

UNCLASSIFIED

UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY
AGENCY FOR INTERNATIONAL DEVELOPMENT
Washington, D.C. 20523

CARIBBEAN REGIONAL
INFRASTRUCTURE EXPANSION AND MAINTENANCE SYSTEMS PROJECT
(Amendment # 2)

PROJECT PAPER SUPPLEMENT

GRENADA INFRASTRUCTURE REVITALIZATION III SUB-PROJECT

AID/LAC/P- 356 &
CR -284 - 328

Project Number: 538-0138
Subproject Number: 538-0138.02

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AGENCY FOR INTERNATIONAL DEVELOPMENT
PROJECT DATA SHEET

1. TRANSACTION CODE
 C A = Add
 C = Change
 D = Delete
 Amendment Number 2

DOCUMENT CODE **3**

2. COUNTRY/ENTITY
 Regional Development Office/Caribbean

3. PROJECT NUMBER
538-0138

4. BUREAU/OFFICE
 LAC 05

5. PROJECT TITLE (maximum 40 characters)
Infrastructure Expansion & Maintenance System

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)
 MM DD YY
09 30 93

7. ESTIMATED DATE OF OBLIGATION
 (Under 'B' below, enter 1, 2, 3, or 4)
 A. Initial FY 86 B. Quarter 2 C. Final FY 90

8. COSTS (\$000 OR EQUIVALENT \$1 =)

A. FUNDING SOURCE	FIRST FY <u>86</u>			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total						
(Grant)	(1,100)	(100)	(1,200)	(30,000)	(10,000)	(40,000)
(Loan)	(1,800)	(-0-)	(1,800)	(30,000)	(10,000)	(40,000)
Other U.S.						
1.						
2.						
Host Country	-0-	-0-	-0-			
Other Donor(s)	-0-	-0-	-0-	-0-	2,100	2,100
TOTALS	2,900	100	3,000	60,000	22,100	82,100

9. SCHEDULE OF AID FUNDING (\$000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH CODE		D. Authorizations To Date		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) ESF	701	840		19,000	7,900	4,000	-0-	40,000	40,000
(2)									
(3)									
(4)									
TOTALS				19,000	7,900	4,000	-0-	40,000	40,000

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)
821 825

11. SECONDARY PURPOSE CODE

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code
 B. Amount

13. PROJECT PURPOSE (maximum 480 characters)

To create an infrastructure environment that will stimulate investment and productive activity in the Eastern Caribbean.

14. SCHEDULED EVALUATIONS

Interim MM YY MM YY Final MM YY
09 88 09 93

15. SOURCE/ORIGIN OF GOODS AND SERVICES
 000 941 Local Other (Specify) Participating Countries of the Eastern Caribbean

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a page PP Amendment.)

The purpose of this PP supplement is to describe the Grenada Infrastructure Revitalization III subproject (538-0138.02) which adds US \$4.0 Million in grant funds.

17. APPROVED BY
 Signature [Signature]
 Title Director, RDO/C

Date Signed MM DD YY
03 02 87

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION
 MM DD YY
03 08 87

AUTHORIZATION
AMENDMENT NUMBER TWO

NAME OF COUNTRY: Caribbean Regional
NAME OF PROJECT: Infrastructure Expansion and Maintenance Systems
NUMBER OF PROJECT: 538-0138

1. Pursuant to Section 531 of the Foreign Assistance Act of 1961, as amended, the Infrastructure Expansion and Maintenance Systems Project for the Caribbean Region was authorized on May 6, 1986.

2. That Authorization is hereby amended to add the Grenada Infrastructure Revitalization III Subproject (538-0138.02) as follows:

(a) Paragraph 1 is deleted and the following new paragraph 1 inserted in lieu thereof: "Pursuant to Section 531 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Infrastructure Expansion and Maintenance Systems Project for the Caribbean Region involving obligations of not to exceed Twenty-three Million United States dollars (US\$23,000,000) in grant funds and Seven Million Nine Hundred Thousands United States Dollars (US\$7,900,000) in loan fund over a five year period from date of authorization, subject to the availability of funds in accordance with the AID OYB/allotment process, to help in financing foreign exchange and local currency costs for the Project. Subject to future authorizations, the Project Authorization may be increased by an amount not to exceed Nine Million One Hundred Thousand United States Dollars (US\$9,100,000) in grant and loan funds. The planned life of project is seven years from the date of initial obligation."

(b) Paragraph 2 shall be amended by adding a subparagraph ii as follows:

ii. Grenada Infrastructure Revitalization III Subproject which will consist of engineering services, construction services, related commodities and technical assistance to assist the Government of Grenada in developing the Grand Anse area, improving the Carenage area, continuing the development of the Frequente and Pearls Industrial Parks, improving tourist access to selected historical sites and reducing road transport hazards.

3. Paragraph 5 Section (b) is amended by adding new subsections [b iii(1) and b iii(2)] as follows:

iii. (1) Grenada Infrastructure Revitalization III: Conditions Precedent to Disbursement

(a) Disbursement for Construction Related to Grand Anse Area Development

Prior to any disbursement, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made for construction at either or both Camerhogne Park and sewer system locations

under the Grand Anse Area Development component, the Cooperating Country shall, except as A.I.D. may otherwise agree in writing, furnish to A.I.D., in form and substance satisfactory to A.I.D., evidence of:

(1) An approved plan for the development of the area for which AID funds will be expended;

(2) The Government's acquisition of necessary land easement and rights of way; and

(3) The completion of an environmental assessment on the sewerage collection and treatment system component.

(b) Disbursement for Construction at the Frequente Industrial Park

Prior to any disbursement or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made for construction activities at the Frequente Industrial Park location, the Cooperating Country shall, except as A.I.D. may otherwise agree in writing, furnish to A.I.D., in form and substance satisfactory to A.I.D., evidence of:

(1) An agreement to provide a 250,000 gallon tank, presently unused at the Point Salines International Airport, to Frequente for use as a water storage tank;

(2) A plan for the collection of back rents from companies currently occupying factory shells renovated by A.I.D. for the Industrial Development Corporation under previous infrastructure projects; and

(3) Written assurance that national police maintenance facilities will be moved from the Frequente Industrial Park within a reasonable period of time.

(c) Disbursement for Road Improvements

Prior to any disbursement, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made for road improvements or hazard reductions, the Cooperating Country shall, except as A.I.D. may otherwise agree in writing, furnish to A.I.D., in form and substance satisfactory to A.I.D.:

(1) Any required construction drawings and cost estimates;

(2) Detailed budgets for each separate activity; and

(3) Any required construction contracts.

(d) Disbursement for Carenage and Fort Improvements

Prior to any disbursement or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made for specific

Carename and fort improvement activities, the Cooperating Country shall, except as A.I.D. may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D., evidence of a plan for specific improvements approved by the Cooperating Country.

iii. (2) Grenada Infrastructure Revitalization III: Special Covenants

The Cooperating Country shall covenant that, unless A.I.D. may otherwise agree in writing:


(a) The Government shall enact legislation requiring all existing and proposed businesses, hotels and residences in the area served by the proposed sewer system to hook up to that system within a reasonable period of time and prescribe suitable designs for future septic tank construction;

(b) The Government shall enact legislation to collect appropriate user fees for all present and future hook ups to the sewer system required under the above legislative covenant;

(c) The Government shall establish a water quality testing unit to monitor water pollution in the Grand Anse area; and

(d) The Government, through the Industrial Development Corporation (IDC), shall establish a policy on rates of rent for industrial space managed by the IDC.

4. The Authorization cited above remains in force except as hereby amended.


James S. Holtaway
Director

Clearances:

RLA:TCarter	<u>(In Draft)</u>	Date:	<u>02/23/87</u>
A/PRM:TBratrud	<u>(In Draft)</u>	Date:	<u>02/26/87</u>
CONT:RWarin	<u>(In Draft)</u>	Date:	<u>02/26/87</u>
INFRA:JBaird	<u>(In Draft)</u>	Date:	<u>02/26/87</u>
A/C/PDO:JWooten	<u>(In Draft)</u>	Date:	<u>02/26/87</u>
D/DIR:ABisset		Date:	
RDO/C-Grenada:WERdahl	<u>(Phone)</u>	Date:	<u>02/26/87</u>

GRENADA INFRASTRUCTURE REVITALIZATION III (538-0138.02)

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LIST OF ACRONYMS

CORE OR IEMS CONTRACTOR OR ENGINEER - Louis Berger International

CWC - Central Water Commission

EA - Environmental Assessment

FAR - Fixed Amount Reimbursable

GOG - Government of Grenada

IDC - Industrial Development Corporation

IEMS - Infrastructure Expansion and Maintenance Systems

IRR - Economic Internal Rate of Return

MOC - GOG - Ministry of Construction

MOF - GOG - Ministry of Finance

MOP - GOG - Ministry of Planning

MOT - GOG - Ministry of Tourism

MOW - GOG - Ministry of Works, Communications, Public Utilities,
Civil Aviation and Energy

MOH - GOG - Ministry of Health

OAS - Organization of American States

PAHO - Pan American Health Organization

PASA - USAID - Participating Agency Services Agreement

PSIP - Public Sector Investment Program

RDO/C - Regional Development Office - Caribbean

RDO/C/GRENADA - Grenada Office of RDO/C

TVA - Tennessee Valley Authority

UNIDO - United Nations Industrial Development Organization

USAID - United States Agency for International Development

INFRASTRUCTURE EXPANSION AND MAINTENANCE SYSTEMS PROJECT (538-0138)

GRENADA INFRASTRUCTURE REVITALIZATION III SUBPROJECT

PROJECT PAPER SUPPLEMENT

1. SUMMARY AND RECOMMENDATIONS

A. Recommendations

1. Funding

RDO/C Grenada recommends authorization of a grant of \$4,000,000 to the Government of Grenada (GOG) to finance Infrastructure Revitalization III, a subproject included in the Infrastructure Expansion and Maintenance Systems (IEMS) Project 538-0138. It is proposed that the project be implemented over a period of three (3) years. Therefore, a Project Assistance Completion Date (PACD) of February 28, 1990 is proposed.

2. Geographic Code

The IEMS Project Authorization, as amended, specifies that, except as AID may otherwise agree in writing, commodities financed by AID shall have their source and origin in the United States (AID Geographic Code 000), or in Grenada. Except for ocean shipping, the supplies of commodities or services shall have the United States or Grenada as their place of nationality. Ocean shipping financed by AID under the project shall be financed only on flag vessels of the United States, except as AID may otherwise agree in writing.

B. Summary Subproject Description

The subproject will fund Infrastructure improvements in five areas directly related to the agricultural industrial and tourism sectors. The five target areas are:

1. For Grand Anse Beach Area

(a) develop the Camerhogne area to enhance hotel and tourist development by site leveling, landscaping, construction of access roads and storm drains; and (b) provide sewer collection system and treatment plant.

2. For Carenage/Fort Restoration and Development

(a) provide landscaping overlooks, lighting and signing to the Carenage waterfront and (b) carry out selected improvements to Fort George and Frederick to enhance the sites as tourist attractions; and (c) carry out such feasibility and design studies to stimulate additional tourist attractiveness.

3. For Frequente Industrial Park

(a) Erect 42,000 square feet of additional factory space; b) renovate 29,000 square feet of existing space; c) provide basic infrastructure, including paved roads, drains, lighting, fencing, standby electrical power, emergency water for fire protection and appropriate landscaping and parking facilities.

4. For Pearls Industrial Site

Fund a feasibility study to determine the potential for an industrial park near Pearls airport in northeastern Grenada.

5. For Road/Bridge Hazard Reduction

Fund remedial work required to reduce the potential for physical breakdowns in Grenada's highway system. Such work will include:

(a) repairs to unsafe bridges (b) construction of retaining walls to prevent erosion and landslides and (c) rechannelization of drains and construction of culverts to prevent flooding.

As a result of the project:

1. The Grand Anse Beach area's potential for hotel development will be enhanced and the present unhealthy wastewater disposal hazard will be greatly ameliorated.
2. The tourism and earning potential of the Carenage and forts will be enhanced.
3. The Frequente Industrial Park will be completed and fully served with infrastructure for immediate occupancy by light manufacturing industries.
4. Several major road hazards on Grenada's primary and secondary highway system will be alleviated.

C. Summary Financial Plan (AID Funding Millions US\$)

1. Grand Anse Tourism	1.50
2. Carenage/Fort Restoration	.30
3. Frequente Industrial Park	1.80
4. Pearls Industrial Park Study	.05
5. Road/Bridge Hazards	.30
6. Project Financial Review and Oversight	.04
7. Evaluation	.01
	<hr/>
	4.00

D. Summary Subproject Findings

This project is ready for authorization/subsequent implementation and is considered to be socially, financially and economically sound and technically and administratively feasible.

E. Contributors to Subproject Design

1. USAID Contributors

(a) Subproject Development Committee

William B. Erdahl, RDO/C Grenada
Robert Fedel, Louis Berger Intl. (IEMS Core Contractor)
James Stephenson, RDO/C Grenada
Marvin Schwartz, Economist, RDO/C Grenada

(b) Project Review Committee

Jim Baird	-	C/INFRA
Alfred Bisset	-	Deputy Director
Theodore Carter	-	RLA
Kim Finan	-	C/Project Development Division
Roy Grohs	-	Program Economist
Michael G. Huffman	-	Project Development Officer
Richard Warin	-	C/CONT
Stan Heishman	-	RCO

2. Government of Grenada Contributors

Mr. George Brizan	-	Minister of Agriculture & Tourism
Mr. Dennis Campbell	-	Manager, Central Water Commission
Mr. Curtis Edwards	-	Ministry of Health
Mr. George Fletcher	-	Chief Technical Officer, MOW
Dr. Keith Mitchell	-	Minister of Works (MOW)

SUBPROJECT RATIONALE AND DESCRIPTION

A. RATIONALE

1. Relationship to CDSS

The Government of Grenada (GOG) is currently dependent on outside sources for a significant portion of its budget. The recurrent budget account is financed from local revenue, loans and donor financing while the capital budget is financed almost exclusively by donor aid agencies. Grenada's growth potential is dependent on the development of agricultural exports, tourism and the manufacture of goods for export. The tourism, industrial and agricultural sectors offer the greatest potential for economic growth and their development is a high priority in the Country's Public Sector Investment Program (PSIP). Infrastructure Revitalization III will concentrate on implementing a government approved plan for the systematic development of Grenada's most important site for tourism expansion, the Grand Anse. RDO/C funding of site improvements and alleviation of potentially dangerous sources of pollution will help prevent further deterioration of coral reefs and contribute to attracting private investment in hotel construction and increased employment and foreign exchange earnings.

Additional development of the tourism sector will be provided by further RDO/C concentration on the Carenage restoration and development. Studies have been carried out identifying improvements to enhance the attractiveness and commercial viability of existing buildings and pedestrian infrastructure along St. George's Carenage shoreline. Project funds will provide walks, lights and plantings to attract and circulate pedestrian traffic.

In response to an identified demand for Factory space (Annex I and J), the project will provide funding for completion of the Frequente Industrial Park by adding 42,000 square feet of new factory space and 29,000 square feet of renovated factory space while providing office, bathroom and support type facilities as required in all factories on the site. The project's provision of floor space for light manufacturing will satisfy those off shore industries expressing interest in investing in Grenada as well as some local needs. In addition to creating substantial employment, the establishment of small industries will generate foreign exchange.

The project will also fund a feasibility study of the possible development of an industrial park site at Pearls on Grenada's northeast coast.

Grenada's road system has been a target for RDO/C concentration through previous projects. Infrastructure Revitalization III will continue efforts to improve Grenada's network by alleviating selected hazardous features of Grenada's primary and secondary road system. Such features include pot-holed roadways, landslide-prone areas, sharp curvatures and points of restricted driver sight distance. Within the limited project funds made available to the transport sector, the project will rehabilitate bridges on the highway system that are in danger of failure and collapse.

2. Relationship to IEMS Project

The purpose of the IEMS Project is to create an infrastructure environment that will stimulate investment and productive activity in the Eastern Caribbean. The components of the proposed Grenada subproject are all listed as priorities in the IEMS Project Paper. All components meet the criteria established for selection and eligibility for financing under the IEMS Project.

B. Subproject Objectives

The Subproject goal, as with interventions started under Infrastructure I and II, is to promote economic growth in the Tourism, Agricultural and light Manufacturing sectors, thereby increasing employment, personal income and foreign exchange. The purpose of the subproject is to improve physical infrastructure that is directly supportive of productive enterprise and increased investment.

C. SUBPROJECT COMPONENTS

1. Grand Anse Tourism Development (\$1.5 million)

(a) Background

The Grand Anse Beach and the adjacent watershed is one of Grenada's primary assets in the attraction of the tourism market. The area has excellent prospects, but its tourist potential is at risk of being negated by unplanned development and sewage pollution. RDO/C is presently funding a study by the Tennessee Valley Authority (TVA) which is producing a development plan and private placement prospectus to promote the area as a tourist center. Included in the development plan is a proposed sewage collection and treatment system designed to abate pollution in the Grand Anse area, including offshore coral reefs. The completed study provides graphics for a stand-up presentation. RDO/C Grenada may finance an investor conference of hoteliers, financiers and other interested parties. The conference would be hosted by the Government of Grenada and the Grenadian private sector. Its main intention would be to promote hotel development and ancillary services in the Grand Anse Beach area.

(b) The Subproject

The Grand Anse development scheme will encompass the development of the area known as the Camerhogne Park which links the beach area to hotels built on the slopes of the surrounding hills. At present this area is an unattractive nuisance. The project will provide funding for site clearing of the park and the installation of water lines, sanitary/storm drains and a pressure pipeline to a sewerage treatment facility in the vicinity of the Frequente Industrial Site. In addition, funding will be provided for erosion control and the construction or repair of beach access roads and parking areas.

2. CARENAGE AND FORT RESTORATION AND DEVELOPMENT (\$300,000)

(a) Background

Previous RDO/C funding has assisted in improving the road along the Lagoon and the Carenage shoreline in St. George's. The TVA has carried out studies directed at improving the ambiance of existing potential tourist attractions, commercial businesses and services available in the water front strip. Such efforts will encourage expanded tourist interest and a resulting influx of foreign exchange.

(b) The Subproject

TVA has undertaken a program through which a public and private organizational consensus can be reached to realize the tourism potential of the greater Carenage and adjacent forts. Project funds will be directed at improving and providing pedestrian amenities such as walks, signs, overlooks, lighting and landscaping. In addition, subproject funds for this component will finance feasibility and design studies which will contribute to further improvement of the Carenage.

3. FREQUENTE INDUSTRIAL PARK (\$1.8 million)

(a) Background

Previous infrastructure revitalization projects initiated a USAID effort to promote rapid economic growth through the provision of factory shells, with the intention of attracting small industries to Grenada. In the first project, USAID provided \$415,000 to convert existing warehouses into factory shells. USAID financed studies by the Free Zone Authority Services Inc. which supported the need for industrial space, and predicted that the demand for floor space will exceed the supply. Consequently, a second infrastructure project in 1986 focused on development of the Frequente Industrial Park, where the USAID-financed rehabilitated warehouses rehabilitations were located. This second project provided for site grading, provision of utilities and service roads and the construction of 20,000 square feet of factory space. This was later expanded to three buildings totalling 63,000 square feet. The FY 86 project has been completed and one factory shell has already been occupied, with prospective occupancy plans for the other two USAID financed buildings. At least two buildings in Phase III are already committed to U.S. investors.

(b) The Subproject

The proposed Infrastructure III project will complete site development by:

- i constructing three additional factory shells (42,000 square feet).
- ii renovating five existing buildings (29,000 square feet).
- iii constructing interior cores for offices and bathrooms as required.
- iv providing a 250,000 gallon reserve water tank for pressure and fire protection at Frequente.
- v installing electrical power connections and possibly a standby generator to the site with step down transformers.

- vi financing site improvements such as drains, lighting, fencing, landscaping and paving to reduce soil erosion.
- vii constructing an office building for the IDC and other clients.

4. PEARLS INDUSTRIAL PARK (\$50,000)

(a) Background

UNIDO's 1986 "Feasibility and Planning Study of Industrial Estates in Grenada" proposed the establishment of an industrial estate at Pearls, adjacent to the abandoned airport just north of Grenville on Grenada's northeastern shore. An industrial estate at Pearls would create about 350 new jobs in this area of high unemployment. It also would create a wider range of manufactured products for both the local and export markets which, as with Frequente industries, would contribute to the generation of foreign exchange.

(b) The Subproject

The subproject would provide financing for a comprehensive study of the demand for a park site in the Pearls Airport area, and to evaluate the benefits and implications for the establishment of a park in that region of Grenada. The study will examine the demand for factory space, and prepare preliminary site plans for its construction. If funds are available through cost savings on other sub-activities AID may finance the construction of a small factory shell near Pearls.

5. ROAD IMPROVEMENT AND TRANSPORTATION HAZARD REDUCTION (\$300,000)

(a) Background

The Ministry of Works (MOW) has identified several sites on the road system which are unpaved, unsafe and in need of repair. In addition there are several sites travelled by tourists that are susceptible to landslides, hazardous erosion, flooding and runoff during heavy rains. Such occurrences are hazardous to traffic and regularly impede the flow of traffic.

In 1972 the British Government also financed a study of Grenada's primary road system. In the study, 57 bridges were inspected and 15 were found to be unsafe, principally due to corrosion of the steelwork. Very little, if any, remedial actions have been taken to address these hazardous bridge conditions during the past fourteen years.

(b) The Subproject

AID project funding will be directed towards taking the remedial actions needed to treat high priority hazards occurring on the road system. Local contractors and/or Ministry of Works personnel will, through specific work agreements or contracts (FAR), carry out the road patching or resurfacing, slope stabilization, road widening, or culvert and drainage construction needed for each hazardous condition. The worst of an updated list of 12 unsafe bridges will be identified and, if funding permits, any remedial work will be jointly agreed upon between the Ministry of Works and RDO/C Grenada. As with the road work, bridge rehabilitation will be carried out by either government or contractor, including 8A firms. If savings from other elements of the subproject are realised, this activity will be expanded.

6. TECHNICAL ASSISTANCE AND TRAINING

Final designs, plans, cost estimates and construction documents required for any of the subproject components will be carried out by the IEMS contractor and financed under their current contract. Such technical assistance for environmental assessment preparation and expert review of sewage treatment methodology, will also be arranged and financed under the IEMS contract.

The project does not contain any formal training component. Earlier Grenada Infrastructure projects provided assistance to the Ministry of Works. CIDA, in connection with a St. George's sanitation project, will provide assistance to the Central Water Commission in the area of sewerage management and maintenance. RDO/C Grenada, under a PASA with TVA, is assisting the Ministry of tourism in addressing carenage tourism improvements. This PASA assistance will be expanded and extended under this subproject.

Should any other short-term training or sewerage maintenance or management needs be identified during subproject implementation, the appropriate assistance can be procured or supplied by the IEMS contractor.

7. PROJECT FINANCIAL REVIEW AND OVERSIGHT (40,000)

In view of the large number of contracts to be executed in the implementation of this subproject, and the requirements of Payment Verification Policy No. 6, subproject funds have been budgeted for independent financial reviews under the direction of the Controller, RDO/C. To finance these reviews \$40,000 has been included in the subproject's Financial Plan. The extent of these reviews is discussed further in Section III.

8. PROJECT EVALUATION (\$10,000)

As noted in Section VIII, a mid-term and a final evaluation have been scheduled. In general, the evaluations will be carried out by RDO/C staff. A sum of \$10,000 has been included in the subproject for such outside assistance that might be required.

D. DISCUSSION OF MID COURSE DECISION DOCUMENT ISSUES

The Mid-Course Decision Document (MCDD) required by, and prepared in conformance with, the IEMS Project is shown in Annex D. A series of subproject development guidance recommendations were formulated in the Action Memorandum which formally approve the MCDD (See Appendix E). These issues were addressed during the preparation of this Project Paper Supplement and they have been addressed as noted in Annex F.

III. COST ESTIMATE AND ILLUSTRATIVE FINANCIAL PLAN

A. Financial Plan

The proposed subproject will total \$4.0 million in grant funds to be expended over a three year period. An AID/W determination has been made whereby all Grenada projects will be grant funded. Funds for this subproject are included in that funding authorized under IEMS Project 538-0138. Individual components to be financed under the subproject are:

<u>COMPONENT</u>	<u>AID FX</u>	<u>FUNDS LC</u>	<u>TOTAL</u>
	<u>(\$US)</u>	<u>(\$US)</u>	<u>(\$US)</u>
1. GRAND ANSE TOURISM			
A. Site Work	50,000	100,000	150,000
B. Sewer System	650,000	700,000	1,350,000
2. CARENAGE/FORT			
A. Site Work	40,000	200,000	240,000
B. Studies	60,000	-	60,000
3. FREQUENTE			
A. Factory Building and renovations	850,000	105,000	955,000
B. Site Work	400,000	445,000	845,000
4. PEARLS STUDY	50,000	-	50,000
5. ROAD/BRIDGE HAZARDS	-	300,000	300,000
6. FINANCIAL REVIEW	40,000	-	40,000
7. EVALUATION	10,000		10,000
	<u>2,150,000</u>	<u>1,850,000</u>	<u>4,000,000</u>
	=====	=====	=====

The above cost estimates are noted in greater detail in Annex L. They were based on estimates prepared by TVA and the Frequente experience in Infrastructure I and II projects.

