

(Block 8 continued)

A.	B.	C.
2. Implement Title III field inspection and laboratory testing programs along with cost accounting controls to assure compliance with specification requirements and monitoring of costs, thus assuring proper quality of installed work, and establishing and controlling costs for the work. Use this data to determine what revisions would be necessary to obtain the best use of the limited funds on the road not yet improved.	MOW & PM	7/82
3. Enforce established procedures for use of all Title III project vehicles to negate non-authorized use for personal reasons.	MOW & PM	7/82
4. The required training program should be developed and implemented as soon as possible.	MOW & PM	7/82
5. Title III project personnel should be resident at site with official trips to Maseru limited to those authorized by Project Manager. Use of project transportation and housing in Maseru should be limited to official trips. <u>TITLE II WORK</u>	MOW & PM	7/82
6. Expedite field review and realignment of Title II work well ahead of contractor operations to avoid costly duplication of effort that has been experienced in the past.	PRC	7/82
7. Expedite analysis similar to recommendation 2 of Title II funding limitations.	PRC	7/82
8. Study need for revision to Title II blasting program. If deemed practical, institute on-site storage of explosives, use of more sophisticated materials and use of contractor employees rather than GOL personnel for performance of blasting operations.	Teer, PRC & MOW	7/82

GENERAL

9. Develop better communication between all parties on site and in Maseru to assure that issues are identified and dealt with in a timely manner, i.e., institute weekly meetings that are <u>brief but record issues/problems and their resolution</u> . Distribute copies to all concerned for information and action as needed. Example: one-year delay in advising Teer of estimated quantity of crushed material.	MOW & Project Coordinator	7/82
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(Block 8 continued)

A.	B.	C.
10. Revise reporting requirements for both Title II and III work to assure that reports are timely and meaningful. Specifically reports need to address projected versus actual accomplishments during the reporting period and identify problems and their solution. Reports need less filler and more data for use in management intervention/decision making in improving project performance.	MOW, Project Authority	7/82
11. Schedule ASAP an AID audit of the project with emphasis on the Title III work. Particular attention should be given to payrolling/procurement procedures and irregularities.	USAID	7/82
12. Schedule an external evaluation to start as soon as the audit findings are available.	USAID	7/82

13. Summary. The project is behind schedule and there are indications that current funding will not be adequate to complete the Title III force account rehabilitation on the existing alignment (151 km) or the Title II contracted construction on the new alignment (38 km). Serious administrative and management problems exist on the Title III work due to the inability of PRC to field a complete and competent team in a timely manner. (See attachment B). The achievement of the project purpose is in question and prompt action is required to assure the most cost effective use of available project funds. The action decisions listed on the facesheet require some drastic steps but are a workable solution to the current problems.

The termination of the PRC contract and restaffing using another U.S. firm will take about four months. The current plans are to reduce the six-man team to five with the MOW to provide two of the five: the Construction Supt and Materials Engineer. The U.S. firm is to provide the Project Manager, Controller and Supt of Maintenance. The shutdown of all Title III fieldwork and rehiring after formal policies and regulations are instituted should take about two weeks. In the interim, the MOW will maintain skeleton in-house forces to continue work on the road and camp construction. Quality control and proper location on future work will be established by assignment of MOW testing and inspection personnel and use of the current contract surveyor.

Cost analysis of current work under both Title II and III should provide data in two to three months to more accurately forecast the cost of the remaining work and determine what shortfalls may be expected.

Control of trips off-site, project vehicle use and off-site housing will cut costs, keep project personnel at their place of work, and help the GOL in their overall problem of vehicle misuse.

If an AID audit of the project cannot be scheduled in a timely manner, it may be well to proceed with the external evaluation with the addition of an auditor to the evaluation team.

EVALUATION TEAM MEMBERS

Don Reilly, REDSO/E, Chief Engineer

N. Cohen, Regional Economist, USAID/Swaziland

A. Williams, Regional Legal Advisor,
USAID/Swaziland

Mulugeta Yohannes, Engineer, USAID/Lesotho

14. Evaluation Methodology

The regularly scheduled January 1982 external evaluation was deferred by the Mission because of extensive startup delays in both Title II and III work. It was felt by the Mission that an evaluation at that time would have been an evaluation of promises rather than of performance. This internal evaluation was planned as an interim evaluation and not as a replacement for the external. It was planned before the departure of Project Manager Ramey and the assault on Mr. Rees.

The methodology followed was an initial reading of the Project files followed by discussions in Maseru with key people in the Ministry of Works (Roads Department), with PRC Harris home office personnel and with members of the USAID staff. The evaluation team also attended a meeting of the Title III Project Authority. A visit to the work sites allowed the team to view work in progress and discuss accomplishments and problems with the Harris and Teer field people. Since the team arrived on-site on a holiday, the day after pay day, none of the Basotho staff were present. The team was able to discuss the project with the District Coordinator for Quthing District and with the Minister of Interior (he is the Chief in the area where both Title II and III are currently working). After returning to Maseru, the team talked with the Basotho construction superintendent. A full list of people contacted is in Attachment A.

The documents read include the original Berger design and justifications, the Project Paper and the amended Project Paper, the Teer and Harris contracts, chron files, work plans, blueprints, report files and restricted GOL materials. Non-project material such as the Lesotho Annual Statistical Bulletin, and the 1980 Lesotho Transport Study were consulted.

The recommendations of this evaluation are the result of extensive discussion by team members. It is impossible in a two-week period to adequately read everything or discuss the project with all important actors. However, three of the four team members have had extensive contact with the project for a number of years.

15. External Factors

In 1976 the South African Government declared the Transkei an independent country. Lesotho, and every other country in the world, refused to recognize that independence. There was, and continues to be, some limited harassment and delays at the border posts between the Transkei and Lesotho. Quthing and Qacha's Nek Districts get almost all their supplies through border gates controlled by Transkei authorities.

The border posts are open and goods regularly transit without interference. In 1980/81, 5.6 percent of all Lesotho imports came through the three Transkei border posts. In 1978/79, 5.1 percent came through these posts. The threat of closure remains. All the major equipment for the project came through the Transkei. In spite of the relatively open border, the SPR remains one of the top GOL priorities. Even with budget difficulties, the GOL has pledged to meet its full financial obligations to the Project. The road is viewed as vital to the establishment of a national road network, to the creation of a unified country and to complement development activities operating and planned in the area.

In designing the project, a number of assumptions were made. To date, these assumptions have not been significantly violated.

