing material on the road to form camber or dispose as waste. As such, this activity is meant to re-establish the proper cross-sectional shape according to the standard cross section. The classification "soil" shall be material which can be dug using spades, hoes and mattocks.

Execution of Work

Proper setting out and measuring shall be made prior to excavation and must be approved by the Contract Administrator. Excavation shall be carried out in two steps. The first stage is excavation of a rectangular trench and the second step is sloping of the trench. If the soil consists of the required quality for sub-base material it shall be placed in the middle of the road. Having completed trenching and back-sloping, the camber can be properly formed with the excavated material. If the soil excavated is not of the required quality, it shall be disposed of as waste in such a way that it will not block any drainage of the road and is not otherwise causing any inconvenience along the road. The work shall be carried out using appropriate hand tools and if necessary wheelbarrows.

Measurement and Payment

The unit of measurement for excavation of side drains in soil is cubic metres (m³). The tendered rate shall include full compensation for excavation of the material, placing and spreading of material to form road camber or dispose as waste, including a free haul of 50 metres.

C.21 EXCAVATE SIDE DRAINS IN WEATHERED ROCK**Description of Work**

The work includes excavation of side drains in weathered rock according to standard drawings (minimum depth 300mm) and dispose as waste or if the material is suitable to place material on road to form camber. The classification "weathered rock" is material which can be dug using pick axe only in addition to the tools mentioned under C.20.

Execution of Work

As described under C.20 above. Excavation in weathered rock is normally expected to be carried out at a productivity rate up to five times lower than excavation in soil.

Measurement of Work

As described under C.20 above.

C.30 EXCAVATE SUITABLE MATERIAL AND HAUL MATERIAL NOT EXCEEDING 200M AND PLACE ON TO THE ROAD AND COMPACT IN LAYERS NOT EXCEEDING 100MM**Description of Works**

Excavation of suitable base material shall consist of the provision of base material where required to raise the level of the existing road (embankment, side fill or benching) or to repair the surface (erosion gullies, potholes etc.). The activity comprises the excavation of borrow material, hauling, spreading and compaction of the material on the road surface. The Contractor shall take the necessary action if required and directed by the Contract Administrator to avoid any erosion or other damages in connection with the excavation.

Execution of Works

All borrow shall be authorised in writing by the Contract Administrator. Such authorisation shall only be granted if the excavation of side drains does not yield sufficient fill. The Contractor shall obtain the prior permission of the Contract Administrator before developing any borrow area including the widening of cuts.

Should there be insufficient suitable material adjacent to the road to complete the earthworks, the Contract Administrator shall instruct the Contractor to open a borrow pit and to transport the material by suitable approved means. Any such borrow pit shall be operated in such a way as to cause the minimum of environmental damage to the location and nuisance to the public. The Employer shall conduct all negotiations with land owner/occupier, preparing and signing the legal agreements, making payments (if any) and giving proper notice to enter upon the land and obtaining all the necessary consents.

Prior to placing any fill or embankment upon any area, all clearing and grubbing operations shall have been completed in accordance with Sections B.20, B.30 and B.40. The Contractor shall, when ordered by the Contract Administrator excavate or displace swamp ground and back-fill with suitable material in accordance with Section B.50.

The works shall be carried out using appropriate hand tools. Embankments and fills shall be constructed in layers approximately parallel to the finished grade of the roadbed. During construction, a smooth grade having an adequate crown shall be maintained at all times to provide drainage. The layers shall not exceed a thickness of 100mm, consisting of materials free from roots, sods or other deleterious material.

Where a fill is being carried out to widen an existing embankment or side fill, the new fill material shall be fully keyed into the old fill by means of benching which shall be in steps each not less than 300 mm high. Steps shall be cut in advance of the filling.

In the absence of site testing facilities the Contract Administrator shall instruct the Contractor on the method of appropriate compaction. Compaction shall be carried out from the edges of the embankment or side fill towards the centre and the material shall be as close as reasonably possible to the Optimum Moisture Content for the compaction effort. The Contractor shall allow time for material which is too wet to dry to the same state before attempting to compact. If site testing is available the earthworks shall be compacted to not less than 85% Mod. AASHTO standard density. The compacted layer shall be approved by the Contract Administrator before the Contractor can commence the fill of a new layer.

Where directed by the Contract Administrator, soft, wet or unstable areas of the sub-grade

which develop during construction shall be excavated and replaced with approved stable material in layers not exceeding 100 mm thickness and compacted as previously specified. Where such areas have been caused by the fault or negligence of the Contractor, they shall be excavated and replaced at his own expense.

The side slopes of embankments and side fills shall be trimmed to line and compacted sufficiently to prevent the formation of erosion gullies.

