PD-ABA-374

June 1, 1983

64454

TO: Al Ruiz, Team Leader, SPR Evaluation

FROM: Edna A. Boorady, Director

SUBJ: J.F. Smith Evaluation Memo of 22 May 1983

1. Attached for inclusion as an appendix in the SPR evaluation report is a memo providing additional data and clarifying remarks to the subject memo.

2. Prior to inclusion of the subject memo in your report you are requested to delete the last two sentences of paragraph 10 on page 8 as inappropriate for an evaluation report and may be prejudicial to the interest of the GOL and the U.S.

TO: Al Ruiz, Team Leader, SPR Evaluation

THRU: E.A. Boorady, Director

FROM: FAZobrist, Chief Engineer

DATE: June 1, 1983

SUBJ: Mission Comments Regarding J.F. Smith Evaluation Memorandum of 23 May 1983

1. Background

Mission comments on the subject memorandum are provided to amplify and in some cases clarify the evaluators work while respecting his request of not altering his assessment.

This Mission regrets that more time could not be made available by REDSO/ESA for the participation of the REDSO/ESA engineer. Because of this he did not have the opportunity to review all files and records or even meet with many of the parties most knowledgeable on the project. The other team members however were able to continue their work for approximately 1½ weeks after his departure and prepared the final evaluation report.

2. The following specific comments are keyed to the related paragraph of the Smith Memorandum.

PARAGRAPH I-B-3

Subparagraphs a thru d are noted and will be considered as appropriate.

In regard to subparagraph e, in mid 1982 USAID asked that an audit and investigation be made by RIG/A and RIG/II respectively. Their results were presented in considerable detail in Audit Report No. 3-632-83-11 dated March 18, 1983, titled "Poor Contractor Performance Has Hindered the Construction of Lesotho's Southern Perimeter Road." This report encompassed all three project

titles however because of the nature of the problems being experienced at that time, their final recommendations focused on the Title III activities. However, the discussion and background analysis covered Title I and II.

The Mission would welcome further RIB/A and RIG/II review if that office felt such was warranted. A detailed accounting audit would be appropriate and if undertaken should include PRC Harris home office records. Improper billing procedures by Harris have been noted to be a continual problem by the MOW.

As a point of clarification of subparagraph f, it is noted that official contract files are maintained by the GOL as contracting officer on all PRC Harris and Nello Teer Contracts. Any future evaluation team should consider reviewing the official files in regard to the questions raised. However, USAID project management files are complete containing all documents listed except the original Berger contract for the feasibility study conducted in 1978. The contracting officer was the REDSO/ESA Contracts Service Office with the Contract No. USAID-632-002. This contract and supporting documentation were issued prior to the establishment of USAID/Lesotho. A list of pertinent Mission documents is attached.

B. II. Evaluation, A, Title I Design

Paragraph II-A - 1 to 3

The history of the Title I design is complicated and could provide an excellent case study. However such a study should involve the contractual and management process. For example the host country contracting approach versus direct contracting, Mission and Host Country management and technical capabilities, and the ability of American consultants to work effectively in developing countries are all general points of interest that may be worth reviewing from the overall AID perspective as these are issues common to any project of this nature.

Equally important is the issue of contract type; for example the Fixed Rate versus the Reimbursable plus Fixed Fee. Both contract types have been employed in this project and can be compared as to effectiveness and cost efficiency.

In regard to further evaluation and case studies a Memo dated 14 November 1980 written by Zobrist for USAID, subject: A Case for Poor Performance by PRC Harris in Completing the Design Contract for the Lesotho Southern Perimeter Road, spells out Harris design history and suggests possible contractual default. At that time, this memo was reviewed by the RLA and the GC with the verbal conclusion that AID had no legal recourse (and therefore no interest) in pursuing any recovery. Also if a case study approach were used, two other examples including the SPR by Zobrist could be helpful. These were published in 1980 in the Engineering Newsletter (AID/W) and titled Cost Plus Fixed Fee versus a Fixed Price Contract Approach and Cost Over-runs; A Review of Three Project Histories.

We also point out that considerable analyses of Title I in regard to engineering and contractual matters has already been done, with detailed documentation in the Mission files. A team of AID/W, REDSO/ESA and the RLA worked with the Mission at various times in 1980 to resolve what at that time was a major cost over-run. Included were the Director, Deputy Director and Chief Engineer of REDSO as well as the Chief Engineer of the Africa Bureau. Harris work for the most part was shelved, however, package B (Mohale's Hoek to Quthing) remains presumably useable. Pieces of Package A (Quthing to Qacha's Nek) were salvaged. The quality of this salvaged work however in some cases could be challenged.

PARAGRAPH II-A-4

Recommendation a, concerning a comparison of the design standards, was done in the Project Paper Amendment. Contractually and in the PP intensive design criteria were never provided but left to the discretion of the designer. (However, it is noted that current design criteria is less than that envisaged by the PP - Gravel 3 vs Gravel 1). As noted in Recommendation b, all modifications made by PRC Harris, were approved by the Contracting Officer, the MOW. Negotiation records closing out Title I detail this fact where some $48,000 was deleted from Harris billings as being outside of the contract provisions. Of course further evaluation or audit could uncover a missed point.

In regard to Recommendation c, actual drainage calculations do exist. However this work can only be used as a base or more appropriately as a reference for adjusting to current standards. The MOW issued Design Guidelines and Standard Specifications for the Title III work during the period when they were interim managers. Both of these documents fully address the drainage requirements and standards and are the current guidelines in effect and in use by the current Title III management. Some concern may exist over earlier purchased pipe based on the old standard which was generally higher. However because of the assortment of sizes and the need for additional purchases the current management has full flexibility to fit available pipe sizes to actual needs based on current criteria.

Recommendation d could prove an interesting exercise, if meaning comparing historical Harris submittals to actual results. The record is clear that in many cases great discrepancies occur.

PARAGRAPH II-A-7

The statement that no specific roadway/drainage design was established needs some clarification. The force account (project authority) concept was established to upgrade and rehabilitate existing roadway. Advance plans and

specifications are not a requirement except where specific realignment may be required to meet design criteria. However, design standards were provided as well as an engineering capability within the project authority team. The engineering function is primarily one of quality control assuring vertical and horizontal alignment criteria are met, material standards are met and that drainage is within the established criteria. Previous Title I drainage design or other features are not to be incorporated unless specifically meeting the criteria and concept of the project authority.

PARAGRAPH II-A-8

Points made earlier again generally provide additional background on these recommendations.

PARAGRAPH II-A-9

The evaluation over-emphasizes the relationship between Title I and Title III. Title III currently has little relationship to actual results accomplished in Title I. Usable Title I results would be limited to some drainage work, a very rought estimate of material quantities based on a computer analysis and the possible adaptation of some R-4 work in realignment areas. The existing Title III team or concept does not include incorporating the results of Title I. Previous discussion regarding RIG/A and RIG/II would also apply regarding this comment.

PARAGRAPH II-B-4

This paragraph seriously misrepresents the facts on the Rock Excavation. The resident engineer (RE) has reported the status of the rock excavation problem monthly starting in April 1982. This has been closely monitored by USAID and the MOW since that time with several meetings held concerning the subject.

Further at USAID insistence, a senior Harris representative (Green) was asked on November 19, 1982 to make a detailed study of the rock problem and other areas of potential claims. This study was conducted in February 1983 with results well documented. Nello Teer's claim was only made after continual pressure by USAID, the MOW and the RE in order that all potential problems be tabled in a timely manner rather than after all work had been completed as is often the case with construction projects. Unfortunately because of the natureof the Title I design work, rock quantity totals could not be adequately predicted until May 1983. However continued monthly monitoring always maintained a higher side prediction well within the contingency budget.

PARAGRAPH II-B-5

This paragraph is supplementary to the previous paragraph. In the spirit of reducing rock excavation which has been monitored by USAID, the MOW and the RE for over a year, the RE had undertaken a series of realignments. Such re-alignments were always made with the intention of reducing rock quantities and thus always assumed by the RE to be cost saving and fully within their authority to implement. USAID believes the RE to be sincere regarding this based on many discussions over the past year in which he always firmly stated that there were no delays being encountered. Teer has proposed otherwise and these differences will be subject to future negotiations.

However it should be noted in a Feburary 1983 meeting with senior Harris officials, with USAID present, the following were requested of Harris:

(a) The reasons for increase in rock excavation from 125,000 cm to 270,000 cm .

(b) An analysis of implications due to realignments (also requested by letter in January 1983).

(c) A complete report on the analysis of Title II services which covers work done during the visit (Green's February visit) and advises the client on the course of action.

By cable of 15 April 1983 the MOW again asked Harris for a response to these items with a followup letter on May 11, 1983 again asking for a reply.

Harris (Green) responded in part on May 12 ignoring the reasoning for item a, probably because of the implicating nature of the question.

In regard to item b, Harris reports savings of $940,074 for three specific realignments reviewed. It is also noted that Harris reported an additional cost savings of approximately M237,000 for realignment of the Quthing River Bridge approach in their June 1982 monthly report.

The conclusion reached that the "MOW did not exercise adequate control of the A&E in monitoring the changes or resulting cost/quantity implications" is not supported by the preceding discussion and is premature until the value, if any, of the Teer claims has been fully determined.

A further conclusion "that no accumulation of rockex totals were developed for over-run considerations, except those presented as invoice amounts by Teer" is obviously incorrect since the RE has monthly analyzed and commented on the situation over the past year.

PARAGRAPH II-B-6

The point that Harris was paid for two Title I designs and now the GOL is faced with major potential claims because of the inadequacy of this Harris work is valid (see later comment regarding the corresponding recommendation).

PARAGRAPH II-B-7.d

For the case noted, the comment regarding exceeding the 14% grade maximum limit for 1000M criteria was one of considerable debate and study between the MOW and the RE. The original realignment proposed by the RE was rejected by USAID and the MOW as being unsafe. This realignment was proposed by the RE

to further reduce rock excavation. As a result the RE re-proposed 6 alternatives from which a compromise solution was formally approved by the MOW on 8 March 1983.

PARAGRAPH II-B-9

In regard to the point made about equipment rehabilitation, such considerations would not enter into the contractor selectionprocess under competitive bidding or competitive negotiations processes. Teer was selected using the later process. However, interestingly, the concern being addressed could be a factor in dealing with claims especially where overhead is being adjusted. In Teer's case USAID observes that equipment conditions in many cases are poor and that the maintenance crews have been over-taxed just to meet operational requirements.

PARAGRAPH II-B-10

Unfortunately the evaluator did not have the opportunity to review the details of the claims or assess their validity. Any suggestion by USAID of a settlement level would be prejudicial and therefore should be removed from the report.

PARAGRAPH II-B-11

The suggestion that overpayments were made is considered to be inappropriate in the absence of specific evidence.

However, further evaluations should pursue this question. More importantly, however, such evaluations should review Harris performance under their Title I cost reimbursable contract. It is in this area that Harris had control over their expenditures rather than the MOW, which could have resulted in excessive costs (rather than over-payments) for work performed.

In regard to the RIG/A and RIG/II recommendation, comments made earlier (I-B-3) are still pertinent.

The comment regarding non-conformance to adopted design criteria is not clear. Detailed design criteria is established by MOW within the General Guidelines of the PP. Deviations such as the long grade mentioned by Smith were approved by the MOW and therefore the contractor is in conformance. However, the reason behind the need to make such a deviation certainly should be included in any evaluation.

The comment inferring that the MOW should exert greater control (j) over Title II operations, make more field trips, require scheduled meetings may have merit, however, should be reviewed within the context of both the MOW and USAID management approach on this project. This factor is further complicated by staff availability and capability. For example, any future evaluation team should determine if holding routine formal meetings on a bi-weekly basis would have resolved or have foreseen the problems any more readily than the daily contact now being made. All problems noted by the evaluator, especially in regard to the Teer claims, would not have been identified or resolved any faster by this suggested procedure. The existing control approach should be evaluated, as well as the correspondence and minutes of meetings files before making final judgments on the MOW management capability.