The goal assumption was "the MOW will have the financial resources and trained manpower to maintain improved roads to all-weather standards." Current budget problems have forced the GOL to cut back on all programs, including maintenance. Similarly, a hiring freeze has limited the ability to add new people to the MOW staff. This was one of the justifications for a Project Authority Forced Account method of construction. The GOL is ensuring that all the contractual obligations to support the project with people and money are met, but they will have problems if cost overruns demand additional funds from them.

The purpose assumptions relate to South African racial policies not changing drastically and that the GOL will continue to emphasize development in southeastern and southern Lesotho. These assumptions remain valid.

The input and output assumptions were modified in the amended PP to be:

1. The Project Authority will be able to "recruit the combination of laborers, semi-skilled and skilled workers, clerical and supervisory personnel...."

2. The GOL will be able to come to an agreement on a consultant to assist the Project Authority.

3. "That substantial competition from qualified construction contractors can be obtained from code 941 sources."

Both Title II and III have been able to hire a wide range of laborers; some have needed training in order to fill their job slots adequately, others have sufficient previous experience to meet job needs. The problems are no more serious than originally thought.

The second and third assumptions were also proven valid as is evidenced by the awarding of the construction and consultant contracts. While it was thought that additional items would be purchased from Zimbabwe, this proved correct for Title II where \$800,000 was spent on Zimbabwe goods (15 houses and the screening plant), but did not take place in Title III. In the case of prefabricated housing for Title III, the construction management team felt it could construct the units for less. The units are still unfinished.

The project's assumptions remain valid and no external factors have substantially affected the project's potential for success. While the fear that the border was about to be closed has not materialized, the threat of border difficulties with the Transkei remains a possibility. Budget difficulties have reduced project flexibility, but they have not delayed nor materially affected the project to date. The GOL intends to meet its obligations and is taking the necessary actions.

16. Inputs

A. The A/E work for design of the road and supervision of the contract construction work has proven fairly effective. The PRC Title II on-site engineering team has been slow in fixing quantities of work and in realigning the road to suit field conditions and reduce overall costs. This has created some duplication of effort by the construction contractor.

B. Staffing of the Title III force account management team has not been successful to date, as noted in Attachment B, and has resulted in the action decision to terminate the contract.

C. The construction contract work for Title II has been well organized and appears to be well managed. The contractor was late in completing his construction camp. The rock excavation is currently ahead of schedule and the bridge construction is behind schedule. The overall work is slightly behind schedule. The contractor has decided to open up the work from both ends to reduce overall construction time.

D. The equipment procurement for the Title III work has not created any significant problems. Although not all equipment has been procured, arrangements for leasing of equipment on a temporary basis can alleviate equipment shortages.

17. Outputs: The three major outputs and their present status are:

1. A two-lane road constructed between Quthing and Qacha's Nek. A new alignment of 38 km is to be constructed by contract between Mt. Moorosi to Mphaki (Title II). The 151 km balance is to be improved by force account under a semi-autonomous Project Authority (Title III).

As assumed in the PP, competition for the Title II contract was obtained from 941 (including U.S.) firms and the contract went to a U.S. firm. This work is progressing smoothly with good rapport between the contractor and A/E firm. However, actual progress is behind schedule because of (a) late execution of the contract (four months) since bids exceeded available funds and necessitated extended negotiations, (b) actual rock excavation exceeding the estimated quantities, and (c) delays in obtaining design clarifications from the A/E firm due to inertia in the field and lack of delegation of authority to the field to make such decisions.

The force account work has been plagued with management and staffing problems which have resulted in the recommendation to terminate the existing Title III contract for staffing the management team. Another firm will be selected for supplying most of the skills needed with the balance to be seconded from qualified Roads Dept staff. The force account work has accomplished the earthwork for about 15 km of road but have not done the drainage or surfacing with crushed material. This work is behind schedule but recent planning indicates that the Feb 85 completion date may be improved upon if funding proves adequate.

Costs for both sections of the road appear to have been underestimated. Funds for the force account work may be adequate for only 121 of the planned 151 km and the overrun on Title II rock excavation may result in costs exceeding contract funding. A positive offsetting factor is the current favorable exchange rate.

2. Final design and tender documents for the road between Mochales Hoek and Quthing. This output has been accomplished.

3. Reinforcement of the Seaka Bridge. This output was scheduled for January to July 1981 but has not been started. Current plans are to start this work in July 1982 with completion by Feb 1983. Original plans for the GOL to contract for this work were changed when no responses were received from bidders. The work has been incorporated into the contract for the cut-off construction.

18. Purpose

The project's purpose is "to upgrade the Southern Perimeter Road, the basic transport link between Qacha's Nek and the western lowlands of Lesotho to all-weather standards." The EOPS is that the GOL will be "able to provision south-eastern and southern Lesotho, decreasing dependence on Transkei border posts and on the South African transportation network."

The purpose is in serious jeopardy of not being achieved because of current difficulties. The major problem areas are:

1. Lack of sufficient funds to complete scheduled work.
2. Administrative and management problems in Title III.
3. Lack of adequate communication between project actors.

A discussion of the difficulties in Title III is contained in Attachment B. Attachment D is an assessment of the project's economic assumptions.

19. Goal

The Project's goal is "to develop a basic road network in Lesotho which will facilitate economic development and national economic integration and which will ensure all weather access to all regions of the country without resort to travel through South Africa."

The SPR is an element in the major trunk road of the country running from Mokhotlong in the north central portion of the country counterclockwise along the perimeter of Lesotho to Qacha's Nek. The government has completed the paving between Joel's Drift and Mafeteng. It is realigning and paving much of the northern section to Oxbow and the southern section to Mohale's Hoek. The government's 1982/83 budget shows that while capital expenditures had to be reduced, the emphasis on road projects remains high.

The government also uses WFP's Food for Work program and the UK assisted Labor Construction Unit's labor intensive methods to improve non-major trunk roads. Budgetary difficulties will delay the completion of the national road network.

20. Beneficiaries

Since the project has just begun road construction, there has not been any induced increase in road traffic (other than directly related to construction activity). Thus the projected educational, health and agricultural/livestock benefits cannot be evaluated. Similarly the reduced transport costs have not materialized so the villages are not being better served with lower priced goods. However, there is no reason at this time to believe that the projected benefits will not be realized.

To date the beneficiaries are the 500+ Basotho who have gotten jobs. While many of the skilled and semi-skilled jobs have gone to Maseru-based people, almost all the laborer jobs have gone to people in the immediate district. This was not always so. Initial hiring by the Project Authority was of people from the western lowlands. This was changed after complaints by government officials in the Quthing District.