Measurement and Payment

The unit of measurement is cubic metres (m³). Measurement shall be made on the finished road surface and shall be cross checked by measuring the excavation made at the borrow area.

C.40 PROVIDE MATERIALS AND CONSTRUCT SCOUR CHECKS

Description of Works

Provide materials and construct scour checks at specified intervals as a measure of erosion protection of side drains on roads with longitudinal slopes. The scour checks interval in the ditch is determined according to the slope. Guidelines to determine the interval in relation to the side drain gradient are given in the table below:

Road Gradient [%]	Scour Check Interval [m]
4	not required
5	20
6	15
7	10
8	8
9	7
10	6

Execution of Work

Scour checks shall be constructed in drainage ditches at locations shown on the Drawings or directed by the Contract Administrator.

Scour checks shall be constructed of natural stone or with wooden or bamboo stakes, and shall follow the shape of the ditch. The level of the flat of the scour check shall be not less than 150 mm below the edge of the road shoulder. Stone shall be placed downstream of the scour check to avoid erosion.

Measurement and Payment

The unit of measurement is the no. of scour checks constructed. The tendered rate shall include full compensation of the provision of the materials and construction of the scour checks.

C.50 CONSTRUCT MITRE AND CATCH-WATER DRAINS

Description of Works

Excavation of mitre and cut-off drains at locations shown on drawings or directed by the Contract Administrator to direct road surface water and run-off water away from the road body.

Execution of Works

Mitre drains shall be constructed with sufficient length and volume to allow the drained road surface water to flow into the natural drainage pattern of the surrounding terrain. Gradients shall be not less than 2% and not exceed 5%.

Catch-water drains shall be constructed, where directed to protect cutting slopes and other lengths of road likely to be damaged by the natural flow of run-off water.

All suitable excavated material shall be used for the road works and unsuitable material shall be disposed of not less than 10 metres from the ditch on the lower side.

The location of outlets of catch-water and mitre drains shall be designed in a manner so that the discharged water does not disturb farming activities in the surrounding areas.

Measurement and Payment

The unit of measurement is metres (m) of mitre drain and/or catch-water drain.

D GRAVEL SURFACING**D.10 Reshape Earthworks Camber****Description of Work**

This activity shall consist of reshaping the final sub-base camber, thus repairing damages caused by excessive traffic loads during the period after completion of earthworks and spreading of the gravel surface.

This activity shall not be utilised for repairing damages to the sub-base surface caused by the Contractor's own work activities, nor by the local traffic generated by local residents as expected to occur on the improved road sections.

Description of Work

Prior to laying the wearing course, the Contractor shall correct any deformations, ruts, soft spots or other defects in the formation all to the satisfaction of the Contract Administrator whose written approval shall be obtained before gravel surfacing works commence. The final layer of earthworks shall, on completion of compaction, be well closed, free from movement under the compaction equipment, free from compaction planes, ridges, cracks or loose material. The compacted thickness of any layer laid shall not exceed 100mm and shall be compacted and placed as originally prescribed in C.20 and C.30.

Should there be insufficient suitable material adjacent to the road to complete the earthworks construction the Contract Administrator may instruct the Contractor to open a borrow pit and to transport the material by suitable approved means.

Measurement and Payment

The unit of measurement is square metres (m²). Measurement shall be made on the finished road surface and shall not exceed the quantity for which the Contract Administrator gave prior written approval before the commencement of this activity.

D.20 SPREAD, SHAPE TO CAMBER AND COMPACT GRAVEL**Description of Work**

This activity shall consist of spreading to form camber or super-elevation and compact gravel. The thickness of the compacted layer shall be 100mm unless otherwise instructed.

Execution of Works

Prior to laying the wearing course, the Contractor shall correct any deformations, ruts, soft spots or other defects in the formation all to the satisfaction of the Contract Administrator whose written approval shall be obtained before gravel surfacing works commence.

The gravel wearing course shall be deposited in such quantity and spread in a uniform layer across the full width required, so that the final compacted thickness is nowhere less than shown upon the Drawings or instructed by the Contract Administrator.

The compacted thickness of any layer laid, processed and compacted at one time, shall not exceed 100mm and where a greater compacted thickness is required, the material shall be laid and processed in two or more layers.

Wearing course material shall be broken down to the specifications required. Any oversize material which cannot be broken down to the required size shall be removed to spoil.

The gravel wearing course shall be compacted to a dry density of at least 85% MDD (AASHTO, Modified Proctor). The moisture content at the time of compaction shall be

between 80% and 105% of the optimum moisture content. The Contractor shall dry or wet the material in order to comply with the moisture content required.