SCHEDULE OF PROJECT FUND DISBURSEMENTS

	<u>FY 87</u> <u>(\$US)</u>	<u>FY 88</u> <u>(\$US)</u>	<u>FY 89</u> <u>(\$US)</u>	<u>TOTAL</u> <u>(\$US)</u>
1. Grand Anse				
A. Site work	100,000	50,000	-	150,000
B. Sewer System	-	1,000,000	350,000	1,350,000
2. Carenage/Fort				
A. Physical Improvements	80,000	160,000	-	240,000
B. Studies	25,000	35,000	-	60,000
3. Frequente				
A. Factory Buildings and renovations	855,000	100,000	-	955,000
B. Site work	445,000	400,000	-	845,000
4. Pearls Study	50,000	-	-	50,000
5. Road/Bridge Hazard	50,000	150,000	100,000	300,000
6. Financial Review		20,000	20,000	40,000
7. Evaluation			10,000	10,000
TOTALS	1,605,000	1,915,000	480,000	4,000,000

B. HOST COUNTRY CONTRIBUTION

Host country contributions are not required for this subproject and have, therefore, not been included in the financial plan. However, the GOG will make available the rights of way required for Camerhogne area development including easements for a sewage collection system and land acquisitions for the treatment facility. GOG will also contribute a 250,000 gallon water tank for use in Frequente. "In kind" contributions will be made by GOG staff assignments to monitor, oversee and or manage the construction operations associated with the sewage system.

Although the GOG technical staff in Ministries of Construction and Works are being utilized on other projects, it is expected that adequate staff could be assigned to carry out the GOG responsibilities required to administer FAR force account rehabilitation work on road and bridge hazards. A determination will be made by RDO/C to assure that staff are in fact, available prior to execution of individual hazard reduction FAR agreements. Should staff not be available, work will be carried out by contracts with local contractors or the Grenada-based 8(A) Contractor. Cost estimates for work at each hazard will be agreed upon and, if contracted by FAR methods, work will be paid as construction progress objectives are attained. Flexibility exists in funding FAR contracts whereby incremental USAID fund advances can be made in the event that GOG funds are not available "up front" to pay for work as it is accomplished.

C. FINANCIAL IMPLEMENTATION

Financial implementation of the project will generally be carried out by USAID, host country and FAR contracts. Both USAID and host country direct contracts will probably be let to local firms providing construction services. These will be fixed, unit price, lump sum contracts. USAID, through the Small Business Administration, will finance a unit price, lump sum contract with an 8A firm. FAR financing for small construction projects will be agreed upon between USAID and the Ministry of Construction. Fixed prices for the "package" of work to be accomplished by the Ministry will be agreed upon.

In view of the extensive contracting activities anticipated, a full time financial analyst will work with the IEMS engineer on contractual matters. In addition, this extensive contract activity requires that subproject funds be budgeted for independent financial reviews by the Controller, RDO/C. For this, \$40,000 has been budgeted.

IV. IMPLEMENTATION PLAN

A. IMPLEMENTATION ANALYSIS

Most of the project activities will be completed within two (2) years of the signing of the Project Agreement. The Grand Anse subproject may require 2 1/2 to 3 years to fully complete, since several months will be required for the plan to be officially reviewed and approved by the Government of Grenada and RDO/C. An environmental assessment must be made and its findings incorporated in final designs.

Several government ministries and agencies will be involved in the implementation of subproject activities including the Ministry of Tourism, Ministry of Construction, Grenada's Industrial Development Corporation, Ministry of Works, Ministry of Health and the Central Water Commission. Close coordination of all parties will be required to successfully implement this project.

To oversee and manage all contracts and activities proposed under this subproject, an IEMS long-term engineer will be assigned to Grenada. He will be assisted by a locally-hired financial analyst for the financial management of contracts. These costs, environmental assessment and such designs and plans as necessary for subproject components, will be funded under the core contract.

Past experience indicates GOG shortcomings in administering host country contracts. Implementation responsibilities, noted below and elsewhere, are possibly vague as to the role of GOG in contracting. Unless the GOG can demonstrate a capacity in appropriate ministries to contract for subproject activities, all work will be by AID direct contracting. If adequate experience is demonstrated by the GOG, AID will provide such guidance and cooperation in assisting the administration of host country contracts.

B. IMPLEMENTATION PLAN

1. GRAND ANSE TOURISM DEVELOPMENT

The TVA development plan has been informally endorsed by the Cabinet. Upon official GOG approval, details of particular elements for project funding will be identified. The TVA plan includes preliminary designs and cost estimates for the initial site development of the Grand Anse Beach area and for wastewater collection and treatment alternatives. Details of this plan will be reviewed by RDO/C. Any additional engineering will be carried out by the IEMS Core Contractor. Grand Anse site work will be carried out by local contractors or an 8 (A) contractor. The wastewater collection system and treatment facility might also be constructed by the Section 8(A) contractor now resident in Grenada. Construction supervision will be provided by the IEMS Core Contract engineer and all contract work will be undertaken by direct AID contracts.

2. CARENAGE RESTORATION AND DEVELOPMENT

The TVA, under an RDO/C funded PASA, is helping the GOG establish a Carenage Development Association, which would serve as a vehicle for both private and government development efforts. Plans for enhancement of the shoreline and a pedestrian access have been prepared. Construction contracts will be let to local contractors by Ministries of Tourism and Works, in coordination with IEMS engineer. Subproject funds will also be directed to additional feasibility and design studies for Carenage improvements.

3. FREQUENTE INDUSTRIAL PARK

Design and cost estimates for completion of the Frequente Industrial Park are essentially complete and utilize site designs prepared by AID engineers. Pre-fabricated building designs are provided by the building supplier. Upon subproject authorization, orders will be placed for factory buildings. An 8(A) Contractor, presently under contract to RDO/C, completed the erection of three Aid-financed buildings under a previous project. It is anticipated that the Small Business Administration will approve USAID negotiation of a contract amendment to: construct foundations erect three additional buildings and renovate five existing buildings. Construction supervision will be provided by the IEMS engineer.

4. PEARLS INDUSTRIAL PARK STUDY

RDO/C will select a qualified IQC firm to carry out a study on the feasibility of locating an industrial estate at Pearls Airport.

5. ROAD IMPROVEMENT AND TRANSPORTATION HAZARD REDUCTION

In cooperation with the Ministry of Works, specific road and bridge hazards will be identified and the character of work (i.e. steel beams, concrete abutments, paving, draining, earthmoving etc.) will be costed.

The following factors will be considered in establishing priority activities for funding:

1. The function of the road or bridge in contributing to transport links with economically productive areas of Grenada and those links providing access to markets and port facilities.

2. Identifying those bridges most in danger of collapse.

3. Identifying those roads susceptible to landslides, flooding and erosion which, should such events occur, cripple the road transport system connecting important sections of Grenada.

The IEMS Core Contractor and GOG engineers will prepare any necessary drawings and designs. Actual construction will be carried out through host country contracts, executed with private contractors and/or through fixed amount reimbursable (FAR) agreements with the GOG MOW. Supervision will be by the GOG's MOW and/or IEMS engineer.

C. PROJECT IMPLEMENTATION SCHEDULE

MARCH 1987 Grant Agreement signed. Orders placed for factory shells. Finalize estimates and draft contracts for carrying out remaining interior and site work at Frequente. RDO/C Review of Grand Anse TVA Plan with conditional identification of elements to be funded under subproject. Determine particular sewage treatment system to be funded under subproject and initiate the environmental assessment and user rate study.

APRIL 1987 GOG satisfaction of C.P's. Discussions with GOG for final agreement on USAID funded elements of Grand Anse Plan and official GOG approval. Initiate discussions with GOG as to priority road/bridge hazards to be rehabilitated. Negotiate with Small Business Administration for continued work by 8(A) firm.

MAY 1987 Prefab factory shells received. Contracts let for Frequente site work and shell erection. Design of sewerage system and incorporate findings in an Environmental Assessment. RDO/C identify IQC for Pearls study.

JUNE 1987 Contracts let for work at Camerhogne Park and Carenage/Fort improvements. Work underway at Frequente. Initiate Pearls study. Enter into FAR agreements with MOC for road/bridge hazard improvements.

JULY 1987 Complete design of sewerage system and submit to GOG for approval and right-of-way/land acquisition. Start work on first road/bridge hazard.

SEPTEMBER 1987 Complete Pearls study. Prepare construction documents for sewerage system. Solicit construction contractor's interest (US source and origin).

NOVEMBER 1987 Issue construction documents for sewerage system. Work proceeding on Camerhone Park, Carenage and forts and road/bridge hazards. Work complete at Frequent.

JANUARY 1988 Select contractor for constructing sewerage system.

MARCH 1988 Work starts on sewerage system.

APRIL 1988 Mid term evaluation of subproject work completed on road/bridge hazards, Camerhogne Park, Carenage and Forts.

MARCH 1989 Work completed on sewers and treatment plant.

FEBRUARY 1990 Final evaluation of subproject. PACD of sub-project.

D. PROCUREMENT PLAN

1. CONSTRUCTION SERVICES

Most construction work carried out for components of this project will be performed by local contractors and/or an (8)A contractor. The small Business Administration is expected to approve USAID negotiation with this firm to carry out the additional work identified in this subproject. Contracting procedures practiced in Grenada and applied in previous infrastructure projects for developing the Frequente Industrial Park, have proven successful and will be followed. All contracts, except those for road and bridge hazards, will be direct AID contracts.

Consideration will be given to the merits of soliciting bids from U.S. contractors to construct the Grand Anse sanitary collection and treatment system, or using the 8(A) Contractor, or possible force account participation from the Central Water Commission.

Dependent upon the current work load of the Ministry of works, improvements of road and bridge hazards will be performed by either local contractors under host country contracts, or Fixed-amount reimbursable (FAR) agreements with the Ministry of Works.

2. TECHNICAL MANAGEMENT SERVICES

All work will be supervised and managed by the resident IEMS engineer in cooperation with RDO/C Grenada and the Barbados RDO/C Infrastructure Division. He will be assisted in contractual matters by a locally-hired financial analyst. The resources of the Barbados IEMS staff will also be directed to monitoring and implementation activities, arranging for the environmental assessment and such designs required for Grand Anse and other subproject components.

3. TECHNICAL STUDIES

It is anticipated that the feasibility study of a Pearls Industrial Park will be carried out by a firm included in AID's list of IQC contractors.

4. COMMODITIES

Materials used in factory shells will be supplied by a U.S. supplier. The sanitary collection and treatment system pipe and equipment will, be procured in accordance with appropriate AID regulations by the construction contractor. All commodities will be of either U.S. or Grenadian source and origin. All other materials and hardware utilized in renovating factory interiors, restoring the Carenage and alleviating road system hazards, will be of U.S. or local source.

5. OPPORTUNITIES FOR GRAY AMENDMENT IMPLEMENTATION

This subproject is ESF funded. There is thus no statutory requirement for implementation of the Gray amendment provisions. However, as with the two previous infrastructure projects, the services of an (8)A firm, will be utilized to the extent possible for site work for Frequente, erection of factory shells and the Grand Anse Development activity.

V. MONITORING PLAN

A. RDO/C RESPONSIBILITIES

RDO/C staff will undertake the following actions during implementation:

1. Review and approve GOG submissions for satisfaction of conditions precedent.
2. Review and approve all contractual agreements with firms and/or GOG agencies for construction services.
3. Coordinate procurement of services of an IQC contractor for the Pearls industrial site study.
4. Approve and process payment vouchers.
5. Provide such managerial and technical review and approval services as required during implementation.

B. CORE CONTRACTOR RESPONSIBILITIES

The IEMS Core Contractor will provide a long-term Civil Engineer, experienced in concurrent management of several contracts of the type involved in the subproject. He will assist RDO/C staff, as requested, in the administration and technical review of all work performed under this subproject, including:

1. Cost estimating.
2. Contract negotiation.
3. Review of payment vouchers.
4. Supervision and monitoring of contractual work.
5. Assisting the Ministries of Tourism and Works in carrying out GOG responsibilities during implementation.
6. Assisting RDO/C in the evaluation of contract proposals for construction services.
7. Arranging for detailed design of the Grand Anse Sewerage System and the environmental assessment.

C. GOVERNMENT OF GRENADA RESPONSIBILITIES

1. The Ministries of Tourism, Works and Health will review and initiate cabinet approval of the TVA plan for development of the Grand Anse area. The Ministry of Tourism will assume a responsible role in implementing Carenage and Fort improvements. Ministry representatives will regularly advise RDO/C staff regarding progress on GOG actions concerning planning and construction activities proposed under the project. The Ministries of Works and Tourism will also see to the necessary land acquisitions and permits required to carry out work on the Grand Anse Scheme.

2. The Industrial Development Corporation will cooperate with RDO/C staff in the planning and construction of factory interior renovations planned under the project and provide appropriate managerial services at the Frequente Industrial Park.

3. The Ministry of Works will provide such staff as necessary to identify and cost out the particular road systems hazards to be rectified by the project. The Ministry will also provide technical monitoring and oversight of work performed by GOG or private forces. The Ministry will also provide and contribute such equipment, materials and staff necessary and available to repair designated roads and road hazards under any FAR contracting modes.

4. The Central Water Commission will provide such guidance and facilitating, and or construction assistance as needed, to permit a contractor to construct a sanitary collection system and treatment facility for the Grand Anse area. The Commission will also provide all required permits and authorizations for the contractor to complete his work as rapidly as possible.

5. The Ministry of Health, through its Chief Environmental Health Officer, will Review and assist in plans for the Grand Anse sewerage. He will also participate in the review and endorsement of the Environmental Assessment.

VI SUMMARY ANALYSES

A. TECHNICAL ANALYSIS

The design of this subproject, the third Infrastructure Revitalization Project for Grenada, continues to address priority activities which will immediately impact the tourism, industrial and agricultural sectors through increased employment and foreign exchange generation. These activities have all been identified in Grenada's Public Sector Investment Program as being of high priority.

1. FREQUENTE INDUSTRIAL PARK

The project will complete the already designed Frequente Industrial Park. Studies supporting the development of Frequente, as well as a possible industrial site near Pearls Airport were recommended in the "Free Zone Authority" study and the September 1986 UNIDO "Feasibility and Planning Study of Industrial Estates in Grenada."

Frequente site plans are completed. Building designs were prepared by the pre-fabricated building supplier of the factory shells erected under Infrastructure II. A resident 8(A) firm has demonstrated its capacity to carry out site, building, foundation and erection work for three factory shells at Frequente.

Interior factory office and bathroom space will be designed by RDO/C engineers using pre-built wall panels constructed locally. Local contractors will carry out the plumbing, electrical and any finishing work required. Water is already available at the site but the erection of a water storage tank is required. The project will finance a 250,000 gallon tank for fire service and to maintain pressure in the lines at the site. The GOG has committed the use of a tank located as at Point Salines for Frequente. The subproject will finance its disassembly, movement and erection.

2. GRAND ANSE DEVELOPMENT PLAN

The Tennessee Valley Authority (TVA), through a PASA executed with RDO/C, has prepared a preliminary plan of the wastewater treatment needs of the Grand Anse Beach area. The principal sewage treatment for houses, businesses and hotels located in the Grand Anse Beach area are septic tanks and soakaway systems. Major drainage ditches empty into Grand Anse Bay at each end of the beach. Septic tanks discharge partially treated sewage containing organics, nutrients and biological organisms having a negative impact on marine life and public health of beach bathers. During warm weather, odors present a nuisance and even poorer impressions on visitors. Water quality sampling on three dates in 1984 for an OAS study indicated significant bacteriological concentrations along Grand Anse Beach which poses a serious threat to inhabitants of the area and tourists. ANNEX N shows data collected along the Bay area, also shown are minimum standards for health protection of Marine water.

The TVA report addressed various alternatives for treating the sanitary waste using USEPA design criteria. The recommended treatment process is the creation of an artificial wetlands, an innovative, low cost, low maintenance system (see ANNEX M). The process, in general, consists of planted wetlands vegetation, such as cattails, which provide the treatment. A meadow system will provide all the treatment necessary to protect the environment for an average flow of 600,000 gallons per day, the estimated loading anticipated from the Grand Anse area present and planned developments. (2300 rooms assumed). The design is based on an existing, small community, U.S. system. Performance in Grenada's tropical climate, reportedly, will be an improvement on the existing plant. An excerpt from the TVA Study discussing the recommended treatment process is found in ANNEX M. TVA personnel have

prepared preliminary plans and cost estimates for the wastewater collection and treatment alternatives. Their data will be further reviewed by the IEMS contractor and RDO/C utilizing outside expertise as required to assure an adequate and environmentally safe system.

In addition to the treatment plant, a collection system will be constructed. Branch collector pipelines will facilitate connections with existing and planned facilities. A pressure pipe system with pumps will carry the wastewater to the treatment site, a distance of about 2 1/2 miles from Grand Anse.

To the extent financially feasible, project funds will be used to carry out some land clearing site development elements recommended in the TVA plan. There has reportedly been some interest by CIDA in participating in such a project. The following four discrete elements are conducive to separate financing:

1. clearing and landscaping of Camerhogne Park;
2. construction of a collector pipe system along the Grand Anse Beach area to which hotels, homes and businesses can connect to the system;
3. a pressure pipeline (approximately 2 1/2 miles) with pumps to the treatment facility; and
4. a treatment facility.

Various combinations of financing with other donors can be conceived. One possibility would be construction by an RDO/C funded contractor with materials and/or plant provided by other donors.

Regardless of the breakdown of funding elements, approximately \$1.5 million of project funding will be directed towards enhancing the tourist attractiveness of Grand Anse Beach area and reducing the present threat of pollution to the beach coral reef and visiting public. The GOG is fully aware of Grand Anse conditions and is desirous of remedying the situation as soon as possible.

An Environmental Assessment, detailed designs, plans, costs and construction documents will be prepared by the IEMS contractor. The IEMS engineer will supervise construction activities.

3. ROAD IMPROVEMENT AND TRANSPORTATION HAZARD REDUCTION

The Ministry of Works (MOW) has identified numerous road repair projects, 12 hazardous bridges and several road system sites susceptible to landslides and flooding. Within the limits of the US\$300,000 available in the subproject, those activities having highest priority will be identified and costed to fully utilize the funds available. Priority criteria were noted in the Implementation Analysis. If additional funding becomes available from

other activities, funding for this element of the project will be increased accordingly. The costing and selection will be a cooperative effort by MOW and IEMS. Depending upon the work load of the Ministry of Works, road repair and hazard reduction work will be carried out by either the Ministry or local contractors. FAR agreements will be made with this Ministry for force account work and RDO/C contracts will be executed with local contractors.

4. PEARLS INDUSTRIAL PARK STUDY

An AID contractor will proceed with a detailed feasibility study as a follow up to the preliminary study by UNIDO for an industrial park in the vicinity of Pearls Airport near Grenville. A scope of work will be prepared by RDO/C and the IEMS contractor. If feasible, the detailed site designs and plans can be prepared by RDO/c and the IEMS contractor for future implementation. If funding permits, and demand develops, a factory shell may be constructed at Pearls under this sub-project.

5. CARENAGE RESTORATION AND TOURISM DEVELOPMENT

Much of the structural restoration envisaged in the Carenage area is contingent on the establishment of a Carenage Development Association. TVA is assisting the GOG in establishing such an organization. Implementation of this sub-activity will be dependent on the rate of progress in establishing the Association. Specific Carenage enhancements for pedestrian tourist circulation along the waterfront have already been identified by TVA. These include a lighting system, cleaning of the harbour near the Carenage walk, clearing of vegetation on fort walls, walks, overlooks and landscaping. Some of these improvements can be designed by RDO/c and IEMS contractor and initiated at such times as the association shows evidence of success or opportunities present themselves. Detailed plans for modest restorations of Ft. George and Ft. Frederick have already been prepared and there are several community groups interested in participating in these activities.

6. TECHNICAL ASSISTANCE AND TRAINING

As discussed in Section II C 6, the IEMS contractor can address such technical assistance requirements that might arise during implementation of this project. At the present time there is no apparent requirements within the GOG for technical assistance to support their limited involvement in the implementation of this subproject. CIDA, under a new Grenada sewerage project, will provide technical assistance to the Central Water Commission in the area of sewerage management and maintenance. This assistance should adequately meet the needs for GOG technical involvement in the Grand Anse system component.

B. ECONOMIC ANALYSIS

1. GRAND ANSE DEVELOPMENT

Wastewater management is directly related to the health of the population and consequently, effects the economic status of that population whether they be workers or tourists. It is also recognized that the negative impact of water borne pollutants on bathing tourists and deterioration of coral reefs carries a greater long term impact, particularly on Grenada's, planned, tourism based economy. Improper disposal of waste and its health effects are difficult to express in quantative terms appropriate to economic analysis. Various efforts have been made to quantify these effects but no reliable measure of the economic benefits of providing equitable wastewater treatment to a population has been agreed upon. Attempts usually are made to determine the least cost solution in selection in one method of disposal over another.

In the case of Grand Anse, at least one hotel has its own package treatment plant. Other smaller hotels and residences use septic tanks and soakaway systems which in some cases dump raw sewage into drains emptying on either side of the Grand Anse Beach. ANNEX N notes sample results taken in Grand Anse Bay and also lists health and environmental limiting criteria. The least cost solution would be a continuance of the present practice of letting each developer provide his own treatment facility, however, this practice has led to creation of a health hazard and therefore the least cost alternative of doing nothing can not be considered. As far as the GOG is concerned, it is necessary to provide for the uniform treatment of all wastewater generated by the existing and potential tourism developments in the Grand Anse Area and to charge users an economic rate for this service. GOG provision of this service will also serve to attract rather than impede the attractiveness of developers locating a hotel in Grand Anse.

The study carried out by TVA has explored the alternative methods of treating Grand Anse wastewater and has recommended an innovative low-cost low-maintenance process. Without the benefit of any quantative data, this least cost solution is the most practical and economical in light of the GOG concentration on tourism as a major factor in Grenada's economic growth. Assistance to the GOG in developing a schedule of costs to the users of the system will be carried out by either TVA or by the IEMS contractor.

2. FREQUENTE INDUSTRIAL PARK

This component will complete the development of the Frequente Industrial Park. It will provide 42,000 square feet of factory space and renovate an additional 29,000 square feet. This space, when added to that already renovated and new space provided in Infrastructure Revitalization Projects I and II, brings the total square footage up to about 135,000. With the type of industries being attracted to Grenada the major benefits of the development of Frequente are the value added due to increased employment. Internal rate of Return calculations have included those benefits based upon an assumed one employee per 100 square feet and an annual wage of US\$2220.00.

An IRR calculation was carried out with a return of 30.34%. Two sensitivity calculations are also noted. The calculations and explanation of inputs are found on ANNEX K.

3. ROAD IMPROVEMENTS

The road repair and bridge hazard improvements were not subjected to rate of return analysis. The cost in both life and transport delays created by a bridge failure or a landslide are obvious, particularly when they occur on a primary and sometimes the only transport route serving a productive area. The magnitude of the cost of individual improvements do not justify in depth analyses. The priority of selected improvements will be determined by looking at those routes serving productive regions and those carrying the most traffic. Attention will be given to those highways whose routing is such as to isolate a section of the country, should a bridge failure, landslide or flooding occur. Criteria for setting of priorities is noted in implementation Section IV.

4. OTHER ACTIVITIES

Investments in tourism have been analyzed in detail in the two earlier Infrastructure Projects. The additional work carried on in and around the Carenage and the forts consists of several low cost amenity type improvements intended for enhancement of those larger investments already made to establish the area as a tourist attraction. The size of each improvement does not justify extensive economic analysis.

Similarly investment in an industrial estate study does not lend itself to economic justification.

C. FACTORY SPACE SUPPLY/DEMAND ANALYSIS

The Free Zone Authority study of April 1986 forecasted a demand for 256,000 square feet of factory space over the 1986 - 1990 period. The study also noted that "... the Frequente site in its present state (early 1986) may provide an interim location for two or three industries, it does not serve the aggregate needs.... Without infrastructure development the full economic potential of the site will not be realized." The proposed project focused on providing the necessary final infrastructure needed for the park to realize its full potential. The text of the above excerpts from the Free Zone study are found in Annexes I and J.

In early September 1986, the United Nations Industrial Development Organization (UNIDO) prepared a Feasibility and Planning Study of Industrial Estates in Grenada. This study indicated that over the next five years 165,000 square feet of factory space will be made available. However, their review of applications for space indicated that the demand over the next five years (1986 - 1990) will be 343,400 square feet. Thus UNIDO estimates a shortage of 178,400 square feet of space. The Free Zone Authority Ltd. study in April 1986 forecasted a shortage of 138,000 square feet over the same five year period.

Details of the supply/demand analysis are found in ANNEXES I and J.

The Grenada Industrial Development Corporation and RDO/C have held several meetings and discussions with potential local and offshore renters of Frequente factory space. A listing of these contacts are as follows:

FIRMS EXPRESSING SINCERE INTEREST

1. ABBOT LABORATORIES - Has requested a 21,000 square foot facility for occupancy on or about May 1, 1987.
2. JOHNSON & JOHNSON - Has requested a 12,000 square foot building for occupancy on or about June 1, 1987.
3. LYN WILLIAMS - Has ordered an 18,000 square foot building.
4. NDF CARPENTRY - This newly developed local furniture enterprise has expressed a need for 5,000 + square feet of space.

FIRMS SHOWING INTEREST IN SPACE AVAILABILITY

- | | | | | |
|----|--------------------------|-------------------------------|---|---|
| 1. | Johnson Sportswear | 27,000 square feet | | |
| 2. | Belle Fabricators | 21,000 | " | " |
| 3. | Weider | 21,000 | " | " |
| 4. | NWCO | 21,000 | " | " |
| 5. | Westinghouse | 21,000 | " | " |
| 6. | SARI | 12,000 | " | " |
| 7. | PAC International | 15,000 | " | " |
| 8. | Venezuelan Garment Group | 20,000 | " | " |
| 9. | Gafoor Steel | Unspecified space or location | | |

D. SOCIAL SOUNDNESS ANALYSIS

1. Introduction

This subproject has been designed to assist GOG efforts to improve Grenada's physical infrastructure to a level required to create immediate employment opportunities, and encourage a long-term flow of private sector investment. Once the objectives of the project are met, additional employment opportunities will exist.

In addition, and equally important to the people of Grenada, a sewage disposal system will have been constructed for the Grand Anse area. Each political administration since independence has recognized the need for better infrastructure, yet services have only recently improved.

2. Employment for the Unskilled

The lack of jobs for unskilled and semi-skilled workers is one of Grenada's most persistent problems. During the revolutionary regime, many young people joined the military for the security of steady job. Many of these young men and women are currently unemployed, and enlarge the ranks of Grenadians whose traditional, non-vocational schooling has left them ill-equipped for the technical needs of a small limited economy.