Many of the people employed would have gone to South Africa for jobs. Thus there has been some limited reduction in dependence on South Africa for jobs. Sales of goods and services in the Mt. Moorosi area has increased. There is also some limited evidence of money being used for investment purposes, such as the purchase of small stock or small agricultural equipment. As is true of any increase in incomes in Lesotho, a substantial portion of the benefits go to South African businesses. They are selling more goods in the area. However, this is not out of line with any other activity in Lesotho. The Title II people have a food contract with a Zastron wholesaler who delivers their food needs. To date, their local purchases have been limited to a few animals and some cabbage. It is hoped that with the increase in incomes and awareness of project food needs that the local people will begin to provide more.

21. Unplanned Effects

The only unplanned effects of the project relate to the difficulties currently being faced by the Title III work. There has been an increase in tension in the area centering on the influx of people from outside the area and the inability of the construction management team to manage the situation. The use of project vehicles for private purposes works against GOL regulations and sets a poor example. The misuse is by both the Basotho and expatriate staff.

23. List of Attachments

- A. Persons Contacted
- B. Memo on Title III Deficiencies
- C. Chronology of Events
- D. Assessment of Project's Economic Assumptions
- E. Project Organizational Chart
- F. Title III PRC Roster

PERSONS CONTACTEDGovernment of Lesotho

Minister of Interior
 District Coordinator
 Chief, Roads Department, MOW
 Senior Roads Engineer, MOW
 Legal Advisor
 Deputy Supt. Constr. (Project Authority)
 Engineer
 Controller, MOW (SAMDP)
 Project Coordinator, MOW (SAMDP)
 Actg. Dir. of Transport, MOW

N. 'Maseribane
 M. 'Mabathoana
 M. Marumo
 M. Sole
 K. Tambi
 M. Tikiso
 P. Datta
 W. Kugler
 L. Ross
 T. Mei

U.S. Embassy

Ambassador K. Brown

USAID

Acting Director
 Engineer

B. Bahl
 F. Zobrist

PRC Harris, Inc.

Senior Vice President

 Resident Engineer (Title II)
 Materials Engineer "
 Actg. Proj. Mgr. (Title III)
 Materials Chief "
 Controller "
 Maintenance Engr. "
 Master Mechanic "

R. Gershowitz
 W. Green
 F. Patota
 E. Connor
 R. Shaw
 J. Gibbons
 A. Christianson
 G. Petridis
 J. Weir

Nello Teer Co.

Project Manager
 Regional Coordinator

S. Koff
 R. Gordon

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- IV. CONCLUSIONS

Problem: To raise the administration and management of the Project Authority work (Title III) to satisfactory standards.

I. FACTS

A. Background

In 1980 the Lesotho Southern Perimeter Road Project underwent extensive review and revision resulting in a Project Paper Amendment, an amended Project Authorization and an amended contract with the Design and Engineering Consultant (PRC Harris). This review and redesign was the result of insufficient project funds to meet the original project goal and purpose.

Under the revision, project tasks were divided into three distinct parts:

1. Construction of 38 kms. of road (Mt. Moorosi-Mphaki) through new territory under a construction contract (Title II), with supervision by PRC Harris.
2. Upgrading of the remaining 151 kms of road between Quthing and Qacha's Nek under a Government of Lesotho (GOL) Project Authority with direct labor and with management by expatriate technicians. (Title III).
3. Procurement of equipment to assist the Title III efforts.

It was contemplated that the GOL would request PRC Harris to provide the management team for the Title III work, with the justification that: (a) the management team was in lieu of the PRC Harris supervision required under the original contract, (b) that Harris could provide such people and (c) that the "arrangement would preserve the continuity of the design engineer supervising construction and would permit some economy in personnel, since several of the force account team would assist periodically in supervising construction, thus reducing the permanent professional staff on the cut-off site to one resident engineer."

Prior to and during contract negotiations with PRC Harris, it became clear that the Title II work had to be completely separated from the Title III work because it might not be possible to have PRC Harris perform the Title III work. Thus the management requirements for both Titles were completely separated. In addition the number of expatriates required for Title III was reduced from 8 to 6, with an increase in the number required for Title II from 1 to 3.

Contract negotiations were held with PRC Harris in October and November, 1980, concluding on November 13, 1980. However, due to a considerable amount of quibbling over contract clauses the final contract amendment was not signed until February 13, 1981, but effective as of January 1, 1981. The Ministry of Works, Roads Department (MOW) gave PRC Harris its notice to proceed under Title III on March 1, 1981.

B. Administration of Title III

Two problems plagued the performance of Title III from the beginning: delays and inability of management team to set up and manage the Project Authority work.

1. Delays

There was a considerable delay by PRC Harris in fielding satisfactory Project personnel in a timely manner. The most important delay was that of fielding the Project Manager, a delay from March 1, 1981 to September 6, 1981. It was not until October 1, 1981 that the full PRC Harris team was in place, nine months after the first team member was to have arrived and three months after the remaining team members were to have arrived. More delay was caused by the necessity to replace every team member at least once. To date, the Project Manager who left on April 22, 1982 has not been replaced.

This delay in arrival of personnel led to delays in project work. Management systems were late in being designed. Road work was not begun until December, 1981, as opposed to the PP scheduled date of March, 1981. The camp facilities were not constructed in a timely manner resulting in additional hotel expenses. To date, they are not completed. The surveying was not undertaken until April, 1982.

Project Authority meetings were cancelled because of lack of attendance. There was considerable delay in getting the personnel regulations passed (Nov-Feb, 1982) due to lack of appropriate legal input.

(See Chronology for more background.)