The wearing course of the material shall, on completion of compaction, be well closed, free from movement under the compaction equipment and free from compaction planes, ridges, cracks or loose material. All loose, segregated or otherwise defective areas shall be removed and made good with new material to the full thickness of the layer.

Using the selected compaction method, the Contract Administrator shall determine the appropriate method of and procedure for compaction which will be required for a given thickness to achieve the required densities.

The Contractor shall re-compact at his own expense any section on which the specified densities are not achieved.

Measurement and Payment

The unit of measurement shall be cubic metres (m³). The quantity for which payment shall be made shall be the product of the instructed thickness, the instructed average width and the measured length along the centre line of the road.

The rates shall include the placing, spreading, shaping, watering and compaction as specified and shown on the Drawings.

E EROSION CONTROL**E.10 TURFING****Description of Works**

This work shall consist of furnishing turf and sods as required and planting them to give a healthy stable covering of grass which will maintain its growth in any weather and prevent erosion of the material in which it is planted.

Execution of Works

Grass shall be of species native to Malawi, harmless and inoffensive to persons and animals and not of a kind recognised as a nuisance to agriculture. It shall be free of disease and noxious weeds, deep rooted and sufficiently rapid growing and spreading to give complete cover over the planted area within the Defects Liability Period.

The term "grass" embraces turf and sods and, if the Contract Administrator permits, may include plants of other types capable of giving effective erosion protection.

Sodding or turfing shall be done by planting sods or turf to give continuous cover over the whole area. They shall be planted with their root system substantially undamaged, well buried in firm material, and packed around with moist earth in which they have grown.

Grass shall be planted at such a time and the work shall be done in such a way that at the time of final inspection all areas to be grassed are substantially covered with healthy, well established, firmly rooted grass and the planted area is free from erosion channels.

Surfaces to be planted shall be trimmed in such a way that the ground surface after planting shall be as shown on the Drawings.

The Contractor shall maintain the grass at his expense until the issuance of the Practical Completion Certificate. Maintenance shall consist of watering, preserving, protecting and replacing grass and such other work as may be necessary to keep it in a satisfactory condition to prevent erosion and to present a dense and uniform appearance.

Measurement and Payment

The quantity measured for payment shall be the number of square metres (m²) of turfed or sodded surface whether horizontal or sloping of required and accepted grassing well established in place.

E.20 TREE PLANTING**Description of Works**

This work shall consist of planting tree seedlings at the base of embankments and side slope fills to prevent erosion of the material in which it is planted.

Execution of Works

The planting shall be carried out at intervals and locations as directed by the Contract Administrator. The tree seedlings shall be planted with their root system substantially undamaged, well buried in firm material, and packed around with moist earth in which they have grown.

Tree seedlings shall be planted at such a time and the work shall be done in such a way that at the time of final inspection all seedlings are well established, firmly rooted and the planted area is free from erosion channels.

The Contractor shall maintain the seedlings at his expense until the issuance of the

Practical Completion Certificate. Maintenance shall consist of preserving, protecting, watering and replacing seedlings and such other work as may be necessary to keep them in a healthy condition.

Measurement and Payment

The quantity measured for payment shall be the number (no.) of tree seedlings planted well established in place, protected from animals and in a healthy condition.

F CROSS DRAINAGE WORKS**Setting Out**

The location of the culverts, drifts and other cross drainage structures shall be established by the Contract Administrator, and the detailed setting out shall be done by the Contractor. Excavation shall be neat and tidy and to the dimensions and levels shown on drawings or directed by the Contract Administrator. Excavations shall be kept free of water.

The Contractor shall set out, using pegs and string lines, the various construction operations in sufficient detail to ensure that the required standards and tolerances are achieved.

The inlet and outlet level and gradients of the structures shall comply with the existing natural water channels or ground levels.

F.10 CLEAN CULVERTS, INLETS AND OUTFALLS

This activity includes the removal of all silt, debris and other foreign matter from inside the culvert at the area of the wing walls. Inlet and outlet ditches at a minimum distance of 10 metres from the wing walls, or as instructed by the Maintenance Inspector, shall also be cleared of vegetation, silt and loose debris. Grass should be cut leaving the roots to provide soil erosion protection. All debris and other materials shall be removed well clear of the road and the drainage system to prevent it from being washed back into the drains.

A long handled shovel may be provided to excavate material from the culvert pipes. On completion of this work, the culvert, including the inlet and outlet drains, shall allow for free and unhindered flow of water.

Measurement and Payment

The unit of measurement for this activity is the number of culvert rows and the degree of silting.

F.20 LAYING OF PIPES

Concrete pipes shall be laid on a well compacted bed and firmly abutted together. The foundation shall be inspected before pipe laying can commence. After laying the complete run, the joints shall be sealed with cement mortar not less than 50mm wide or as specified by the Contract Administrator.