The Ministry of Works, which is one of the implementing agencies of the project, has long been a primary local provider of jobs for the unskilled and unemployed, and expects to hire a significant number of workers during the life of the subproject. As the Frequente Industrial Park becomes operational an increasing number of Grenadians will be able to find employment with firms establishing operations in the AID-financed factory shells.

E. ADMINISTRATIVE ANALYSIS

1. Ministry of Works (MOW)

The Ministry of Works (MOW) is part of the Ministry of Works, Communications, Public Utilities, Civil Aviation and Energy, which employs 1,266 individuals in different divisions. About sixty percent (60%) of its estimated \$11.8 million 1986 budget is destined for salaries and overhead while thirty five percent (35%) is for materials and supplies.

The MOW initiated the budget cycle with an October 31 submission of the budget to the Ministry of Finance (MOF). The MOW calculates its budgetary needs according to two categories of expenditures - operating and capital. The known annual operating costs of salaries, overhead and maintenance are added to the projected capital costs of new construction and major renovation. New roads or buildings are the result of Cabinet directives or policy statements, or a jointly planned effort between the MOW and the

Ministry of Planning. The MOF reviews the submission and sends it back if they consider modification necessary. By December 31, the MOF submits budgets from all Ministries to the Cabinet for approval. The Government-wide budget is normally approved in January or February. The MOF then retains control over the entire budget throughout the year.

While the budget process segregates funding according to the MOW's various divisions, the accounting system (single entry) has not lent itself to providing a self balancing set of accounts; the separate governmental units do not produce balance sheets or statements of operations. As such, it is difficult to examine year-end records to ascertain a past capability of the MOW to achieve its overall objectives efficiently.

Availability of funding is determined on a monthly basis. The Accounting Section of the MOW receives monthly budget requests from each of the divisions and determines levels based on the requests and the MOF monthly limits. The Accounting Section determines the Division allocations by first assuring allocations for fixed expenditures and then applying the balance to variable expenditures. Thus, it is possible for work on capital projects to be halted during various periods because of one or more low monthly budget allocations by the MOF. All work is done subject to the monthly availability of funds.

The budgeting and accounting for expenditures is done by hand in numerous journals. While the system does not preclude segregation of accounts and segment reporting, it is conducive to it and would be difficult to implement. For these reasons, separate aid funding and accounting systems are essential to the Infrastructure Revitalization III Project.

The procurement system of the MOW allows the field units to combine several procurement functions. The process begins with field or division personnel completing and sending a requisition for goods and services to the Accounts Section at the MOW. The Accounts Section prepares a purchase order, enters the expected amount as a commitment in their Vote Book (Journal), and sends the completed purchase order to the Ministry of Finance Budget Section for approval. If the procurement is a cash purchase, the purchase order goes to the Treasury for checks to be written and sent to the vendor. If the purchase is on credit, the purchase order goes to the field and is tendered to the vendor for the goods. The vendor then presents his copy of the purchase order to the Treasury as a note payable. The MOF ends the cycle by returning all the processed voucher duplicate copies to the MOW for reconciliation. This system has worked for Grenada because the number of suppliers of construction materials is limited, in many cases to one, almost all the procurement is done in small quantities, and there is little or no inventory at the job sites to control.

The difficulties with inventory occur when large international purchases of bulk material are made for more than one district. There is no control or on-site record keeping at receiving dock or temporary storage site to assure proper allocations to the various districts. This results in material shortages in some of the districts and over supply in others.

The procurement plan for the Roads Activity of the Infrastructure Revitalization III Project does contemplate a limited number of imports. The MOW will procure or rent almost all the materials and equipment from its internal or state owned units such as the quarry, emulsion plant and central garage. It is expected that these units will deliver the needed quantities on short notice, keeping inventory storage and control costs to a minimum.

The MOW employs two types of labor, permanent staff and day laborers. The permanent staff is hired through the Public Service Commission while the day workers are approved by the Permanent Secretary. The payroll sequence is: each site has a time checker who fills out and certifies time sheets; the Road Officers sign the time sheets and send them to the Road Office where a paysheet is completed; the head of the district countersigns the paysheet and forwards it to the Accounts Section along with the time sheets; the Accounts Section checks and posts the entries and passes the paysheet to the Treasury through the Ministry of Finance; the Treasury issues individual salary checks for those desiring checks, and one check made out to a wages clerk for those employees wanting cash; the wages clerk cashes the check at a bank and goes to the work sites to pay the employees; at the site, laborers are identified by a Road Officer, a Time Checker, and a Foreman.

The MOW is operating under an institutionally developed set of unwritten rules and procedures. Limits on procurement and contracting authority, personnel policies, and operations manuals exist but are outdated and therefore not used. New policies and lines of authority are expected after a new Cabinet and Parliament are in power. The Auditor General's Office charged with encouraging adherence to establish policies and ascertaining the accuracy of records, was disregarded by the past GOG administrations. It has therefore not been active as a monitoring unit over the Ministries, but it has become a new priority for the interim government and will probably play a more active role than in the past.

Prior AID Experience:

The capabilities of the MOW have been demonstrated during implementation of the AID-financed Infrastructural Revitalization Projects I and II. Their efficiency has somewhat improved through implementation of these prior projects, but adequate budget resources continue to inhibit its acquisition of sufficient trained staff. A long term USAID funded US engineer was permanently assigned to the MOW, although for the most part, his efforts were concentrated on the AID funded projects. The limited staff available generally concentrated on "Pet Politically Expedient Projects". Optimistically, sufficient staff exists to work with RDO/C in planning and monitoring work proposed for the Grand Anse, Carenage and Road Repair and Hazard Reduction components. However, should a determination be made that staff are not available, the use of USAID contracting with the Section 8A firm will reduce the staffing burden on the GOG.

A special accounting unit within the MOW was established for AID-funded road projects. Under all AID-funded projects the accounting unit has experienced some initial difficulties in complying with AID's reporting requirements. A system has been developed, however, whereby the MOW maintained a Project bank account and on a monthly basis reported on current and cumulative disbursements by budget line item, reconciled the bank account, listed the Project-funded payroll, and delivered original paid invoices and related receiving reports. This system does not always work well and as a consequence during implementation of this project we envisage using fixed amount reimbursement (FAR) procedures.

2. Central Water Commission (CWC)

The Central Water Commission has approximately 180 permanent staff - administrative, clerical, engineering and maintenance personnel. The Water Commission's primary function is to supply potable water to the island's population and collect payments for such service. They also undertake capital improvement projects to increase their sources of available water and to improve their ability to distribute it.

The Commission acts as a semi-autonomous business arm of the government of Grenada. While it receives a small budget from the government to supplement its operations, it functions primarily on revenues which it collects from the public for water supplied, and which it deposits in an operating expense account. These revenues cannot be utilized for new capital project development and expansion operations. Such projects must be budgeted for, and managed separately.

The largest activity of the Water Commission is the maintenance of the existing system, to the extent that funds are available. The fee-for-service system does not necessarily generate sufficient capital to maintain itself however, as most of the water is delivered on a sliding scale user fee which was established many years ago, and is not directly related to the volume of water provided. Some of the larger business establishments are metered, and charged by volume, in addition to the fee. Because of the fee system, there is little incentive for most of the public to conserve, or curtail its utilization of water to push for improvement in the system, which is old, underpressured, and with many leaks. With maintenance equipment limited, the system is in a poor state of repair.

There are six (6) decentralized water areas. Each area is managed by an Area Supervisor, and each township has an office to provide maintenance to the area, and to receive payments of fees. There is a centralized guidebook of accounting procedures which is currently available, but which has not been adhered to in the past. The system has been in the implementation stage for the past seven (7) years, but with varying degrees of success. The accounts staff are relatively inexperienced and have mostly been trained on the job,

rather than formally schooled in accounting theory and practices. Each Area manages its own accounts collection system and maintains its own books, so some difficulties persist. Delinquent accounts also create problems and follow-up varies from area to area.

The Water Commission occasionally has to hire some people on a temporary basis to meet short term maintenance needs. They also sometimes contract out to private organizations for rush jobs and also to rent equipment, but for the most part, they do their maintenance work under force account - with existing staff. Occasionally they also rent vehicles from individuals. As a government agency, the Water Commission can rent vehicles from the Ministry of Housing, or the Government Central Garage, but they have no priority for obtaining such equipment and it is not always available when they need it, so have to resort to outside renting. The Commission is aware of competitive procurement concepts but does not always follow them as time is often of the essence, and there are few suppliers available. Thus, they tend to deal with experienced, former contacts.

For capital development projects, the Water Commission does its own planning and day-to-day implementation and management. Although the Water Commission provides information to the Ministry of Planning on project activities, status, and disbursement of funds, the Ministry of Planning does not supervise the Water Commission, but is merely being kept informed of activities. The Water Commission also deals directly with donor organizations for progress reporting, billing and reimbursement.

Supplies are procured through the central government marketing board, but the Water Commission has experienced delays in obtaining goods in the past, which could hold up project activities. Because of the lack of a central storage depot or warehouse available to the Water Commission, supplies are distributed to each Parish sub-area. A card stock monitoring system is used and there has reportedly not been much difficulty in accounting and controlling supplies, tools and equipment disbursed to the various areas. However, problems occur after that as there is no record of what is actually utilized (or left over) when items or materials are checked out for release to a project site.

As a "business", the Water Commission gets no special privileges from the other government agencies. It has to make deposits to other ministries for services required, such as electricity.

The Water Commission's expertise lies in pipeline work. It has very little capability for structural work. This would have to be contracted out to private contractors, or the Ministry of Construction on force account. In any event, project work progress is certified by a MOW engineer - working as a consultant to the Water Commission. For contract-out work, once the MOW engineer certifies that work is completed, the project manager authorizes payment, and the accounting staff pays the amount authorized.

For the payroll, a timekeeper maintains a record of time worked by each individual, and the accounts department prepares the payroll and provides the money. A security guard accompanies the cash to the project site whenever payment is made. The engineering assistant is responsible for making payments. The accounts office maintains the payroll vouchers after signing, plus any cash from unliquidated vouchers. A fortnightly payment system is used. Literacy rates are high, and there has been no problem of identification of individuals in signing the payroll.

Water Commission accounts are audited by an external second-tier accounting firm: Pannel Kerr Forster. Pannel Kerr Forster disclaimed an opinion on the last audited financial statements (December 31, 1982) of the CWC because the internal controls and accounting procedures were not adequate enough to ensure that all transactions were properly recorded.

The Water Commission has had some previous experience in dealing with AID when some pumps were procured on an emergency basis and during implementation of several small water projects. The AID project and accounting officers found the CWC's performance to be satisfactory. The CWC will be the responsible agency concerned with the sewerage system which will involve the operation and maintenance of pumps. CIDA under their sewerage project will provide technical assistance to CWC.

3. Grenada Industrial Development Corporation (GIDC)

The Grenada Industrial Development Corporation (GIDC) was established by the Industrial Development Corporation Act. No. 2 of 1985, replacing the functions and responsible of the Grenada Development Division (GDD) of the Ministry of Agriculture, Natural Resources and Industrial Development.

The Act stipulates that the primary responsibility of the GIDC is to "stipulate, facilitate and undertake the establishment and development of industry in Grenada". Although not explicitly stated, the mandate of the GIDC is broad, encompassing functions ranging from investment promotion to technical assessments of project proposals. Its area of responsibility covers not only the industrial sector but also agriculture and tourism. To achieve industrial sector objectives, the GIDC has been assigned specific responsibility for industrial estate program development.

Functionally, the GIDC is intended to provide a number of distinct customer-related services, acting, in effect as a "one-stop" agency:

- identifying and publicizing investment opportunities in Grenada;
- providing investor information;
- carrying out sectoral surveys, feasibility and pre-investment studies;
- providing assistance in investors on application procedures;
- coordinating investments and serving as a liaison between the business community and GOC agencies;
- assisting in identifying and accessing appropriate financing;
- providing technical, financial and marketing assistance to small local enterprises; and
- initiating and conducting training and skill enhancement seminars.

In practice, however, the main activities of the GIDC to date have been a carryover from the activities of its forerunner agency: evaluating applications for investment concessions and making recommendations to the Cabinet and Prime Minister's Office.

The administration of the GIDC is headed by a General Manager, and an Industrial Estate Manager. The General Manager reports to an Executive Chairman who heads a Board of Directors comprised of representatives of the public and private sector.

The GIDC management is supported by a total staff of nine (9) including five (5) professionals (investment promotion officer, project officers, accountant), and a clerical support staff of four. A functional division of responsibilities is not formally apparent, though operations appear to be divided between investment promotion and applications review.

The Operational Expenditures of the GIDC are supported by transfers from the Ministry of Finance, with occasional grants from donor agencies. Financial data for the period 1985-1986 detailing GIDC revenues and expenditures indicate that no revenue was collected against expenditures of EC\$326,288.

As may be expected, the bulk of the GIDC's expenditures go towards the salary and wage bill and associated overhead, in aggregate about two thirds of total expenditures. Promotional expenditures have been extremely limited and will have to increase to meet the marketing needs of the industrial estate at Frequente complex. Technical assistance grants from RDO/C however, have helped to offset much of funding gap for management training. Still, the GIDC professional corps needs to be strengthened, especially in light of the incremental management and operational demands of the soon-to-be completed industrial estate development at Frequente. Once the Frequente Industrial Park is fully operational and projected rental revenues are realized, the cash flow imbalance will be ameliorated.

Over the past several months, GIDC staff has become increasingly experienced and involved in the development of the Frequente Industrial Park. It is anticipated that experience with new industries and solicitation of prospective offshore industries will enable that organization to work cooperatively with RDO/C in implementing the final development of the Frequente Industrial Park.

4. Ministry of Tourism (MOT)

The Ministry of Tourism is a small organization. It has thirteen (13) local staff members and five (5) overseas personnel located in New York, Toronto, and London offices. It has an annual budget of EC\$600,000 of which it spends sixty percent (60%) on overseas marketing.

MOT's expertise lies in marketing, public relations and cruise ship administration. While quite active in these product areas, it has limited experience in managing tourist attractions. Its only previous experience consisted of small projects for vendors' booths and small tourist attractions at Annandale and Grand Etang.

The Ministry of Tourism is the principal GOG agency involved in planning the Grand Anse and Carenage development activities. The Grenada Office of the Organization of American States (OAS) has financed a comprehensive tourist plan and has provided a long-term technical assistance team to the Ministry to develop a tourism plan. With the assistance of the TVA, the Ministry is now focusing on the needs of Grenada as they relate to efforts to increase tourism. A program for new business recruitment, festival planning and promotion and enhancement of buildings, public areas and tourist facilities is being undertaken.

With respect to alleviating the health hazard in Grand Anse, the Ministry is cooperating and, like RDO/C, will participate in the review of plans and estimates for treatment facilities, as will other ministries of the GOG (MOH, MOW, CWC). The MOW and Attorney General's Office will be involved in acquiring the needed lands and rights-of-way and issuance of needed permits. Continued TVA assistance over this period, if required, can be arranged by RDO/C Grenada.

SUMMARY OF INSTITUTIONAL ANALYSES

The summary findings of the Institutional Analyses are:

Internal and administrative controls are out of date and inadequate. There is an awareness of the situation and reorganizations, the establishment of policy guidelines and delegations of authority are expected.

In spite of inadequate or absent formal operational, functional and internal control guidelines, the analyzed Ministries and organizations do carry out their assigned functions such as maintaining roads, delivering water, promoting tourism and assisting investors. No project implementation unit will incur a new set of responsibilities.

All the organizations are overburdened in the management of capital projects. As a consequence USAID will contract out the majority of work planned under this subproject.

G. ENVIRONMENTAL ANALYSIS

The inputs to this subproject will provide improvements to, or the rehabilitation of, elements of Grenada infrastructure.

The continued improvement within the established boundary of the Frequent Industrial Park will not create any negative impacts other than temporary dust, noise and vehicle traffic disturbances created by construction.

Particular road, landscaping and drainage improvements proposed for Frequente will reduce erosion and uncontrolled surface runoff. Septic tank facilities are being constructed to serve all new factory shells.

The purpose of carrying out improvements for the restoration and development of the Carenage is to improve the physical environment of the area to attract tourists. There are no negative impacts of these developments other than temporary disruptions caused by construction activities.

Temporary environmental disruptions will occur during the reconstruction efforts proposed for road hazard reductions. These disruptions will be caused by the use of trucks and earth moving equipment. As with Frequente, the reconstruction effort will be accompanied by noise and dust pollutants. In areas of road relocations and detours caused by rehabilitation of dangerously unsafe bridges, the use of water spray trucks will keep dust to a minimum.

Providing a sewage treatment system for the Grand Anse area is the least cost remedy for reducing the health hazards and pollution caused by the lack of improper design of treatment facilities in the area. Overtaxed septic tanks and partial treatment systems of the existing hotels and residences have resulted in sea pollution as well as nuisance odors in this prime tourist area of Grenada. Future planned developments could possibly require associated installation of treatment and disposal facilities but, as with the existing developed area, there is no assurance that the present and potential health hazard can be controlled or eliminated.

The treatment system proposed for the project i.e. "artificial wetlands", is considered by the USEPA as "innovative alternative" to conventional sewage treatment facilities. Prior to any expenditure of funds by AID in the development of a Grand Anse sewage collection and treatment system, an environmental assessment will be carried out and serve as guidance for the detailed design of the system. Further in depth review of the propose treatment system will be made by RDO/C and such outside expertise, as required, through the IEMS contractor. An IEE has been prepared indicating a positive determination for the sewage system component of the subproject. Any construction funding for this component will await the preparation and review of an Environmental Assessment by appropriate AID/Washington authorities.

VII. CONDITIONS PRECEDENT AND COVENANTS

Conditions Precedent and Covenants are presented in the Draft subproject Grant Agreement, which Constitutes Annex O

VIII. EVALUATION PLAN

A. General

The evaluation plan is designed to examine activities as they relate to the achievement of the purpose of the subproject. During the course of the subproject, two (2) evaluations will be carried out. There will be one (1) interim evaluation, at the end of year two and a final evaluation at the subproject's conclusion. The interim evaluation will provide the opportunity to measure intermediate progress in relation to established implementation benchmarks, as well as to make mid-course adjustments in project design, if warranted. The final evaluation will measure the extent to which the subproject achieved its purpose.

B. Responsibilities

The RDO/C Program Office's Evaluation Section, in conjunction with the RDO/C Project Officer, will be responsible for assuring that the evaluations are carried out. The Program Office will coordinate to gauge progress toward realization of benchmarks related to all project components. These data will then be made available to consultants, contracted by AID, to be used in carrying out the interim and final evaluations.

C. Data Requirements

The data requirements for the evaluation exercise are divided into two types:

1. Survey Data:

A data collection format will be developed to provide the framework for collecting the information required to measure the impact of subproject activities on increasing investment and tourism at intervals during the life of the subproject. Included among the data items to be measured are:

- increases in investment, both local and foreign
- increases in stay-over visitors
- increases in ship visitor expenditures
- increases in occupancy rates at hotels
- increases in occupancy of factory shells

2. Subproject Data:

Subproject data will include financial expenditures, subproject acquisitions and outputs (e.g. number of studies carried out, number of factory shells constructed and number of contracts with private sector construction companies). Financial data will be obtained from subproject financial records on a quarterly basis. Information on inputs and outputs, and some of the immediate effects of the subproject as it is implemented will be obtained by the RDO/C Project Manager during site visits. These data will, in turn, be converted into periodic (semi-annual) project reports which RDO/C will share with AID/W.

CERTIFICATION PURSUANT TO SECTION 611(e) OF THE
FOREIGN ASSISTANCE ACT OF 1961, AS AMENDED

I, James S. Holtaway, as Director of the Regional Development Office/Caribbean of the United States Agency for International Development, having taken into account the maintenance and utilization of projects in Grenada and the Caribbean region previously financed or assisted by the United States, do hereby certify that in my judgement Grenada has both the financial capacity and human resources capability to effectively utilize and maintain goods and services procured under the proposed capital assistance grant sub-project entitled Infrastructure Revitalization III. This judgement is based upon the implementation record of externally financed projects including AID-funded projects in Grenada, the commitments from the Government of Grenada, and the quality of the planning which has preceded this new project.

(Signed) _____
James S. Holtaway
Director, RDO/C

(Date) _____

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INFRASTRUCTURE EXPANSION AND MAINTENANCE SYSTEMS (IEMS)
PROJECT (538-0138)
GRENADA INFRASTRUCTURE REVITALIZATION III SUB-PROJECT
STATUTORY CHECKLIST FOR FY 1987

5C(1) - GRENADA COUNTRY CHECKLIST

A. GENERAL CRITERIA FOR COUNTRY ELIGIBILITY

1. FAA Sec. 481(n)(1); F/ 1987 Continuing Resolution Sec. 528. Has it been determined or certified to the Congress by the President that the government of the recipient country has failed to take adequate measures or steps to prevent narcotic and psychotropic drugs or other controlled substances (as listed in the schedules in section 202 of the Comprehensive Drug Abuse and Prevention Control Act of 1971) which are cultivated, produced or processed illicitly, in whole or in part, in such country or transported through each country, from being sold illegally within the jurisdiction of such country to United States government personnel or their dependents or from entering the United States unlawfully? No

2. FAA Sec. 481(n)(4). Has the President determined that the recipient country has not taken adequate steps to prevent (a) the processing, in whole or in part, in such country of narcotic and psychotropic drugs or other controlled substances, (b) the transportation through such country of narcotic and psychotropic drugs or other controlled substances, and (c) the use of such country as a refuge for illegal drug traffickers? (a) No
(b) No
(c) No

3. FAA Sec. 620(c). If assistance is to a government, is the government liable as debtor or unconditional guarantor on any debt to a U.S. citizen for goods or services furnished or ordered where (a) such citizen has exhausted available legal remedies and (b) the debt is not denied or contested by such government? No

4. FAA Sec. 620(e) (1). If assistance is to a government, has it (including government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities? No

5. FAA Sec. 620(a), 620(f), 620(D); FY 1987 Continuing Resolution Secs. 512 and 513. Is recipient country a Communist country? If so, has the President determined that the assistance to the country is important to the national interests of the United States? Will assistance be provided to Angola, Cambodia, Cuba, Laos, Vietnam, Syria, Libya, Iraq, or South Yemen? Will assistance be provided to Afghanistan or Mozambique without a waiver? No
6. FAA Sec. 620(j). Has the country permitted, or failed to take adequate measures to prevent, the damage or destruction by mob action of U.S. property? No
7. FAA Sec. 620(l). Has the country failed to enter into an agreement with OPIC? No
8. FAA Sec. 620(o); Fishermen's Protective Act of 1967, as amended, Sec. 5. (a) Has the country seized, or imposed any penalty or sanction against, any U.S. Fishing activities in international waters? (a) Yes
One U.S. fishing boat was seized approx. 15 miles off-shore. This is within Grenada's claimed 200 mile economic zone.
- (b) If so, has any deduction required by the Fisherman's Protective Act been made? (b) No
9. FAA Sec. 620(q) FY 1987 Continuing Resolution Sec. 518. (a) Has the government been in default for more than six months on interest or principal of any AID loan to the country? (b) Has the country been in default for more than one year on interest or principal on any U.S. loan under a program for which the appropriation bill appropriates funds? (a) No
(b) No
10. FAA Sec. 620(s). If contemplated assistance is development loan or from Economic Support Fund, has the Administrator taken into account the amount of foreign exchange or other resources which the country has spent on military equipment? Yes, taken into account by the Administrator at the time of approval of the Agency OYB.

11. FAA Sec. 620(t). Has the country severed diplomatic relations with the United States? If so, have they been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption? No
12. FAA Sec. 620 (u). What is the payment status of the country's U.N. obligations? If the country is in arrears, were such arrearages taken into account by the AID Administrator in determining the current AID Operational Year Budget? Grenada is currently in arrears on payment of its obligations to U.N. Agencies. Yes, taken into account by the Administrator at the time of approval of the Agency OYB.
13. FAA Sec. 620A; FY 1987 Continuing Resolution Sec. 521. Has the President determined that the country (a) grants sanctuary from prosecution to any individual or group which has committed an act of international terrorism, or (b) otherwise supports international terrorism? Has the government of the recipient country aided or abetted, by granting sanctuary from prosecution to, any individual or group which has committed or is being sought by any other government for prosecution for any war crime or act of international terrorism? (a) No
(b) No
14. ISDCA of 1985 Sec. 552(b). Has the Secretary of State determined that the country is a high terrorist threat country after the Secretary of Transportation has determined, pursuant to Section 1115(e)(2) of the Federal Aviation Act of 1958, that an airport in the country does not maintain and administer effective security measures? No
15. FAA Sec. 666. Does the country object, on the basis of race, religion, national origin or sex, to the presence of any officer or employee of the U.S. who is present in such country to carry out economic development programs under the FAA? No
16. FAA Sec. 669, 670. Has the country, after August 3, 1977, delivered or received nuclear enrichment or reprocessing equipment, materials, or technology, without specified arrangements or safeguards? No

Has it transferred a nuclear explosive device to a non-nuclear weapon state, or if such a state, either received or detonated a nuclear explosive device, after August 3, 1977? (FAA Sec. 620E permits a special waiver of Sec. 669 for Pakistan.)