In addition, both USAID and MOW staff have, to a great extent been pre-occupied with resolving problems caused by the Title III failure. In addition to evaluations and audits, there have been the close-out of the Harris contract, interim management, and the selection, briefing and start-up of new management. All these factors have been extremely time consuming and all are activities in excess of normal anticipated project management requirements. Further, all demanded the first priority of attention. An evaluation of MOW/USAID management should include these factors and also to the extent appropriate analyze the effectiveness of the audits and evaluation made to date.

PARAGRAPH II-B-13

The question of insurance payments was the cause of some concern to the MOW, as well as a point of considerable discussion during the negotiation of the Bridge Review with Harris. Harris' concern was over their liability for any failure or later claims. As the original designer they were fully agreeable to abide by their standard policy of a $250,000 deductable. However, once the bridge was redesigned by Nello Teer, Harris was put in the position of being the reviewer, yet they claimed equally liability. Their non-negotiable demand was a complete waiver of liability by the GOL or payment of the insurance premium for coverage under $250,000. The MOW refused to accept liability on behalf of Harris and conceded the premium. Any future evaluation may want to review the Harris position further.

PARAGRAPH II-B-15 and 16

The local geology is clear and well understood. There is no underlying basaltic rock as suggested with all bridge footings to be on unweathered sandstone. These layers of sandstone are separated by layers of unsuitable foundation material. Based on the predictable nature of sandstone, Harris concluded that one boring at each foundation was fully adequate. USAID and MOW fully agree.

PARAGRAPH II-B-18

Regarding the need for additional borings, after the Bridge shift the preceding paragraph comments still remain valid. The abutment B footing remained in the same location while abutment A shifted approximately 8 meters. The center pier footings overlapped their original locations. Visual inspections after excavation would confirm the consistency of the geology.

PARAGRAPH II-B-19

In regard to (a) it is suggested that the liability factor be fully considered especially in light of Harris' insistance that additional premiums be paid.

In regard to (b), PRC Harris monthly report for June 1982 notes the following:

> "On 8 June 1982 the Consultant received a Ministry's request to make an in-depth study of its suggestion to reduce the grade of the South approach to the Quthing River Bridge with a view toward improved road operation and traffic saftey. A sketch showing a possible alignment modification was included which realigned the bridge by approximately 15°. An added advantage to line change would be a reduction of rock excavation.
>
> The Consultant made a cost study of a number of line and grade trials and submitted what was considered to be optimum modified design. The bridge was rotated 10° about working point number 4 at the north abutment which changed the centerline bearing from N22.694°E to N32.694°E.
>
> A plan and profile was submitted to the Ministry along with a statement that the redesign would affect a savings of approximately M237,000.
>
> Ministry approval was received on 26 June with the proviso that a length of adverse grade, that was included for reasons of economy, be removed.
>
> A new profile was developed and the Consultant immediately started to set the required stakes in the field so that the Contractor could implement the change as soon as possible.
>
> The design change extends from Station 3 + 038 to Station 3 + 497. No structured element of the Quthing River Bridge is changed."

The preceding documentation obviously does not correspond to the Evaluator's statement.

PARAGRAPH II-B-21

This statement regarding shortfall is not understandable. Possibly the author is referring to measured cost over-runs (i.e., actual quantities as opposed to Bill of Quantities). In this regard Harris has documented the following in a letter dated May 12, 1983.

(a) over-runs less under-run savings	$940,767
(b) POL escalation	178,583
(c) approved claims (approx.)	20,000
(d) foreign exchange savings to date	(1,451,957)
Net surplus of funds available	$312,607

Foreign exchange savings are expected to exceed $2,000,000 during the contract life. In addition, USAID has retained $2,000,000 in project funds as a contingency for use on the "cut-off" construction. These funds are in addition to the Teer contract amount.

PARAGRAPH II-B-22

The record does not show that subparagraph b has merit, however further review is welcomed.

The significance of subparagraph f is not understood as this is a routine matter with required documents on file.

Again subparagraph g is not understood in terms of a shortfall of funds. However USAID and the MOW continually monitor completion alternatives since this project must be completed within the funds available (neither USAID or the MOW plan to provide additional funds).

PARAGRAPH II-C-3

Several clarifications are again in order. In regard to subparagraph a, construction of the Mohale's Hoek - Quthing Section has never been in the authorized project. In b, the drainage position was addressed and clarified earlier.

PARAGRAPH II-C-4

Again a clarification, during the Harris Management of Title III a senior Harris design engineer worked on design drawings in Lesotho for approximately one month. His effort was to define the areas where realignment was required between Mt. Moorosi and Quthing. He completed this task and these plans are currently in custody of the new Title III management. In some cases further revision was done by the interim MOW management and in others the current managementhas made revisions or opted to use a new plan.

PARAGRAPH II-C-5

Again a clarification is needed. Harris management rough graded kms 22-37 as noted however their work was limited to rehabilitation of the existing roadway under the concept that detailed plans were not necessary. The general design criteria regarding vertical and horizontal control were to be followed as were general materials and compaction standards. During this period they proceeded with the design exercise noted in the preceding paragraph for areas that deviated from the existing alignment. Also, during the latter part of this period the project operated without an effective project manager (just prior to Harris termination up to the time of project shut-down). At that time the field supervision completed several realignments without plans even though available. The MOW interim management, more as an as-built exercise, then attempted to fit this work to to the established vertical and horizontal standards. This latter design work was also to serve as the plan for finish grading.

Nello Teer Title III management has continued with these design efforts, building on the previous work. They have adopted the concept that general rehabilitation along the existing alignment will not require pre-engineering and that only an as-built plan will be prepared. This approach was done at the insistence of USAID and with the approval of the MOW. This procedure is defined

in a document titled Proposed Design, Engineering Standards, SPRPA, Quthing - Mt. Moorosi. The requirement for pre-engineered drainage is also defined in this document. Further evaluation of this concept is welcomed.

PARAGRAPH II-C-8

The questions raised here, in part, are discussed in the Project Paper amendment. These Project Paper discussions still remain valid.

PARAGRAPH II-C-10

In this regard the MOW conducts formal meetings scheduled for the first Monday of the month and attended by USAID. In addition Project Authority Board meetings are held at least bi-monthly. These are supplemented by ad hoc meetings which probably average weekly. An evaluation of this management approach should fully consider the factors noted in II-B-11 before making final judgment or conclusions.

PARAGRAPH II-C-11

The inference that Nello Teer needs time to straighten out inherited problems on Title III should not be over-emphasized. Nello Teer should be evaluated on their own management abilities and accomplishments in regard to their contractual requirements. These parameters are all independent of historical problems which often are, or can easily be used as an excuse, valid or not.

PARAGRAPH II-C-13 and 14

The previously purchased pipe was addressed earlier (II-A-14). However again its improper use by Teer Title III management, if actually done, would be a violation of contract requirements and any future evaluation should consider such use in this light. In light of drainage concerns noted, an in-depth

evaluation is welcomed and should also include a review of MOW standard practices and procedures upon which standards are based.

PARAGRAPH II-C-15 to 18

The Six Penny Crossing is discussed at considerable length. The evaluator had the opportunity to review this at the beginning of its construction but apparently without benefit of the Teer engineer's plan.

The MOW engineer who accompanied the Evaluation Team noted that Teer had deviated from thier agreed approach and that he has formally asked for an immediate clarification in order that the MOW may decide on the acceptability of the construction.

PARAGRAPH II-C-19

The recommendation that Nello Teer's Design Requirement be enforced (d) infers that required design is not being done. Unfortunately, other than some unsubstantiated opinions, the evaluator has not identified where design requirements are not being met. It is certainly the intention of the MOW and USAID that agreed and required design requirements will be met.

In regard to Recommendation d, again the point is made that an evaluation team must look at the MOW/USAID management approach and capabilities, as well as the details of the historical record before making final conclusions.

This issue of management has been a point of many serious discussions between USAID, the MOW, auditors and evaluators. This is typified by a MOW response during a serious period when the MOW asked for internal management of Title III and USAID objected. Their reasoning was basically that they now spend a disproportionate share of time managing expensive American contractors who cannot seem to do their job. They suggested that it would be simpler and cheaper for them to do it themselves. This statement of course was an embarrassment to USAID but the point of this discussion is that for both Title II and

Title III the experience levels and staff numbers of the expatriate teams far exceeds the MOW's internal capabilities. They have been retained to be technical and management advisors to the MOW and not vice-versa.

This problem should be investigated in any future evaluation exercise.

The MOW position is that they cannot second guess, check, evaluate or perform the work of these highly skilled management teams. A detailed check of the record will show that in fact they have however been doing just that in many cases. USAID welcomes an evaluation of this concern including the effectiveness of both USAID and MOW.

In regard to subparagraph e, a detailed evaluation of the Nello Teer contract could be most useful. It is a major departure from the previous Harris contract and contains many "lessons learned" regarding contract terminology and clauses.

The "inherited" problems issue (f) was discussed under paragraph II-C-11 and certainly would be worthy of future evaluation.

Camp completion is being stressed (g).

The "turnkey" approach could provide the basis for a case study as it does have far reaching application in other AID programs (h).

The drainage item (1) has been fully discussed earlier. USAID and the MOW are satisfied that standards are adequate and will continue to monitor their implementation as appropriate. The Six Penny culvert recommendation will be considered after review of the engineer's design.

LIST OF KEY REPORTS AND/OR DATA AVAILABLE ON THE SOUTHERN PERIMETER ROAD

I. Historical Documents (1978 - 1980)

1.	Southern Perimeter Road PID	March 1977
2.	Berger's Feasibility Report, 3 volumes	March 1978
3.	Worksheets and Backup (Berger) on Bridge, Culverts, and Bridge Assessment, Computer Print Out of the Stress Analysis of Seaka Bridge	1978
4.	Soils Lab Tests, Mohale's Hoek - Quacha's Nek (Lesotho Government)	
5.	Southern Perimeter Road Project Paper	June 1978
6.	Proposals for Consultancy (SPR) (1) Michael Baker, Jr., Inc. (2) Wilbur Smith and Assoc. (3) Louis Berger, International (4) TAMS (5) Rongved, Erickson & O'Dwyer (6) Aman and Whitney (7) Iyons (8) KZF, Inc. (9) King and Gavarics (10) Frederic R. Harris	
7.	Contract Agreement (Frederick R. Harris/GOL)	April 1979
8.	Subcontract Files (1) C.A. Liburd & Assoc. (4 files) (2) Aerial Survey (Botswana) (2 files)	
9.	Design Memorandum No. 1, Short span bridges and Seaka Bridge	August 1979
10.	Southern Perimeter Road, Quthing-Qacha's Nek, Evaluation of Prequalification (2 Vol)	December 1979
11.	Review of the Design of Southern Perimeter Road Project	August - September 1977
12.	Design Memorandum, Typical Sections	October 1979
13.	Drainage Design Report	December 1979
14.	Structural Design	December 1979
15.	Interim Report, Sub-Surface Survey	December 1979
16.	Contract Documents, Quthing-Quacha's Nek Vol 1 and Vol 2	January 1980
17.	Interim Report, Sub-Surface Survey	Feburary 1980