Where pipes are to be laid in a trench, the excavation shall exceed 400 mm greater than the outside diameter of the pipe.

Backfilling to pipes shall be with suitable granular material free from large or sharp stones. The material shall be compacted at optimal moisture content in layers not exceeding 100 mm loose thickness, brought up evenly on both sides of the pipe. Hand rammers shall be used, and care shall be taken not to make contact with the pipe. Backfilling shall continue above the pipe to not less than three quarters of the pipe diameter or as directed by the Contract Administrator.

The slide slopes of embankments shall be trimmed to line and hand compacted sufficiently to prevent the formation of erosion gullies.

Measurement and Payment

Measurement and payment is based on number of pipe rows laid, backfilled and compacted as specified above.

F.30 CONCRETE WORKS

Materials shall comply with the standards set out below and shall be approved by the Contract Administrator before being incorporated in the Works.

Concrete for construction shall in all cases be mixed by mechanical means in quantities not less than 0.25 m³ and as close to the final placing position as reasonably possible.

Fine aggregate shall consist of clean, sharp, hard and durable sand or crushed rock which shall be graded between the 5mm and 0.15mm sieves. It shall be free from all organic matter.

Course aggregate shall consist of clean, hard and durable crushed rock, crushed gravel or natural angular gravel, free from organic matter. For concrete works, the nominal size of aggregate shall be 20mm with the following grading:

Sieve Size (mm)	% Passing (by mass)
38	100
19	95 - 100
9.5	25 - 55
4.75	0 - 10

Cement shall be Ordinary Portland Cement complying with British Standard 12 or Sulphate Resisting Portland Cement complying with BS4027. Cement shall be obtained from manufacturers approved in writing by the Contract Administrator. Cement shall be stored at the site in the original bags until being used, and shall be free of any water damage.

Water for use in mixing concrete and mortar shall be clean and free from salt and organic matter.

Gauging for concrete mixes shall be done in boxes of appropriate size to suit the mixer capacity. For structural concrete, the mix shall be 1:2:4 (cement: fine aggregate: coarse aggregate). For mass concrete, the mix shall be 1:3:6. For mortar, the mix shall be 1:4 (cement: sand). Sufficient water shall be added only for good workability of the mix. The Contract Administrator may direct that Slump Cones are used to check the acceptability of the concrete for the works.

All form work shall conform to the shape, lines, levels and dimensions shown on the drawings. The centring, shuttering and casing of the concrete shall be true, rigid and properly braced and sufficiently strong to resist, without bulging or distortion, loads and shocks. All joints shall be sufficiently tight to prevent mortar leakage.

Reinforcement shall be cut and bent according to the dimensions shown on the drawings and shall be placed accurately in position. Mesh or bars shall be secured such that no movement occurs while concrete is being placed. Before the placing of any concrete, the mesh or bars shall be thoroughly cleaned of all grease, dirt, scale and rust to the satisfaction of the Contract Administrator.

Concrete shall be mixed, transported and placed in such a way as to avoid segregation of the mix. Pours shall be complete, and no construction joints shall be permitted except as directed by the Contract Administrator. Concrete shall be mechanically vibrated to obtain a homogeneous, dense mix until no further air bubbles are visible. Vibration shall be done carefully to avoid contact with the reinforcement bars.

Curing shall be carried out for not less than 4 days following the placing of the concrete by keeping the surface of the concrete continuously damp. The Contractor shall obtain the agreement of the Contract Administrator for his curing proposals in advance of placing the concrete.

The Contract Administrator may require that cubes be taken for testing the culvert pipes and structural concrete and this shall be under his direction. Any concrete that fails the test shall be replaced by the Contractor. The tested strengths of structural (1:2:4) concrete shall be:

At 7 days - 10.5 N/mm² and at 28 days - 15.0 N/mm²

The Contract Administrator may use portable impact hammers to test in-situ concrete and concrete pipes and the results of these tests shall be accepted as equivalent to official laboratory results.

Measurement and Payment

Measurement of mass concrete is cubic metres (m³). If reinforcement is used, this input shall be measured in kilos (kg).

F.40 MANUFACTURE OF PIPES

The Contractor may be permitted to manufacture culvert pipes on site, provided the arrangements and method of operations are satisfactory to the Contract Administrator. The moulds used shall be designed to allow the pipes to be released without damage and they shall be capable of being oiled before concrete is poured to allow for a finish without surface defects. Reinforcement (if any) shall be set rigidly in the mould such that it retains its position while concrete is poured and vibrated.