17. FAA Sec. 670. If the country is a non-nuclear weapon state, has it, on or after August 8, 1985, exported illegally (or attempted to export illegally) from the United States any material, equipment, or technology which would contribute significantly to the ability of such country to manufacture a nuclear explosive device? No
18. ISDCA of 1981 Sec. 720. Was the country represented at the Meeting of Ministers of Foreign Affairs and Heads of Delegations of the Non-Aligned Countries to the 36th General Session of the General Assembly of the U.N. of Sept. 25 and 28, 1981, and failed to disassociate itself from the communique issued? If so, has the President taken it into account? No
19. FY 1987 Continuing Resolution. If assistance is from the population functional account, does the country (or organization) include as part of its population planning programs involuntary abortion? N/a Project is ESF funded
20. FY 1987 Continuing Resolution Sec. 528. Has the recipient country been determined by the President to have engaged in a consistent pattern of opposition to the foreign policy of the United States? No

B. FUNDING SOURCE CRITERIA FOR COUNTRY ELIGIBILITY

1. Development Assistance Country Criteria

a. FAA Sec. 116. Has the Department of State determined that this government has engaged in a consistent pattern of gross violations of internationally recognized human rights? If so, can it be demonstrated that contemplated assistance will directly benefit the needy? No

2. Economic Support Fund Country Criteria

a. FAA Sec. 502B. Has it been determined that the country has engaged in a consistent pattern of gross violations of internationally recognized human rights? If so, has the country made such significant improvements in its human rights record that furnishing such assistance is in the national interest? No

5C(2) PROJECT CHECKLIST

A. GENERAL CRITERIA FOR PROJECT

1. FY 1987 Continuing Resolution
Sec. 523, FAA Sec. 634A

(a) Describe how authorizing and appropriations committees of the Senate and House have been or will be notified concerning the project;

This sub-project is under the IEMS Project. A Congressional Notification was forwarded to Congress & expired on 3/8/86.

2. FAA Sec. 611(a)(1). Prior to obligation in excess of \$500,000, will there be (a) engineering, financial or other plans necessary to carry out the assistance and

(a) Yes

(b) a reasonably firm estimate of the cost to the U.S. of the assistance?

(b) Yes

3. FAA Sec. 611(a)(2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance?

No further legislative action is required.

4. FAA Sec. 611(b); FY 1987 Continuing Sec. 501. If for water or water-related land resource construction, has project met the standards and criteria as set forth in the Principles and Standards and procedures established pursuant to the Water Resources Planning Act (142 U.S.C. 1962, et seq) (See AID Handbook 3 for new guidelines).

Yes

5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed \$1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability effectively to maintain and utilize the project?

Yes. See Annex I, Exhibit A

6. FAA Sec. 209. Is project susceptible to execution as part of regional or multilateral project? If so, why is project not so executed? Information and conclusion whether assistance will encourage regional development programs.

Yes. This sub-project is a component of the IEMS regional project managed by RDO/C. Implementation in Grenada is specific.
7. FAA Sec. 601(a). Information and conclusions whether project will encourage efforts of the country to: (a) increase the flow of international trade; (b) foster private initiative and competition; and (c) encourage development and use of cooperatives, and credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.

This sub-project provides infrastructure for foreign and local investment in tourism and industries by private sector enterprises. It will (a) have a positive impact on international trade, (b) private initiative and competition and (c) improve efficiency in the productive sectors.
8. FAA Sec. 601(b). Information and conclusions on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).

This sub-project provides industrial space for U.S. manufacturers and develops sites for tourism facilities. It will have a positive effect on the stability and growth performance of Grenada & will encourage U.S. private trade and investment.
9. FAA Sec. 612(b), 636(h); FY 1987 Continuing Resolution Sec. 507. Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars.

The GOG does not have adequate resources to fund projects in their capital budget. Where possible "in kind" contributions are programmed as the GOG's contribution.
10. FAA Sec. 612(d). Does the U.S. own excess foreign currency of the country, and, if so, what arrangements have been made for its release?

The U.S. does not own excess foreign currency of Grenada.
11. FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise?

Yes

12. FY 1987 Continuing Resolution Sec. 522. If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the same time resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity? Assistance is not being provided for the production of any specific commodity for export.
13. FAA 118(c) and (d). Does the project comply with the environmental procedures set forth in AID Regulation 16? Does the project or program take into consideration the problem of the destruction of tropical forests? N/A
14. FAA 121(d). If a Sahel project, has a determination been made that the host government has an adequate system for accounting for and controlling receipt and expenditure of project funds (dollars or local currency generated therefrom)? N/A
15. FY 1987 Continuing Resolution Sec. 532. Is disbursement of the assistance conditioned solely on the basis of the policies of any multilateral institution? No
16. ISDCA of 1985 Sec. 310. For development assistance projects, how much of the funds will be available only for activities of economically and socially disadvantaged enterprises, historically black colleges and universities, and private and voluntary organizations which are controlled by individuals who are black Americans, Hispanic Americans, or Native Americans, or who are economically or socially disadvantaged (including women)? N/A. This sub-project is ESF funded.

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

a. FAA Sec. 102(b), 111, 113, 281(a).
Extent to which activity will (a) effectively involve the poor in development, by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, spreading investment out from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using the appropriate U.S. institutions; (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions; (c) support the self-help efforts of developing countries; (d) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (e) utilize and encourage regional cooperation by developing countries?

N/A. This sub-project is ESF funded.

b. FAA Sec. 103, 103A, 104, 105, 106.
Does the project fit the criteria for the type of funds (functional account) being used?

N/A

c. FAA Sec. 107. Is emphasis on use of appropriate technology (relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small businesses, and small incomes of the poor)?

N/A

d. FAA Sec. 110(a). Will the recipient country provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or is the latter cost-sharing requirement being waived for a "relatively least developed" country)?

N/A

- e. FAA Sec. 122(b). Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth? N/A
- f. FAA Sec. 128(b). If the activity attempts to increase the institutional capabilities of private organizations or the government of the country, or if it attempts to stimulate scientific and technological research, has it been designed and will it be monitored to ensure that the ultimate beneficiaries are the poor majority? N/A
- g. FAA Sec. 281(b). Describe the extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civil education and training in skills required for effective participation in governmental processes essential to self-government. N/A
2. Development Assistance Project Criteria (Loans Only)
- a. FAA Sec. 122(b). Information and conclusion on capacity of the country to repay the loan, at a reasonable rate of interest. N/A
- b. FAA Sec. 620(d). If assistance is for any productive enterprise which will compete with U.S. enterprises, is there an agreement by the recipient country to prevent export to the U.S. of more than 20% of the enterprise's annual production during the life of the loan? N/A

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3. Economic Support Fund Project Criteria

- | | |
|---|---|
| a. <u>FAA Sec. 531(a)</u> . Will this assistance promote economic or political stability? To the extent feasible, is this assistance consistent with the policy directions, purpose, and programs of Part I of the FAA? | Yes. Economic & political stability will be enhanced by diversifying the economy and expanding the potential investments in industry and tourism. |
| b. <u>FAA Sec. 531(c)</u> . Will assistance under this chapter be used for military, or paramilitary activities? | Assistance will not be used for military or paramilitary activities. |
| c. <u>ISDCA of 1985 Sec. 207</u> . Will ESF funds be used to finance the construction of the operation or maintenance of, or the supplying of fuel for, a nuclear facility? If so, has the President certified that such country is a party to the Treaty on the Non-proliferation of Nuclear Weapons or the Treaty for the Prohibition of Nuclear Weapons in Latin America (the "Treaty of Tlatelolco"), cooperates fully with the IAEA, and pursues nonproliferation policies consistent with those of the United States? | No. |
| d. <u>FAA Sec. 609</u> . If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made? | Commodities are not to be granted under this sub-project. |

5C(3) - STANDARD ITEM CHECKLIST

A. Procurement

1. FAA Sec. 602. Are there arrangements to permit U.S. small business to participate equitably in the furnishing of commodities and services financed? Yes
2. FAA Sec. 604(a). Will all procurement be from the U.S. except as otherwise determined by the President or under delegation from him? Yes
3. FAA Sec. 604(d). If the cooperating country discriminates against marine insurance companies authorized to do business in the U.S. will commodities be insured in the United States against marine risk with such a company? Grenada does not discriminate against marine insurance companies authorized to do business in the U.S.
4. FAA Sec. 604(e); ISUCA of 1980 Sec. 705(a). If offshore procurement of agricultural commodity or product is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity? (Exception where commodity financed could not reasonably be procured in U.S.) Yes.
5. FAA Sec. 604(g). Will construction of engineering services be procured from firms of countries which receive direct economic assistance under the FAA and which are otherwise eligible under Code 941, but which have attained a competitive capability in international markets in one of these areas? Do these countries permit United States firms to compete for construction or engineering services financed from assistance programs of these countries? No

6. FAA Sec. 603. Is the shipping excluded from compliance with requirement in section 901(b) of the Merchant Marine Act of 1936, as amended, that at least 50 per centum of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed shall be transported on privately owned U.S. flag commercial vessels to the extent that such vessels are available at fair and reasonable rates? No
7. FAA Sec. 621. If technical assistance is financed, will such assistance be furnished by private enterprise on a contract basis to the fullest extent practicable? If the facilities of other Federal agencies will be utilized, are they particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs? Yes
8. International Air Transport. Fair Competitive Practices Act, 1974. If air transportation of persons or property is financed on grant basis, will U.S. carriers be used to the extent such service is available? Yes
9. FY 1987 Continuing Resolution Sec. 504. If the U.S. Government is a party to a contract for procurement, does the contract contain a provision authorizing termination of such contract for the convenience of the United States? Yes

B. Construction

1. FAA Sec. 601(d). If capital (e.g., construction) project, will U.S. engineering and professional services be used? Yes. To the extent feasible.
2. FAA Sec. 611(c). If contracts for construction are to be financed, will they be let on a competitive basis to maximum extent practicable? Yes

3. FAA Sec. 620(k). If for construction of productive enterprise, will aggregate value of assistance to be furnished by the U.S. not exceed \$100 million (except for productive enterprises in Egypt that were described in the CP)? Yes

C. Other Restrictions

1. FAA Sec. 122(b). If development loan, is interest rate at least 2% per annum during grace period and at least 3% per annum thereafter? N/A. This is an ESF Grant funded activity
2. FAA Sec. 301(d). If fund is established solely by U.S. contributions and administered by an international organization, does Comptroller General have audit rights? N/A
3. FAA Sec. 620(b). Do arrangements exist to insure that United States foreign aid is not used in a manner which, contrary to the best interests of the United States, promotes or assists the foreign aid projects or activities of the Communist-bloc countries? Yes
4. Will arrangements preclude use of financing: Yes
- a. FAA Sec. 104(f); FY 1987 Continuing Resolution Act Sec. 525: (1) To pay for performance of abortions as a method of family planning or to motivate or coerce persons to practice abortions; (2) to pay for performance of involuntary sterilization as method of family planning, or to coerce or provide financial incentive to any person to undergo sterilization; (3) to pay for any biomedical research which relates, in whole or part, to methods or the performance of abortions or involuntary sterilizations as a means of family planning; (4) to lobby for abortion? a(1) Yes
(2) Yes
(3) Yes
(4) Yes

- b. FAA Sec. 488. To reimburse persons, in the form of cash payments, whose illicit drug crops are eradicated? b. Yes
- c. FAA Sec. 620(q). To compensate owners for expropriated nationalized property? c. Yes
- d. FAA Sec. 660. To provide training or advice or provide any financial support for police, prisons, or other law enforcement forces, except for narcotics programs? d. Yes
- e. FAA Sec. 662. For CIA activities? e. Yes
- f. FAA Sec. 636(i). For purchase, sale, long-term lease, exchange or guaranty of the sale of motor vehicles manufactured outside U.S., unless a waiver is obtained? f. Yes
- g. FY 1987 Continuing Resolution Sec. 503. To pay pensions, annuities, retirement pay, or adjusted service compensation for military personnel? g. Yes
- h. FY 1987 Continuing Resolution Sec. 505. To pay U.N. assessments, arrearages or dues? h. Yes
- i. FY 1987 Continuing Resolution Sec. 506. To carry out provisions of FAA section 209(d) (Transfer of FAA funds to multi-lateral organizations for lending)? i. Yes
- j. FY 1987 Continuing Resolution Sec. 510. To finance the export of nuclear equipment, fuel, or technology or to train foreign nationals in nuclear fields? j. Yes
- k. FY 1987 Continuing Resolution Sec. 511. Will assistance be provided for the purpose of aiding the efforts of the government of such country to repress the legitimate rights of the population of such country contrary to the Universal Declaration of Human Rights? k. No
- l. FY 1987 Continuing Resolution Sec. 515. To be used for publicity purposes within U.S. not authorized by Congress? l. No

Ref No.
 In replying the above
 Number and date of this
 letter should be quoted.



**MINISTRY OF WORKS, COMMUNICATIONS,
 PUBLIC UTILITIES, CIVIL AVIATION AND
 ENERGY.**

**ST. GEORGE'S,
 GRENADA, W.I.**

February 26, 1987

Mr. William Erdahl
 AID Representative
 USAID, RDO/C Grenada
 Point Salines
 ST. GEORGE'S

Dear Mr. Erdahl,

On behalf of the Government of Grenada I would like to formally request AID financial assistance for FY 1987 projects that support Public Sector Investment Programs.

Specifically it is requested that AID assist in financing the following:

1. Completion of the Frequente Industrial Park;
2. Design and initial development of an industrial park near Pearls Airport;
3. Design and construction of a Grand Anse Tourism Development Program, including a sewerage system for the area;
4. A program for road repair and construction, including the reduction of a number of road safety hazards;
5. Limited assistance to improve tourist attractions, including restoration of Grenada's forts;

The above listing includes projects and programs that are of high priority to government, but it does not include several high priority programs such as small scale water systems and bridge repair. These and other programs will be the subject of separate correspondence.

The minimum estimated cost of the requested programs is approximately US\$4 million but could easily be expanded to US\$8 million given our current requirements.

The staff of this Ministry is prepared to work with AID personnel in designing and implementing the above programs for the benefit of the people of Grenada.

Sincerely yours,

Hon. Dr. Keith Mitchell
 Minister of Works, Communications,
 Public Utilities & Community
 Development.

GRAND ANSE DEVELOPMENT SCHEME TO FACILITATE THE PRIVATE DEVELOPMENT OF TOURISM FACILITIES IN THE GRAND ANSE - MOURNF ROUGE AREA. COST: US DOLS 1.0 MILLION DOLLARS 1/.

C. CONTINUE TO IMPROVE ACCESS TO AGRICULTURAL AND SOME TOURISM AREAS BY UPGRADING SELECTED ROADS. 2.0 MILLION DOLLARS 1/.

D. CONTINUED UPGRADING OF THE WATER SYSTEM THROUGH THE CONSTRUCTION OF TREATED WATER RESERVOIRS AND THE REDUCTION OF LEAKAGE BY THE REPLACEMENT OF OLDER OR DAMAGED PIPES AND PUMPS. COST: US DOLS 0.5 MILLION DOLLARS.

E. REPLACE DETERIORATED BRIDGES AND DANGEROUS HIGHWAY FEATURES HAZARDOUS TO TRAFFIC FLOW AND THE MOVEMENT OF COMMERCE. COST: US DOLS 2.0 MILLION DOLLARS 1/.

F. INFRASTRUCTURE AND FINANCIAL SUPPORT FOR THE CARENAGE RESTORATION AND DEVELOPMENT SCHEME AND SELECTED IMPROVEMENTS OF TOURIST FACILITIES. COST: US DOLS 1.0 MILLION DOLLARS 1/.

EACH OF THE ELEMENTS ABOVE MENTIONED AND DESCRIBED BELOW IN GREATER DETAIL ARE WITHIN THE CRITERIA FOR ELIGIBILITY ESTABLISHED IN THE IEMS PROJECT PAPER. ALL ACTIVITIES ARE WITHIN THE DEVELOPMENT STRATEGY OF THE GOVERNMENT OF GRENADA (GCG) AND ARE IN RESPONSE TO SPECIFIC REQUESTS FOR SUPPORT FROM THE GOVERNMENT. A MORE DETAILED DISCUSSION OF THE CONFORMITY WITH THE ELIGIBILITY CRITERIA WILL BE PRESENTED IN THE SUB-PROJECT PAPER. MORE SPECIFIC DETAILS OF EACH ELEMENT ARE ALSO PROVIDED IN THE SUB-PROJECT DESCRIPTION.

3. SUB-PROJECT DESCRIPTION: ANNEX G OF THE IEMS PROJECT PAPER SPECIFIES THAT THE GRENADA DEVELOPMENT ASSISTANCE PROGRAM WILL REQUIRE A SUB-PROJECT THAT IS IN REALITY A COLLECTION OF DIVERSE ACTIVITIES THAT ARE RELATED ONLY IN THAT THEY ARE SUPPORTIVE OF THE PRODUCTIVE SECTORS. THE PROGRAM DESCRIBED BELOW IS IN EFFECT A QUOTE MINI-CLUSTER UNQUOTE OF INFRASTRUCTURE INTERVENTIONS THAT, TAKEN INDIVIDUALLY, ARE MORE AKIN TO SMALL-SCALE ACTIVITIES THAN ELEMENTS OF A LARGE-SCALE HOMOGENOUS PROJECT. ACCORDINGLY, IT IS APPROPRIATE THAT THE SUB-PROJECT ELEMENTS BE IMPLEMENTED IN ACCORDANCE WITH THE GUIDELINES ESTABLISHED FOR SMALL-SCALE

ACTIVITIES; NAMELY, THAT THE CORE CONTRACTOR, WHERE REQUIRED, BE RESPONSIBLE FOR DESIGN AND CONSTRUCTION SUPERVISION. SEPARATE CONTRACTING FOR THESE SERVICES WOULD NOT BE COST PRODUCTIVE AND WOULD ADD AS MUCH AS ONE YEAR TO THE TIME REQUIRED TO INITIATE AND COMPLETE ALL ACTIVITIES. IT IS ANTICIPATED THAT MOST ACTIVITIES WILL REQUIRE ONLY A MINIMUM DESIGN EFFORT (DESIGNS FOR FREQUENTE AND GRAND ANSE ARE OR WILL BE LARGELY COMPLETED BY JANUARY 1986) AND THAT THE CONSTRUCTION SUPERVISION MAY BE ACCOMPLISHED BY A SINGLE PROJECT ENGINEER AND A LOCAL FINANCIAL CONSULTANT PROVIDED BY THE CORE-CONTRACTOR. CONSTRUCTION CONTRACTS WILL BE PERFORMED PRIMARILY BY LOCAL OR REGIONAL CONTRACTORS. A MORE DETAILED DESCRIPTION OF THE SUB-PROJECT ELEMENTS FOLLOWS.

FREQUENTE INDUSTRIAL PARK: THIS ELEMENT (1.8 MILLION DOLLARS) WILL COMPLETE THE DEVELOPMENT OF THE PARK WHICH WAS INITIATED UNDER THE INFRASTRUCTURE REVITALIZATION I PROJECT 543-0008 AND GREATLY EXTENDED UNDER INFRASTRUCTURE REVITALIZATION II (538-0129). AT PRESENT, SITES FOR SOME 120,000 SQUARE FEET OF FACTORY BUILDINGS HAVE BEEN GRADED ALONG WITH SUPPORTING ROADS AND LOADING AREAS. FOUR BUILDINGS (APPROXIMATELY 18,000 SQUARE FEET) HAVE BEEN RENOVATED AND THREE BUILDINGS (63,000 SQUARE FEET) ARE UNDER CONSTRUCTION AND WILL BE READY FOR OCCUPANCY BY DECEMBER, 1986. COMPLETION OF THE PARK WILL REQUIRE:

- (1) THE CONSTRUCTION OF AN ADDITIONAL FOUR BUILDINGS (57,000 SQUARE FEET);
- (2) THE RENOVATION OF FOUR EXISTING BUILDINGS (98,200 SQUARE FEET) TO BE USED PRIMARILY FOR LOCAL GRENADIAN VENTURES;
- (3) THE PROVISION OF A 250,000 GALLON WATER TANK TO PROVIDE RESERVE WATER, ADEQUATE PRESSURE AND FIRE PROTECTION;
- (4) ELECTRICAL POWER SUPPLY TO THE SITE AND STEP-DOWN TRANSFORMERS;
- (5) ADDITIONAL SITE DEVELOPMENT TO IMPROVE DRAINAGE, PAVE ROADS, LANDSCAPE, TO PROVIDE SOIL EROSION, PROVIDE ADDITIONAL FENCING AND CONSTRUCT NEEDED IMPROVEMENTS SUCH AS BUS STOP SHELTERS AND LIGHTING;
- (6) CONSTRUCTION OF INTERIOR CORES (BATHROOMS AND OFFICES) IN BUILDINGS AS REQUIRED;
- (7) CONSTRUCTION OF AN INVESTMENT CENTER TO HOUSE THE INDUSTRIAL DEVELOPMENT CORPORATION; THE GRENADA CHAMBER OF INDUSTRY AND COMMERCE; THE GRENADA HOTELS ASSOCIATION; AND THE MANUFACTURER'S COUNCIL.

THE COMPLETION OF THE INDUSTRIAL PARK IS CONSISTENT WITH

THE RECOMMENDATIONS OF FREE ZONE AUTHORITY, LTD. CONTAINED IN A STUDY FINANCED BY AID IN 1985 AND THE GOG'S APPROVED DEVELOPMENT PLAN FOR THE INDUSTRIAL PARK. THE ABOVE MENTIONED STUDY PROJECTS DEMAND COMMENSURATE WITH PROPOSED CONSTRUCTION AND THIS PROJECTION HAS BEEN MATCHED BY THE ACTUAL DEMAND FOR FACTORY BUILDINGS CURRENTLY UNDER CONSTRUCTION. THE ECONOMIC JUSTIFICATION SUPPORTING FACTORY SHELL DEVELOPMENT WILL EMPLOY A METHODOLOGY USED BY RDO/C IN ASSESSING THE ECONOMIC MERITS OF THE INFRASTRUCTURE FOR PRODUCTIVE INVESTMENT (IPIP) PROJECT. THIS METHODOLOGY WAS USED IN THE ASSESSMENT OF THE DEVELOPMENT OF THE FREQUENTE INDUSTRIAL PARK IN INFRASTRUCTURE REVITALIZATION II AND THAT ANALYSIS WILL BE UPDATED IN THE SUB-PROJECT PAPER FOR THIS ACTIVITY.

DESIGN OF THE PARK IS ESSENTIALLY COMPLETE AND UTILIZES SITE DESIGNS PREPARED BY AID ENGINEERS AND PRE-FABRICATED BUILDINGS WITH DESIGNS PROVIDED BY THE SUPPLIER. AN 8(A) SMALL BUSINESS MINORITY CONSTRUCTION CONTRACTOR IS PRESENTLY UNDER CONTRACT FOR ERECTION OF THE FIRST THREE BUILDINGS AND IT IS ANTICIPATED THAT THE SMALL BUSINESS ADMINISTRATION WILL APPROVE A CONTRACT AMENDMENT TO CONSTRUCT FOUNDATIONS; ERECT FOUR ADDITIONAL BUILDINGS; AND RENOVATE FOUR BUILDINGS. OTHER WORK WILL BE CONTRACTED LOCALLY OR THROUGH THE SAME 8(A) FIRM. CONSTRUCTION SUPERVISION WILL BE

PROVIDED BY THE CORF CONTRACTOR FOR EACH ELEMENT. IT IS ANTICIPATED THAT CONSTRUCTION SUPERVISION WILL REQUIRE THE SERVICES OF A SINGLE ENGINEER AND A LOCAL-EIRE FINANCIAL ANALYST.

GRAND ANSE DEVELOPMENT (1.0 MILLION DOLLARS): THE GRAND ANSE BEACH AND THE ADJACENT WATERSHED IS ONE OF GRENADA'S PRIMARY ASSETS IN THE ATTRACTION OF THE TOURISM MARKET. THE AREA HAS EXCELLENT POTENTIAL BUT ITS TOURIST POTENTIAL IS AT RISK OF BEING NEGATED BY UNPLANNED DEVELOPMENT AND SEWAGE POLLUTION. AID IS PRESENTLY FUNDING A STUDY BY THE TENNESSEE VALLEY AUTHORITY (TVA) WHICH WILL PRODUCE, IN JANUARY, 1987, A DEVELOPMENT PLAN AND PRIVATE PLACEMENT PROSPECTUS TO PROMOTE THE AREA AS A TOURIST CENTER. THE COMPLETED STUDY WILL ALSO INCLUDE GRAPHICS FOR A STAND-UP PRESENTATION AND RDO/C GRENADA IS PLANNING TO FINANCE AN INVESTOR CONFERENCE OF HOTELIERS, FINANCIERS AND OTHER INTERESTED PARTIES THAT WOULD BE HOSTED BY THE GOG AND THE GRENADIAN PRIVATE SECTOR. THE INTENT IS TO PROMOTE HOTEL DEVELOPMENT AND ANCILLARY SERVICES.

THE GRAND ANSE DEVELOPMENT SCHEME WILL ENCOMPASS THE DEVELOPMENT OF THE AREA KNOWN AS THE CAMERHOGNE PARK WHICH LINKS THE BEACH AREA TO HOTELS BUILT ON THE SLOPES OF THE SURROUNDING HILLS. AT PRESENT THIS AREA IS AN UNATTRACTIVE NUISANCE THAT IS LOCALLY REFERRED TO AS THE QUOTE GAZA STRIP UNQUOTE. THIS ELEMENT WILL PROVIDE FUNDING FOR SITE CLEARING OF THE PARK AND THE INSTALLATION OF WATER LINES AND SANITARY/STORM DRAINAGE. ADDITIONAL FUNDING WILL BE UTILIZED TO DEVELOP FEATURES WITHIN THE PARK BUT THE DETAILS OF THESE CAN ONLY BE GUESSED AT UNTIL THE TVA PLAN IS COMPLETED IN EARLY 1986. IF THE INVESTOR CONFERENCE IS SUCCESSFUL IN PROMOTING THE DEVELOPMENT OF SEVERAL PRIME HOTEL SITES, FUNDS MAY BE UTILIZED TO ASSIST DEVELOPMENT BY PROVIDING PRIMARY INFRASTRUCTURE SUCH AS AN ACCESS ROAD, WATER LINES OR SEWERAGE CONNECTIONS.