18.	Mohale's Hoek - Quthing Preliminary Engineers Estimate, Price Analysis	February 1980
19.	Axial Load	April 1980
20.	Design Memorandum, Pavement Design, Package B	May 1980
21.	Design Memorandum, Pavement Design, Package A	May 1980
22.	Tabulation of Proposed Preliminary Drainage Structures on the Upgraded Existing Road R-4	May 1980
23.	Design Memorandum Evaluation and Recommendation for R-4	May 1980
24.	Contract Document Seaka Bridge (1 Vol)	June 1980
25.	Contract Documents, Mohale's Hoek - Quthing (2 Vol)	September 1980
26.	Soils and Materials Investigation (Package B) Volume 1 Report, Volume 2 Appendixes	September 1980
27.	Project Paper (PP) Amendment	September 1980
28.	Pavement Design, Package B, Southern Perimeter Road	September 1980
29.	Pavement Design, Package A, Southern Perimeter Road	October 1980
30.	Mount Moorosi/Mphaki Cut-Off, Soils and Materials Investigation, Southern Perimeter Road	October 1980
31.	Mount Moorosi/Mphaki Cut-Off, Pavement Design, Southern Perimeter Road	October 1980
32.	Soils and Materials Investigation, Southern Perimeter Road, Package A	October 1980
33.	Southern Perimeter Road, Soils and Materials Investigation, Appendix A - Land Terrain Maps, Quthing-Qacha's Nek	October 1980
34.	Monthly Progress Reports, No. 1 through No. 18	April 1979 to October 1980

II. Miscellaneous Plans and Drawings (1979 - 1980)

1.	Computer Plot Plans - Scale 1:250, Existing Road Edges, Quthing to Qacha's Nek	8 rolls
2.	Topo of Existing Roadway, Mohale's Hoek - Quacha's Nek Scale 1:1000	4 rolls
3.	R-4 Existing Road Topo Plans, Quthing - Quacha's Nek Scale 1:1000	3 rolls
4.	R-4 Existing Road Horizonal Alignment, Quthing - Qacha's Nek, Sclae 1:1000	3 rolls
5.	R-4 Preliminary Proposed Centerline Profile, Quthing - Qacha's Nek, Horizontal 1:1000, Vertical 1:200	3 rolls

6. Road Plan and Profile, Quthing - Qacha's Nek (old)
   14 m wide road

7. Plan and Profile, Mohale's Hoek - Quthing
   (issued Sept. 15, 1980) Sclae Horizontal 1:1000
   Verticle 1:100,

8. Bridges on Mohale's Hoek - Quthing Section

9. Bridges on Quthing - Mohale's Hoek

10. Seaka Bridge Rehabilitation Design

11. Land and Terrain Map, Cut-Off (Mount Moorosi - Mphaki) October 1980
    Scale 1:8000 (includes soils and materials description)

12. Cut-Off Plan and Profile with MOW/USIAD Comments
    Includes Drainage, Scale Horizontal 1:1000, Verticle 1:100

13. Preliminary Construction Cost Estimate R-4, For Each Km
    Quthing to Qacha's Nek, Unit Price (1979), Computer Print Out

14. Preliminary Detailed Contractor's Estimate Summaries
    R-4 Cut-Off Area, Mount Mooroisi to Mphaki, Computer Print
    Out

15. R-4 Existing Road Computerized Centerline Profile,
    Quthing - Qacha's Nek

16. R-4 Preliminary Proposed Upgraded Road, Computerized Centerline
    Profile, Quthing to Qacha's Nek

17. R-4 Existing Road, Computerized Centerline Alignment,
    Quthin - Qacha's Nek

18. R-4 Preliminary Proposed Upgraded Road, Computerized Centerline
    Alignment, Quthing - Qacha's Nek

19. Mohale's Hoek - Quthing, Soils Map (Land and Terrain) September 1980
    Scale 1:8000, (includes Soils and Materials Description)

20. Quthing - Qacha's Nek, Soils Map (Land and Terrain) October 1980
    Scale 1:8000, (includes Soils and Materials Description)

21. Final Contract Drawings (Plan and Profile) Cut-Off December 15, 1980
    (including Quthing River Bridge)

22. Final Drawings for Seaka Bridge (Repair) December 15, 1980

III. Title II Key Documents (1981 - 1983)

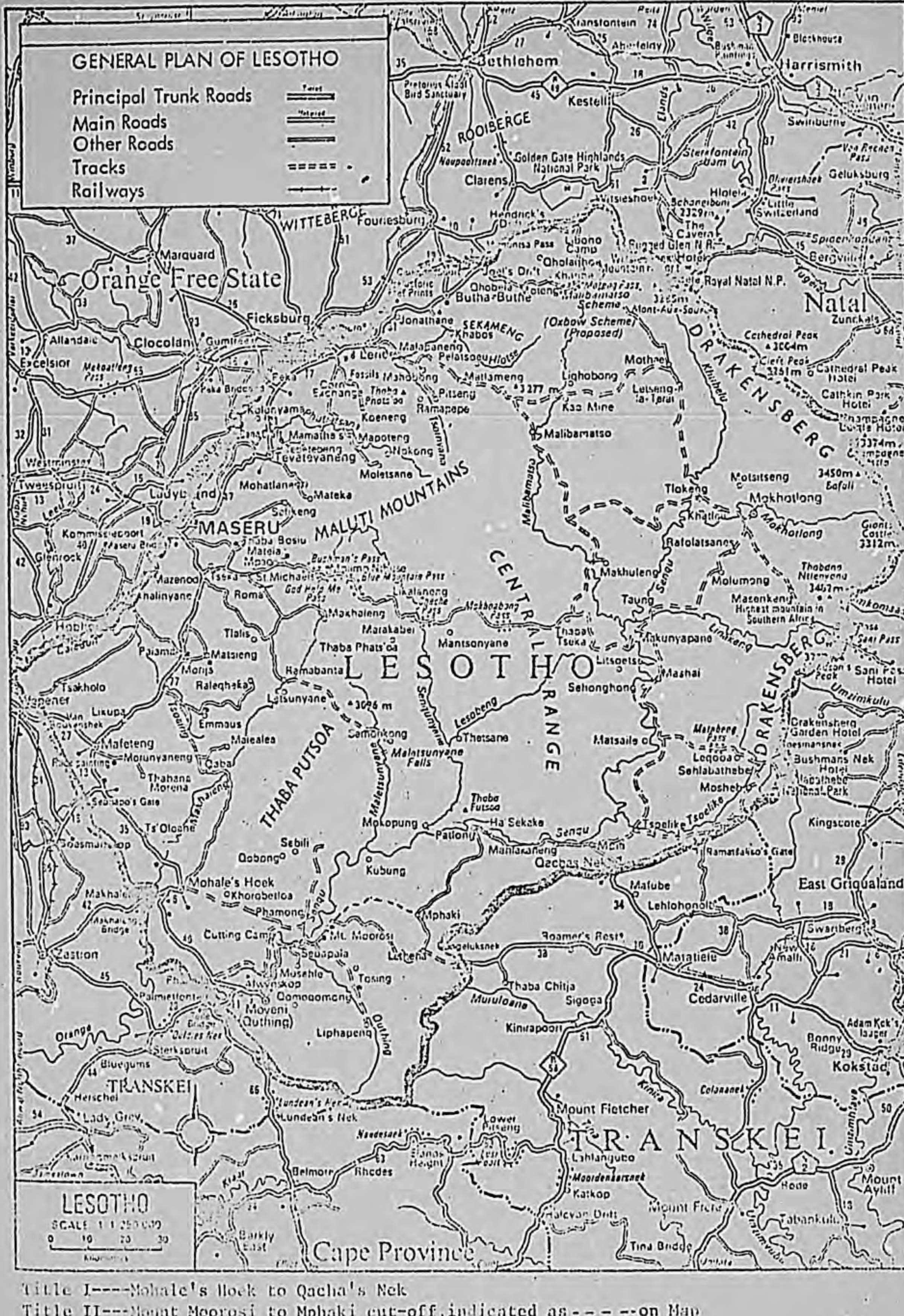
1. IFB and Amendment for Cut-Off Construction
2. Bids Submitted by 5 Potential Contractors
3. Contract with Teer
4. Contract with PRCH
5. Monthly Payment Certificates for Teer (1 to 21)
6. Invoices of PRCH fees for Title II
7. Resident Engineer Monthly Reports (1 through 19)
8. Claims Submitted by Teer

IV. Title III Key Documents (1981 - 1983)

1. IFB and Specifications of Equipment Purchased by USAID, Title III (IFB)
2. Contracts with Equipment Suppliers
3. Contract with PRCH for Management Services
4. Minutes of SPRPA Meetings (1 through 11)
5. Harris Billings for Title III Work
6. Design Memorandum for Title III Work as proposed by MOW/Roads
7. Miscellaneous Regulations for Title III approved by SPRPA
8. Termination Negotiations of PRCH on Title III, including Final Settlement
9. Negotiation with Teer for Title III Work (management supervision)
10. Contract between Teer and MOW for Title III Management Services
11. Monthly Reports as Prepared by Teer Team on Title III (1 through 4)

APPENDIX IV

MAP



Title I----Mohale's Hoek to Qacha's Nek
Title II---Mount Moorosi to Mphaki cut-off, indicated as - - - - -on Map
Title III--Quthing to Mount Moorosi and then Mphaki to Qacha's Nek

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APPENDIX V

MAJOR DOCUMENTS REVIEWED

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BASIC PROJECT DOCUMENTS

Techno-Economic Feasibility Study of the Southern Perimeter Road, Mohale's Hoek - Qacha's Nek, Vol. I-III. Project No. AID 690-0104, Contract No. AID 632002, Louis Berger International, East Orange, N.J., March 1978.

PID: Lesotho Roads Assessment, Project 690-0076, AID, March 24, 1979.

Project Paper: Southern Perimeter Road Project Authorization Amendment, (690-0076), AID, September 1980.

Project Evaluation Summary: Southern Perimeter Road (Project No. 690-0076), (Evaluation No. 632-82-6), AID, July 2, 1982.

Poor Contractor Performance Has Hindered the Construction of Lesotho's Southern Perimeter Road, Audit Report No. 3-632-83-11, AID, March 18, 1983.

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Status Report No. 2	May 18, 1981
Status Report No. 3	June 3, 1981
Status Report No. 4	August 31, 1981
Status Report No. 5	November 2, 1981
Status Report No. 6	March 17, 1982
Quarterly Implementation Report	June 30, 1982
USAID Comments on the Internal Evaluation Report	July 2, 1982
Report on Transfer of Title III Work to Roads (MOW) Administration	July 19, 1982

Contractor Performance of Evaluation Report (Title III) Covering Jan. 1, 1982 to June 30, 1982)	
Site Visit Reports	July 20, 1982
Quarterly Implementation Report	September 20, 1982
SPR Correspondence Log (Nov. '82)	September 30, 1982
SPR Correspondence Log (Dec. '82)	November 30, 1982
Quarterly Implementation Report	December 31, 1982
	December 31, 1982

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APPENDIX VI

PERSONS INTERVIEWED

APPENDIX VI

PERSONS INTERVIEWED

AID, Washington, D.C.