2. Problems with Management Team

Every member of the management team has been replaced at least once. In addition, while working the team was unable to refine and implement the planning necessary for the job and required by their scope of work. The PRC Harris contract contains the following list of work items that the team was to accomplish:

a) Develop a working relationship with the Chief Roads Engineer and the Project Authority to assure that:

(i) The objectives of the construction management program are clearly understood by each;

(ii) The authorities of the Project Manager are clearly understood and defined; and

(iii) That the limitations and guidelines of Lesotho law and regulations are clearly defined in relationship to the operation of the construction forces.

b) Develop and implement detailed overall construction planning including associated organizational and management support planning.

c) Develop and implement a detailed training program for operators, mechanics and technicians as appropriate.

d) Develop and implement an operational budget and fiscal management plan in order to maximize the desired objectives within the funds provided.

e) Develop and implement a detailed maintenance, operation and replacement plan for all Authority equipment.

f) Develop and implement a road maintenance plan to assure that all completed road construction remains at desired standards for work completed by contract on the "cut-off" and by the Force Account crews.

g) Develop and implement a logistics plan to assure that all facilities, supplies and administrative services are provided on a timely and efficient basis and to assure that construction activities are not slowed or delayed by the lack of such supplies or services.

h) Develop construction teams or brigades including necessary technical support to assure work is accomplished to Government of Lesotho's standards established for this Project.

i) Maintain up-to-date progress schedules in the form of bar graphs, CPM, PERT or other appropriate charts for all work items and plans developed as appropriate.

j) Develop methods of measuring and evaluating worker and equipment output and devise methods to refine and improve on such operations.

k) Depending on labor availability, develop labor intensive approaches for selected activities as opposed to machine intensive. The objective is to maximize the use of local labor while making full use of available machinery within the allowable budget.

l) Develop or improve on construction standards and techniques, as appropriate, for repetitive items such as guard walls, bridges, culverts, etc. with the objective of obtaining a balance between initial construction cost and future maintenance.

m) Maintain work records in order that construction performance can be determined in terms of cost per item or by unit quantity and in terms of labor, equipment and materials.

n) Prepare and submit monthly progress reports to the Authority through the Chief Roads Engineer. Reports shall include a record of costs and other items as may be considered appropriate by the Project Manager, Chief Roads Engineer, and the Authority.

o) Provide engineering and design services as needed and within the capability of the management team.

p) Maintain a record of "as-built" drawings or records during the course of construction.

q) Maintain a "log" of construction activities to later become a part of the Ministry of Works permanent records on the Southern Perimeter Road construction.

To date, only items 2(a), 2(b), 2(d), 2(h), and 2(n) have been partially implemented or even attempted.

During the period of June to September, 1981, little of the planning necessary to set up the force account work was accomplished. The one plan accepted by the Project Authority was that for general procurement authority. In addition, dissension evolved between the Acting Project Manager, Mr. Semmel, and the other team members. When Mr. Ramey, the new Project Manager arrived, this dissention increased with the result that apparently little of the work done by Mr. Semmel was passed on to Mr. Ramey.

Mr. Ramey and his team spent the months of October and November setting up procedures and getting them approved by the Project Authority. During this period tension among the team members continued. According to the MOW three of the team members (all but the Project Manager and the Controller) were not capable of performing their assigned jobs. In interviews, PRC Harris has said some of these individuals were asked to perform jobs not in their job descriptions.

By February 1982, it was apparent that the management systems set up in October and November were not being implemented in spite of requests to do so:

1. Personnel policies were not being followed for hiring and firing, and no job descriptions had been written.
2. Personnel records were haphazard and checks were not developed to keep "ghosts" off the payroll.
3. Procurement procedures were not being followed.
4. There was little control over project vehicles.
5. Costs were not being properly measured against work.
6. Road work was going on without proper surveying and without proper laboratory tests and quality control.

In the belief that Ramey, a good field engineer, should remain with the project to keep the road work going, he was not terminated in February. A surveying contract and a design engineer from the U.S. were deemed to be necessary as Mr. Ramey was not following the alignment or design standards specified.

Between February and April, 1982, Mr. Ramey appeared to have a number of difficulties with the MOW, the Labour Board, local authorities and his home office (PRC Harris). The Labor Board requested several meetings with Mr. Ramey with respect to the termination of several employees. The District Coordinator (DC) had several confrontations with Mr. Ramey over use of Project equipment. When a meeting was finally arranged between the DC and Mr. Ramey, these difficulties were sorted out. Problems arose with the Ministry of Interior questioning the hiring of certain individuals considered to be a security risks. These difficulties apparently caused a considerable amount of fluctuation in Ramey's moods.

On April 22, 1981, Mr. Ramey disappeared from the job, appointing Mr. Shaw, the newly arrived Superintendent for Construction, as acting Project Manager. This threw the Project into confusion. At first, PRC Harris sent Mr. Semmel to Lesotho to investigate this matter which resulted in approval for Mr. Gershowitz to come to Lesotho to manage the Project. Mr. Gershowitz brought Mr. Green to take over some of the project management functions for a month.

Meanwhile, on June 3, 1982, Mr. Rees, a subcontractor, allegedly was beaten at the construction site in an incident with mechanics. This incident appears to have taken place as a result of the tightening of personnel rules and lack of knowledge of job descriptions and chain of command. Reports were made that this attack was really directed at Mr. Gibbons. All expatriate project personnel left the site. The road construction work is currently being supervised by Mr. M. Tikiso, the Deputy Superintendent/Construction, a Mosotho seconded by the Ministry of Works.

II. DISCUSSION

The facts as outlined above lead to the conclusion that the main problem with Title III is the lack of administration which is demonstrated in three major areas.

A. Lack of Implemented Systems

1. General

It cannot be said that no systems were developed for the operation of this project. Personnel, budget, accounting, workplans and procurement systems were developed by the various project personnel and approved by the Project Authority. However, the development of these plans required urging from the MOW and AID as well as a great deal of input from the MOW. Moreover, most of the plans were not developed until after the arrival of the Project Manager, Ramey.

The more serious problem is that the developed plans were not firmly established and put into practice.

2. Personnel Procedures

The most highly criticized system is the personnel system, which did not operate. People were hired and fired on the say so of the Project Manager. People were hired at lower or higher grades than their qualifications indicated. No chains of command were established. Finally, far too much overtime was paid for and apparently there were quite a few "ghost" workers because the identification system was not enforced. It was both the lack of direct supervision and the subsequent tightening of certain personnel rules, i.e., elimination of overtime, that led to the Rees incident. The result is too many people on the current payroll and the need for retrenchment.*

*This makes questionable the recent request to the Project Authority by the management team for new staff positions.

3. Procurement Procedures

The procurement procedures were among the first to be drawn up, with detailed assistance from the MOW, but were now followed. Nor was proper inventory control set up and theft was a serious problem. It appears that much of the laboratory equipment has disappeared. What is puzzling from the record is that the hiring of a procurement specialist was approved by the Project Authority in January, 1982, but such an individual has not been hired to date.

4. Controls on Project Property

A frequent and common complaint was the misuse of project property, especially project vehicles, which were used during non-work periods for personal use. This is an example of the lack of general controls that existed on the project site. Its high visibility has led to complaints from the District Coordinator and the Minister of Interior who is the Chief in the Mt. Moorosi area.

5. Fiscal Controls

A cost accounting system was set up to measure the cost of work. However, such measurements cannot be made at present.