A MAJOR CONCERN AT THIS TIME IS THE DEGREE OF POLLUTION IN THE WATERS OFF THE GRAND ANSE BEACH. THE POLLUTION IS BEING CAUSED BY EFFLUENT THAT IS BEING DISCHARGED BY HOTELS AND PRIVATE RESIDENCES AS WELL AS THE MEDICAL SCHOOL. THE TVA PLAN WILL PROPOSE A SOLUTION TO THE SEWAGE PROBLEM AND THIS ELEMENT MAY PROVIDE FUNDING FOR SEWERAGE, INCLUDING COLLECTORS AND, POSSIBLY, TREATMENT. ANY PROPOSED SYSTEM WILL BE FAIRLY SMALL AND IT IS ANTICIPATED THAT CONSTRUCTION COULD BE ACCOMPLISHED WITHIN THE FUNDING ALLOCATED. THIS IS THE ONLY ELEMENT OF THIS SUB-PROJECT THAT WILL REQUIRE A POSITIVE DETERMINATION ON THE IEE AND AN ENVIRONMENTAL ASSESSMENT WILL BE REQUIRED. THE OAS IS CONDUCTING OCEAN CURRENT STUDIES AND HAS PRODUCED SEVERAL REPORTS ON THE PROBLEM AT GRAND ANSE BEACH. THE ENVIRONMENTAL ASSESSMENT SHOULD NOT POSE ANY SIGNIFICANT PROBLEM, NOR SHOULD IT DELAY IMPLEMENTATION OF THIS ACTIVITY.

DESIGN OF SPECIFIC INTERVENTIONS AND CONSTRUCTION

SUPERVISION WILL BE PROVIDED BY THE CORE CONTRACTOR. CONSTRUCTION WILL BE CONTRACTED IN GRENADA. AN ECONOMIC ANALYSIS WILL BE SIMILAR TO THAT USED ON OTHER TOURIST PROJECTS, PARTICULARLY THE ST. KITTS SOUTH EAST PENINSULA ROAD PROJECT.

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SECONDARY ROADS (2.0 MILLION DOLLARS): ROAD RESURFACING HAS BEEN ONE OF THE MOST SUCCESSFUL PROGRAMS UNDERTAKEN BY AID IN GRENADA. TO DATE, MOST OF THE PRIMARY ROADS HAVE BEEN RESURFACED EITHER BY AID OR OTHER DONORS. UNFORTUNATELY, FUNDING AND PRIORITIES HAVE NOT PERMITTED EXTENSIVE REPAIR AND RESURFACING OF SECONDARY ROADS OR FARM ROADS. THE LATTER ARE PARTICULARLY IMPORTANT GIVEN THE MAJOR ROLE PLAYED BY AGRICULTURE IN THE ECONOMY OF GRENADA. THE GOG HAS SUBMITTED TO RDO/C GRENADA A LIST OF ITS PRIORITIES IN ROAD RESURFACING AND REPAIR. ONCE THE LIST HAS BEEN ANALYSED, RDO/C GRENADA WILL REACH AGREEMENT WITH THE GOG ON WHICH ROADS SHALL BE INCLUDED IN THIS PROGRAM. FACTORS SUCH AS USER SAVINGS AND REDUCTIONS IN PRODUCE DAMAGE WILL BE ASSESSED ALONG WITH THE POTENTIAL FOR NEW AGRICULTURE ACTIVITY GENERATED BY IMPROVED ROAD TRANSPORT AND ACCESS. IN SOME INSTANCES, AN INTERVENTION MAY BE WARRANTED TO SUPPORT EITHER TOURISM OR MANUFACTURING. IN EACH CASE, FACTORS WILL BE USED TO PREPARE AN ECONOMIC ANALYSIS AND ONLY THOSE ROADS HAVING AN IRR OF TEN (10) PER CENT OR MORE WILL BE SELECTED FOR REHABILITATION.

THIS ELEMENT WILL BE DESIGNED AND SUPERVISED BY THE CORE CONTRACTOR AND WILL BE CONSTRUCTED BY LOCAL CONTRACTORS OR AN 8(A) FIRM.

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WATER SYSTEM REHABILITATION (0.5 MILLION DOLLARS):
THERE ARE 23 SEPARATE WATER SYSTEMS IN GRENADA AND MOST ARE EXTREMELY AGED AND IN NEED OF REPAIR. LEAKAGE OF WATER AND LOW PRESSURE DUE TO ENCRUSTATION AND CORROSION OF PIPELINES THAT ARE OFTEN OVER ONE HUNDRED YEARS OLD WAS RECOGNIZED AS A CRITICAL PROBLEM IN THE INFRASTRUCTURE REVITALIZATION PROJECT I. IN 1984, AID PROVIDED DOLS 453,000 FOR LEAK DETECTION EQUIPMENT, WATER MAIN PIPE AND INSTALLATION. AN ECONOMIC ANALYSIS INDICATED THAT LEAK DETECTION ACTIVITY WOULD RENDER AN IRR OF 156 PER CENT. UNDER THIS ELEMENT, A PRIORITY LIST OF PROBLEM WATER LINES WILL BE IDENTIFIED FOR REPLACEMENT. MANY OF THESE WILL BE RELATED TO ROAD REPAIR WORK TO BE FINANCED UNDER A SEPARATE ELEMENT. EXPERIENCE HAS SHOWN THAT UNLESS OLD WATER LINES UNDER ROADS BEING RENOVATED ARE REPAIRED, THE ROADS ARE SOON TORN UP TO REPAIR LEAKS. PRIORITY WILL BE GIVEN TO THOSE LINES WHICH HAVE A DIRECT IMPACT UPON PRODUCTIVE ENTERPRISE.

A MAJOR PROBLEM WITH THE WATER SYSTEM IN GRENADA IS THE DISTRIBUTION OF WATER STORAGE FACILITIES THAT REGULATE SUPPLY DURING THE DRY SEASON. AID HAS ALREADY FINANCED THE CONSTRUCTION OF A 500,000 GALLON STORAGE FACILITY IN WOPURN. ANOTHER 500,000 GALLON TANK IS AVAILABLE AT THE AIRPORT TANK FARM. UNDER THIS ELEMENT, THE REMAINING TANK WILL BE MOVED TO THE ST. PAUL'S AREA TO IMPROVE DISTRIBUTION THERE AND IN THE ST. GEORGE'S AREA. THIS WILL RELIEVE PRESSURE TO ROUTE WATER FROM OTHER SYSTEMS TO THE ST. GEORGE'S AREA.

THERE IS LITTLE DESIGN WORK INVOLVED IN THIS ELEMENT AND WHAT THERE IS WILL BE PROVIDED BY THE CORE CONTRACTOR WORKING WITH THE CENTRAL WATER COMMISSION (CWC). CONSTRUCTION WILL BE BY A LOCAL OR REGIONAL CONTRACTOR SUPERVISED BY THE CORE CONTRACTOR.

BRIDGES AND HAZARDS (2.0 MILLION DOLLARS): AS INDICATED ABOVE, AID AND OTHER DONORS HAVE CONTRIBUTED SUBSTANTIALLY TO THE REHABILITATION OF THE GRENADA PRIMARY ROAD SYSTEM. MOST OF AID'S ROAD REHABILITATION WORK HAS CONSISTED OF RESURFACING EXISTING ROADS WITHOUT UPGRADING EITHER THE BASE COURSE OR REBUILDING RETAINING WALLS AND BRIDGES. THIS METHODOLOGY HAS PERMITTED RAPID REHABILITATION AND CONSEQUENT USE, BUT IT HAS NOT ADDRESSED THE PROBLEM OF HAZARDOUS BRIDGES AND SLIDE AREAS. A BRITISH STUDY MADE TEN YEARS AGO INVESTIGATED THE CONDITION OF MAJOR BRIDGES AND IDENTIFIED THOSE STRUCTURES WHICH HAVE CRITICAL AND HAZARDOUS POTENTIAL FOR FAILURE. SOME OF THESE HAVE SINCE COLLAPSED OR BEEN REPAIRED. MOST HAVE CONTINUED TO DETERIORATE. THIS ELEMENT OF THE SUB-PROJECT PROPOSES TO REVIEW THE ABOVE MENTIONED REPORT AND SELECT THOSE BRIDGES WHICH HAVE THE GREATEST HAZARD POTENTIAL IN BOTH HUMAN AND ECONOMIC

TERMS FOR REHABILITATION OR REPLACEMENT. SIMILARLY, MAJOR HAZARDOUS DETERRENTS TO TRAFFIC FLOW SUCH AS LANDSLIDE AREAS, POOR DRAINAGE, AND POOR ALIGNMENT WILL BE IDENTIFIED AND RECTIFIED BY CONSTRUCTION OF RETAINING WALLS, DRAINAGE STRUCTURES AND EARTHWORK ADJUSTMENTS.

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THIS TYPE OF PROJECT IS NOT CONDUCTIVE TO DETAILED ECONOMIC BENEFIT ANALYSES SINCE THE CONSEQUENCES OF A BRIDGE FAILURE OR TRAFFIC ACCIDENTS COULD ONLY BE MEASURED IN VALUE OF LOST LIVES, LOST TIME DUE TO CLOSING OF A ROAD SYSTEM AND LOSSES TO THE ECONOMY BY INACCESSABILITY TO COMMERCIAL CENTERS AND HOMES. A LEAST COST APPROACH WILL BE TAKEN TO ASSURE FINANCIAL ECONOMIES.

DESIGN AND CONSTRUCTION SUPERVISION WILL BE PROVIDED BY THE CORE CONTRACTOR FOR EACH ACTIVITY. CONSTRUCTION WILL BE PROVIDED PRIMARILY BY LOCAL CONTRACTORS, ALTHOUGH SOME BRIDGE CONSTRUCTION MAY BE BETTER ACCOMPLISHED BY UTILIZING AN 8(A) CONSTRUCTION CONTRACTOR PRESENTLY ON THE ISLAND.

TOURISM DEVELOPMENT (1.0 MILLION DOLLARS): ONE OF GRENADA'S PERSISTENT PROBLEMS IN ATTRACTING TOURISM IS THE LACK OF TOURIST QUOTE INFRASTRUCTURE UNQUOTE IN GRENADA. THE ISLAND IS PHYSICALLY ONE OF THE MOST

BEAUTIFUL IN THE CARIBBEAN AND IS VIRTUALLY UNTOUCHED IN TERMS OF DEVELOPMENT, BUT THERE ARE FEW PLACES WHERE TOURISTS CAN SHOP AND FEW DEVELOPED HISTORIC OR SCENIC ATTRACTIONS.

THE OAS AND TVA HAVE EACH COMPLETED STUDIES AND MADE RECOMMENDATIONS WHICH RECOGNIZE THE POTENTIAL OF ST. GEORGE'S AS A TOURIST CENTER WHICH COULD TAKE BETTER ADVANTAGE OF THE CRUISE SHIP AND STAYOVER VISITOR MARKET. CRUISE SHIPS ALONE REPRESENT A TEN MILLION DOLLAR A YEAR MARKET AT CURRENT LEVEL OF SHIP CALLS. HOWEVER, THE AVERAGE CRUISE SHIP VISITOR SPENDS LESS THAN TEN (10) U.S. DOLLARS BECAUSE THERE IS LITTLE FOR HIM TO BUY IN GRENADA. THIS SUB-PROJECT ELEMENT HAS AS ITS OBJECTIVE LONGER STAYS AND HIGHER EXPENDITURES BY VISITORS.

IN MARCH, 1987, TVA WILL COMPLETE A CARENAGE DEVELOPMENT PLAN AND PROPOSALS FOR THE CREATION OF A CARENAGE DEVELOPMENT ASSOCIATION MADE UP OF VENDORS AND BUILDING OWNERS. THE PURPOSE OF THE ASSOCIATION WILL BE THE IMPROVEMENT AND RESTORATION OF BUILDINGS ON THE CARENAGE AND THEIR CONVERSION TO TOURISM USEAGE. THE MECHANISM FOR THIS WILL BE THE USE OF SUB-PROJECT FUNDS TO COMPLETE COMMON INFRASTRUCTURE SUCH AS SIDEWALKS, PLANTERS AND STREET LIGHTING; AND THE ESTABLISHMENT OF A MATCHING/LOAN FUND FOR THE PURPOSE OF FINANCING RESTORATIONS AND CONVERSIONS WHICH COMPLY WITH A COMPREHENSIVE DEVELOPMENT PLAN. TVA HAS ALREADY COMPLETED PLANS FOR THE RESTORATION OF FORTS GEORGE AND FREDERICK. THESE PLANS, WHICH ARE NOT COSTLY, WILL BE IMPLEMENTED ONLY IF THE GOG WILL AGREE TO DEDICATE THESE STRUCTURES TO TOURISM USAGE ONLY. FINALLY, A VERY LIMITED AMOUNT OF FUNDING WILL BE UTILIZED TO BUILD SCENIC OVERLOOKS WITH INTERPRETIVE GUIDES AT APPROPRIATE LOCATIONS ON TOURIST ROUTES AROUND THE ISLAND.

THE ECONOMIC JUSTIFICATION, AS WITH OTHER TOURISM PROJECTS IS BASED UPON BENEFITS FROM SHORT-TERM EMPLOYMENT GENERATION DURING CONSTRUCTION AND INCREASED TOURIST EXPENDITURES OF FOREIGN EXCHANGE. THE METHODOLOGY HAS ALREADY BEEN USED FOR THE PREVIOUS INFRASTRUCTURE PROJECTS AND WILL BE DUPLICATED HERE. DESIGN, WHERE NOT ALREADY COMPLETED WILL BE ACCOMPLISHED BY TVA OR THE CORE CONTRACTOR IN THE CASE OF THE CARENAGE RESTORATIONS AND CONVERSIONS, DESIGN AND CONSTRUCTION SUPERVISION WILL BE ACCOMPLISHED BY LOCAL CONTRACTORS. ALL CONSTRUCTION WILL BE BY LOCAL CONTRACTORS.

4. CONTRACTING ISSUES: CONSTRUCTION - NONE OF THE SUB-PROJECTS ARE OF SUFFICIENT COMPLEXITY OR MAGNITUDE TO REQUIRE THE SERVICES OF A LARGE U.S. CONSTRUCTION CONTRACTOR. A U.S. SECTION 8A FIRM IS PRESENTLY, SATISFACTORILY WORKING ON AN AID FINANCED ROAD AND FACTORY SHELLS. UTILIZATION OF THIS FIRM IN THE PROPOSED REHABILITATION OF ROADS, BRIDGES OR FACTORY SHELLS CAN BE NEGOTIATED.

THERE ARE MANY SMALL CONTRACTORS CAPABLE OF DOING THE LIMITED EARTHMOVING AND CONCRETE, MASONARY AND DRAINAGE WORK REQUIRED IN CONNECTION WITH ROAD AND BRIDGE IMPROVEMENTS, ENHANCMENT OF TOURIST FACILITIES AND REPAIRS TO THE WATER SYSTEM DESCRIBED ABOVE.

ANNEX D
Page 10 of 13

THE FORCES OF THE GOG MINISTRY OF COMMUNICATIONS AND WORKS ARE PRESENTLY FULLY ENGAGED IN OTHER CONSTRUCTION ACTIVITIES AND THEIR PARTICIPATION IN CONSTRUCTING SUB-PROJECTS WOULD BE LIMITED AND IS NOT NECESSARY TO SUCCESSFUL PROJECT IMPLEMENTATION.

SUP-PROJECT PLANNING AND DESIGN AND SUPERVISION: THE IEMS CORE CONTRACTOR IN COOPERATION WITH RDO/C GRENADA STAFF AND THE RDO/C CHIEF ENGINEER WILL CARRY OUT THE NECESSARY SHORT TERM INPUTS OF EXPERTISE TO DEVELOP PLANS, SPECIFICATIONS AND ESTIMATES NEEDED TO BRING SUP-PROJECTS TO THE CONSTRUCTION STAGE. IT WILL ALSO PREPARE AND COORDINATE ALL PROJECT IMPLEMENTATION ACTIONS AND PROVIDE LONG TERM STAFF SUPERVISION TO ADMINISTER THE CONSTRUCTION PHASES OF EACH SUB-PROJECT. ANY ADDITIONAL STAFF REQUIRED TO FINANCIALLY ADMINISTER THE PROJECT WILL BE ARRANGED BY THE CORE CONTRACTOR IN ACCORDANCE WITH STANDARD AID RULES AND PROCEDURES.

CONTRACTING METHODS: AS NOTED ABOVE, THE SERVICES OF

THE RESIDENT U.S. SECTION BA FIRM MAY BE NEGOTIATED. CONTRACTS AND/OR SUBCONTRACTS WILL BE ADVERTISED FOR LOCAL CONTRACTORS ACCORDING TO AID HR 1, SUPPLEMENT B, CHAPTER 18 GUIDANCE. CONSIDERATION WILL BE GIVEN TO USING A MODIFIED FIXED AMOUNT REIMBURSEABLE (FAR) METHOD OF FINANCING. THAT IS, AFTER SIGNING A FIXED PRICE CONTRACT, AN ADVANCE CAN BE MADE TO THE CONTRACTOR FOR MOBILIZATION. PROGRESS WILL DETERMINE FURTHER PERIODIC PAYMENTS UNTIL EIGHTY PERCENT OF WORK IS COMPLETED. THE LAST TWENTY PERCENT WILL BE RELEASED WHEN WORK IS COMPLETED AND ACCEPTED.

5. POLICY ISSUES AND CONDITIONALITY:

A. FREQUENTE INDUSTRIAL PARK: MOST POLICY ISSUES INVOLVING THIS ELEMENT HAVE BEEN RESOLVED DURING THE PREVIOUS PROJECT OR WILL BE RESOLVED PRIOR TO THE OBLIGATION OF THIS SUB-PROJECT. THE ONLY KNOWN ISSUES THAT MAY ARISE ARE RENT SUBSIDY POLICY OF THE IDC AND THE REMOVAL OF THE POLICE GARAGE FROM THE FREQUENTE AREA. BOTH OF THESE ISSUES WILL BE ADDRESSED IN THE SUB-PROJECT PAPER.

B. GRAND ANSE DEVELOPMENT: THIS IS THE MOST COMPLEX ELEMENT OF THIS SUB-PROJECT AND IT IS ANTICIPATED THAT NUMEROUS POLICY ISSUES WILL BE RAISED BY THE TVA STUDY NOW UNDERWAY. NOT THE LEAST OF THESE WILL BE THE COMMITMENT OF THE GOG TO A PLAN WHICH WILL ESSENTIALLY DELINEATE THE GRAND ANSE AREA AS A TOURIST DEVELOPMENT AND REQUIRE THE GOVERNMENT TO PASS NECESSARY ZONING REGULATIONS. ANY PROPOSED SEWERAGE AND TREATMENT IS FOUND TO RAISE POLICY CONCERNS TO BOTH AID AND THE GOG, BUT THESE CANNOT BE ANTICIPATED UNTIL THE TVA PLAN IS COMPLETED.

C. SECONDARY ROADS: THE ONLY ISSUE EXPECTED TO BE RAISED FOR THIS ELEMENT IS THE SELECTION OF THE ROADS.

D. WATER: THE ONLY ISSUE EXPECTED TO BE RAISED IS THE PRIORITY OF INTERVENTIONS.

E. BRIDGES AND HAZARDS: AGAIN, THE ONLY ISSUE ANTICIPATED IS THE SELECTION OF BRIDGES AND HAZARDS TO BE ADDRESSED.

F. TOURISM DEVELOPMENT: AS IN B. ABOVE, THIS ACTIVITY RAISES ISSUES THAT PERTAIN TO THE COMMITMENT OF THE GOG TO ENHANCE TOURISM BY IMPROVING INFRASTRUCTURE. FOR EXAMPLE, EFFORTS TO IMPROVE FORTS GEORGE AND FREDERICK CAN BE UNDERTAKEN, GOVERNMENT AND POLICE OFFICES MUST BE MOVED ELSEWHERE. AS WELL, UNLESS THE FULL SUPPORT OF THE GOVERNMENT IS OBTAINED TO TRANSFORM THE CARENAGE INTO AN ATTRACTIVE TOURIST CENTER, THE CONVERSIONS CONTEMPLATED WILL BE INEFFECTIVE. THE COOPERATION OF THE GOG WILL BE REQUIRED TO ESTABLISH TRAFFIC CONTROL; PROHIBIT MARINE LOADING AND UNLOADING; ESTABLISH PARKING REGULATIONS; AND PROMOTE BETTER POLICE PATROLLING. MORE IMPORTANTLY, THE GOVERNMENT MUST

DEMONSTRATE DURING SUB-PROJECT IMPLEMENTATION A WILLINGNESS TO EXPLORE WAYS IN WHICH IT CAN ENHANCE GRENADA AS A TOURIST DESTINATION.

6. ANNEX I: INITIAL ENVIRONMENTAL EXAMINATION: A REVIEW OF THE POSSIBLE FORESEEABLE EFFECTS OF CARRYING OUT THE PROPOSED SUB-PROJECTS INDICATES THAT ONLY ONE NEED BE REVIEWED AGAIN AT A LATER DATE. IT IS THEREFORE RECOMMENDED THAT A THRESHOLD DECISION DOCUMENTING THAT EITHER AN ENVIRONMENTAL ASSESSMENT NOR AN ENVIRONMENTAL IMPACT STATEMENT ARE REQUIRED FOR FIVE OF THE SIX SUB-PROJECTS. THE BASES FOR THIS RECOMMENDATION ARE AS FOLLOWS:

ELEMENT A: THE FREQUENT INDUSTRIAL COMPLEX IS AN ESTABLISHED FUNCTIONING INDUSTRIAL AREA CONCEIVED FOR LIGHT INDUSTRY AND MANUFACTURING. NO SMOKE, NOISE OR LIQUID POLLUTANTS ARE EXPECTED FROM ANY MANUFACTURING OPERATIONS LEASING THE PROPOSED FACTORY SHELLS. THE ENVIRONMENTAL EFFECTS OF THE COMPLEX ON THE SURROUNDING AREA WERE CONSIDERED WHEN THE SITE WAS PLANNED, ACQUIRED AND DEVELOPED BY USAID IN PAST PROJECTS. THE PROPOSED FOUR NEW FACTORY SHELLS ARE PART OF THE PHASED DEVELOPMENT OF THE COMPLEX.

ELEMENT B: AS NOTED ABOVE, THIS ELEMENT HAS NOT PROGRESSED TO THE POINT WHERE A THRESHOLD DECISION CAN

BE MADE. THE GRAND ANSE SITE DEVELOPMENT PLANS ARE CURRENTLY IN PREPARATION. A CP TO EXPENDITURE OF ANY PROJECT FUNDS FOR GRAND ANSE SITE DEVELOPMENT WILL BE CONTINGENT ON A REVIEW OF SITE DEVELOPMENT PLANS TO DETERMINE IF AN EA OR AN EIS WILL BE REQUIRED.

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Page 13 of 13

ELEMENT C: ROAD REHABILITATION WILL TAKE PLACE WITHIN THE EXISTING RIGHTS-OF-WAY. NO MAJOR EARTHWORK IS ANTICIPATED. ALL NEW DRAINAGE FACILITIES ARE INTENDED TO ELIMINATE EROSION AND WILL BE DESIGNED TO MOVE ROADWAY RUNOFF INTO EXISTING NATURAL DRAINS.

ELEMENT D: THIS ELEMENT WILL, IN ADDITION TO IMPROVING THE EFFICIENCY OF THE WATER SYSTEM, REDUCE THE ADVERSE IMPACT OF WATER LEAKAGE IN THE VICINITY OF PIPELINES.

ELEMENT E. ALL BRIDGE REHABILITATIONS WILL TAKE PLACE AT THE PRESENT BRIDGE SITES. ANY WATER COURSES HAVING POOR CHANNELIZATION WILL BE IMPROVED DURING CONSTRUCTION THUS REMOVING ANY PRESENT ADVERSE FLOODING.

IMPROVEMENTS TO HAZARDOUS SECTIONS OF HIGHWAYS OR POTENTIAL DAMAGING LANDSLIDE AREAS, ARE INTENDED TO TAKE PLACE WITHIN ROADWAY LANDS. SINCE LANDSLIDES AND EROSION ARE ADVERSE ENVIRONMENTAL EFFECTS THE REMOVAL OF SUCH FEATURES UNDER THIS SUB-PROJECT IMPROVES THE ROADS COMPATIBILITY WITH THE ENVIRONMENT.

SUB-PROJECT F: THIS PROJECT IS INTENDED TO ENHANCE THE ATTRACTIVENESS OF THE HISTORIC FORTS AND THE CARENAGE TO TOURISTS, THUS HAVING A POSITIVE EFFECT ON THE ENVIRONMENT.

IN SUMMARY, A POSITIVE THRESHOLD DECISION IS RECOMMENDED FOR ALL SUB-PROJECTS EXCEPT GRAND ANSE, AND A DETERMINATION OF THE LATTER WILL BE FORTHCOMING FOLLOWING COMPLETION OF DEVELOPMENT PLANS.

7. RDC/C GRENADA WISHES TO EXPRESS ITS APPRECIATION FOR THE EFFORTS MADE BY BOB FEDEL IN PREPARING THE MID COURSE DECISION DOCUMENT. MR. FEDEL WORKED CLOSELY WITH RDC/C GRENADA STAFF AND HIS INPUT AND ASSISTANCE WERE INVALUABLE. LEARY

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December 8, 1986

ACTION MEMORANDUM FOR THE MISSION DIRECTOR, RDO/C

Michael G. Huffman
From: Michael G. Huffman, PDO

Action Requested: That you approve (1) the Grenada Infrastructure Revitalization III Subproject Mid-Course Decision Document under the Infrastructure Expansion and Maintenance Systems (IEMS) Development Project (538-0138) and (2) the issuance of a Work Order to the IEMS Core Contractor to proceed with the preparation of the associated Project Paper Supplement.

Background: On May 6, 1986 you authorized the IEMS project consisting of three components: 1) a Small Activities Fund for activities of less than \$1 million, 2) a Large Subproject Program for activities over \$1 million and 3) a core contract for technical and engineering services. One of the large subprojects identified early on in the project design process was the Grenada Infrastructure Revitalization III Subproject. This subproject has already been approved by AID/W for development and the core contractor, in cooperation with RDO/C Grenada, has submitted the required Mid-Course Decision Document for Mission review and your approval.