1. D. D'Antonio, Desk Officer, AFR/SA
2. K. Nurick, Project Officer, AFR/PD

USAID/Lesotho

1. Edna Boorady, Mission Director
2. Fred Zobrist, Chief Engineer
3. Mulugeta Yohannes, Engineer

GOL

1. M. Marumo, Chief Roads Engineer, Roads Branch, MOW
2. L. Ross, Project Coordinator, SPRPA, MOW
3. E. King, Senior Design Engineer, MOW
4. E. Kim, Projects Coordinator, MOW
5. J.L. Kolobe, Deputy Permanent Secretary, MOW
6. J.P. Lehloenya, District Coordinator, Quthing District
7. C.P. Nkhabu, Senior Executive Officer, Quthing District
8. T. Barry, Assistant Chief Roads Engineer, MOW
9. P. Datta, Engineer, MOW
10. J.G. Gochenour, Planner, Ministry of Cooperatives and Rural Development
11. P. Ryden, Planner, Ministry of Cooperatives and Rural Development
12. L.L. Molapo, Director, Food Management Unit

Field

A. PRC Harris

1. Bob Weisphaut, Resident Engineer
2. Charles Clark, Assistant Resident Engineer

B. Teer Title II

1. Sam Koff, Project Manager
2. Ken Gutsman, Project Engineer
3. Bob Gordon, Contract Manager
4. Veronika Hutton, Soils and Materials Engineer

C. Teer Title III

1. Ralph Marks, Project Manager
2. Bill Curtis, Project Engineer
3. Charles Griffin, Foreman, Rock Crushing

D. Others

1. Manager, Mitchell Brothers, Mt. Moorosi
2. Manager, Mount Moorosi Supermarket

APPENDIX VII

IMPLEMENTATION PLAN (PROAG)

Implementation Plan - Southern Perimeter Road

1980

7/2	Design of Seaka Bridge rehabilitation completed
7/11	Finalize plan for force account upgrading of existing road
7/18	Project Paper amendment submitted to AID/Washington
8/1	Force account/project team implementation approved by GOL
8/15	Establish Inter-Ministerial Coordinating Committee to monitor force account implementation
8/15	Finalize bid package/IFB for procurement of force account construction equipment
8/21	Project Paper amendment approved
8/29	Grant Agreement amendment executed
9/1	Final design of package B delivered to MOW
9/15	Publish IFB for force account construction equipment
9/16 - 9/30	Complete negotiations for revised technical services requirements for Title II of contract
9/30	Publish IFB for Seaka Bridge rehabilitation
10/10	Final design and complete bid package for "cut-off" delivered to MOW
10/10	Pre-qualification completed for "cut-off" (including Code 941 firms) and data delivered to MOW
11/1	Publish IFB for "cut-off" construction
12/1	Pre-bid conference for "cut-off" construction
12/1	Receive bids for Seaka Bridge rehabilitation
12/15	Contracts awarded for force account construction equipment

1981

1/1	Project Manager, Deputy Project Manager and Chief Superintendent arrive
1/2	Cut-off bids received
2/15	Contract awarded for Seaka Bridge rehabilitation
2/15	Contract awarded for cut-off
3/1	Force account mobilization operations begin
3/1	Controller arrives
4/1	Deputy Superintendent, Chief of Materials, and Chief Surveyor arrive
7/1	Master Mechanic arrives
7/1	Force account equipment arrives
7/15	Seaka Bridge rehabilitation completed
8/1	Force account mobilization completed and R-4 upgrading begins

1982

1/15	First external evaluation

1983

2/15	Cut-off construction completed
3/1	Deputy Project Manager and Controller depart
4/1	Chief Surveyor departs

1983

7/1 Chief of Materials departs

1985

1/31 Final external evaluation
2/1 Force account R-4 upgrading completed
2/1 Project Manager, Chief Superintendent, Deputy Superintendent, and Master Mechanic depart

Article IV. Evaluation

A. General

Evaluation is a built-in and crucial component of this Project. It is designed to ensure that Project purposes and assumptions as stated in the logical framework are being attained. It also attempts to measure what changes have taken place and the impact of the Project over its life. There are evaluations planned during the life of this Project as discussed below.

B. External Evaluations

Two external evaluations are proposed for the Project. The first is planned for January 1982 and the final for January 1985. Each evaluation would require 3 persons for a period of five to six weeks each.

The first external evaluation in January 1982 will take place early to permit an assessment of the achievement of the Project goal and purpose or the cost and time effectiveness of the force account construction method. Therefore, the first evaluation will include examination of the following major aspects of the Project:

- Status of Project implementation including reasons for any differences between status and implementation plan, as well as relevant recommendations.

- Examination and recommendations regarding performance and future capabilities of the consultant, contractors, Ministry of Works, and USAID/Lesotho to effectively implement and monitor the Project.

- Review and update original implementation schedule, if necessary, and identify critical implementation issues or activities that may warrant specific discussion or actions by appropriate parties.

The final external evaluation in January 1985 will focus on an

APPENDIX VIII

GAZETTE: SUPPLEMENT NO. 4

Supplement No. 4
ette No. 10 of 13th March, 1981

Southern Perimeter Road Project Authority Regulations 1981

Legal Notice No. 16 of 1981

Published by the Authority of the Prime Minister
Price: 10 Lisente

LEGAL NOTICE NO. 16 OF 1981

Southern Perimeter Road Project Authority Regulations 1981

In exercise of the powers conferred by sections 2 and 7 of the Development Projects Order 1973, I,

Evaristus Retšelisitsoe Sekhonyana

Minister of Finance, make the following regulations —

Citation

1. These regulations may be cited as the Southern Perimeter Road Project Authority Regulations, 1981.

Interpretation

2. In these regulations —

"AID" means the Agency for International Development of the United States of America;

"Project" means the Southern Perimeter Road Project for the upgrading and construction of an all weather road from Quthing to Qacha's Nek pursuant to the Project Grant Agreement entered into with the Government of the Kingdom of Lesotho and the Government of the United States of America dated June 30, 1978.

Establishment of the Authority

3. There is established the Southern Perimeter Road Project Authority (hereinafter referred to as "the Authority") which shall be responsible for —

(a) the management and execution of the Project;

(b) allocation and use of the resources of the Project;and

(c) performing all such acts as are necessary for the achievement of the purposes specified in paragraphs (a) and (b).

Composition of the Authority

4. The Authority consits of —

(a) Permanent Secretary for Works, as Chairman

(b) Permanent Secretary for Finance, as Vice-Chairman;

(c) Permanent Secretary for Central Planning;

(d) Permanent Secretary for Cabinet (Personnel);

(e) Commissioner of Labour;

(f) Chief Roads Engineer; and

(g) Budget Controller

Meetings of the Authority

5. (1) The Authority shall meet once every two months.

(2) At the meetings of the Authority four members are a quorum.

(3) The Project Manager shall be a Secretary of the Authority.

(4) The Government of the United States of America may be represented at any meeting of the Authority as an observer.

(5) The Chairman may at any time, and shall at the request in writing of two members of the Authority, convene a meeting of the Authority stating the purpose for which the meeting is called.

Functions of the Authority

6. In addition to the powers conferred on the Authority by section 4 of the Order the Authority shall —

(a) subject to the approval of the Minister, appoint a Project Manager;

(b) appoint, discipline or dismiss staff employed for the Project;

(c) establish salary scales, terms and conditions of service for staff employed by the Authority;

(d) designate officials competent for signing and countersigning of cheques and similar instruments for the Projects;

(e) maintain or cause to be maintained for three years after the last disbursement by AID all books and records relating to the Project.

E. R. Sekhonyana,
Minister of Finance.

16th FEBRUARY, 1981

Printed by the Government Printer, P.O. Box 268, Maseru 100, Lesotho

APPENDIX IX

SOUTHERN PERIMETER ROAD PROJECT AUTHORITY (SPRPA)

CABINET (SPS)

KS/24/04/4A

P.L. NTHOLI

7th April, 1983

Southern Perimeter Road Project Authority (SPRPA)

The Southern Perimeter Road Project Authority (SPRPA) was established under the Legal Notice No.16 of 1981. The Authority has been made responsible for:

(a) the management and execution of the Project;

(b) allocation and use of resources of the project; and

(c) performing all such acts as are necessary for the achievement of the purposes specified in paragraph (a) and (b).

2. The Authority consists of:-

(a) Permanent Secretary for Works, as Chairman;

(b) Permanent Secretary for Finance, as Vice Chairman;

(c) Permanent Secretary for Central Planning;

(d) Permanent Secretary for Cabinet (Personnel);

(e) Commissioner of Labour

(f) Chief Roads Engineer; and

(g) Budget Controller.

3. The Authority has to meet once in two months. It is our sad experience that the designated members are not taking active participation instead they send members of their staff without decision making authority. However there is no provision for delegation of authority in the body of the Legal Notice and in most cases scheduled meetings could not be conducted due to lack of quorum. Because of this failure important decisions could not be taken in appropriate time resulting in not only poor progress but also creating tremendous adverse financial implications.

It/..

SPRPA 31

4. It is pertinent to mention that this Project costs /S 41,000,000 (Forty one Million Dollars) and requires proper attention from the members of the Authority.

5. You are, therefore, requested to impress upon th members on the imperative need to regularly attend the meetings and take a meaningful part in the project.

6. It is needless to say that if the present situati continues there would be no other option but to amend the Legal Notice No.16 of 1981 to a functional administration.

cc: Director, USAID ✓
Solicitor General
Chief Roads Engineer

APPENDIX X

PIO/T POSITION DESCRIPTION

CONTINUATION SHEET	DEPARTMENT OF STATE AGENCY FOR INTERNATIONAL DEVELOPMENT ☐ PIO/C ☐ PIO/P ☒ PIO/T ☐ PA/PR	☐ Worksheet ☒ Solicitation	PAGE 5 OF 8 PAGES
		1. Cooperating Country Lesotho	
		2a. PIO Number 632-0069-3-00672	2b. ☒ Original OR Amendment No.
		3. Project Number and Title 632-0069 Manpower Development and Training	

Indicate block numbers 18

Use this form to complete the information required in any block of a PIO/P, PIO/T or PA/PR. For PIO/C, furnish the item number, quantity, description/specifications, including catalog stock number and price when available.

ATTACHMENT 1

Statement of Work

Job Description: Project Engineer - Southern Perimeter Road
Roads Branch - Ministry of Works
Government of Lesotho

1. PREFACE:

The Government of Lesotho has received economic assistance from the U.S. Government for the design and construction of a 200 km long, all-weather road in the southern rugged and mountainous part of Lesotho. GOL and USG contribution of this project amounts to U.S. $41 million over the 4 year life of the project. Officially the project is known as the Southern Perimeter Road (SPR).

The first 50 km of this project have already been designed and currently the GOL is soliciting funds from other donors for the construction of this 50 km section of the road. Some 112 km of the project runs over an existing track, which will be upgraded using a semi-autonomous force account team whose key expatriate personnel will be provided by a U.S. consulting firm. A contract has already been signed between this firm and the GOL. Additionally, approximately U.S.$5 million of the total contributionwill be utilized by the GOL for the purchase of complete road construction equipment and facilities for this 112 km long section of road. Bid process for the procurement of these equipment and facilities have been initiated by the GOL. The remaining 38 km of the project will traverse a mountainous virgin terrain, and it will be constructed by an international firm. Selection of such a contractor is currently in the process. Main structures include a 80 m long concrete beam and girder bridge, to be constructed over the Quthing river and a 180 m long arch frame steel bridge, that has been in use over 100 years now. This steel bridge requires a thorough repair and rehabilitation.

2. QUALIFICATIONS:

The incumbent must have a Bachelor of Science degree in Civil Engineering from a recognized institution of higher learning. Registration as a Professional Engineer is also desirable.

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CONTINUATION SHEET	DEPARTMENT OF STATE AGENCY FOR INTERNATIONAL DEVELOPMENT	☐ Worksheet ☒ Issuance	PAGE 6 OF 8 PAGES
	☐ PIO/C	1. Cooperating Country: Lesotho	
	☐ PIO/P	2a. PIO Number: 632-0069-3-00672	2b. ☒ Original OR Amendment No.
	☒ PIO/T	3. Project Number and Title: 632-0069 Manpower Development and Training	
	☐ PA/PR		

Indicate block numbers

Use this form to complete the information required in any block of a PIO/P, PIO/T or PA/PR. For PIO/C, furnish the item number, quantity, description/specifications, including catalog stock number and price when available.