B. Work Performance

Lack of administration is also reflected in the performance of the work. While everyone concerned is quite pleased that some road construction work was actually performed, there are many complaints about the quality, cost, and timeliness of the work.

1. The establishment of the camp has taken an inordinate amount of time. It is still not physically complete, nor has furniture been ordered for the housing. Yet it will soon be necessary to start moving heavy equipment from Section 1 to the other end of the Project Area to work on Sections 2 and 3 and, thus, to move the camp.

2. There was considerable difficulty in acquiring the design documents and making them usable for the field. The extra services of a project engineer were required from February to April, 1982. Even now, the Deputy Superintendent of Construction does not have these documents for his use.

3. On the grounds that the Project Authority didn't have a plan for a surveyor, Ramey decided to build the road without the services of the surveyor. This resulted in the moving of more earth than necessary and the construction of a wider road than necessary. Thus costs appear higher than they should be.

4. Testing on the work completed does not appear to have been done. Quality control does not exist so there is considerable doubt cast on the quality of the work performed to date.

C. Poor Relationships

The lack of administration has led to serious communications problems and poor relationships among all parties.

1. Within the project team, relationships have never been good and do not appear to be so now. Some individuals were precluded from carrying out their functions, while others attempted to carry out functions to which they were not assigned. It is evident that even at this stage, a "serious" rivalry exists between two team members.

The inability or unwillingness of some team members to carry out the functions to which they'd been assigned further upset staff relations. The results of this staff tension were a further diminution in the administrative functions of the team.

2. Relationships between many of the expatriate staff and the local staff have not been satisfactory. For example, since the Project Manager left, the construction has been carried out by the Deputy Superintendent for Construction, a Mosotho. He has not been given his job description or the chain of command. No attempt has been made to supervise his work or to provide him with designs, field survey, laboratory assistance or maintenance of equipment.

Lack of clearly defined and instituted personnel regulations has resulted in poor communications and considerable tension between the Basotho staff and the expatriate staff. The Rees incident appears to have been the culmination of these failings.

3. Relations with the Government of Lesotho both at the local and central government level also have been affected by the lack of administration on this project. The spill-over effects of the personnel problems and the lack of control of project equipment have involved both the District Coordinator and Minister of Interior in settling local matters. Confrontations with the Labour Board have also resulted. In addition, relations with the MOW have been strained.

D. Causes

In assessing the causes of this lack of administration, the roles of the team(s) fielded by PRC Harris, the MOW, the Project Authority and USAID were examined. While it appears that all parties contributed to this problem, the main cause lies with the inability of PRC Harris to field a team which could play the roles and accomplish the tasks set out in Title III of the contract.

1. PRC Harris

Under Title III, PRC Harris' responsibility was to field six people capable of filling the six positions outlined and performing the tasks set out in the contract. Harris has not been able to do this. At first, there were considerable delays in fielding the staff. In the year and a half since the contract's effective date, every team member has had to be replaced either because of incompetence, poor health or resignation.

Presently there are five staff members fielded by Harris. The Controller who has been here the longest has been the most satisfactory but has not been able to perform all the tasks within his job description. He has been hampered by lack of cooperation from other team members and lack of systems to be established by other team members. Two team members, the Chief

Superintendent of Maintenance and the Master Mechanic arrived two weeks ago and cannot be assessed.

The remaining two team members do not appear to be equal to the tasks set before them. The Chief of Materials has not done any testing or made any significant efforts to set up an operating and functional laboratory or to establish quality controls on the road being built. He has had virtually no effective communication with the Deputy Superintendent of Construction since the latter's arrival on site two months ago. Moreover, his attitude towards the Basotho as well as his manner of communicating with them appears to have exacerbated the tensions on site. He has tried to institute controls but in a manner which leads to more rather than less tension. The Superintendent for Construction has been acting Project Manager since the Project Manager left in April, but has spent more time in Maseru than on site. He appears to have little knowledge of many of the problems faced by the field crew, or the status of the work, equipment and procurement activities. The evaluation team noticed that considerable tension and disagreement exists between these latter two individuals. Thus the team which exists today does not appear to be working together in a concerted effort to pull the project together.

Since the end of May, two senior Harris officials have been in Lesotho trying to institute the systems that should have been instituted initially. After evaluating their work to date, it appears that they have spent much of their time revising already existing and approved plans, rather than implementing those already approved. A major concern is that these revised plans attempt to solve management problems by increasing an already overloaded Project Authority staff.

In addition, the reporting system required by the contract has not been followed and those reports which have been submitted have not always enabled the MOW to make appropriate decisions. Lack of such reports on a timely basis makes the monitoring tasks of the MOW and USAID much more difficult.

Finally, it appears that the PRC Harris home office has interfered in the chain of command built into this project in a manner which has caused confusion and divided loyalties. From written correspondence, it appears that PRC Harris officials from the home office were communicating with Title III team members over matters which were proper for the Chief Roads Engineer of the MOW to communicate with them about.

2. Project Authority

The Project Authority has had a great deal of difficulty in approving items at meetings due to poor attendance. While it has been responsive in approving regulations, budgets and requests, it has not met as often as it should have in order to give more direction to the project in crucial areas. It now appears that the Project Authority will be meeting on a monthly basis.

3. Ministry of Works, Roads Department

The Roads Department is the implementing agency for the Government of Lesotho on this project. Until March, 1982, it was unable to provide a full-time supervisor for this project.* As a result, response to issues and problems seem to have been on a crisis or an ad hoc basis. Regular meetings, field trips and progress reports were not a part of their monitoring of the Project. There appears to have been a willingness to leave too much to the project team and the contractor without creating a system of checks and balances and follow through. It is hoped that within the coming months, the Project Coordinator will alleviate these problems.

It should be noted that the MOW was deeply suspicious of the PRC Harris ability to perform adequately under this contract due to past experiences. This led to strained relationships from the beginning, including several letters citing PRC Harris for possible default. Under these circumstances, it is difficult to understand why the MOW agreed to the use of Mr. Semmel as acting Project Manager for several months, as they had previously rejected further use of his services on this Project.

4. USAID/Lesotho

There is some question whether USAID/Lesotho has successfully monitored this project.

USAID has one engineer assigned to this project. The role of this engineer is that of closely monitoring this project and working with the GOL to effectuate necessary and timely changes and to assist, where AID input is necessary, in the implementation of the project. Almost since the beginning, he has been caught up in a patchwork attempt to save Title III. To this effect, the external evaluation scheduled for January/February, 1982, might have been very useful. It is hoped that with the changes proposed by the current evaluation, the monitoring process will be facilitated.