Discussion: The Mid-Course Decision Document (MCDD) for the Grenada subproject was submitted to RDO/C by Grenada Cable 2337 on October 16. A Mission review of the document was held on October 20. The results of the review and subsequent, less-formal meetings are summarized below:

The MCDD proposed six activities at a combined cost of \$8.3 million. The Mission review committee, realizing that \$8.3 million was beyond likely funding availability, requested RDO/C Grenada to prioritize the six activities. Based on RDO/C Grenada's submission, management concerns, further discussions between RDO/C and RDO/C Grenada and an assumed project funding level of \$4.0 million, a recommendation was established to develop a Project Paper Supplement for a \$4.0 million subproject comprised of five components:

I.		<u>Funding Level</u>
A.	Frequente Industrial Park Development	\$1.80 million
B.	Road Improvement and Transportation Hazard Reduction	\$0.30 million
C.	Carenage Restoration and Development	\$0.35 million
D.	Grand Anse Site Development and Promotion	\$1.50 million
E.	Other Industrial Park Development	\$0.05 million
TOTAL		<hr/> \$4.00 million

75

Once the Mission review committee established the recommendations concerning the basic parameters of the project, a series of subproject development guidance recommendations were formulated.

Regarding the Frequente Industrial Park Development component, it was recommended that the Project Paper Supplement address certain concerns:

- 1) An analysis of factory space demand/supply should be presented. The Supplement should also address the larger question of demand/supply of factory space in Grenada in general. What is a realistic schedule for space utilization? What is a realistic schedule for each stage of construction completion?
- 2) Refer in the PP Supplement to the "Free Zone Study" and describe how our present plan is based on, or differs from, the recommendations therein.
- 3) In relation to the construction of office space, confirm the intent of those institutions planning to occupy it.
- 4) A thorough discussion of the rental policies is needed for all government owned factory space. The financial analysis will then be based on this.
- 5) Discuss the availability of utilities to the site and anticipated supply and demand.
- 6) What efforts are being made to free up the building and surrounding space presently occupied by the police?

With regard to the Grand Anse and Carenage components, the Project Paper Supplement should address the following:

- 1) What is the status of TVA and/or other studies underway for "GAZA STRIP"? What is GOG position regarding such development?
- 2) What are the plans for Carenage property face liftings? Who is assisting in funding? What organizations have been established to manage the improvements? Have legal actions been taken in preparation for such development? Are property owners ready to participate?

Regarding the Roads/Hazards component, the committee recommended that activities be selected on the basis of their contribution to productive sector enhancement.

Regarding the implementation of the subproject, it is recommended that the Core Contractor perform the limited amount of engineering work required in addition to the supervision of inspection work.

Since the Frequent component will involve a large number of local contractors, it was recommended that the Core Contractor consider assigning a full-time engineer to Grenada to administer the activities. It was also recommended that most work to be performed under the subproject be undertaken by AID direct contract and that any road work be performed most likely under modified FAR procedures. An exception may be the Carenage development component, which might better be implemented by a Host Country Contract.

The committee recommended that the Core Contractor be issued a Work Order now to start development of the Project Paper Supplement. The contractor should develop a \$4.0 million subproject, with the understanding that all \$4.0 million will be authorized and obligated in FY 87 through a Grant Agreement with the GOG.

Justification: In accordance with established IEMS procedures, AID/W specific prior concurrence to proceed with the development of the subproject (State 115593) and LAC Bureau Redelegations of Authority to the Field, you, as Mission Director, have the authority to approve (1) the Mid-Course Decision Document and (2) the issuance of the Work Order to the Core Contractor to develop the PP Supplement.

Recommendation: That you approve (1) the Mid-Course Decision Document for the Grenada Infrastructure Revitalization III Subproject of the IEMS project, taking into account the recommended modifications presented in this memorandum; and (2) the issuance of a Work Order to the IEMS Core Contractor to proceed with the preparation of the associated Project Paper Supplement, taking into account the recommended design guidance presented in this memorandum, by signing below.

Approved: _____

Disapproved: _____

Date: 12/10/86

Info:

CONT:Richard Warin
RCO:Ray Potocki
PDO:Liz Warfield

Drafted by:PDO:MGHuffman:ms:0567c

Clearance:

C/INFRA:Jim Baird (In Draft)
C/PDD:Kim Finan (In Draft)
PRO:David Mutchler (In Draft)
RDO/C Grenada:Bill Erdahl (Substance)
PSO:GArgento (In Draft)
ECON:RPhillips (In Draft)
D/DIR:ABisset
J. Stephenson (Draft)

DESIGN ACTIONS TAKEN TO ADDRESS MCDD GUIDANCE

REGARDING FREQUENTE INDUSTRIAL PARK

1. References to the Free Zone and the UNIDO study were the basis for inclusion of Section VI D on Factory Space Supply/Demand Analysis. Sections of the references are included as Annexes I and J.
2. The "Free Zone Study", Pages 26 and 27 of Annex J, identified "shortcomings" of the Frequente site. All these "shortcomings" have been addressed in the PP Supplement.
3. Section VI D of the PP Supplement lists potential renters who have shown an interest in renting space and interpretation as to which firms are seriously interested.
4. The Free Zone Authority has recently submitted a draft study to establish rental schedules. The draft, in addition to considering the low cost of the AID financed factories, also included the high construction cost of another factory building. By its inclusion in establishing uniform rental rates for all park space, the economic cost for rental of the AID factory space is unnecessarily high. The Free Zone Authority has been asked to relook at the situation with this in mind.
5. The proposed activity will complete the provision of all utilities to the site.
6. General agreement has been reached with the Government of Grenada authorities as to moving out the police. A Condition Precedent has been included. The project will renovate this 9,000 square foot building for use by agencies and businesses serving the factory workers. Prospective services include: cafeteria, clinic, bank and concessions.

REGARDING GRAND ANSE AND CARENAGE

1. TVA completed a draft report in mid January which prepared preliminary designs for a sewage system and development of the Camerhogne Park area. The Government of Grenada is highly interested in the plan and Cabinet has endorsed its features. Formal acceptance by the GOG is a C.P.

2. TVA has prepared architectural improvement renderings for many of the existing business structures along the Carenage. TVA also is providing 21 man days of efforts to work with government to establish a Carenage Development Association. A charter will be drafted along with a detailed two-year work program for the association. The TVA services will start in mid February 1987. With the incorporation and establishment of the association, funding may then be made available to carry out cooperative efforts with property owners to realize the recommended improvements.

REGARDING ROADS/HAZARDS

Priority improvements to be carried out will be based on factors relating to the impact of improvements. These factors are listed in Implementation Section (Section IV B 5).

REGARDING IMPLEMENTATION OF SUBPROJECT

As noted throughout the paper, the Core Contractor will provide:

1. All designs and plans required.
2. An engineering Environmental Assessment.
3. Supervision of all construction work and contract activities.
4. Financial management of AID, host country and/or FAR contracts.

A full-time engineer will arrive in March 1987 to take up duties in Grenada. A local financial analyst will be hired to assist in contract financial management.

ACTION AID-2 INFO AMB DCM CHRON 4

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OO RUEHWN
DE RUEHGR #0379/01 0491433
ZNR UUUUU ZZB
O 181432Z FEB 87
FM AMEMBASSY GRENADA
TO RUEHC/SECSTATE WASHDC IMMEDIATE 7838
INFO RUEHWN/AMEMBASSY BRIDGETOWN 4584
BT
UNCLAS GRENADA 00379

LOC: 005 563
18 FEB 87 1434
CN: 05046
CHRG: AID
DIST: AID

19 FEB 1987

AIDAC

FOR JIM HESTER LAC/DR

E.O. 12356:N/A
SUBJECT: INITIAL ENVIRONMENTAL EXAMINATION GRENADA
INFRASTRUCTURE REVITALIZATION III (538-0138)

1. THIS IS AN ACTION MESSAGE.

2. THE FOLLOWING IS THE INITIAL ENVIRONMENTAL EXAMINATION FOR THE GRENADA INFRASTRUCTURE REVITALIZATION III ACTIVITY WHICH IS AN ELEMENT OF THE INFRASTRUCTURE EXPANSION AND MAINTENANCE SYSTEM PROJECT. RDO/C RECOMMENDS A POSITIVE DETERMINATION FOR SUBJECT PROJECT. PLEASE CABLE YOUR RESPONSE TO THIS RECOMMENDATION AS SOON AS POSSIBLE SO THAT RDO/C MAY AUTHORIZE AND PROCEED WITH IMPLEMENTATION.

PROJECT LOCATION: GRENADA
PROJECT TITLE: IEMS--GRENADA INFRASTRUCTURE
REVITALIZATION III
FUNDING: ESF, LOP DOLS 4.0 MILLION
LIFE OF PROJECT: THREE YEARS
IEP PREPARED BY: JAMES STEPHENSON, PDO, RDO/C GRENADA
DATE: FEBRUARY 13, 1987
ENVIRONMENTAL ACTION: POSITIVE DETERMINATION

THE PROJECT CONSISTS OF THE FOLLOWING ELEMENTS:

- (1) GRAND ANSE DEVELOPMENT--(A) THE SITE GRADING AND IMPROVEMENT OF THE FALLOW AREA ADJACENT TO THE GRAND ANSE BEACH. IMPROVEMENTS WILL INCLUDE GRADING TO CREATE A PARK WIDE LIMITED RECREATIONAL FACILITIES, VEHICLE PARKING AND LANDSCAPING AFFECTING APPROXIMATELY TWELVE (12) ACRES. (B) THE PROVISION OF A SANITARY SEWERAGE SYSTEM INCLUDING COLLECTORS, FORCE MAIN AND TREATMENT. SYSTEM WILL SERVE THE GRAND ANSE WATERSHED AND WILL BE DESIGNED TO ACCOMMODATE 600,000 GPD. OBJECTIVE OF THIS ELEMENT IS TO ALLEVIATE THE POLLUTION OF THE GRAND ANSE BEACH AND ADJACENT PAV. THIS ELEMENT SHOULD HAVE A SIGNIFICANT BENEFICIAL IMPACT ON THE LOCAL ENVIRONMENT BUT, PURSUANT TO 22 CFR 216, AN

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DIR	<input checked="" type="checkbox"/>
D/DIR	<input checked="" type="checkbox"/>
MGT	<input checked="" type="checkbox"/>
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PD&M	
PDO	<input checked="" type="checkbox"/>
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ANNEX G
Page 2 of 4

WILL BE MINIMAL AND IS NECESSARY TO PROTECT HUMAN LIFE AND PROPERTY. ANY ROAD WORK WILL BE ON EXISTING ROADS.

- (5) PEARLS INDUSTRIAL ESTATE DESIGN--THIS ELEMENT PROVIDES A VERY LIMITED AMOUNT OF FUNDING TO FURTHER STUDY AND DESIGN AN INDUSTRIAL PARK AT PEARLS AIRPORT. THE GOG HAS DESIGNATED THIS AREA FOR INDUSTRIAL DEVELOPMENT IN ORDER TO PROVIDE EMPLOYMENT TO THE GRENVILLE AREA. SINCE CLOSURE, THE PEARLS AIRPORT HAS BEEN USED TO STORE EQUIPMENT AND GRAZE CATTLE. IT IS AN APPROPRIATE LOCATION FOR AN INDUSTRIAL PARK IF SUITABLE INDUSTRIES CAN BE IDENTIFIED. THIS ELEMENT WILL CONSIST OF DESIGN ONLY. ENVIRONMENTAL IMPACT WILL BE ASSESSED IN THE DESIGN PROCESS.

CONCURRENCE: JAMES S. HOLTAWAY, DIRECTOR, RDO/C
DATE: FEBRUARY 13, 1987

3. REQUEST BUREAU ENVIRONMENTAL OFFICER APPROVE RECOMMENDATION FOR POSITIVE DETERMINATION BASED UPON NEED FOR EA TO BE PERFORMED ON THE SEWAGE COLLECTION AND TREATMENT CONTEMPLATED IN PROJECT LEARY

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GRENADA 000379/02

ENVIRONMENTAL ASSESSMENT (EA) WILL BE REQUIRED. RTO/C INTENDS TO HAVE THE CORE CONTRACTOR, LOUIS BERGER, PERFORM THE EA WHICH WILL INCLUDE REVIEW OF THE PROPOSED COLLECTION, FORCE MAIN AND TREATMENT SYSTEMS. WITH REGARD TO THE LATTER, BERGER WILL EXAMINE CLOSELY THE SUITABILITY OF THE PROPOSED WETLANDS TREATMENT SYSTEM AND REVIEW ALTERNATIVES SUCH AS OXIDATION AND OCEAN OUTFALL.

- (2) FREQUENT INDUSTRIAL PARK—THIS ELEMENT WILL COMPLETE THE INDUSTRIAL PARK THAT WAS BEGUN UNDER THE INFRASTRUCTURE REVITALIZATION II PROJECT AND INCLUDED THE SITE DEVELOPMENT, UTILITIES, ROADS AND THE CONSTRUCTION OF 63,000 SQUARE FEET OF FACTORY SPACE. IN THIS PHASE II, THE PARK, WHICH IS LOCATED IN AN INDUSTRIAL AREA, WILL BE COMPLETED. THERE ARE NO SIGNIFICANT ENVIRONMENTAL IMPACTS BEYOND MINOR TEMPORARY EFFECTS OF CONSTRUCTION.

- (3) CARENAGE DEVELOPMENT--THIS ELEMENT WILL CONTINUE PREVIOUS EFFORTS TO IMPROVE THE CARENAGE IN ST GEORGE'S. THIS AREA IS A MAJOR TOURISM ASSET WHICH IS BEING STUDIED BY THE TENNESSEE VALLEY AUTHORITY (TVA) TO PROVIDE A PLAN FOR UPGRADING UTILITIES AND RENOVATING BUILDINGS. THIS ELEMENT WILL PROVIDE FUNDING FOR INFRASTRUCTURE, SUCH AS STREET LIGHTING AND PLANTERS; THE REVIVIFICATION OF TWO HISTORIC FORTS; AND FEASIBILITY/DESIGN FOR BUILDING RENOVATIONS. ST GEORGE'S IS THE MOST DENSELY DEVELOPED AREA OF GRENADA AND THE ACTIVITIES ENVISAGED SHOULD HAVE LITTLE ENVIRONMENTAL IMPACT OTHER THAN IMPROVEMENT IN TRAFFIC FLOWS AND PUBLIC INFRASTRUCTURE.

- (4) ROAD HAZARDS AND BRIDGES--THE OBJECTIVE OF THIS ELEMENT OF THE PROJECT IS THE ABATEMENT OF KNOWN HAZARDS SUCH AS LANDSLIDE AREAS AND FAILING BRIDGES. NO PENETRATION ROADS ARE INVOLVED AND ALL BRIDGES PRESENTLY EXIST. ALTHOUGH THERE MAY BE SOME VERY CONFINED IMPACT TO THE REPAIR OF LANDSLIDE AREAS, IT IS BELIEVED THAT THE IMPACT

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STATE 049484

ANNEX G
Page 4 of 4

ACTION AID-2 INFO AME DCM CHRON 4

Federal

LOC: 007 048
20 FEB 87 2245
CN: 05256
CHRG: AID
DIST: AID

VZCZCWN0627

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20 FEB 1987

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FM SECSTATE WASHDC

TO RUEHWN/AMEMBASSY BRIDGETOWN IMMEDIATE 7242

INFO RUEHGR/AMEMBASSY GRENADA IMMEDIATE 9530

BT

UNCLAS STATE 049484

AIDAC GRENADA FOR SPIKE STEPHENSON

E.O. 12356: N/A

TAGS:

SUBJECT: IEE GRENADA INFRASTRUCTURE REVITALIZATION III
(538-0133)

REF: GRENADA 379

1. LAC CHIEF ENVIRONMENTAL OFFICER HESTER APPROVED SUBJECT IEE ON FEBRUARY 19, 1987, SUBJECT TO CONDITIONS SET IN PARAGRAPH 2 OF THIS CABLE. IEE NUMBER IS LAC/DR-IEE-87-07. COPY OF APPROVAL BEING POUCHED FOR MISSION PROJECT FILE.

2. IF MISSION WISHES TO AUTHORIZE PROJECT PRIOR TO COMPLETION OF ENVIRONMENTAL ASSESSMENT ON SEWAGE COLLECTION AND TREATMENT SYSTEM COMPONENT IT IS REQUIRED THAT APPROPRIATE LANGUAGE BE INCLUDED IN THE AUTHORIZATION AND PROJECT AGREEMENT TO PREVENT ANY EXPENDITURE OF FUNDS FOR THIS COMPONENT, OTHER THAN THAT REQUIRED TO CONDUCT THE EA, UNTIL THE EA HAS BEEN COMPLETED BY THE CONTRACTOR AND APPROVED BY LAC CHIEF ENVIRONMENTAL OFFICER HESTER. ALSO, PER REGULATION 16, EA STATEMENT OF WORK THAT RESULTS FROM CONTRACTOR'S EA SCOPING EXERCISE MUST BE APPROVED BY HESTER PRIOR TO START OF EA.

3. REQUEST MISSION INVITE EA CONSULTANTS LOUIS BERGER INTL. CONTACT HESTER AT 202-647-7921 SOONEST FOR GENERAL REGULATION 16 REQUIREMENTS BRIEFING. SHULTZ

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ACTION <i>INTEA</i>	
DIR	<input checked="" type="checkbox"/>
D/DIR	<input checked="" type="checkbox"/>
MGT	<input checked="" type="checkbox"/>
RLA	<input type="checkbox"/>
RCO	<input type="checkbox"/>
PO	<input type="checkbox"/>
PO/PR	<input type="checkbox"/>
PO/P	<input type="checkbox"/>
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PDA	<input type="checkbox"/>
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INF	<input type="checkbox"/>
A/P	<input type="checkbox"/>
JAD	<input type="checkbox"/>
CC	<i>I. Bennett</i>
DATE	<i>8/10/24</i>
TAKEN	
SIGN	
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LOGICAL FRAMEWORK

Project Title & Number: Grenada Infrastructure Revitalization III Subproject (538-0138.02)

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATIONS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program or Sector Goal: The broader objective to which this project contributes: To improve Grenada's economic stability by increasing its capability to earn foreign exchange. Subgoal: To generate increased employment opportunities</p>	<p>Measures of Goal Achievement: 1. Seven new export industries established between 1987 & one year after completion of Frequente Industrial Park. 2. Stay over visitors in Grand Anse area increases by 200% by 1991. 3. Foreign exchange earnings from projected related activities. Increases total foreign exchange earnings by at least 15%. 4. Employment related to project activities increased by at least 2,500</p>	<p>1. Past project impact evaluation using (1) on site visits and (2) review of IDC, Board of Tourism & balance of payments records. (1990 final evaluation finance with PD&S funds).</p>	<p>Assumptions for achieving goal targets: 1. GOG develops institutional capacity to administer & maintain industrial park. 2. Transportation access & cost factors currently limiting tourism are overcome. 3. World economic conditions allow hotel development and industrial relocation to Grenada. 4. Effective promotion activities by GOG and private sector continue.</p>
<p>Project Purpose: To assist the Government of Grenada in it's effort, to improve Grenada's physical infrastructure to a level required to create immediate employment opportunities, encourage foreign exchange inflows & encourage a long term flow of private sector investment.</p>	<p>Conditions that will indicate purpose has been achieved: <u>End of project status (EOPS)</u> 1. Frequente Industrial Park in full operation with 135,000 sq.ft. of factory space. 2. Beach pollution at Grand Anse area reduced to water samples not exceeding 100/100 ml of faecal coliforms. 3. GOG policy for Grenville/Pearls industrial development established. 4. Camerhogne Park cleared and landscaped for commercial development. 5. Ability to keep open road system at critical points achieved.</p>	<p>1. Review of IDC records 2. Post-project environmental monitoring 3. Publication of GOG policy statement (covenanted in PROAG) 4. Reports from Ministry of Tourism. 5. End of project report by Project Manager after review of MOH activities</p>	<p>Assumptions for achieving purpose: 1. Other donors & GOG provide resources to complete sewerage collection and treatment system to Frequente area. 2. Access to markets through CBI and Section 936 continues.</p>
<p>Outputs: See attachment for detailed Listing. 1. Frequente Industrial Park 2. Grenville/Pearls Industrial development study 3. Grand Anse Tourism Development 4. Carenage Tourism Development 5. Highway hazard elimination</p>	<p>Magnitude of Outputs: 1. 19 acre industrial park infrastructure constructed. 2. Industrial park recommendation report published 3. Area specific sewerage system and landscaping of 22 acres constructed. 4. One kilometer of Carenage water-front completed & face lifting of 2 forts completed 5. 3 road hazards and/or bridges repaired</p>	<p>1. Contractors reports & site inspection for infrastructure. 2. Joint project manager/GOG review of Grenville/Pearls industrial park report.</p>	<p>Assumptions for achieving outputs: 1. GOG adheres to designs of projects as developed & adopts necessary legislation & procedures to assure adequate control & management. 2. Private sector organizations participate as required. (See output attachment for details)</p>
<p>Inputs: Due to nature of project, inputs are listed by contract 1. Contract for Frequente Industrial park. 2. Contract for sewerage treatment facilities. 3. Contract to clear/landscape Camerhogne park. 4. Contract to improve Carenage. 5. Contract to landscape historic 6. Road hazard elimination. 7. Pearls Industrial Park Study</p>	<p>Implementation Target (Type & Quantity) 1. AID direct fixed-price contract with 8(A) firm and Factory Manuf. (\$1,800,000) 2. AID direct fixed-price contract with 8(A) firm (\$1,350,000) 3. AID direct fixed-price competitive bid contract (\$150,000) 4. AID direct fixed-price competitive bid contract (\$140,000) 5. AID direct fixed-price non-competitive contract (\$100,000) 6. FAR reimbursement Agreement with GOG (\$300,000) 7. IQC (\$50,000)</p>	<p>1. Contracts to be developed by IEMS Project 538-0138 2. Adequacy of contracts reviewed by RDO/C engineering division & negotiated by RDO/C Contracts Officer. 3. Supervision and completion of reports to be supplied to RDO/C by IEMS personnel 4. Financial Audit to verify cost efficiency and adequate adherence to procurement procedures*. *All procurement to be done under contracts. See procurement plan for items to be procured.</p>	<p>Assumptions for providing inputs: 1. IEMS Project 538-0138 provides adequate supervision (2 person years on-site civil engineer, 2 person years local financial analyst/accountant) 2. 8(A) firms continue to be available for contracting in Grenada. 3. FAR system can be adequately developed for road & bridge repair.</p>

1/2

LOG FRAME OUTPUT DETAILS

Outputs:

Frequente Industrial Park:

1. 3 factory shells constructed
2. 5 existing shells renovated
3. Service infrastructure provided
 - (a) water pressure & fire protection
 - (b) standby generator
 - (c) site development
 - (d) central office building

Pearls Industrial Park:

1. Feasibility & demand study

Grand Anse Tourism Development:

1. Grand Anse sanitary system
2. Grand Anse Development Plan
3. Camerhogne Park preparation

Carenage Tourist Development:

1. Carenage road & walkways upgraded
2. Initial preservation of historic sites.

Highway Improvements:

Targeted road hazards eliminated
bridge renovation

Magnitude of Outputs:

1. 42,000 sq.ft. new factory space
2. 29,000 sq.ft. upgraded factory space
3. a) 250,000 gallon reserve water tank
b) 500 KW capacity installed
c) 19 acre park lighted, landscaped & fenced
d) 5,000 sq.ft. office space

1. 20 copies completed report & design for park development.

1. 3 1/2 miles of sewerline system installed
2. 600,000 gpd capacity treatment plant
3. 22 acres of park landscaped roads developed.

1. 1 KM of roads & walkways improved for vehicle & pedestrian use.
2. Landscaping & lighting at 2 historic forts completed.

1. 3 road hazard sites repaired.

Means of Verification

Contractors Reports & site inspection

Project Manager & GOG review and acceptance of report.

Contractors Reports and site inspection.

Assumptions for achieving outputs:

1. GOG develops management capability to run Frequente Industrial Park or legislates turn-over to private sector
2. Current design for Frequente Industrial Park is adhered to.

TVA development plans completed under project , accepted & adhered to by GOG for Carenage and Grand Anse.

1. Carenage property owners support Carenage development plan.

1. GOG identifies road hazards, obtains RDO/C approval & contracts for repair on a timely basis.

5.6



EXCERPTS
FROM: -

PROJECT FINDINGS AND RECOMMENDATIONS

FEASIBILITY AND PLANNING STUDY OF
INDUSTRIAL ESTATES IN GRENADA
No. GRN/85/005/A/01/37

Prepared for
GRENADA INDUSTRIAL DEVELOPMENT CORPORATION

By
J.M. GAJEWSKI

United Nations Industrial Development Organization expert
and
KENNETH NOEL
Manager Industrial Estates
the Counterpart

St. George's, - September, 1986

Note: This report has not yet been cleared with the United Nations Industrial Development Organization which does not, therefore, necessarily share the views presented.

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FEASIBILITY

2.2. ASSESSMENT OF DEMAND ON INDUSTRIAL LAND AND PRE-BUILT FACTORY SHELLS.

2.2.1. Demand forecast.

During the last two years, several applications ^{from} potential entrepreneurs, local, foreign and joint ventures were received by the GIDC and were subsequently submitted to Cabinet for approval.

The tables below contain a brief summary of those applications.