18

(Statement of Work, Continued)

3. EXPERIENCE:

The incumbent must have had a minimum of 15 years of experience as an engineer in the design and construction of sectors with at least five years of experience in coordinating large engineering projects. Experience as related to the construction of roads and steel and concrete bridges will be advantageous and preferred. Good experiences in engineering and construction contracting and in the procurement of equipment and materials are also considered essential. Additionally, overseas engineering experiences in developing countries and prior working experiences with cooperating country officials are also prerequisites. Familiarity with standards and procedures and rules and regulations of donor nations and institutions relative to procurement of goods and services financed by them and with their geographic source origin requirements is also desirable. The incumbent will also be expected to promptly familiarize himself with the Government of Lesotho's standards and procedures relative to the procurement of goods and services promptly upon assignment.

4. DUTIES AND OBLIGATIONS:

a. Responsible: To the Chief Roads Engineer (CRE) through a delegated officer.

b. Liaison: With the

- Project Manager/Deputy Project Manager of the Force Account Construction Team.

- Representatives of the Project Authority.

- Representatives of the USAID.

- External organizations as directed by the CRE.

- Consultants and Contractors related to the construction of the Southern Perimeter Road.

- Senior Engineers, Engineers, accounts and Financial Controller of the Roads Department.

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CONTINUATION SHEET	DEPARTMENT OF STATE AGENCY FOR INTERNATIONAL DEVELOPMENT	☐ Worksheet ☒ Issuance	PAGE 7 OF 8 PAGES
	☐ PIO/C	1. Cooperating Country: Lesotho	
	☐ PIO/P	2a. PIO Number: 632-0069-3-00672	2b. Amendment ☒ Original OR No. ____
	☒ PIO/T	3. Project Number and Title: 632-0069 Manpower Development and Training	
	☐ PA/PR		

Indicate block numbers

Use this form to complete the information required in any block of a PIO/P, PIO/T or PA/PR. For PIO/C, furnish the item number, quantity, description/specifications, including catalog stock number and price when available.

18

(Statement of Work, Continued)

c. Duties: Coordinate planning, programming, budgeting, accounting and execution of the construction of the Southern Perimeter Road.

Coordinate as well as implement actions leading to the award of engineering consultancy contract, comprising, amongst other items:

- Advertising.

- Preparing conditions of engagement and Terms of Reference.

- Preparing cost estimates.

- Evaluating technical proposals and making recommendations for selection of firms.

- Taking part in negotiation in final award of contract.

- Supervise and monitor the performance of the consultant as per the contract provisions and terms of reference.

Coordinate as well as implement actions leading to the award of construction contract, comprising, amongst others:

- Advertising

- Preparing documents

- Preparing cost estimates

- Evaluating bids and making recommendations.

- Taking part in negotiations, if necessary, in final award of contract.

- Monitor the performance of the Contractors and subcontractors as well as supervising the performances of the consultants.

CONTINUATION SHEET	DEPARTMENT OF STATE AGENCY FOR INTERNATIONAL DEVELOPMENT	☐ Worksheet ☒ Issuance	PAGE 8 OF 8 PAGES
	☐ PIO/C	1. Cooperating Country: Lesotho	
	☐ PIO/P	2a. PIO Number: 632-0069-3-00672	2b. Amendment: ☒ Original OR No.
	☒ PIO/T	3. Project Number and Title: 632-0069 Manpower Development and Training	
	☐ PA/PR		

Indicate block numbers	Use this form to complete the information required in any block of a PIO/P, PIO/T or PA/PR. For PIO/C, furnish the item number, quantity, description/specifications, including catalog stock number and price when available.
18.	(Statement of Work, Continued)

- Keep up to date records of progress on various activities of work and apprise all authorities concerned.

- Keep a record of the expenditure and exercise control.

- Coordinate design and construction activities.

- Assist in procurement of related goods and services fulfilling the source/origin requirements.

- Estimate and prepare the funding requirement of the project and apprise the authorities for any additional funding, if required.

- Provide training to the counterpart engineer as assigned.

- Deal with any other related work that may be assigned by the Chief Roads Engineer.

5. FINANCIAL IMPLICATION:

The Government will pay to the Project Engineer, the local salary provided for the post in the recurrent budget of the Ministry of Works at Grade 8 (M5460 - M6300 p.a). Transcentury is requested to top up this salary to internationally accepted levels.

APPENDIX XI

GEOMETRIC STANDARDS

EXPLANATORY NOTE ON GEOMETRIC STANDARDS OR DESIGN CRITERIA

References are made throughout this amendment to design criteria or geometric standards. The table below shows these as normally defined by the Ministry of Works, Government of Lesotho. As can be seen in the diagram on the preceding page, formation width refers to interface between the sub-grade and the sub-base while carriageway width refers to the uppermost surface of the road.

The Consultant's initial design used G-1 standards modified to broaden formation width to 14 m and carriageway width to 9 m. The portion of the road for other donor financing remains designed to this improved G-1 standard.

In preparing the comparative cost estimates of constructing the cut-off to G-1 or G-3 standards, the Consultant put G-1 width at 9 m over 11.2 m and changed the maximum G-3 gradient from 10 percent to 12 percent. The Consultant also then used a modified G-3 standard which broadened the width to 6 m over 9 m.

The entire road to be built by this project from Quthing to Qacha's Nek will be at the improved G-3 standard.

Road Type	Terrain	Design Speed (k.p.h)		Cross sections (meters)		Gradients (%)		Curvature (degrees)	
		Opt.	Min.	Formation	Surface	Opt.	Max.	Opt.	Max.
Bitumen 1	Rolling	100	80	9.7	6.7	4	6	1.5	3.17
	Hilly	80	55	9.7	6.7	5	8	2.5	6.75
	Mountain	50	35	8.0	6.0	8	10	6.5	16.25
Gravel	Rolling	100	80	11.30	7.6	4	6	1.5	3.17
	Hilly	80	55	11.30	7.6	5	8	2.5	6.75
	Mountain	50	35	8.0	6.0	8	10	6.5	16.25
Bitumen 2	Rolling	80	60	8.0	5.5	5	8	2.5	5.75
Gravel 2	Hilly	60	50	8.0	5.5	7	11	4.5	8.25
	Mountain	30	25	8.0	5.5	10	12	18	33
Bitumen 3	Rolling	60	50	6.00	3.5	5	8	4.5	8.25
	Hilly	30	35	6.00	3.5	8	12	6.5	16.25
	Mountain	30	25	5.00	3.5	10	14	18.0	33
Gravel 3	Rolling	60	50	6.00	5.5	5	8	4.5	8.25
	Hilly	30	35	6.00	5.5	8	12	6.5	16.25
	Mountain	30	25	6.00	5.5	10	14	18.0	33.0
Gravel 4	Rolling	60	50	4.0	3.5	5	8	4.5	8.25
	Hilly	30	35	4.0	3.5	8	12	6.5	16.25
	Mountain	30	25	4.0	3.5	10	14	18.0	33.0

APPENDIX XII

PURCHASING PROCEDURES, SPRPA

11/10/99.17

LESOTHO

Roads Headquarters,
P.O. Box 194,
Maseru 100.

26th April 1982.

Project Manager
S.P.R.P.A.
Private Bag A-40
MASERU 100.

Dear Mr. Ramey,

Re.: S.P.R.P.A. Purchasing Procedures

F.C. (Roads) has been working with you and Mr. Christiansen to finalize a proposed purchasing procedure for the S.P.R.P.A. It is absolutely crucial that we formalize the procedures and implement a comprehensive system immediately.

The attached flow charts summarize the purchasing process and tendering process as we envision them. If you wish to make any changes to this procedure, please advise us. Otherwise, the procedure will be submitted to the Authority for approval in thier next meeting. In the interim, you should endeavour to implement the system.

Yours faithfully,

M. MARUMO
CHIEF ROADS ENGINEER

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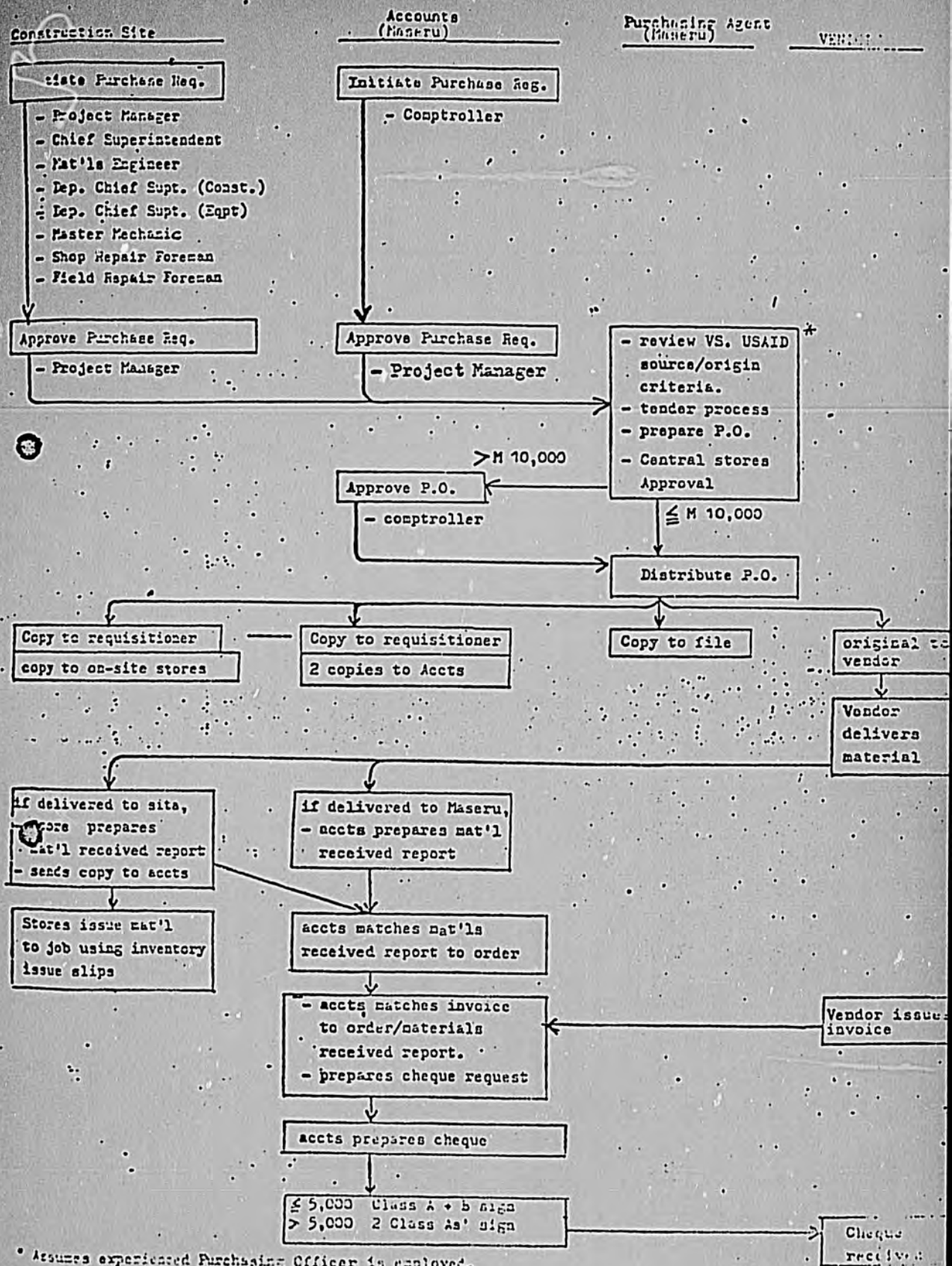
PURCHASING FLOW-CHART



* Assumes experienced Purchasing Officer is employed.

Minor purchases on site

(1) Petty cash purchases (Less than M 50.00) by employees:

May be reimbursed on-site by Asst. Controller from imprest fund. Reimbursement request must be approved by an officer authorized to write Purchase Requisitions.