*This was partially due to the fact that the TransCentury Corporation had difficulty recruiting for this position under another USAID/L project.

III. SOLUTIONS

There are two options open to the Government of Lesotho at this time: to continue with PRC Harris with a different team or to terminate the PRC Harris contract and institute another arrangement to complete Title III.

A. Remain with PRC Harris

At present the advantages of remaining with PRC Harris appear to be monetary. Termination of their contract could cost the Government of Lesotho extra in terms of claims and litigation. Moreover there will be a time delay in finding a replacement, which can be costly.

At present the key element lacking in the PRC Harris team is the Project Manager. PRC Harris has provided Mr. Green to help fill the Project Manager position and to implement key personnel and procurement policies. The MOW has stated it might be satisfied with Mr. Green as Project Manager. However, it is questionable that he can come for the remaining life of the project. Moreover, there is some question as to his field and engineering experience and capabilities.

The problem with remaining with PRC Harris is primarily associated with its continued inability to field good people. Two of the present people do not appear to be suitable and would probably have to be replaced. One recently proposed new project manager is not acceptable to either USAID or the MOW.

In addition, relations between the Ministry of Works and PRC Harris have deteriorated to the point that it will be difficult for PRC Harris to succeed in Title III

B. Terminate the PRC Harris Contract

1. Grounds for Termination

The termination for default clause (Clause 25) in the contract provides three definitions of default:

- a) Failure to perform work within the times specified or
- b) Failure to perform any other provisions of the contract or
- c) Failure to prosecute the work so as to endanger performance of the contract in accordance with its terms.

Termination for default requires written notice from the GOL specifying the areas of default, giving PRC Harris a minimum of 10 days to cure the default.

It appears that the GOL would have grounds to terminate this contract for default as the requirements of a, b, c above have been met. However, as this contract is governed by Lesotho law, this matter would have to be decided by the GOL lawyers, with review by USAID.

2. Alternatives

There are several alternatives open to the GOL should they terminate the PRC Harris Title III work:

a. Utilization of another contractor

There are several contractors in the southern Africa area who are providing the type of services needed under Title III who could be requested to provide proposals for the required team members: Nello L. Teer, Morrison-Maierle, OCS and the TransCentury Corporation. Using the negotiating procedures in the AIDPR, it is hoped that the contracting process could be speeded up so that necessary personnel could be provided by October. A direct AID contract is more advisable at this time for this reason.

b. Have the MOW take over the project staffing either through the Project Authority or directly under the Roads Department

Elimination of the Project Authority would eliminate the need for a project Controller or for a procurement section. However, it would encumber the project with the GOL rules and regulations which the creation of the Project Authority was designed to eliminate, and would result in loss of control of the project equipment. There is also some question about the capability of the MOW to second all of the necessary top management personnel to Title III. Investigation has revealed that they have available capable people in certain areas but are too thinly staffed in others to provide assistance. In addition they have been slow to second personnel required at present.

While neither of these solutions seems to be ideal, a combination of the two might be the best solution. A major concern is that the project not stop altogether while a new contract is initiated. To do this the MOW could continue to second the Deputy Construction Superintendent, and second those other key personnel needed for the project to keep moving, albeit at a slower pace, until contract personnel are in place. Both actions could be coordinated with actions taken as suggested in the next section.

C. Retrenchment

As it now exists the Project Authority has too many persons employed and few implemented systems. Correction of this involves the cutting back of staff, final review of necessary jobs, production of job descriptions and new contracts with all personnel. There is considerable question whether this correction can take place under the present circumstances. Therefore it has been suggested that the project be shut down for a period of two to four weeks, that all personnel be let go and that rehiring start as soon as personnel systems are ready to be implemented.

Such a shut down should only be done with careful preparation made to secure all project property and the camp. In addition all relevant persons should be fully geared up to spend that period of shut down accomplishing the following:

1. Preparation of a detailed personnel system to be implemented upon start up including a simple organization chart, job descriptions, contracts, identification systems, and easily understood notices. Each employee should be able to fully understand his/her position within the organization, his/her duties, and from whom to take orders.

2. Detailing and publishing of other rules and regulations such as those concerning the use of project equipment.

3. Complete the camp.

4. Have road construction work plan ready to institute immediately, using both the Deputy Superintendent and the Surveyor.

5. Complete inventory and institute procurement procedures.

6. Have cost accounting systems ready to establish and predict cost of project work units.

The hiring should be done on a systematic basis, hiring only those qualified persons actually needed to do the job, with emphasis on hiring from the area of road construction.

IV. CONCLUSIONS

As of the writing of this memorandum Title III is at a relative standstill because it has not been properly managed. Incidents have occurred which reveal that tensions are running high and a minimum of real work is being accomplished. Much of the fault for this situation lies with the inability of PRC Harris to field competent personnel in a timely manner. As a result of almost 18 months experience under the contract, as amended, it appears that PRC Harris cannot perform under the terms of the contract and alternatives must be sought.

The best alternative appears to be continuing with the Project Authority, using more top level personnel seconded by the MOW, supplemented by other personnel supplied by another contractor in an expedited contract procedure.

In addition an orderly project closedown for a short period with swift reorganization, involving close cooperation among all parties should occur.

TITLE III
CHRONOLOGY OF CRITICAL EVENTS

<u>Date</u>	<u>Event</u>
Oct.-Nov. 1980	Contract Amendment negotiated to include Title III.
13 Feb. 1981	Contract signed with effective date 1 January, 1981.
16 Feb. 1981	Project Authority gazetted.
1 March, 1981	Notice to Proceed on Title III issued to PRC Harris.
April, 1981	PRC Harris notification that originally proposed project manager unavailable for medical reasons.
May, 1981	Agreement to field Semmel as acting Project Manager.
21 May 1981	Arrival of Semmel Arrival of Hinnant (Controller)
1 July, 1981	Project Authority meeting accepted procurement system.
13 July, 1981	Dismissal of Hinnant.
30 July 1981	Arrival of Rutigliano (Deputy Superintendent Maintenance)
31 July, 1981	Arrival of Frameli (Master Mechanic).
6 August, 1981	Arrival of Lee (Chief Superintendent).
August, 1981	MOW personnel interview in U.S. and accept Ramey as Project Manager.
6 September, 1981	Arrival of Ramey (Project Manager)
14 September, 1981	Arrival of Rosovsky (Chief of Materials).
25 September, 1981	Arrival of Christianson (2nd Controller).
28 September, 1981	MOW & PRC Harris meet re failure to meet obligations for Title III.
September, 1981	Ramey attempts to start work without establishing appropriate procedures. MOW requests these be established.
October, 1981	Development of budget, workplans, procurement plan, personnel plan by project authority team with MOW input.