Table I

Applications for factory shells - 1985

No.	Origin of applicant	No. of projects	Factory shells in sq. ft.		% of seeking for
			Required	Seeking for	
1.	Grenadian	44	93,000	2,500	5
2.	Joint venture	13	40,425	16,200	35
3.	Foreign	12	58,000	28,000	60
Total			46,700		100

Applications for factory shells - 1986 (for first 6 months)

No.	Origin of applicant	No. of projects	Factory shells in sq. ft.		% of seeking for
			Required	Seeking for	
1.	Grenadian	18	78,600	9,500	25
2.	Joint venture	8	18,800 (+ 2 acres)	5,000	13
3.	Foreign	8	93,600	123,000	62
Total			37,500		100

Assuming from the safe side that the 1986 (full year) /be. figures will/equal to 1.5 x the first six months of 1986, the following estimates are obtained:

1. Grenadian applicants	1.5 x 9,500 =	14,250 sq.ft.
2. Joint venture	1.5 x 5,000 =	7,500 "
3. Foreign	1.5 x 23,000 =	34,500 "

	Total	56,250 sq.ft.
		=====

The expected increase of applications amounts to about 20% in comparison with the preceeding year^{ct}/1985. This rate of growth is rather very optimistic and again from the safe side, the author takes as applicable a 10% growth rate. The fore-casted figures for a five year period are as follows:

Forecasted demand on factory shells
at a 10% rate of growth

1986	-	56,250 sq.ft.
1987	-	61,875 "
1988	-	68,062 "
1989	-	74,866 "
1990	-	82,353 "

Total 1986 - 1990		343,400 sq.ft.
		=====

However, the author wishes to state that these estimates should be considered as a scientific guess and other approaches may also be good.

While comparing the percentage participation of those three groups of entrepreneurs, one notices that there is a faster growth rate of the Grenadian entrepreneurs in comparison to the others.

Taking an average of the two years records, the author arrives at the following:

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	1985	1986	An average participation
1. Grenadian	5%	25%	15%
2. Joint venture	35%	13%	24%
3. Foreign	60%	62%	61%

The total forecasted figures for those three groups for the five year period could be then assumed:

1. Grenadian	0.15 x 343,400 sq.ft.	=	51,510 sq.ft.
2. Joint venture	0.24 x 343,400 "	=	82,416 "
3. Foreign	0.61 x 343,400 "	=	209,474 "
Together			343,400 sq.ft.

2.2.2. Supply forecast

The expected supply of factory shells for the next five years is presented in Table II.

Table II

No.	Constructions	Total	Y e a r s				
			1986	1987	1988	1989	1990
i n s q u a r e f e e t							
1.	Frequente Ind. Estate USAID - GIDC	63,000	63,000				
2.	GDB Ind. Estate	40,000	14,400	25,600			
3.	Estimates on private sector constructions	62,000	12,000	15,000	15,000	10,000	10,000
Total		165,000 sq.ft.					

2.2.3. Shortage of factory shells

Then the forecasted shortage of factory shells for the five year period 1986 - 1990 will be:

Demand total	343,400 sq.ft.
Supply total	165,000 "

Shortage	178,400 sq.ft.
	=====

2.2.4. Conclusions

2.2.4.1. The above given estimate on shortage of factory shells in the five year period from 1986 till 1990 proves the need of establishing further industrial estates ^{and} industrial zones in the country.

2.2.4.2. Due to the shortage of factory shells, the author proposes the establishment of an industrial estate, which should accommodate about 40% of the forecasted shortage in the first phase of construction.

$$0.4 \times 178,400 \text{ sq.ft.} = 71,360 \text{ say } \underline{72,000 \text{ sq.ft.}}$$

2.2.4.3. As already mentioned above, the author takes a cautious approach both to the forecasted demand and the proposed size of the additional industrial estate. It might be presumed that the construction of factory shells and its offer for immediate occupancy on a rental basis may accelerate further demand.

2.2.4.4. A successful occupancy of the proposed industrial estate during the first phase - until 1990, may demonstrate a necessity to enter into the second phase, or, if contrary, withhold future expansion of the programme.

2.2.4.5. The author wishes at the same time to refer to another report carried out on the same subject by Free Zone Authority Ltd. in April, 1986. The said report forecasted ^a shortage of 138,000 sq.ft. for the five year period 1986 - 1990.

3.10. Rental Level

In order to attract foreign and local industrialists into Grenada the rental rates of the Industrial Estate should be competitive with neighbour^{inc/} countries in the Caribbean Region. This is so, because an important factor is the rental level offered for similar quality factory shells, infrastructure and common facilities.

The Government of Grenada is presently charging 4 EC \$ (about 1.48 US \$) per sq.ft. for ^{four} existing factory shells at the Frequente Industrial Estate. The project paper prepared by Free Zone Authority Ltd., USA, suggested a rental of 2.65 US \$ (7.15 EC \$) for newly built factory shells in the same area, for the first three years, increasing by 40% in year 4, 12% in year 5 and 6% thereafter. In the author's opinion the rate ^{of} 4 EC \$ (1.48 US \$) per sq.ft. is too low in comparison to the rate that will be charged for the newly built structures. The above mentioned project paper cites as well some other rental rates. The above rates and those prevailing in other countries are tabulated in table V.

Table V

No.	Industrial Estate location	Rental per sq. ft.	
		US \$	EC \$
1.	<u>Grenada</u> Ind. Est. at Frequente		
	3 years initial	2.65	7.00
	4 th year (+ 40%)	3.70	9.77
	5 th year (+ 12%)	4.15	10.96
	6 th year (+ 6%)	4.40	11.62
2.	<u>Jamaica</u>	3.50	9.24
3.	<u>Barbados</u>	4.25	11.22
4.	<u>Mexico</u> (depending on location)	2.0 to 5.50	5.28 + 14.52
5.	<u>Bahamas</u>	4.25 to 4.50	11.22 + 11.88
6.	<u>Irland</u> (Europe) (author's inf.)	6.85	18.50

It seems that the suggested/rental/rate/ of 9 EC \$ for factory shells at the proposed Pearls Industrial Estate to be charged on the fourth year from to-day is a competitive one.

On looking at Table V, one notices that the present rental level of factory space in other countries are way above the price that will be charged at the Pearls Industrial Estate in four years time.

Also implied by the figures presented in the Table V of the other countries is the fact that these prices will be increasing during those four years.

The author therefore suggest the following rental rates for the Pearls Industrial Estate:

	<u>in EC \$/sq.ft.</u>
1 st year of occupancy (third year of constr.)	9.-
2 nd - " -	9.-
3 rd - " -	9.-
4 th - " -	9.-
5 th - " - (about 11% increase)	10.-
6 th - " -	10.-
7 th - " -	10.-
8 th , 9 th and 10 th year of occupancy (+20%)	12.-
11 th , 12 th and 13 th - " - (+ 17%)	14.-
14 th , 15 th and 16 th - " - (+ 14%)	16.-
17 th , 18 th - " - (+ 12.5%)	18.-

For recommendations on rental subsidy within the initial years of occupancy see Chapter I p. 1.3.

GRENADA
INDUSTRIAL FACILITIES DEVELOPMENT PROJECT

DRAFT

Prepared by:

Free Zone Authority, Ltd.
1815 North Lynn Street Suite 200
Arlington, VA 22209

TABLE 1
DEMAND PROJECTIONS /1
(Thousands of sq. ft.)

	1986	1987	1988	1989	1990	Total
Foreign Investment						
New Expansion	15 /2 0	25 0	20 10	20 10	20 10	100 30
Local Investment						
New /3 Expansion	35 0	20 10	15 10	10 8	10 8	90 36
TOTAL DEMAND	50	55	55	53	53	256

/1 Demand projections exclude consideration of requirements in Carriacou.

/2 Excludes consideration of the Dominion International Garden Center project.

/3 These figures represent local investment which would be likely to locate in an industrial park, rather than new investment or expansion which would occur on a manufacturer's site located elsewhere.

The best mechanism to assure that the supply of industrial facilities more or less parallels effective demand is to carry out the construction program in phases, each phase corresponding to a fraction of the potential demand so that investment does not get too far ahead of the market. This mechanism, however, is most effective when the executing agency (either public or private) is capable of reacting quickly to unexpected surges in demand.

Conversely, where factory construction can take up to 2 years or more, a reasonable amount of advance factory construction will be critical to facilitate growth in the industrial sector. The construction of one or two buildings (say, 10 - 20,000 sq. ft.) in advance of firm commitments (or signed lease agreements) by one or more occupants is a small financial risk when compared to the cost of developing the whole project, say 10 or 20 acres. Advance factory construction, within judicious limits, is recognized

worldwide as a powerful promotional tool. It can spell the difference between "capturing" one or two customers who are in a hurry for space or losing them to competitors offering immediate occupancy.

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DRAFT

V. SUPPLY OF INDUSTRIAL FACILITIES

A. Inventory of Existing Projects

1. Frequente

Frequente was originally constructed as a motor pool to service government and military vehicles during the previous regime. The site comprises 19.81 acres on the airport road with access to the international airport and port facilities in St. George's. Scattered about the area are 12 structures, of which four consist simply of floor slabs, steel framing and roofs and four have been refurbished and improved sufficiently to serve as factory space, although of less than ideal quality. Four units are occupied by a woodworking company presently in operation and two units by the Caribbean Peace Keeping Force (to store and maintain vehicles).

It is the consultants' understanding that this property is considered Crown Land. However, ownership is subject to legal confirmation, in the form of a deed or other similar instrument, which was unavailable at the time of the mission. The property is controlled by the Ministry of Agriculture and the IDC has been appointed the government agent to oversee and manage the USAID-financed renovations.

USAID financial support has been applied to the renovation of existing buildings into usable industrial space. To date, some US\$ 150,000 to 200,000 has been expended on renovating Buildings 1, 2, 3 and 4 as well as some infrastructure work including water lines and power transformers.

The USAID program addressed an immediate need - to provide a few manufacturers with a place to work. This program has upgraded and made available 19,278 sq. ft. of factory space. However, since original project

conception, the need to develop a fully planned and serviced industrial park, rather than the rehabilitation of individual units has become apparent. Not only would the former option be more cost effective, but would serve the needs of industry more comprehensively and efficiently (as discussed in Chapter II, Basic Concepts). Specifically, the present program suffers from the following shortcomings:

1. Inadequate access road to accommodate vehicular and container traffic;
2. Inadequate storm water drainage system;
3. Inadequate internal road system causing, among other things, a poor land use ratio, difficult accessibility for some buildings, particularly buildings 1 and 2;
4. Lack of any provision for standby power facilities to alleviate current problems caused by disruptions in supply; similarly, for water, no provision for storage or fire-fighting;
5. Lack of any exterior landscaping, building standards, and provision for general site maintenance;
7. Inadequate building design which cannot either easily accommodate expansion (Building 3 & 4); or lacks sanitary facilities, adequate ventilation and systems for rain water runoff (9, 10, 11, 12); lack of maneuvering areas for trucks in transit, loading and unloading, and lack of planned parking for cars.*

(*Note: See Annex 3 for a complete analysis of the existing infrastructure and superstructure at the Frequento site.)

While the Frequento site in its present state may provide an interim location for two or three industries, it does not adequately serve the aggregate needs of manufacturers nor act as an incentive to locate in Grenada. Without further planning and infrastructure development along the lines recommended, the full economic potential of the site will not be realized.

industrial purposes, including (i) concrete block plant; (ii) manufacture of wood based products with a lumber yard; or (iii) an industrial park. Other possible alternatives exist. One approach might be to mount a promotional effort to identify an investor(s) capable of and willing to take over the assets, put everything in working order and start up production (of the originally planned products). (This idea represents only an outside chance of realization. The installed equipment is of Eastern European origin; operational and maintenance problems, including the procurement of spare parts, may be more of a burden than a western firm would care to cope with.)

As an industrial park, the project would entail a capital investment of the magnitude of US\$750,000 - US\$1,000,000 for road construction, building rehabilitation (and some demolition work), storm water drainage system and the upgrading of utilities. This estimate excludes the construction of any new facilities.

C. Supply and Demand Prognosis

Our review of the existing national inventory of factory space indicates that approximately 13,122 sq. ft. is presently unoccupied at Frequente of which 7,992 has been allocated to local industry. Despite the infrastructure constraints outlined earlier, the available space could meet the minimum needs of one or two small manufacturers, but additional investment will be required in the near term to provide full services to these facilities.

Assuming no changes in the existing program, the buildings financed by the Caribbean Development Bank will be the first new factory space to be added to the existing inventory. Approximately 24,000 sq. ft. should be available for occupancy on or about August 1986, assuming the government completes the

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conditions precedent for loan dispersal. Development of the additional 16,000 sq. ft. will depend upon demand. These facilities will be fully serviced industrial space suitable for light manufacturing although the tenants will be required to provide their own stand-by generating facilities. Additionally, the access road to the site has not been considered as part of the loan finance. This will not prohibit vehicular movement, but could cause congestion and unnecessary delays.

Development of the private sector project at Tempe is somewhat uncertain and will depend upon a number of factors mentioned previously. If this project is implemented in the near term, an additional 20,000 sq. ft. (some of the space has been preleased) could come on stream, in the second or third quarter, 1986.

Assuming an optimistic scenario, supply of industrial facilities for the year 1986 can meet demand with a seven month lead time before additional capacity comes on stream. This scenario assumes that the private sector project is implemented and no unnecessary delays in construction of the CDB financed facilities. However, this program will not provide (i) an attractive and efficient working environment conducive to growth; (ii) the ability to meet unexpected surges in demand in 1986; (iii) flexibility to meet the needs for expansion of facilities in the public sector projects; (iv) centralized administration and customs control in the public sector projects; and (v) an adequate reduced financial and economic return from the USAID financed renovations of Frequente. Also, the present strategy for development cannot supply industrial space in accordance with demand beyond 1986.

Applying conservative assumptions, i.e., delays in the CIB project or in the private sector industrial park the immediate need for factory space in 1986 will not be met. Additionally, the current program does not include the development of industrial facilities in Carriacou or other locations, such as Grenville.

Over the long term, it will be important to establish alternative industrial growth poles away from the "natural" center of activity at the southern end of the island in order to achieve a more balanced regional pattern of growth. The recommended program concentrates attention and resources in the St. George's — Point Saline development corridor in response to immediate and short-term (3-5 years) needs, consonant with available resources. This strategy is perfectly consistent with the planning of a long-term program of decentralization of industry. Whatever agency takes over responsibility for industrial facilities development should include in its workplan ongoing studies relevant to this objective. International institutions such as AID, World Bank, CIB, IIB and others are generally receptive to providing financial and technical assistance in support of such activities.

TABLE 4
PROJECTED SUPPLY & DEMAND FOR FACTORY SPACE
(Thousands of sq. ft.)

	1986	1987	1988	1989	1990	Total
DEMAND						
Foreign Investors	15	25	30	30	30	130
Local Investors	35	30	25	18	18	126
Total Demand	50	55	55	53	53	256
SUPPLY						
Frequente	6					6
True Blue Industrial Estate	30 /1	10				40
Private Sector	12 /2	40	20			72
Total Supply	48	50	20	0	0	118

-
- /1 Full development of the True Blue Industrial Park is contingent upon firm demand from tenants and assumes that no other industrial facilities managed by the executing agency will be available. However, assuming no major changes in the loan agreement, 24,000 sq. ft. of factory space should be built in 1986.
- /2 Development of a privately owned industrial estate is contingent upon inter alia, development of an appropriate policy to foster private sector development.

ECONOMIC ANALYSIS

Industrial Site Development

A frequently heard complaint about Grenada is the shortage of industrial sites sufficiently developed to attract investors. Although some construction and refurbishing activity is underway, more is needed to meet demand. To tie in with existing and planned facilities in the True Blue/Frequeute area, A.I.D. proposes constructing 42,000 square feet and renovating 29,000 square feet of additional factory shell space at Frequeute, and providing some additional supportive infrastructure. The latter will also improve facilities in existing factory shells.

The following analysis employs a methodology used by RDO/C in assessing the economic merits of the Infrastructure for Productive Investment Project (IPIP) factory shell project. Inasmuch as the precise value of output of shell tenants is difficult to predict (given the range of possible types of productive facility), the methodology focuses on the benefits that will stay in Grenada. The likelihood is strong that the shells will be used to process imported materials for export, probably using externally funded equipment and using foreign management. Thus, returns to Greandian labor employed in occupied shells are an obvious measure of benefits of the project to the economy.

As RDO/C did in assessing the feasibility of the IPIP shells, the following analysis converts the nominal wage to a "shadow price" to reflect the fact that the opportunity cost of this labor in the relatively underemployed Grenadian economy is less than the nominal wage rate. The difference between the opportunity cost and actual wage paid may be considered a measure of the benefit to the economy of the project. It is the only element of the returns to production that is in excess of a cost of production and that remains in Grenada. Footnotes to Table A.8 permit following the calculations from one column to the next, and the internal rate of return calculation was done by machine.

TABLE A.8

	COSTS			BENEFITS		NET BENEFITS
	Shell Cost	Other Capital Costs	Other Maintenance Costs	Employed Labor	Employee Benefits	
1987	995,000	845,000				-1,800,000
1988			14,200	710	531,968	517,768
1989			14,200		531,968	517,768
1990			14,200		531,968	517,768
1991			14,200		531,968	517,768
1992			14,200		531,968	517,768
1993			14,200		531,968	517,768
1994			14,200		531,968	517,768
1995			14,200		531,968	517,768
1996			14,200		531,968	517,768
1997			14,200		531,968	517,768
1998			14,200		531,968	517,768
1999			14,200		531,968	517,768
2000			14,200		531,968	517,768
2001			14,200		531,968	261,848

IRR = 30.34%

COLUMN 1 Shell Cost is based on prior projects. Shell Space = 42,000 square feet new and 29,000 square feet reclaimed = 71,000 square feet

COLUMN 2 Other Capital Costs are Infrastructure Improvements to Site.

COLUMN 3 Other Maintenance Costs at rate of US\$.20/Square foot/Annum = \$14,200/Annum.

COLUMN 4 Employed Labor is derived from estimates in the region that indicate that the average shell space producing for export requires 100 square feet of floor space, on average, per worker. @ 71,000 square feet the number of workers is 710.

COLUMN 5 Benefits is a function of the return to Labor Employed (see accompanying text). The figure in Column 4 is multiplied by 0.45 (to take into account the shell's contribution to employment) and again by \$2,220 (the nominal wage paid workers in this type of employment) and again by a factor (.75) to express earnings in excess of the opportunity cost of labor.

COLUMN 6 The Net Benefits are Employee Benefits reduced by the annual maintenance cost (\$14,200).

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SENSITIVITY ANALYSIS

If the same above date were used and only 25% occupancy occurred in the first year (1988) and 25% for the next three years - the IRR would be 19.92%.

If any occupancy were delayed two years:

1987		-1,800,000
1988		- 14,200
1989		- 14,200
1990	50%	251,784
1991	75%	384,777
1992	100%	517,768

IRR = 15.41%

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COST ESTIMATES

A. GRAND ANSE PRELIMINARY COST ESTIMATE

1. Clearing and Landscaping Camerhogne Tract	\$ 100,000
2. Relocating Perimeter Road	\$ 50,000
3. Materials and Installation of a Collector Sewerline Pressure Pipeline, Valves, Pumps, Manholes, Etc.	\$ 1,000,000
4. Treatment Plant	\$ <u>350,000</u>
Sub-Total	\$ 1,500,000

B. CARENAGE PRELIMINARY COST ESTIMATES

1. Carenage Infrastructure Improvements	\$ 140,000
2. Fort George	\$ 50,000
3. Fort Frederick	\$ 50,000
4. Design and Feasibility Studies for Carenage Improvements	\$ <u>60,000</u>
Sub-Total	\$ 300,000

C. FREQUENTE COST ESTIMATE

1. Factory Shells & Foundation Slabs, 42,000 Sq. Ft.	\$ 855,000
2. Renovate Five Existing Buildings	\$ 100,000
3. Relocate and Install 250,000 Gallon Water Tank	\$ 100,000
4. Install Toilets and Partitions	\$ 125,000
5. Transformers & Installation of Electricity Lines, Poles and Standby Generator	\$ 150,000
6. Site Development - Roads, Lights, Drains, Water	\$ 150,000
7. Provide 5,000 Sq. Ft. of Office Space	\$ 300,000
8. Contingency	\$ <u>20,000</u>
Sub-Total	\$ 1,800,000

D. PEARLS STUDY

Estimated Cost of an IQC Firm Based on Other Industrial Park Studies	\$ 50,000
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E. ROAD/BRIDGE HAZARD REDUCTION

Approximate Cost of 3 Bridge Renovations or Undefined Amount of Culvert and/or Retaining Wall Construction	Estimated	\$ 300,000
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F. FINANCIAL REVIEW AND OVERSIGHT

RDO/C Controller Estimated Cost this Work	\$ 40,000
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G. EVALUATION

\$ 10,000

TOTAL COST \$ 4,000,000

TENNESSEE VALLEY AUTHORITY
Office of Natural Resources and Economic Development
Division of Air and Water Resources

GRENADA, WEST INDIES
INFRASTRUCTURE DEVELOPMENT
WASTEWATER COLLECTION, TREATMENT AND DISPOSAL
ALTERNATIVES

Prepared for the Ministry of Health
Government of Grenada

by

Gerald R. Steiner, P.E.
Program Manager, Water and Waste Engineering Program
Water Quality Branch
Tennessee Valley Authority

Chattanooga, Tennessee

December 1985

Funding assistance for this study and report was made available by the
United States Agency for International Development.

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SECTION 1

INTRODUCTION

This report presents conceptual designs for an artificial wetland wastewater treatment system for the Grand Anse area. The system are based on wetland vegetation (such as cattails) providing the environment for sewage treatment. The contaminant removal mechanisms are complex and a detailed investigation of the technology is presented in the report, Technology assessment of Artificial Wetlands for Municipal Wastewater Treatment (Appendix C1).

The technology is most suitable for small communities with wastewater flows under two million gallons per day (MGD) that have access to reasonably priced, level acreage. The primary advantages of the technology include costs savings and ease of operation. The systems are typically less expensive to build and operate than conventional wastewater treatment plants and they do not require as much technical training and expertise to operate as conventional systems.

In the stand-alone version, the conceptual design will describe a marsh-pond-meadow system intended to provide all treatment necessary to protect the environment for an average daily flow of 0.6 MGD. The design is based on an existing system in the United States and is expected to perform even better in the tropical climate of Grenada.

Figures 1 and 2 show a typical artificial wetlands treatment scheme.

(Recent technical literature reviewed since preparation of this conceptual design indicates that a "root zone" type system is more efficient than the marsh type and requires significantly less land area. Data indicates that capital and operating cost can be about 10 percent of the costs for an activated sludge plant. For comparison, this study indicates that the capital costs for the marsh type artificial wetlands would be about 23 percent of the cost for a contact stabilization (activated sludge) plant. Therefore, a root zone system in Grenada may be one-half the cost of a marsh system.)

ASSUME 2300 ROOMS IN GRAND ANSE AREA

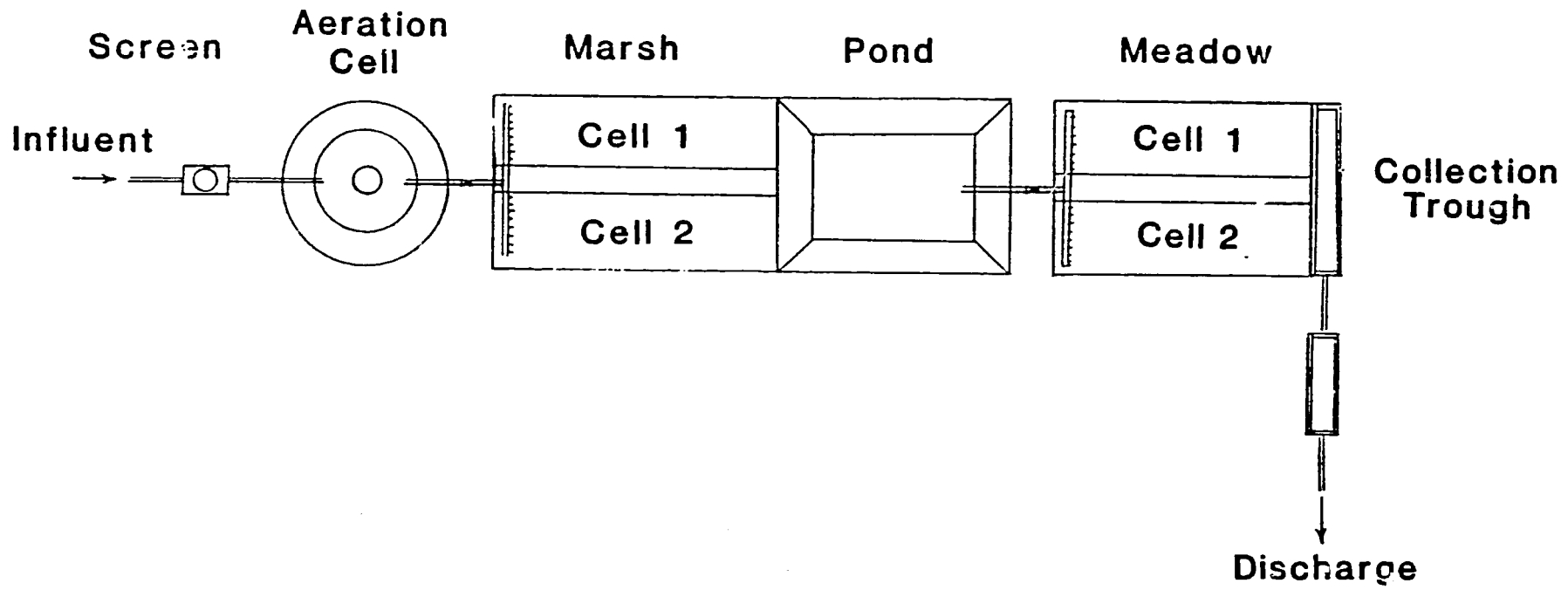


Figure 1. Iselin Artificial Wetland Treatment Scheme

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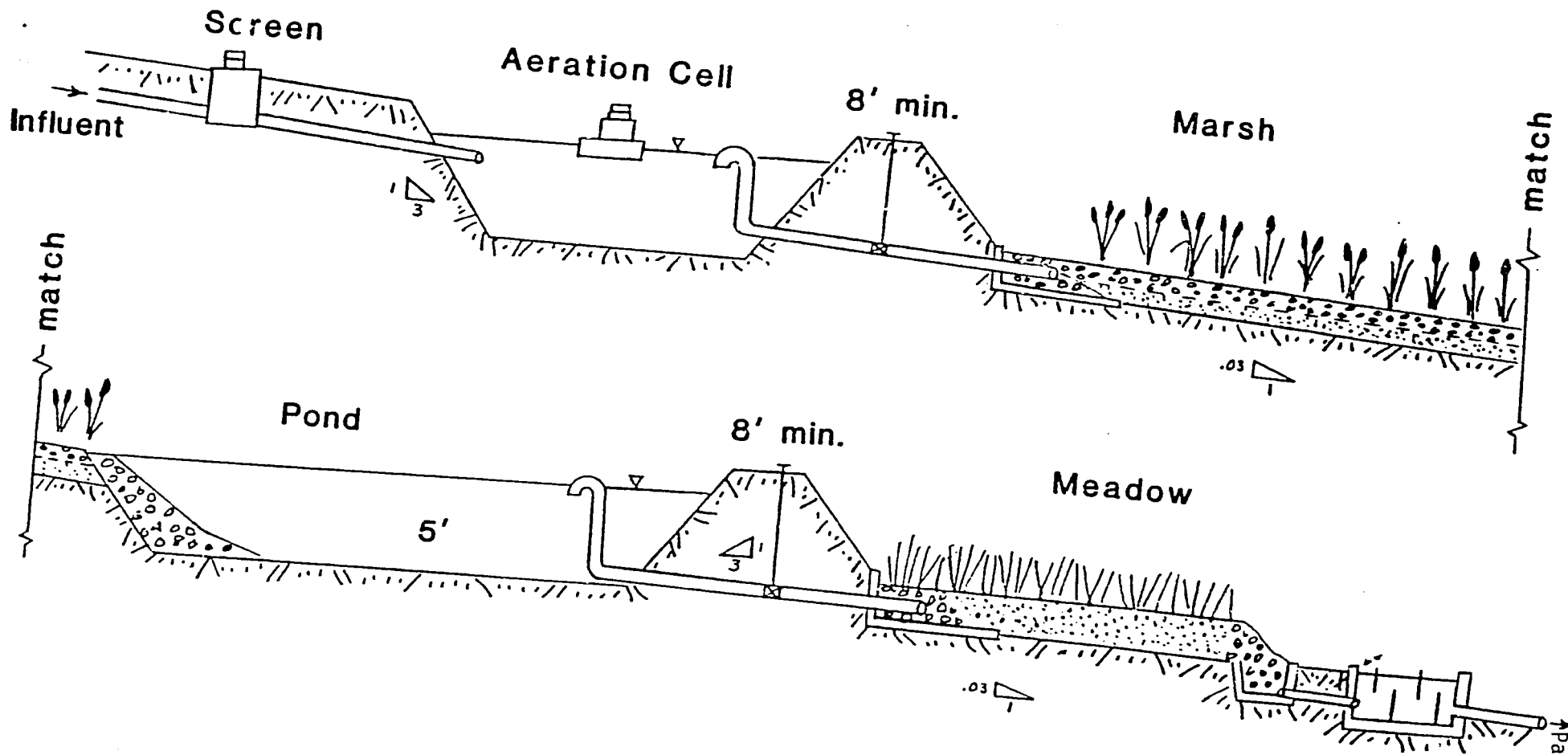


Figure 2. Treatment Scheme Profile

10/1

SECTION 2
BASIC ASSUMPTIONS

INFLUENT CONCENTRATIONS

Influent assumptions must necessarily vary according to the two operating scenarios proposed.