(2) Small Purchases on account:

Accounts are maintained at 2 trading stores in Mt. Moorosi for small emergency purchases. 4 employees are authorized by the Project Manager to pick-up goods on account. The monthly accounts from the trading stores are reviewed by the Project Manager who approves the account for payment by the Accts section.

Tendering Process

All sources must be considered VS. USAID source/origin requirements

0 – M 2,999.99

- telephone quotes for best price's

M 3,000 – M 10,000

- minimum of 3 written quotes required
- can accept lowest quote
- if desired source is not lowest quote it must go to T.B.

> M 10,000

- must get T.B. approval

Use existing GOL tenders

OPEN TENDER

- SPRPA submits tender request to T.B. giving full details
- T.B. accepts recommendation to go to open tender.
- S.P.R.P.A. advertises
- Tenders recv'd at T.B.
- Tenders opened, logged-in & turned over to SPRPA for analysis.
- SPRPA performes analysis and presents analysis with recommendations to T.B. within 7 days.

SELECTED TENDER

- SPRPA submits recommendation to T.B. for selected tender (with reasons) with list of selected vendors.
- Tender Board may
  - direct open tender
  - accept recommendation
  - accept recommendation w/changes to selected vendors.
- S.P.R.P.A. requests quotes from selected vendors.
- Selected vendors submit tenders to T.B.
- T.B. opens Tenders.
- Tenders turned over to S.P.R.P.A. for analysis
- S.P.R.P.A. performes analysis and makes recommendation.

- T.B. Selects vendors *
- T.B. reference # assigned & confirming memo sent to SPRPA.
- Tender results published in gov't gazette

Purchase order prepared quoting Tender Board authority no. & date

* Exceptions to policy (e.g. accepting other than lowest bidder, blanket tenders, etc) must be approved by Minister of Finance

APPENDIX XIII

SUMMARY OF CLAIMS

APPENDIX XIII

SUMMARY OF CLAIMS

Nello Teer Contract: Cut-off (title II)

Claim 1:	Two days delay due to approaches to bridge (claim is minor)	
2:		
Claim 3:	Delay on commencement of Quthing Bridge	M838,073.84
Claim 4:	Delay from Blasting methods	309,271.00
Claim 5:	Additional costs for blasting operations transport and cost of explosives (escalation)	93,204.99
Claim 6:	Delay due to large over-run of rock excavation. M762,551 per month for 6 months = M4,569.306	4,569,306.00
Claim 7:	Delay due to Roadway realignments	5,805,025.00
	TOTAL	M11,614,880.83

N.B.: On claim No. 6 extension of time has been assumed as six months.

APPENDIX XIV

PARTICIPANT TRAINING: CIVIL ENGINEERING

PARTICIPANT TRAINING: CIVIL ENGINEERING

List of Participants who are training as Civil Engineers

1. Mr. Thabiso Ngozwana	B.S. Civil Engineering	So. Dakota School of Mines & Tech.	8/80 - 8/8
2. Mr. Sixtus Tohlang	B.S. Civil Engineering	So. Dakota School of Mines	8/80 - 8/84
3. Mr. Sydney Matsepe	Diploma Civil Engineering	Kenya Polytech	1/82 - 12/8
4. Mr. Moeketsi Molefe	B.S. Civil Engineering Technology	South Dakota, Springfield	8/82 - 8/86
5. Mr. Seutloali Makhetha	B.S. Civil Engineering Technology	South Dakota, Springfield	8/82 - 8-86
6. Mr. Paul Thamae	B.S. Civil Engineering Technology	South Dakota, Springfield	8/82 - 8/86
7. Mr. Raymond Mahamo	B.S. Construction Engineering	So. Dakota School of Mines & Tech.	5/81

NOTE: One participant has already returned from training:

Mr. Donald Tsekoa	B.S. Civil Engineering	Syracuse University New York	Ministry of Works/ Road Branch

APPENDIX XV

CONTRACTOR'S PERSONNEL: TITLE II (N.T.)

CONTRACTORS PERSONNEL

AS OF

30 April 1983

EXPATRIATES

NAME	CLASSIFICATION	NATIONALITY
Sam T. Koff	Project Manager	American
Ken E. Gutzman	Project Engineer	American
Irvin Myers	Senior Equipment Superintendent	American
Parks D. Deal	Senior Structure Superintendent	American
Glenn Schutt	Warehouse Supervisor	American
Bernard J. Leggott	Senior Excavation Superintendent	Canadian
Brian Kent	Drainage Superintendent	British
Veronika V. Hutton	Soils and Materials Engineer	Australian
Antonio E. Peralta	Earthworks Superintendent	Philippino
Alfredo D. Bucao	Earthworks Superintendent	Philippino
Robin M. Letchford	SubBase Superintendent	British
Domingo R. Dalit	Quarry Superintendent	Philippino
Ernesto D. Reyes	Concrete Supervisor	Philippino
Alejadinero Ragadio	Mechanic Superintendent	Philippino
Angelo B. Bucao	Mechanic Superintendent	Philippino
Honorio M. Fernancez	Mechanic Superintendent	Philippino
Mateo Ferolino	Mechanic Superintendent	Philippino
Armando E. Jardinero	Mechanic Superintendent	Philippino
Leonides C. Sandoval	Mechanic Superintendent	Philippino
Juli Cabrega	Mechanic Superintendent	Philippino
Lino Lopez	Mechanic Superintendent	Philippino
William D. Hunter	Mechanic Superintendent	British
William R. Carter	Mechanic Superintendent	South African
Radhey S. Nagpal	Mechanic Superintendent	Indian
Carlos Escarrilla	Field Engineer	Philippino
Ming Mallari	Field Engineer	Philippino
Virender Chopra	Field Engineer	Indian
Alnoor Babul	Financial Controller	Tanzanian
Nazir Munshi	Administrative Assistant	Malawian
Gene Cass	Manitowoc Crane Operator	South African
Om. P. Bhola	Office Engineer	Indian
Patrick Weir	Drilling Superintendent	British
William Potgieter	Fine Grade Superintendent	South African

MALAWI NATIONALS

NAME	CLASSIFICATION
Fanwell Tambala	Pipe Foreman
Fanuel Chimseu	Cheif Mechanic
Gordon Mbale	Mechanic
R.D. Suliwa	Crusher Foreman
Joe Bakali	Concrete Foreman
K.C.J. Chingola	Crusher Mechanic
B. Chikumba	Crusher Mechanic
A.T. Lungu	Crusher Welder
E.T. Banda	Crusher Welder
M.J. Nabwenje	Auto Electrician
Jasten Bauleni	Air Trac Operator
Komandi Kusawali	Driller Foreman
Jamoni Goodwell	Grade Checker Foreman
G.L. Likonde	Grade Checker
J. Katunga	Grade Checker
Alfonso Chinthochi	Scraper Operator
Rodney Dick	Scraper Operator
W.E. Chibalamakanda	Scraper Operator
F. Chimseu	Scraper Operator
B. Makupe	Scraper Operator
Wyson Zakeyo	Dozer Operator
Frank Philip	Dozer Operator
N.S. Namauka	Dozer Operator
D.D. Jamu	Dozer Operator
M. Latifala	Dozer Operator
K. Bitoni	Dozer Operator
Stewart Njolomole	Dozer Operator
J.S. Tawele	Loader Operator
W.S. Mpangeni	Winch Truck Operator
Raywell Kuchangale	Carpenter
John Tembo	Carpenter
Saukani Tayison	Carpenter
Kenneth Kaledza	Carpenter
Kedson Kunyambo	Carpenter
James Tengatenga	Steel Fixer Foreman
Daudo Chumula	Steel Fixer
Samson Jamu	Steel Fixer
Lajabu Swale	Steel Fixer
Better Chirwa	Draftsman
O. Mtawali	Transitman
Ernest Nthache	Survey Party Chief
Rex Ulaya	Survey Party Chief
Fostino Thawani	Soils/Materials Technician
Hastings Kalinde	Soils/Materials Technician
Alick Longwe	Chief Stores Clerk
George Njala	Drainage Foreman
Iron Chalowa	Crane Operator

LESOTHO NATIONALS

Heavy Equipment Operators	17
Drillers	27
Air Trac Operators	2
Heavy Duty Drivers	15
Light Duty Drivers	3
Tyre Man	2
Mechanic	7
Lubricators	7
Welders	2
Foreman	3
Labour Pushers	7
Carpenters	5
Plumbers	4
Electricians	3
Painters	1
Rigger	1
Steel Fixers	6
Masons	15
Concrete Finishers	0
Cooks	4
Kitchen Helpers	7
Watchmen	31
Time Keepers	7
Store Clerks	4
Parts Man	1
Custodian Junior Camp	1
Administrative Assistant	1
Accountant	1
Secretaries	1
Engineering Clerk	1
Senior Typist	1
Payroll Clerks	3
Cleaners	3
Grade Checkers	5
Labourers	157
Skilled Labourers	1
Semi Skilled Labourers	16
Junior Technician	1
Instrumentman	2
Panel Beater	1

APPENDIX XVI

TRAINING PROGRAM MEMO, TITLE II

Our Ref: PRC-76

30 August 1982

The Resident Engineer
PRC Harris, a Division of
PRC Harris Engineering, Inc.
Private Box 139
Mount Moorosi
Quthing, Lesotho

Subject: Training Progress
Re: Mount Moorosi-Mphaki Cut-Off Road Project

Dear Mr. Patoto:

This will refer to your letter reference T/054/82 regarding our Training Progress for the Lesotho Nationals employed on this Project.

As you are aware, normal Training Progress, per se, are usually formulated and these implemented on a timely schedule for Projects or Schemes without any predetermined completion time. Since our Project is for only 24 months, we have, during the first 12 months, consistently reclassified many Lesotho employees with commensurate wage increases.

These promotions were as a result of our In-House-Training Program, specifically, the diligent counseling and guidance by our Expatriate Supervisors to those employees who demonstrated a keen interest in their assigned duties and responsibilities. A recap of those promoted is noted hereunder:

Number	Initial Classification	Reclassified as
15	Labourer	Semi-Skilled Labourer
5	Labourer	Labour Headman
1	Labourer	Jack Hammer Operator
1	Labourer	Grade Checker
2	Labourer	Electrician (Domestic)
2	Labourer	Painter
1	Labourer	Fuel Truck Assistant
1	Labourer	Time Keeper
1	Time Keeper	Pay Roll Clerk
1	Copy Typist	Junior Secretary
1	Typist	Senior Typist
1	Secretary	Senior Secretary/Telex Operator
1	Mechanic	Lubrication Specialist
1	Welder Assistant	Lube Truck Assistant
1	Panel Beater Assistant	Panel Beater and Sprayer
1	Carpenter	Carpenter Foreman
1	Dozer Operator	Dozer/Back Hoe Operator

1	Loader Operator	Loader Operator/ Heavy Duty Driver
1	Light Duty Driver	Heavy Duty Driver
1	Jack Hammer Operator	Plumber
2	Watchman	Senior Watchman
1	Watchman	Welder Assistant
1	Security Chief	Security Chief/Senior Fuel Clerk

In addition to the foregoing employees, the following Lesotho Nationals are currently classified as specific "Trainees" in sectors of our Project as indicated:

1. ENGINEERING

A) Joseph Molefe
Date of hire - 5 March 1982 as a Light Duty Driver
Reclassified - 23 March 1982 as Driver/Rodman-Chainman
Reclassified - 22 June 1982 as Instrumentman

Comments - Presently capable of using Level and Theodolite and is currently working as an Instrumentman on one of our Survey crews.

B) Paul Mathotha
Date of hire - 19 October 1981 as a Skilled Labourer
Reclassified - 23 March 1982 as an Instrumentman

Comments - Presently capable of using a Level

C) Ella M. Khatsoane
Date of hire - 2 March 1982 as a Labourer
Reclassified - 25 May 1982 as a Semi-Skilled Labourer
Reclassified - 22 June 1982 as a Lab Technician

Comments - Presently capable of performing routine Lab tests.