Pipes shall remain in the moulds for not less than 2 days or as directed by the Contract Administrator, following which they shall be adequately cured by a method acceptable to the Contract Administrator.

Pipes shall preferably have socket and spigot end joints.

Measurement and Payment

Measurement should be in number of culvert rings manufactured and cured.

F.50 MASONRY WORKS

Where indicated on the drawings, culvert head walls, wing walls and aprons shall be constructed in stone masonry.

Stone to be used in the construction shall be hard, clean and compact, carefully selected and with roughly flat sides. The stones shall, in proportion, have lengths not exceeding four times their height, and their thickness shall not be less than 100mm. Smaller stones may be used to fill gaps in the construction with the agreement of the Contract Administrator.

Stones shall be jointed and pointed in cement mortar and walls shall be built up in roughly horizontal bond to the lines and dimensions shown on the drawings.

Measurement and Payment

The unit of measurement for this activity is cubic metres (m³).

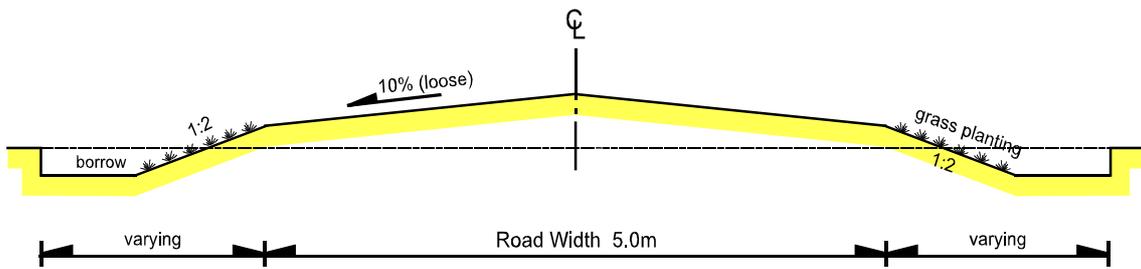
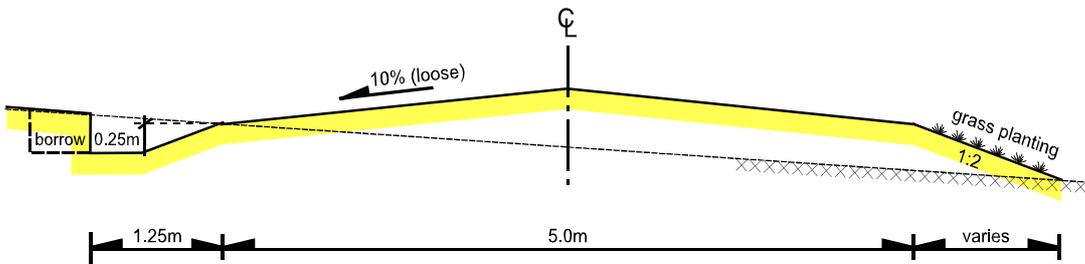
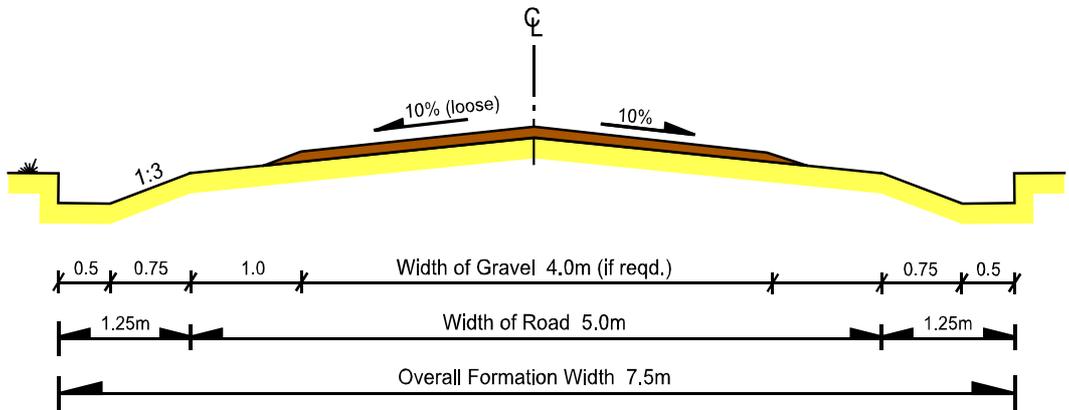
F.60 STONE PITCHING

Stones used for pitching shall be hard, durable and such that they will not disintegrate when exposed to water or severe weather conditions. Stones may vary from 10 to 100 kg in weight and not less than 25% shall weigh over 5.0kg.