<u>Date</u>	<u>Event</u>
10 October, 1981	MOW requests land for campsite.
October, 1981	3 trailers to campsite.
21 October, 1981	Project Authority meeting ended because of lack of quorum.
28 October, 1981	MOW again warns PRC Harris of problems.
28 October, 1981	Project Authority meeting approves plan of action, cash request for 4th quarter, cost accounting system, budget, work program and staffing patterns. Approval withheld on personnel regulations.
3 November, 1981	Open tenders for pre-fabs for campsite; decision to use local materials in construction of camp.
6 November, 1981	MOW requests monthly reports.
December, 1981	Start of office building in Maseru.
10 December, 1981	MOW formal notice to PRC Harris on contract deficiencies.
Dec.-Jan. 1982	First people hired by Project Authority (35 skilled and 100 unskilled laborers by Jan. 26).
18 December, 1981	Work on road construction begins.
23 December, 1981	Receipt of First Monthly Report.
Jan-Feb, 1982	Road work and some training performed.
5 January, 1982	Frameli resigns.
14 January, 1982	Project authority meeting ended due to lack of quorum.
20 January, 1982	MOW approves trip by Gershowitz to Lesotho to discuss personnel problems. MOW denies approval of Semmel.
26 January, 1982	Project Authority meeting approves some personnel and alerted to fact two of management team are unsatisfactory. Requests MOW to find out why there has been no response by the Legal Department on the personnel regulations.
27 January, 1982	MOW letter to Legal Department re personnel regulations.
2 February, 1982	Arrival of Gershowitz.

<u>Date</u>	<u>Event</u>
5-8 February, 1982	Meetings between MOW, Gershowitz and AID re project personnel and discussion of Ramey's role.
8 February, 1982	Project Authority monthly report for December delivered.
February, 1982	Legal Department response on letters.
10 February, 1982	MOW change order to have project engineer come to Lesotho to provide design changes.
12 February, 1982	Last meeting of Gershowitz.
18 February, 1982	Lee and Rosovsky leave Lesotho.
22 February, 1982	Arrival of Lampani (2nd Master Mechanic).
23 February, 1982	MOW letter to PRC Harris summarizing meetings with Gershowitz.
28 February-April 13, 1982	Serianni in Lesotho to work on road designs.
4 April, 1982	Arrival of Gibbons (2nd Deputy Superintendent of Materials).
12 April, 1982	Arrival of Shaw (2nd Chief Superintendent).
22 April, 1982	Ramey disappears from project site.
23 April, 1982	Rutigliano leaves project due to heart attack.
May, 1982	Semmel arrives to investigate problems.
May 1982	MOW request for Gershowitz to come to Lesotho.
22 May, 1982	Gershowitz arrives.
3 June, 1982	Rees incident.
6 June, 1982	Arrival of Green (company officer). Lampani leaves.
15 June, 1982	Arrival of Petridis (2nd Deputy Sup. Maintenance)
17 June, 1982	Arrival of Weir (3rd Master Mechanic).
18 June, 1982	Project authority meeting; presentation of current status.
21 June, 1982	Evaluation Team arrives.
29 June, 1982	Project Authority meeting passes report.

ASSESSMENT OF PROJECT'S ECONOMIC ASSUMPTIONS

There has been insufficient progress on the project to deviate traffic flows from South Africa to an all-Lesotho transport network. The improvement in the SPR will introduce a choice in the provision of goods to this area. For the first time they will be able to be supplied from Lesotho either on an emergency or a regular basis. However, Qacha's Nek is only about 50 km. from the South African railhead at Matatiele. After the completion of the SPR it will be around 330 km. to the Maseru railhead. Most goods will be provided cheaper from Matatiele than from Maseru. However, the cost of goods between Mt. Moorosi and Qacha's Nek will be reduced due to the road and this will be for goods coming from both the western lowlands and South Africa. Lesotho's vulnerability on the Transkei will be reduced.

There has been no baseline survey as indicated in the PP so the determination of trading and traffic trends will be difficult to evaluate in the PP's proposed follow on (1988) study. The PP projected large increased in traffic on the SPR. We can compare their assumptions with those of the 1980 Dorsch Consult report. (Lesotho Transportation Study, Final Report 1980)

AVERAGE ANNUAL DAILY TRAFFIC FORECASTS

	1977	1979	1985 forecast ⁴		2000 forecast ⁴	
	actual ¹	actual ²	Berger	Dorsch	Berger ³	Dorsch
Quthing-Mt. Moorosi	84	143	361	908	1292	1496
Mt. Moorosi-Sekake's	26		205	587	547	1054 ⁵
Sekake's-Mpiti	50		268	473	809	976
Mpiti-Qacha's Nek	98	136	409	424	1522	952

NOTES:

1. reported by Berger as being an MOW traffic count
2. done by Dorsch Consult in 1979
3. Berger's estimate was for 1999, projections for 2000 used the forecasted 1998-1999 growth rate
4. induced flows have been added to Berger's estimates
5. the estimate is the average of the three sections of the road between Mt. Moorosi and Sekake's.

The projected AADT are high, but the PP projects slower growth than Dorsch except for the very short (9 km) Mpiti-Qacha's Nek section. Neither report considered the fact that if the traffic flows get as high as forecast that the benefits will fall due to more rapid deterioration of road quality leading to higher vehicle operating and maintenance costs. Gravel 3 roads are recommended by the GOL to carry up to 150 vehicles per day. Dorsch recommends that for surface dressed gravel 3 roads with 20% truck and bus traffic (SPR will have around 25%) that AADT be under 250 vehicles per day. Using Dorsch load recommendations and Berger vehicles projections the Quthing-Mt. Moorosi section ought to be upgraded to gravel 1 in 1992 and to bitumen/surface dressed 2 in 1996. The Mt. Moorosi-Sekake's section will not need any upgrading until after 2000. The Sekake's-Mpiti section ought to be upgraded

to Gravel 1 in 1994. Mpiti-Qacha's Nek needs upgrading to gravel 1 in 1990 and to bitumen 2 in 1994. While it will exceed bitumen 2 recommendations in 2000 it will not be economical to upgrade to bitumen 1 standards until later.