D) Amelia Sotati
Date of hire - 13 May 1982 as a General Clerk
Reclassified - 22 June 1982 as an Engineering and Lab Technician

Comments - Presently capable of calculating quantities, performing minor drafting and taking compaction tests.

2. EARTHWORKS

A) Bernard T. Nkhalisa
Date of hire - 13 August 1982 as a Grade Checker

B) Lieu Nkhalisa
Date of hire - 15 July 1982 as a Grade Checker

Comments - Both above employees now learning to take grade and slope elevations.

3. STRUCTURES

A) Refuce Nkabole
Date of Hire - 20 April 1982 as a Store Keeper
Reclassified - 2 August 1982 as a Steel Fixer

B) Kenpo Monyatsi
Date of hire - 16 March 1982 as a Labourer
Reclassified - 2 August 1982 as a Steel Fixer

Comments - Both above employees learning to place and tie deformed steel bars in sock up areas.

4. WORK SHOP

A) Mothobi Moremoholo
Date of hire - 22 June 1982 as a Panel Beater

Comments - Currently learning all aspects of panel beating and spray painting

B) Naloli Moremoholo
Date of hire - 22 June 1982 as a Welder

Comments - Presently learning basic fundamentals of mild steel welding.

Lastly, we will continue our efforts to monitor, motivate and assist those employees who have the potential to be more productive, thereby, improving their earning capacity.

Very truly yours
NELLO L. TEER COMPANY

Sam T. Kolff
Project Manager

Copy to: Chief Roads Engineer (Mr. H. Maruma)
Project Engineer, Roads (Mr. L.J. Ross)
Chief Engineer, USAID (Mr. F. Zobrist)

bc: H.R. Fredrich, R.T. Gordon, K.E. Gutzman, A. Babul, LPRC outgoing file, rf.

APPENDIX XVII

STATUS OF TRAINEES, TITLE II

18 May 1983

STATUS OF TRAINEES

Re: Title II - Southern Perimeter Road Project
(Mount Moorosi-Mphaki Cut-Off Road Project)

CONTRACTOR - Nello L. Teer Company

As of March 1983

	CLASSIFICATION	NUMBER
1.	Grade Checker	5
	Note: 4 - new hires in March 1983 1 - reclassified from common labourer	
2.	Carpenter	2
	Note: both reclassified from common labourer	
3.	Steel (Rebar) Fixer	2
	Note: both reclassified from common labourer	
4.	Laboratory Technician	1
	Note: reclassified from Semi-skilled labourer	

As of April 1983

	CLASSIFICATION	NUMBER
1.	Grade Checker	4-still in training
	Note: 1 Grade Checker Trainee employed in March 1983 was reclassified as Grade Checker	
2.	Carpenter	3
	Note: additional trainee employed - reclassified from common labourer	
3.	Steel (Rebar) Fixer	4
	Note: two additional trainees reclassified from common labourer	
4.	Laboratory Technician	1
	Note: was reclassified as Junior Laboratory Technician.	

APPENDIX XVIII

SPRPA MONTHLY PROGRESS REPORT

FORMAT, TITLE III

LESOTHO

W/R/1049-A
LJR/pml

Roads Headquarters,
P.O. Box 194,
Maseru 100.

6th April, 1983.

Project Manager,
S.P.R.P.A.,
P.O. Box 133,
Mt. Moorosi.
Quthing

Re: SPRPA Title III Force Account Project
Monthly Progress Report Format

Attached is a revision to the format for the monthly report submitted with your letter of 22nd March for our review and comment.

Please note that the format has been revised from that outlined in your contract agreement to a more sequential occurrence of project activities. This has been done to aid in readibility and also to assist in a more logical contribution by your team members.

Also note that a report summary precedes the report format to allow for the conclusions and recommendations of the project manager.

The inclusion of training under each activity has been done to emphazise the importance attached to this aspect of the project.

The format is not intended to be all inclusive and items such as bar charts, photographs, special problems, schedules illustrations are encouraged to complete a better understanding of project development and continued progress.

Finally this letter confirms receipt of your 1st monthly report for January 1983. However the February report is long overdue and the March report will be due on the 15th of April. You are encouraged to meet the deadline for the Monthly Report in order to keep this office and the Authority members well informed of progress on the project on a current basis.

Sincerely,

Lewis J. Ross
ENGINEER (SPR)

cc: WORKS
USAID, Maseru

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FORMAT

MONTHLY PROGRESS REPORT

S.P.R.P.A.

Summary

(a) Conclusions

(b) Recommendations

1. Administration

   (a) Project
   (b) Camp
   (c) Manpower
   (d) Industrial Relations
   (e) Training

2. Engineering

   (a) Design
   (b) Surveying
   (c) Quality Control
   (d) Quantities
   (e) Costing
   (f) Training

3. Equipment

   (a) Procurement
   (b) Parts
   (c) Maintenance
   (d) Costing
   (e) Training

4. Construction

   (a) Monthly Progress
   (b) Percent Complete Versus Projection
   (c) Schedule
   (d) Costing
   (e) Training

5. Financial

   (a) Receipts
   (b) Disbursements
   (c) Budget
   (d) Cost Accounting
   (e) Training

APPENDIX XIX

MONTHLY PERSONNEL REPORT, TITLE III(N.T.)

Monthly REPORT FOR ENGAGEMENTS, DISCHARGES AND TRANSFERS

Month ~~WEEK~~ ENDING: 30 APRIL, 1983

SECTION: ACCOUNTING

CLASSIFICATION	ENGAGED	DISCHARGED	TRANSFERS From (-) to (+)		STRENGTH	
ACCOUNTING:						
Cost Accountant					1	
Acting Ass-Purchasing					1	
Accounts Payroll Clerk					1	
House-Keeper	1				3	
Driver/Messenger					1	
Administrative Officer					1	
Clerk-Typist					1	
Chief Time-keeper					1	
Assistant clerk					1	
Accounts clerk	1				1	
Safety-man					1	
Inventory clerk					1	
Plant Transport Officer	1				1	
Ass Purchasing Agent				1	1	
Office Assistant	2				2	
Ass Personnel Officer					-	
Secretary					-	
First Aid Man					-	
Accountant A					1	
T O T A L S	5			1	(19)	

C I Gottie
9 May 1983

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Monthly REPORT FOR ENGAGEMENTS, DISCHARGES AND TRANSFERS

MONTH ~~WEEK~~ ENDING: 30 APRIL, 83

SECTION: CAMPING

CLASSIFICATION	ENGAGED	DISCHARGED	TRANSFERS From (-) to (+)		STRENGTH
Watchman	5		2		15
Security Officer					1
House-keeper					2
Driver					-
Casual labourer					3
Labourer	2	2	1		11
Camp Electrician	1				1
Camp Elect-Apprentice	1				1
Carpenter	1				1
Plumber					-
Camp MANAGER			1		3
Casual Worker (Carpenters Plumber)					
TOTALS	10	2	4	38	

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Monthly REPORT FOR ENGAGEMENTS, DISCHARGES AND TRANSFERS

MONTH ENDING: 30TH APRIL 1983

SECTION: FIELD CONSTRUCTION

CLASSIFICATION	ENGAGED	DISCHARGED	TRANSFERS From (-) to (+)		STRENGTH
Paving Foreman	—				
Dozer Operator	2				1
Loader Operator	3			1	4
Grader Operator	—				4
Excavator Operator	—				1
Extra Heavy Duty Driver	8				1
Labourer	18	1		1	14
Time-keeper	2				42
Pitcher and Plaster	1				2
Excavation Foreman	—				1
Mason	1				—
Roller Operator	1			1	2
Casual Labourer	—		1	1	2
Construction Supervisor	—				—
Drainage Foreman	—				—
Labourer Foreman	—				—
Air Track Operator	—				—
					—
TOTALS	36	1	1	4	74

Monthly REPORT FOR ENGAGEMENTS, DISCHARGES AND TRANSFERS

MONTH ENDING: 30TH APRIL 1983

SECTION: QUARRY

CLASSIFICATION	ENGAGED	DISCHARGED	TRANSFERS From (-) to (+)	STRENGTH
Labourer	—		1	7
Crusher Foreman	—			1
TOTALS		1		8

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Monthly REPORT FOR ENGAGEMENTS, DISCHARGES AND TRANSFERS

Month ENDING: 30 APRIL 1983

SECTION: WAREHOUSE

CLASSIFICATION	ENGAGED	DISCHARGED	TRANSFERS From (-) to (+)		STRENG
Labourer					
P.O.L. Clerk					3
Senior Store-keeper					1
Ass. Store-keeper					1
Equipment Clerk	1				1
Parts Control Clerk	—				1
					—
TOTALS	1			7	

Monthly REPORT FOR ENGAGEMENTS, DISCHARGES AND TRANSFERS

Month
WEEK ENDING: 30 APRIL 1982

SECTION: MECHANICAL

CLASSIFICATION	ENGAGED	DISCHARGED	TRANSFERS From (-) to (+)		STRENGTH
Service oiler/Fuel Truck	1				
Tyreman	—				
Mechanic Supervisor	—				1
Heavy Duty Mechanic	9				
Light Duty Mechanic	—				9
Mechanic Helper	1				—
Senior Welder	—				3
Welder	1				—
Auto Electrician	—				9
Panel beater	—				—
					—
Labourer	—				
			1		3
TOTALS	5		1	11	

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SOUTHERN PERIMETER ROAD PROJECT AUTHORITY

Monthly REPORT FOR ENGAGEMENTS, DISCHARGES AND TRANSFERS

Month ENDING: 30th April 1983

SECTION: ENGINEERING

CLASSIFICATION	ENGAGED	DISCHARGED	TRANSFERS From (-) to (+)		STRENGTH
Draftsman					1
Engineer					2
Assistant Surveyor					-
Chainman					-
Labourer					-
Cost Technician					-
Secretary					-
Computor Operator					-
Ass. Cost Technician	2				2
TOTALS	2				5

SOUTHERN PERIMETER ROAD PROJECT AUTHORITY

Monthly REPORT FOR ENGAGEMENTS, DISCHARGES AND TRANSFERS

Month ENDING: 30 April 1983

SECTION: SOIL LABORATORY

CLASSIFICATION	ENGAGED	DISCHARGED	TRANSFERS From (-) to (+)		STRENGTH	
Material Test. Engineer						
Senior Soil Technician					1	
Soil Technician					1	
Ass. Soil Technician					1	
Labourer	1				1	
TOTALS	1				5	1

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APPENDIX XX

BASELINE STUDY:GENERAL TERMS OF REFERENCE

APPENDIX XX

SOCIO-ECONOMIC BASELINE STUDY

Since transportation touches every aspect of a society and economy, almost every socio-economic variable constitutes a potential index of positive or negative changes that might result from road construction. The problem then becomes one of selecting a few variables from a universe of possibilities. Three selection criteria seem critical: validity of a particular variable as compared to others; feasibility of accurately determining values of selected variables; and possibilities for monitoring changes (i.e., resampling) over time. In the case of the SPR, a fourth criterium might be whether a particular variable had been used before in another baseline study and therefore is available for use without a new survey.

It is outside the scope of this evaluation to do more than suggest possible variables for monitoring changes for which an improved SPR might be responsible. The following list, adapted from Devres (1980) will serve to suggest the possibilities, but not to limit, such a study.