Pitching shall be constructed on a firm, compacted base and stones placed to provide a reasonably uniform surface free from excessive humps or depressions. Stones shall be placed in close contact with each other and any gaps filled with smaller stones to form a tight mosaic. Where directed by the Contract Administrator, stone pitching shall be grouted with cement mortar (1:4) which shall completely fill the interstices. Before the final set of the grout, the surface shall be brushed to produce a smooth water flow path.

Measurement and Payment

The unit of measurement for this activity is cubic metres (m³), measured after being placed.



- Notes:**
1. Cross sections may be modified to suit specific site conditions, subject to approval of the site inspector.
 2. Side slopes are indicative and should be determined on the basis of prevalent soil conditions.
 3. Fills are to be built in layers of maximum 0.10m thickness, and compacted at optimal moisture content.

Central Region Infrastructure
Maintenance Programme

Standard Cross Sections

Not to Scale

Central Region Infrastructure Maintenance Programme

BILL OF QUANTITIES

Road Name:

Contract No.

Chainage:

District:

Date:

Item	Description	Unit	Quantity	Rate	Amount
A10	Setting up of camp at construction site	sum	1		
A11	Site security	wd			
A12	Provision of Insurances	sum	1		
A13	Signboards	no.	2		
A20	Removal of Camp	sum	1		
Sub-Total					0.00
B10	Setting out alignment	m			
B20	Clear site of grass and light bush	m ²			
B30	Grubbing and stump removal	m ²			
B40	Topsoil removal	m ²			
B50	Remove unsuitable material at a depth exceeding 150mm	m ³			
B60	Tree felling and removal	no.			
Sub-Total					0.00
C10	Excavate, break and remove boulders	m ³			
C20	Excavate side drain to form and compact camber in soils	m ³			
C21	Excavate side drain in weathered rock	m ³			
C30	Excavate, haul, place and compact materials < 200m	m ³			
C40	Construct scour checks	no.			
C50	Construct mitre and catch-water drains	m			
Sub-Total					0.00
D10	Reshape earthworks camber	m			
D20	Spread, shape and compact gravel	m ³			
Sub-Total					0.00
E10	Turfing	m ²			
E20	Tree planting	no.			
Sub-Total					0.00
F10	Clean culverts, inlets and outfalls				
F20	Laying of pipes				
F30	Concrete works				
F40	Manufacture of pipes				
F50	Masonry works				
F60	Stone pitching				
Sub-Total					0.00
Total					0.00
Contingencies					10%
GRAND TOTAL					0.00

Tenderer's Signature

Road Condition Inventory

Road Name:

District:

Page: of

Activities		Chainage																					
		0+00 1 2 3 4 5 6 7 8 9 1+00 1 2 3 4 5 6 7 8 9 2+00																					
Existing Road	Soil type		well-graded										black clay										
	Surface material		earth																				
	Road Surface Width	m	5.0					4.0					5.0										
	Cross Section Type	1,2,3	1					3					2										
	Side drain Left (depth)	m	0.1										0.1										
	Side drain Right (depth)	m	0																				
	Embankment Height	m						0.3															
Proposed Activities	Left	Grubbing and Stump Removal	m																				
		Remove topsoil	m																				
		Boulder removal	m ³																				
		Embankment height	m						0.5														
		Camber reshaping	m																				
	Right	Bush clearing (width)	m	2.5										2.5									
		Clear side drains (depth)	m	0.25										0.25									
		Clear mitre drains (depth)	m	0.25																			
		Repair scour checks	no.																				
		Grass planting (width)	m						1.0														
		Bush clearing (width)	m	2.5																			
		Clear side drains (depth)	m	0.25																			
	Other	Clear mitre drains (depth)	m	0.25																			
		Repair scour checks	no.											8									
		Grass planting (width)	m						1.0														
		Excavate catch-water drain	m											0.4									
		Gravel surfacing (thickness)	m											0.1									
Concrete culvert pipe		no.						—															
Bridge repair																							
Other																							

Inventorised by:

Date:

Checked by:

Date:

Central Region Infrastructure Maintenance Programme

EVALUATION of TENDERS for ROAD REHABILITATION WORKS

Contract No: _____

District: _____

Rating	Company Name	Quotation (MK)	Remarks
1			
2			
3			
4			
Engineer's Estimate			

The Tender Evaluation Committee hereby recommends the selection of:

for the execution of road works from _____ to _____

at the total price of: _____

Justification:

Signature of Committee Chairman: _____ Date: _____

Evaluation Committee Members

Chief Executive Officer

Director of Finance

District Road Supervisor

Project Technical Coordinator

Central Region Infrastructure Maintenance Programme

To:

(date)

Dear Sir,

**Notification of Award
Road Rehabilitation Works**

We have the pleasure of informing you that your tender dated has been accepted for the road rehabilitation works situated at:

subject to the Conditions of Contract, Form of Tender, Bill of Quantities and the Works Specifications in the tender documents and this Notification of Award.