The achievement of the EOPS also depends on whether the vehicle operating cost savings are accurate. Again comparing the Berger estimates as updated in the amended PP with Dorsch yields:

VEHICLE OPERATING COSTS

type of vehicle	Amended PP	Dorsch without crew costs
light vehicle	21.95 c/km	14.56 c/km
large bus	53.03 c/km	52.01 c/km
truck	35.08 c/km	47.05 c/km

Dorsch estimates that a gravel road increases costs by around 35% (Berger estimated 75%) and earth increases costs by 119% (Berger estimated 150%). Overall, Berger has higher vehicles operating costs and greater savings with road improvement than Dorsch felt were valid in Lesotho.

An element in the purpose is the need for development of southern and southeastern Lesotho. The Qacha's Nek and Quthing Districts produce more than the Lesotho average per arable hectare and per person of peas, barley, oats and has more than its share of cattle and smallstock. It is an important producer of maize and sorghum. Development opportunities in Lesotho are limited and the facilitation of development activities which the SPR can make has not been adequately considered in the planning documents. Thus the induced demand caused by road can be considered to be excessive, in that there is no analysis of whether that inducement is realizable.

INDUCED ROAD TRAFFIC

road section	induced traffic	forecasted amount	traffic year
Mt. Moorosi-Quthing	90	222	1983
Sekake's-Mt. Moorosi	90	100	1983
Mpiti-Sekake's	90	178	1985
Qacha's Nek-Mpiti	100	309	1985

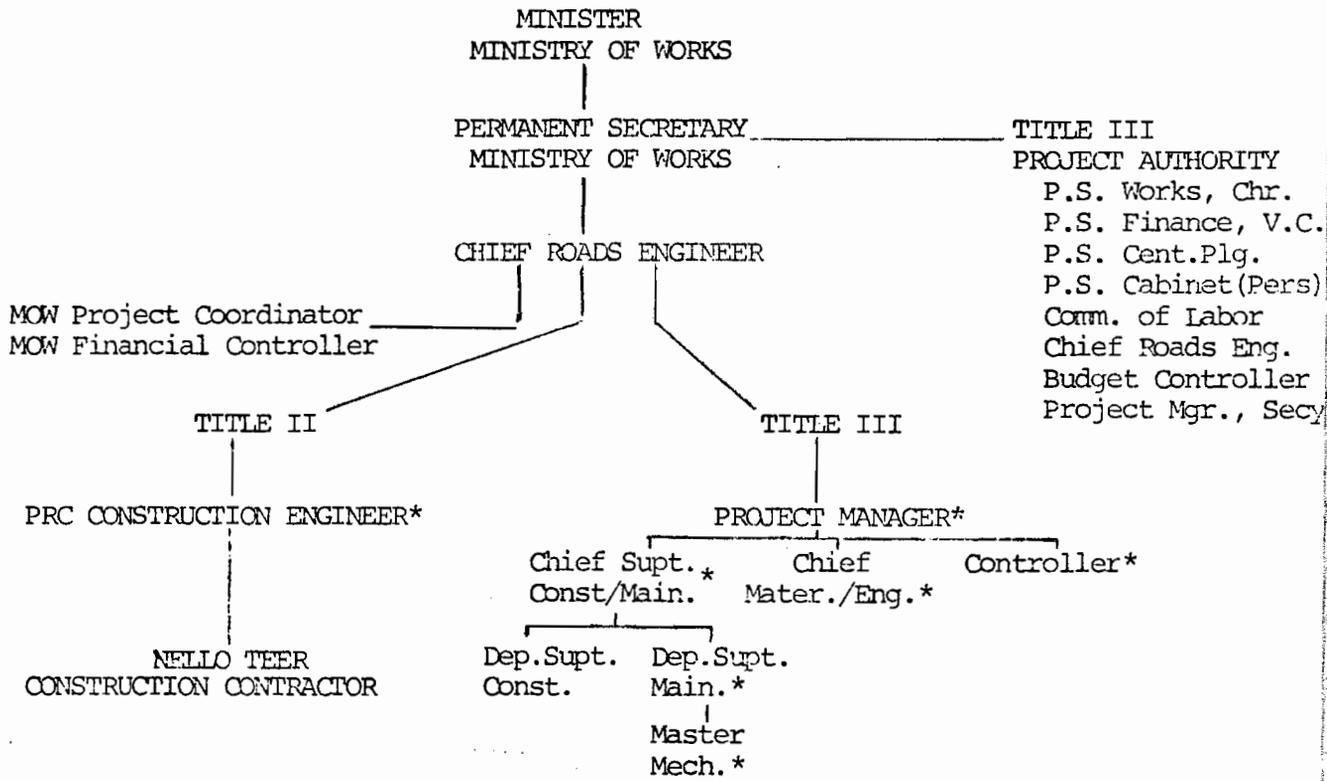
GOL experience to date indicates that induced traffic is much larger than this road is targetting. While there was no analysis in the Berger report or the PP as to whether the induced traffic is realizable, the amended PP did check the sensitivity of the results if only half the induced traffic is realized. The IRR was reduced by two percentage points.

The PP did not assume any multiplier effect to the income generated by the road construction of the effect of road laborers investing a portion of their earnings. The full cost of road construction including the GOL contribution were excluded. It did not inflate the GOL contribution to the project to

reflect budget shortages, or deflate the cost of local labor to reflect unemployment. Nor did it inflate the maintenance savings to reflect GOL budget shortages.

If all the above factors are included then a very preliminary estimate of the IRR is 14.5%.

ATTACHMENT E
SOUTHERN PERIMETER ROAD
ORGANIZATION CHART



(* stands for PRC Harris Personnel)

ATTACHMENT F
SOUTHERN PERIMETER ROAD PROJECT AUTHORITY
TITLE III PRC HARRIS ROSTER

TITLE	NAME	1981												1982							REASON FOR DEPARTURE
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	
Project Manager	Sennel Pamey					5/21	*****	9/6	*****	9/6	*****	4/22								acting quit	
Chief Supt Const/Maint	Lee Shaw							8/6	*****	2/18						4/12	*****			fired	
Dep Supt Eq/Maint	Rutigliano Petridis						7/30	*****								4/28		6/15	***	health	
Master Mechanic	Frameli Lampani Weir							7/31	*****	1/5						2/22	*****	6/6	17/6	quit fired	
Materials Engineer	Rosovsky Gibbons									9/14	*****	2/18				4/4	*****			fired	
Controller	Hinnant Christensen						6/15	****	7/13			9/25	*****							relieved	
Company Officer	Sennel Gershowitz																			** 2/2 2/13 5/22	
Home Office Support	Sirianni Green																			*** 2/28 4/13 6/6	

Beginning of project

SOURCE: Ministry of Works
Roads Department