A. Production
   1. Agricultural production
      a. Production levels
      b. Crop composition
      c. New technology and inputs
      d. Extension services, cooperatives, credit facilities
   2. Agro-industry and non-agricultural enterprises
   3. Employment levels
      a. Short-term employment
      b. Long-term employment
   4. Land value, tensure, and use
B. Marketing: Structure and Patterns
C. Transport Section Analysis
   1. Ratio/Costs/Profits
   2. Quantity/Structure
   3. Origin/Destination
   4. Supplies/Associated Facilities
D. Consumption Effects
   1. Health and education services
      a. Health and nutrition
      b. Education

E. Distribution of Impacts
   1. Distribution of impacts by socio-economic groups
   2. Geographic distribution of impacts
F. Spatial Considerations
   1. Urbanization
   2. Migration
G. Social Change
   1. National integration
   2. Community development
   3. Impact on minority groups
   4. Community values and family structure
   5. Impact on women
H. National integration
I. Urbanization, dispersion, and migration
J. Environmental impacts

The literature on both road impacts and baseline studies is voluminous. Of particular interest are recent general guides to road evaluation, and baseline studies already concluded in the SPR Project area (portions of Mohale's Hoek and Quthing Districts):

Anderson, G. William, Rural Roads Evaluation Summary Report, A.I.D. Program Evaluation Report No. 5. Washington, D.C.: USAID, March 1982.

Devres, Incorporated, Socio-Economic and Environmental Impacts of Low-Volume Rural Roads -- A Review of the Literature. A.I.D. Program Evaluation, Discussion Paper No. 7. Washington, D.C.: February 1, 1980.

Gay, John, Rural Sociology Technical Report (2 parts). Maseru: Ministry of Agriculture, April, 1977.

Guma, Tesfa and William Mafoso, Farm Management Economics Terminal Report on Socio-Economic Survey. Maseru: Ministry of Agriculture, June 1976.

Reichart, W. and F.E. Winch, Phase I, Basic Agricultural Data for Blocks V/VI. Baseline Survey Research Report No. 3. Maseru: Ministry of Agriculture, April 1981.

Winch, Fred, The Agro-Economic Farm Situation in the Lowlands and Foothills of Lesotho. Maseru: Ministry of Agriculture, October, 1981.

APPENDIX XXI

INITIAL SOCIAL/ECONOMIC IMPACT, SPRP

APPENDIX XXI

INITIAL SOCIAL/ECONOMIC IMPACT, SPRP

The primary social impact of the SPR to date has been in the immediate areas of construction activities. More than 500 workers are currently employed on the project (both Titles II and III). Although most are Basotho, perhaps 100 are non-nationals, primarily from Malawi and the Philippines, with experience in equipment operation and maintenance. At the time of this evaluation the combined salaries ranging from Lesente 25/hour for guards to more than Maloti 1.00/hour for equipment operatiors (M1.00 equals ca US$1.00) were on the order of M100,000 per month.

A large part of the wages of non-nationals is remitted to families in Malawi and the Philippines. But the balance, and most of the wages paid Basotho laborers remains in country and much of this is spenc in the towns and villages near the construction operation.

The main construction camps for both Title II (Mount Moorosi-Mphaki cut-off) and Title III (Force Account upgrading, Quthing-Mount Moorosi) are located near the town of Mount Moorosi. The two general stores there report a brisk business in consumables such as food, clothing, and housewares. Food sales are especially high this season since harvests from local farms have been reduced by severe drought. Project officials also report some local purchase of supplies and food for the project from merchants in nearby towns. In addition, one of the stores (Mitchell Brothers) is moving a considerable volume of building materials (e.g., corrugated steel roofing, cement, wheelbarrows) which apparently is being used to build, expand or renovate private houses. Beer and liquor sales also are high, especially after paydays. Although there is a branch bank in Mount Moorosi that offers the opportunity for savings in interest-bearing accounts, the level of savings

in this form was not determined. Presumably, the level of expenditures, savings, and investment could be determined from local sales and bank records, and from tax reports, should an analysis of local project impact be undertaken.

As is true all over Lesotho, hard- and soft-goods and even most consumables, including fresh fruits and vegetables, are imported from the RSA. Thus, although there is considerable impact from project wages and purchases in the form of local sales, and salaries to store employees, most of the funds flow quickly across the border into the RSA economy.

From casual conversations in the region the impression was gained that local attitudes toward the SPR project generally are positive. There were some early complaints that too many jobs were going to people from outside the region. But after negotiations with the contractor, local leaders expressed satisfaction that due consideration was being given to local hire whenever possible. There was also some concern that people from outside the region were coming into the region looking for work on the project and if unsuccessful, tended to remain as unemployed. Since no figures were available, it could not be ascertained whether this was a minor or major problem.

APPENDIX XXII

SAMPLE CONTRACT SCOPE OF WORK FOR EVALUATION

General Background of the Project

The Southern Perimeter Road Project is a 41 million dollar assistance program being undertaken by USAID in Lesotho. Essentially the Project consists of three titles. Title I was completed in 1980, and involved planning and design activities. Title II concerns the construction of approximately 38 km of new road through a virgin mountainous terrain. This construction is currently being done by an American contractor. Supervision of this Title II construction is also being undertaken by a U.S. consulting firm. Title III deals with the upgrading of approximately 150 km of road by a Project Authority (Force Account(, that while being managed by another U.S. consultant, functions as a semi-autonomous entity of the Government of Lesotho/Ministry of Works. A substantial amount of the $41 million fund was provided by USAID for this Title III for the purchase of new road construction equipment and all associated running expenses.

The Southern Perimeter Road Project was beset with a number of design and implementation issues, and problems since its initial authorization on June 30, 1978. Subsequent amendment to this authorization was again developed and approved in September of 1980. Although this amendment addressed and fairly resolved these issues and problems, the project continued to experience further difficulties and problems causing the Project to slip behind the Project Paper schedule.

Objective of the Evaluation

In broad terms, the evaluation will address and answer the effectiveness, significance and efficiency of the Project. In this respect the Project achievements should be assessed in relation to the planned Project targets and any failures or successes ellucidated. The contribution of any achieved targets towards the overall economic development shall also be explored. Any possible alternatives, as well as any side effects shall be investigated and appropriately highlighted.

The benefits identified shall be compared/contrasted with the cost, to determine if one justifies the other. If such a justification cannot be made, other and more efficient means of achieving the same targets should be sought and pointed out.

Specific objectives of the evaluation are incorporated in Scope of Work, below.

ARTICLE I - SCOPE OF WORK

The Contractor, in collaboration with the three other evaluation team members, shall undertake a detailed evaluation of the Southern Perimeter Road Project, comprising of Title I, II and III.

The Title I component of the Project shall be reviewed for general adequacy as it relates to the current title II and Title III activities.

ARTICLE I - SCOPE OF WORK (Continued)

Title II shall be reviewed in detail, and any progress, costs, benefits, and other factors envisaged by the Project Paper shall be compared and contrasted with the current situation.

In Title III the Contractor, in conjunction with the team, shall review in general terms the progress, costs, benefits and other factors accounted for in the Project Paper and these shall be compared to current status. In addition the team shall assess the activities and plans of a new construction management contractor who began mobilization in January 1983.

Further, the contractor, in conjunction with the other evaluation team members shall review GOL participation in the whole Project (Title II and III) including staff support and funding commitments.

In addition to those enumerated in this Scope of Work the contractor shall assess other points that may arise or that he/she may feel appropriate to the evaluation.

The above evaluation is to be conducted through searching of records, reviewing of files, conducting interviews, site visits, and observation and inspection.

The evaluation team will be composed of an engineer, a sociologist, and a transport economist and team leader. The team leader shall direct the evaluation, chair meetings and assign duties in connection with this evaluation to evaluation team members, as he deems necessary and appropriate.

The Evaluation will involve a visit to the actual construction Project activity site, situated some 200 miles outside the capital city, Maseru. The analysis and writing up of reports will be done in Maseru. Interviews will be conducted in both Maseru and the construction site.

The evaluation will commence on May 9, 1983 and continue through May 27, 1983.

ARTICLE II - PERIOD OF PERFORMANCE

The period of performance under this contract commences May 5, 1983 and concludes May 27, 1983 unless amended by the Contracting Officer. Actual work hours will coincide with the normal work hours of the USAID. Saturday work is authorized under this contract.

ARTICLE III - REPORTS

The contractor, in conjunction with the other team members will present to USAID/Lesotho a draft of the evaluation report not later than COB May 26, 1983. In this regard the contractor as a member of the evaluation team shall inform and discuss the results of the evaluation process so as to assure the timely submission of the draft report that reflects any review/reactions of the USAID to evaluation results. As Team Leader, the contractor will be expected to provide guidance to other team members in the report style and format.

The contractor will follow the methodology of AID's evaluation process, and the draft report shall be prepared in the PES format and shall include an executive summary at the end with any recommendations that the contract team in concert with the USAID determine appropriate.

ARTICLE IV - LOGISTIC SUPPORT

Logistic support under this contract, i.e., office space and equipment, in-country transportation, interpreter/secretarial services and reproduction facilities will be provided by the USAID/Lesotho. In the event this support is not provided the contractor will be reimbursed the cost of the support not provided.

APPENDIX XXIII

PRC HARRIS, LETTER NO. COLS 167
SPR, LETTER NO. W/R/1049-A

PRC Harris, a division of
PRC Engineering, Inc.

Consulting Engineers

CUT-OFF CONSTRUCTION - TITLE II
LETTER NO. COLS 167

23 May 1983

Chief Roads Engineer,
Roads Branch,
Ministry of Works,
P.O. BOX 194,
Maseru 100.

Subject: Quthing River Bridge - History of Foundation Exploration.

Dear Mr.Marumo,

On 17 May 1983 a USAID project review team visited the project area to include the Quthing River Bridge worksite.

On 18 May 1983 two of the team members (Mr.A.Ruiz, Team Leader, and Mr.J.Smith), accompanied by SPRPA Project Engineer Mr.L.J.Ross visited the Engineer's office. During the visit Mr.Smith asked two questions about the Quthing River Bridge - one of which, concerning the above history, a satisfactory answer could not immediately be given.

But at the meeting it was confirmed that an answer would be forwarded to Maseru.

Attached is the result of a review of our files in which we have endeavored to provide an answer to Mr.Smith's question, specifically his question as to why only one boring per bridge pedestal was taken.

We consider that good judgement was used when only one boring was called for per pedestal. Successful excavation of both abutments and pier 1 have proven the wisdom of that decision. Excavation of pier 2 has proven difficult, this being no surprise since the boring information indicated that the nature of the soil beneath the river channel would present problems during excavation.. The Contractor has had and is continuing to have problems as he tries to excavate to pier footing elevation.

Very truly yours,
PRC Harris,a division of
PRC Engineering, Inc.

Robert M. Weishaupt

Robert M. Weishaupt
Resident Engineer.

RMW/gp

CC : Project Engineer, SPRPA (L.J.Ross) - with enclosures
Chief Engineer, USAID (F. Zoprist)

Research Company
Private Bag 139, Mt. Moorosi, Quthing 750, Lesotho, Southern Africa.

W/R/1049-A

LJR/43

Roads Headquarters,
P.O. BOX 194,
MASERU 100.

25th May, 1983.

Project Manager,
SPRPA.,
P.O. BOX 133,
Mount Moorosi,
QUTHING 750.

u.f.s. : C.R.E.

Dear Sir,

Re : SPRPA Title III Force Account Project
Installation of Culverts

Considerable reaction has been expressed by members of the USAID evaluation team regarding the manner of culvert installation being made particularly at a location known as six penny drop and also on the north side of Mount Moorosi.

It is acknowledged that culvert installations were reviewed by Mr. Zobrist, USAID, and myself during our last visit to site. At that time it was our understanding that the culverts would be laid on a rock foundation and appropriate protection provided to prevent scour both up stream and at the outlet.

Your response, to the question raised by the evaluation team is needed to ensure that adequate design is being employed in the installation of the culverts to safeguard against failure of the road-way due to the installation of the drainage facilities.

Sincerely,

Lewis J. [illegible]
Lewis J. [illegible]
E(SPR)

C.C. Works
USAID Maseru

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