The total tender amount of the above items is MK (*amount in words*).

The Contracts Documents have now been completed for your signature (or that of your authorised representative). Please call at the District Assembly to complete the signing of the Contract at your earliest convenience and latest within three days of your receipt of this letter.

Until a formal agreement is prepared and executed, your Tender, together with this Notification of Award shall constitute a binding contract between us.

Yours sincerely,

.....
Chief Executive Officer
District Assembly

The undersigned hereby acknowledges the receipt of the above letter, a copy which has been retained, and confirms that no terms, conditions or stipulations to those contained in the Tender Documents have been imposed by the issue of this letter, except as have been advised in writing by the undersigned.

Name: _____ Signature: _____
Contractor

Date: _____

Central Region Infrastructure Maintenance Programme

PAYMENT BREAKDOWN

Road Name:

Contract No.

Chainage:

District:

Date:

Item	Description	Bill of Quantities				Previous Payments		This Payment	
		Unit	Qty	Rate	Total Amount	Qty	Amount	Qty	Amount
A10	Setting up of camp at construction site	sum	1						
A11	Site security	wd							
A12	Provision of Insurances	sum	1						
A13	Signboards	no.	2						
A20	Removal of Camp	sum	1						
	Sub-Total				0.00		0.00		0.00
B10	Setting out alignment	m							
B20	Clear site of grass and light bush	m ²							
B30	Grubbing and stump removal	m ²							
B40	Topsoil removal	m ²							
B50	Remove unsuitable material	m ³							
B60	Tree felling and removal	no.							
	Sub-Total				0.00		0.00		0.00
C10	Excavate, break and remove boulders	m ³							
C20	Excavate side drain to form camber	m ³							
C21	Excavate side drain in weathered rock	m ³							
C30	Excavate, haul and place materials	m ³							
C40	Construct scour checks	no.							
C50	Construct mitre and catch-water drains	m							
	Sub-Total				0.00		0.00		0.00
D10	Reshape earthworks camber	m							
D20	Shape and compact gravel	m ³							
	Sub-Total				0.00		0.00		0.00
E10	Turfing	m ²							
E20	Tree planting	no.							
	Sub-Total				0.00		0.00		0.00
F10	Clean culverts, inlets and outfalls	no.							
F20	Laying of pipes	no.							
F30	Concrete works	m ³							
F40	Manufacture of pipes	m ³							
F50	Masonry works	m ³							
F60	Stone pitching	m ³							
	Sub-Total				0.00		0.00		0.00
GRAND TOTAL					0.00		0.00		0.00

Contractor's Signature

Central Region Infrastructure Maintenance Programme

INTERIM PAYMENT CERTIFICATE FOR ROAD WORKS

Road Name: Dedza - Kasumbu D182 Contract No: RR-D182-DZ-2000-3
 District: Dedza Certificate No: 4
 Contractor: Kasumbu Enterprises Co. Ltd.
 Address: P.O.Box 345 Dedza
 Commencement Date: 01-Jul-00 Completion Date: 15-Nov-00

This is to certify that the road rehabilitation works as detailed in the attached Breakdown of Payments and referred to in the Bill of Quantities of the above mentioned Contract have been completed and accepted to the satisfaction of the Contract Administrator in accordance with the terms and conditions of the Contract.

1. Invoice Amount	Percentage Completed	Amount, MK
Measured Works:	32	94,752.00
2. Deductions		
Less 10% Retention	(1)×0.1	9,475.20
Other: <u>repayment of tools</u> <small>(specify)</small>		4,000.00
3. Total Amount Due:	(1)-(2)	81,276.80

4. Details of previous payments

Cert No.	Date	Percentage Completion	Amount, MK
1	15-Jul-00	10	29,610.00
2	15-Aug-00	15	44,415.00
3	16-Sep-00	26	76,986.00
Total Previous Payments			151,011.00

5. Total Contract Value		296,100.00
6. Contract Balance	(5)-(4)-(3)	63,812.20

Works inspected by:	<u>Bjorn Johannessen</u> District Road Supervisor	Date: <u>14-Oct-00</u>
Endorsed:	<u>Robert Mapemba</u> Project Field Adviser	Date: <u>14-Oct-00</u>
Approved:	<u>G.T. Macheka</u> Director of Finance	Date: <u>15-Oct-00</u>

Central Region Infrastructure Maintenance Programme

CERTIFICATE OF PRACTICAL COMPLETION

Road Name: Dedza - Kasumbu D182 Contract No: RR-D128-DZ-2000-3
 District: Dedza Certificate No: 5
 Contractor: Kasumbu Enterprises Co. Ltd.
 Address: P.O.Box 345 Dedza

This is to certify that the road construction works at the above mentioned road(s) and as specified in the Contract and referred to in detail in the Bill of Quantities have been completed and accepted to the satisfaction of the Contract Administrator in accordance with the terms and conditions of the Contract.

It is hereby advised that payment is made to the Contractor as follows:

- | | | |
|---|-------------|-----------|
| 1. Remaining Payment of Works: | | 45,300.00 |
| 2. Less Deductions: <u> repayment of tools </u> | (specify) | 1,200.00 |
| 3. Less 10% Retention | (1) x 0.10 | 4,530.00 |
| 4. Balance of Remaining Payment: | (1)-(2)-(3) | 39,570.00 |
| 5. Details of previous payments: | | |

Cert No.	Date	% Compl.	Payment, MK	Retention, MK
1	15-Jul-00	10	29,610.00	3,290.00
2	15-Aug-00	15	44,415.00	4,935.00
3	16-Sep-00	26	76,989.00	8,554.00
4	15-Oct-00	32	81,276.00	9,475.20
Total Previous Payments/Retentions			232,290.00	26,254.20

- | | | |
|--|---------|------------|
| 6. Total Retention Monies | (3)+(5) | 30,784.20 |
| 7. Return of 5% Retention | (6)/2 | 15,392.10 |
| 8. Total Amount Due: | (4)+(7) | 54,962.10 |
| 9. Total Contract Value | | 296,100.00 |
| 10. Balance Due after Defects Liability Period | | 15,392.10 |

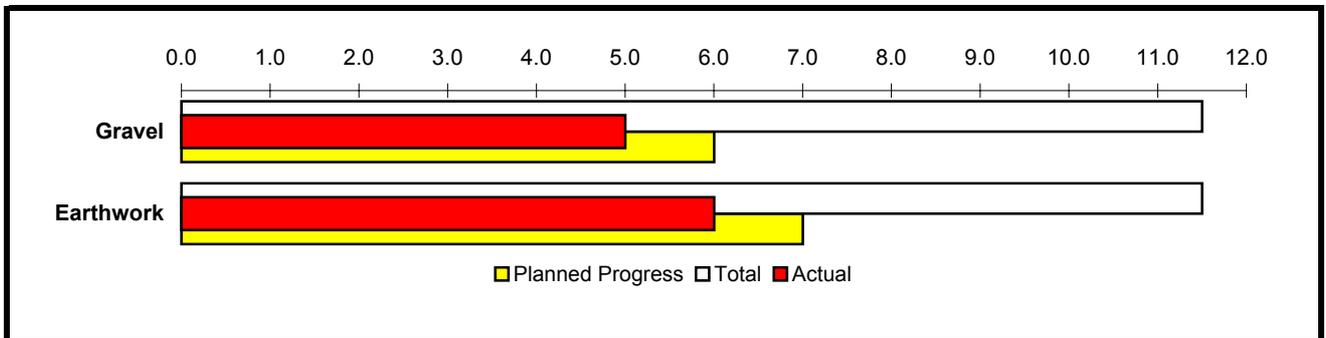
Works inspected by:	<u>Bjorn Johannessen</u> District Road Supervisor	Date: <u>15-Nov-00</u>
Endorsed:	<u>Robert Mapemba</u> Project Field Adviser	Date: <u>15-Nov-00</u>
Payment Approved:	<u>G.T. Macheke</u> Director of Finance	Date: <u>16-Nov-00</u>

Central Region Infrastructure Maintenance Programme

**Monthly Physical Progress
Road Rehabilitation Works**

Road Name _____ No. _____ Date _____ District _____

Total Quant.				2000												Percent
Unit	Plan	Actual		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Compl.
Earthwork	km	11.5	6.0	Plan	0.5	1.0	1.5	2.0	2.0	1.5	1.5	1.5				52
				Actual	0.5	1.0	1.5	2.0	1.0							
Gravel	km	11.5	5.0	Plan				2.0	4.0	2.0		1.5	1.0	1.0		43
				Actual				2.0	3.0							
Cumulative Up to This Month																Percent
	Plan	Actual														Progress
Earthwork	km	7	6	Plan	0.5	1.5	3.0	5.0	7.0	8.5	10.0	11.5				86
				Actual	0.5	1.5	3.0	5.0	6.0							
Gravel	km	6	5	Plan				2.0	6.0	8.0		9.5	10.5	11.5		83
				Actual				2.0	5.0							



Prepared by _____ Date _____ Agreed by _____ Date _____
 District Road Supervisor Contractor