Stand-alone system

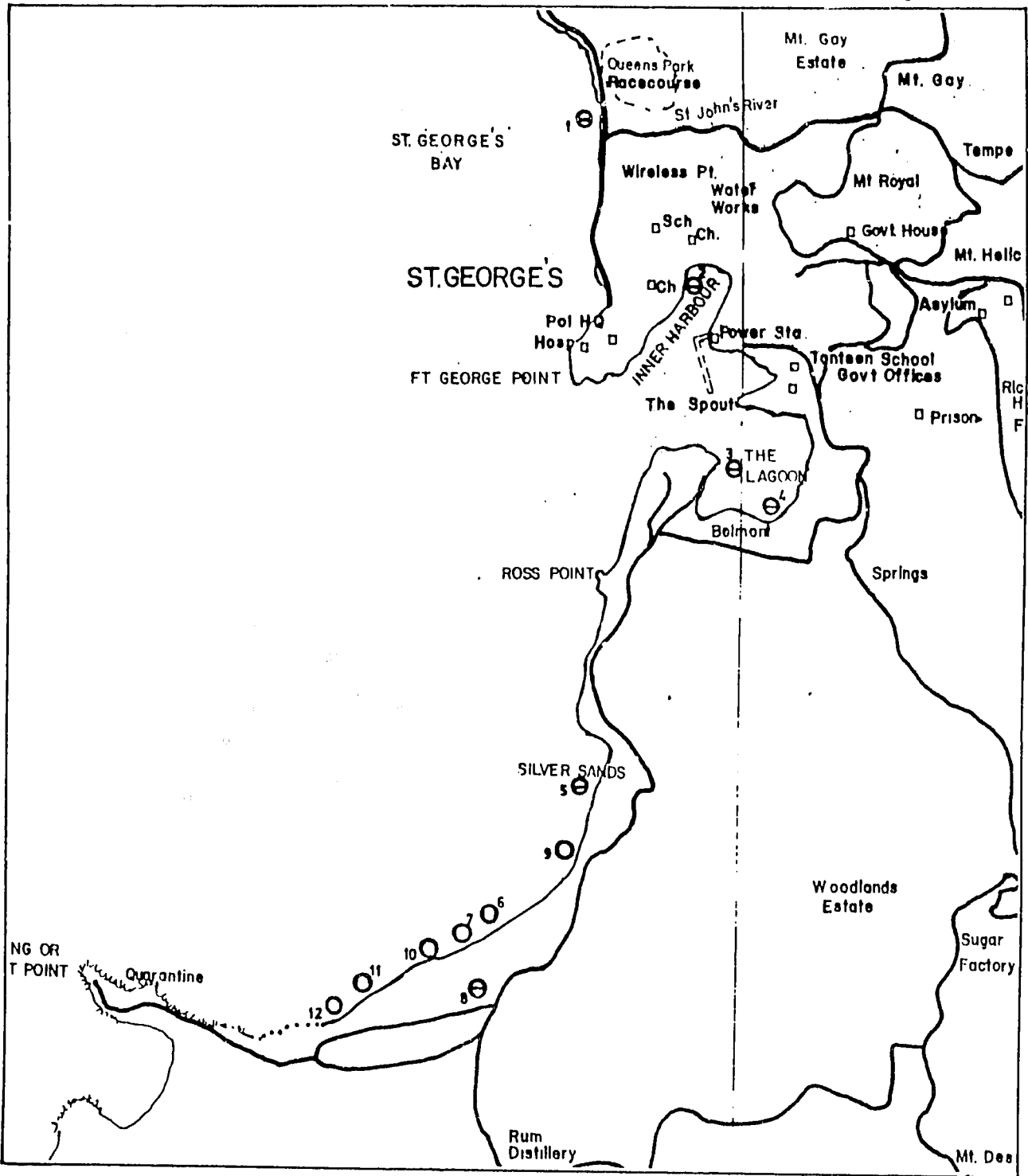
Ranges of influent parameters are assumed according to Table 1.

Table 1. INFLUENT CONCENTRATIONS FOR THE MARSH/POND/MEADOW SYSTEM.

<u>Parameter</u>	<u>Range*</u> <u>mg/l</u>	<u>Design Value</u> <u>mg/l</u>
Suspended Solids	180-300	250
BOD ₅	160-280	200
Nitrogen (Total N)	40-50	45
Organic	15-20	20
Ammonia	25-30	25
Nitrites		
Nitrates		

*Reference: EPA, 1977. Process Design Manual: Wastewater Treatment Facilities for Sewered Small Communities, EPA - 625/1-77-009. USEPA Environmental Research Information Center, Technology Transfer.

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GRAND ANSE BEACH EROSION STUDY.

THE IMPACT OF WASTE WATER ON CORAL REEFS

BY

ARTHUR B. ARCHER.

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5.1.5.1 Grand Anse Beach Water Quality Monitoring

The sampling programme carried out on 1984-10-18 is intended to serve as a baseline for the monitoring of the quality of marine bathing water as a permanent programme to maintain inter alia, the appeal of the beach as an attraction to visitors. The monitoring programme is also intended to assess the effectiveness of measures taken to remove or control existing polluting sources, and to ensure that new developments meet effluent standards for wastes which would maintain water quality within enforced bacteriological limits.

Table 3b shows the two sea-heads or concrete drains as main sources of coliform pollution with areas within 50 to 100 meters in the direction of the current being considered unsafe for bathing. The surprisingly high Total and faecal coliform counts 2,960 and 188 respectively opposite the primary school is again an indication of faecal pollution from housing upstream reaching the sea by water courses - Note photograph 12 with water course near Silver Sands.

5.1.5.2 Impact of Sewage from Grand Anse Area on Coral Reefs

The results of sampling at Grand Anse for coliforms and suspended particulate matter does not, at this time indicate any adverse impact on the coral reefs adjacent to the high amenity area of the beach - i.e. the southern sub-area of this study. The comparatively low concentrations of suspended particulate matter in the samples - 16.34 mg/l at the north sea-head being the only one of significant concentration, is no doubt due to the fact that sewage effluent reaches the sea instead of raw sewage as in the northern sub-area from the St. George's Sewerage System. Also the terrain directly upstream of the Grand Anse lowlands are not yet heavily developed hence silts and other particulates are, at this time, limited.

However, the presence of blue-green algae observed by the marine biologist is an indicator that increased sewage discharges could lead to eutrophication of the shallow inshore waters which could spread to healthy fringing reefs such as at Patricia Shoals and impose stresses on them which could, over the years, possibly decades, cause serious damage to them.

6. Discussion

6.1 Existing Conditions

6.1.1 State of Fringing Coral Reefs

The Marine Biologist and Coastal Engineer in the study team report that:

- (a) the coral reefs between Memorial Point and DeFreitas Cottages are isolated patches of reef and are biologically dead;
- (b) the fringing reefs off Silver Sands Hotel do not have a high profile and could possibly have been dead for a long time; and
- (c) coral reefs in Ships' Channel are also dead.

These observations corroborate the reports of local sea-going persons who observed the decline of fishing on the reefs as far as two to three decades ago.

The effect of loss of coral sand replenishment due to the death of the fringing coral reefs is most evident in the Silver Sands (Northern) area of Grand Anse beach, and would seem to relate to the loss of the reefs from off Memorial Point through off DeFreitas' Cottages to off Silver Sands Hotel.

This view is strengthened by the research of Chave, Smith and Roy (1971) on coral reefs who estimated the gross production of Calcium Carbonate by reef communities which build and maintain the reef and nearby beaches of marked recreational value at between 100 to 500 tons per acre per year.

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6.1.2 Probable Impact of Sanitary Sewage

- (a) It is difficult to state categorically the extent of the role played by sanitary sewage in the destruction of the coral reefs in the study area. But given the fact that (i) for over forty four years raw sewage has been discharged into the sea around the St. George's Harbour, (ii) the analysis of sediment at the Memorial Point sampling station (the nearest fringing reef structure to the city's raw sewage outlets) has shown a significant percentage (4.56%) of interstitial organic matter and (iii) the presence of coralline algae off Memorial Point which thrive in polluted water and compete with corals for space on the reef, it does seem that over the years sanitary sewage has imposed stresses on the coral reefs off Memorial Point and possibly on those south to Silver Sands.

There are several well documented cases where the discharge of sewage has damaged reefs in situations not dissimilar to those in the Grand Anse study area e.g. the destruction of 99% of corals on patch and fringing reefs in a shallow basin of 880 ha area in Kaneohe Bay where daily large volumes of sewage (3 MGD) were discharged. The specific cause of coral reef death was not determined. But declining dissolved oxygen levels (dropping as low as 2.5 mg/l at night) and increasing nutrient levels which supported the proliferation of "green bubble algae" which smothered corals on the reefs, are thought to have contributed to their destruction.

South Grand Anse Bay

Any possible linkage of sewage polluted water with coral stress is less evident in the southern part of Grand Anse Bay, say from South of Silver Sands Hotel to Quarantine Point, as there are no known discharges of raw sewage.

But the discharge of sewage effluents from a Package Activated Sludge Plant, an oxidation pond and the overflow of septic tank effluents from overloaded tile-fields do present the potential for eutrophication with possible intrusion on the healthy fringing coral reefs from the southern sea-head (concrete drain) past Spice Island Hotel, north to off Grenada Beach Hotel.

Detergents discharged in grey (bath and kitchen waste water) water and in sewage were quite visible in the Lagoon, in the area off Silver Sands Hotel, and off drains and water courses discharging on Grand Anse Beach. Research on detergents in the marine environment⁷, suggests that they are relatively harmless to fish, but may affect phytoplankton and the larval stages of some marine animals. Research also notes adverse effects on algae. Locally detergents seemed to add to the restriction of light penetration through the water column.

6.1.3 Waste Water in Broader Terms

Within the broader context of waste water the impact of industrial and agricultural wastes and water borne sediment is hereunder discussed.

(a) Industrial Wastes

Approximately 17,280 m³ of industrial wastes were discharged during 1982-83 into the sea via the St. John's River and from disposal on the coast south of the river mouth - see Table 2. Pollutants from these wastes discharged annually include 17.19 Tons BOD₅, 21.89 Tons COD, 18.75 Tons of Suspended Solids with the comparatively low content of 0.31 Tons of nitrates.

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Table 3

Coastal Water Quality September - October 1984 : Inshore Samples

Date 1984	Parameter	Sampling Stations							
		1 St. Johns River Mouth	2 Carenage	3 GYS Dock	4 Lagoon East Bank	5 Earth Drain S.of Silver Sands	6 Sea-head Nr.G. Anse Hotel	7 100 m. Sea-head	8. Pond Outlet
Sept.27	* BOD ₅ mg/l	7.9	NA	1.5	-	2.8	NA	NA	3.8
	Suspended Solids mg/l	NA	NA	31.48	-	37.4	NA	NA	NA
	Volatile Solids mg/l	NA	NA	NA	-	NA	NA	NA	NA
	Total Coliforms/ 100 ml	TNTC	TNTC	357	-	TNTC	21,330	173	-
	Faecal Coliforms/ 100 ml	1,270	336	233	-	0	1,525	64	-
Oct. 4	BOD ₅ mg/l	NA	NA	-	NA	NA	NA	NA	NA
	Suspended Solids mg/l	23.92	226.55	-	51.82	20.14	18.57	3.69	NA
	Volatile Solids mg/l	8.20	63.00	-	14.52	6.52	6.73	1.30	NA
	Total C Coliforms/ 100 ml	TNTC	X	-	1297	TNTC	5,625	30	-
	Faecal /100 ml	overgrown ¹	X	-	162	35	1,544	60	-

Notes

- 1 *Dissolved O₂ meter not available, concentrations of BOD₅ not determined in all samples. Results recorded not considered accurate.
- 2 NA: Not analysed
- 3 Overgrown¹: Faecal Coliform overgrown by numerous intermediate or total coliforms
- 4 TNTC : Too numerous to count
- 5 - : No sample taken
- 6 X : Suspended matter so great, filter blocked by coliforms starved of nutrients.

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Table 3(b)

COASTAL WATER QUALITY - SEPTEMBER - OCTOBER 1984 : INSHORE SAMPLES

Date 1984	Parameter	SAMPLING STATIONS					
		6 Sea-head Nr. Gr. Anse Hotel	7 100 m So-Sea-head	9 Opp. Gr. Anse Prim. School	10 Opp. Africa Club	11 So-Sea-head drain	12 100 m So-Sea-head drain
October 18	Suspended Solids mg/l	16.34	2.35	3.98	3.89	6.74	7.46
	Volatile solids mg/l	6.07	1.37	1.52	1.59	2.42	2.20
	Total Coliforms/ 100 ml	TNTC	1798	2960	473	1,155	658
	Faecal Coliforms/ 100 ml	170	0	188	3	20	0

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A long term plan of revegetation (grassing) and reafforestation is recommended to control erosion from urban developments. In the case of harbour works, measures should be taken to restrict the spread of silt in the sea, and where feasible measures should be taken to trap sediment.

The silt from the clay soils in the agricultural uplands provide the largest discharge of eroded soil into the sea on the south-west coast via the St. John's River. Farming and deforestation appear to be the major contributors to eroded soil in run-off to the river.

The Government needs to institute a long term plan of land management including such measures as terracing on steep soil when planting certain crops, reafforestation of areas where trees have been hewn for charcoal and other purposes, the use of silt traps to reduce the flow into the sea, and periodic removal of silt at low levels by dragline for reuse e.g. in roadworks.

The recommended programme of Land management and Soil Conservation should be undertaken jointly by the Ministry of Agriculture and the Ministry of Works with expert assistance from one of the International Aid Agencies e.g. The UN Food and Agriculture Organization (FAO).

(iv) Improved Drainage of Waste Water in Unsewered Areas

The approved practice of disposing bath and kitchen waste water, and the overflow of faecal waste from the soakaways receiving septic tank effluent into earth drains and water courses add to the silt complement in coastal marine water, degrades the bacterial quality of bathing water and probably contribute measurably to nutrients in nearshore waters.

The solution to this problem is not easy or of early achievement as there are hundreds of homes and other developments with septic tanks which are in the main undersized and soakaways in clay soil have low absorptive capacities.

It is therefore recommended that the Government of Grenada take steps to have a drainage system designed to intercept the numerous water courses and earth drains before reaching the sea, and channel same to a location on the coast where currents and tidal conditions will restrict pollution of the sea.

The Ministry of Health should from as early as during the year 1985 revise the sizing of septic tanks to increase the capacities and retention period, and should investigate new soakaway construction methods to improve the capacity of the soil to absorb septic tank effluents.

(v) Coastal Management

Grenada, like other developing as well as developed countries, is experiencing the adverse effects of unplanned urbanization and coastal development on marine and coastal ecosystems e.g. mangroves and coral reefs. With current efforts being made to expand the tourism industry, also to attract manufacturing industry, and to sub-divide coastal land for housing, there is obvious need to have these developments planned and executed with coastal and marine environmental protection as a top priority.

Addendum

Nutrients

Nitrates and Phosphates in the marine environment are the oxidized forms of the micronutrients Nitrogen and Phosphorus, and are two of the most important nutrients affecting the growth of algae and bacteria. These may affect corals through the growth and proliferation of algae, which when reaching eutrophic levels can reduce light penetration just like suspended particulate matter and sediments, and during decomposition of organic matter such as in sewage and industrial wastes algae can rapidly deplete dissolved oxygen concentrations and consequently impose stresses on coral and other benthic flora and fauna.

Nitrates and Phosphates are generally found in littoral and near shore waters enriched by organic matter reaching the sea by surface run-off, leaching and by domestic and industrial wastes piped into the sea. The level of these two elements are often indicative of the presence of pollution within close proximity.

Many experts promulgate the nitrate and phosphate concentration in receiving waters between 50 and 200 micrograms per liter ($\mu\text{g}/\text{l}$) and 12 micrograms per liter respectively with 250 $\mu\text{g}/\text{l}$ of nitrates and 25 $\mu\text{g}/\text{l}$ phosphates taken as the level at which eutrophication could be stimulated and triggered.

Results of Analyses

The results of the analysis of samples taken for nutrient levels on 1984-10-18 showed the complete absence of Nitrates and Phosphates. These results were unacceptable.

Samples taken on 1984-11-05 were analysed at the Bellairs Research Institute, the results of which are recorded at Table 5. Analysis for nitrate ($\text{NO}_3\text{-N}$) and Phosphate ($\text{PO}_4\text{-P}$) followed the methods described by J.D.H. Strickland and T.R. Parsons in a Practical Handbook of Sea Water Analysis (1972).

The results of the samples from 3 stations showed the drain north of Silver Sands recording the highest concentrations of nitrates and phosphate - 135.3 $\mu\text{g}/\text{l}$ and 14.6 respectively - while at Memorial Point the respective concentrations were 90 $\mu\text{g}/\text{l}$ and 9.9 $\mu\text{g}/\text{l}$. The concentrations of nutrients do not suggest the presence of organic matter which could trigger off eutrophication which could impose serious stress on corals, but are indicators of the presence of organic matter which

is supporting the growth of the several species of algae found at these locations. If these levels of nutrients persist and increase at these locations over long periods, their profuse growth of algae (some of which may be aggressive to coral growth) could have adverse effects on the light penetration and dissolved oxygen retention properties of the water column and benthos.

As a comparison, the levels of nitrates found by Meynell⁴ in sewage polluted waters on the Southwest Coast of Barbados were 61 µg/l, 57 µg/l and 57 µg/l. The average concentration of nitrates at offshore sampling stations was 70.25 µg/l while the range was 18.0 to 140 µg/l.

The Consultant however submits that considerable variations in nutrient levels occur at any particular point. These may be influenced by seasonal changes, rainfall patterns and peak periods for discharges or run-off of certain organic wastes. It is therefore difficult to draw conclusions on eutrophication and any extent of stress on coral reefs from the one sample taken at stations in the Grand Anse study area. It will therefore be necessary to include sampling for nutrients in the proposed extended monitoring programme for water and sea-bed quality.

Algae

It is not within the scope or the expectations of this report to enter into any in-depth description of algae. However within the context of identifying indicators of pollution which may impose stresses on coral reefs, the presence of Enteromorpha in the area of the Silver Sands drain is noted. These species of algae have been found around marine outfalls in California, U.S.A. and elsewhere and are considered undesirable in littoral and nearshore marine areas. The Coralline algae such as found in the Memorial Point area is regarded as resistant to sewage pollution and compete with corals for space on the coral reef. It is possible that entrenchment of this specie of algae could dislodge corals from the reef structure.

Appendix 3

The following are minimum standards suggested for monitoring the quality of marine water, mainly for assessing the public health protection needs in bathing and recreational waters on the West and South-west Coasts of Grenada. Waters are classified by various uses as recommended for Caribbean waters e.g. Puerto Rican classification.

Class A

Coastal waters whose characteristics are being preserved to protect natural phenomena, and which are not intended for use for activities such as swimming, boating and skiing which might be detrimental to the natural phenomena.

Standards

- Dissolved Oxygen: Not less than 5 mg/l except when due to natural causes
- Coliforms : The faecal coliform geometric average of a series of at least 5 samples over the period of one month shall not exceed 70/100 ml, and not more than 20% of samples shall exceed 200/100 ml.
- Turbidity : A secchi disc shall be visible at a minimum depth of 1 meter.

Class B

Coastal waters intended for uses where the human body becomes submerged e.g. swimming and diving; and for the preservation of desirable species e.g. shell fish.

Standards

- Dissolved Oxygen: Not less than 5 mg/l except when natural phenomena causes depression of this value.
- Coliforms : a) The faecal coliform monthly geometric average of a series of at least 5 samples taken over a period of one month shall not exceed 200/100 ml, and not more than 20% of samples shall exceed 400/100 ml.

- b) In shell-fish growing areas the total coliform monthly geometric average of a series of at least 5 samples taken over a period of one month shall not exceed 70/100 ml and not more than 20% samples shall exceed 230/100 ml.

Turbidity : A secchi disc shall be visible at a minimum depth of 1 meter.

Class C

Coastal waters intended for uses where the human body may come in indirect contact with the water - such as in fishing, yachting, et al; and for the maintenance of desirable species.

Standards

Dissolved Oxygen: Not less than 4 mg/l except when depressed by natural causes.

Coliforms : The coliform geometric average of a series of at least 5 samples taken over a period of one month shall not exceed 10,000/100 ml total coliform or 2,000/100 ml faecal coliform. Not more than 20% of samples shall exceed 4,000/100 ml faecal coliform.

Turbidity : A Secchi disc shall be visible at a minimum depth of 1 meter.

PROJECT
GRANT AGREEMENT
BETWEEN
THE GOVERNMENT OF GRENADA
and the
UNITED STATES OF AMERICA
for
INFRASTRUCTURE REVITALIZATION III

Dated:

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PROJECT GRANT AGREEMENT

Dated:

Between

Government of Grenada ("Grantee")

And

The United States of America, acting through the
Agency for International Development ("A. I. D.")

Article 1: The Agreement

The purpose of this Agreement is to set out the understandings of the parties named above ("Parties") with respect to the undertaking by the Grantee of the Project described below, and with respect to the financing of the Project by the parties.

Article 2: The Project

SECTION 2.1. Definition of Project. The Project, which is further described in Annex I, will consist of engineering services, construction services, related commodities and technical assistance to assist the Government of Grenada in developing the Grand Anse area, improving the Carenage area, development of the Frequente and Pearls Industrial Parks, improving tourist access to selected historical sites and reducing road transport hazards. Annex I, attached, amplifies the above definition of the Project. Within the limits of the above definition of the Project, elements of the amplified description stated in Annex I may be changed by written agreement of the authorized representatives of the Parties named in Section 8.2., without formal amendment of this Agreement.

Article 3: Financing

SECTION 3.1. The Grant. To assist the Grantee to meet the costs of carrying out the Project, A. I. D., pursuant to the Foreign Assistance Act of 1961, as amended, agrees to grant the Grantee under the terms of this Agreement not to exceed Four Million United States ("U.S.") Dollars (US\$4,000,000) ("Grant").

The Grant may be used to finance foreign exchange costs, as defined in Section 6.1., and local currency costs, as defined in Section 6.2., of goods and services required for the Project.

SECTION 3.2. Grantee Resources for the Project

The Grantee agrees to provide or cause to be provided for the Project all funds, in addition to the Grant, and all other resources required to carry out the Project effectively and in a timely manner.

SECTION 3.3. Project Assistance Completion Date

(a) The "Project Assistance Completion Date" (PACD), which is February 28, 1990, or such other date as the Parties may agree to in writing, is the date by which the Parties estimate that all services financed under the Grant will have been performed and all goods financed under the Grant will have been furnished for the Project as contemplated in this Agreement.

(b) Except as A.I.D. may otherwise agree in writing, A.I.D. will not issue or approve documentation which would authorize disbursement of the Grant for services performed subsequent to the PACD or for goods furnished for the Project, as contemplated in this Agreement, subsequent to the PACD.

(c) Requests for disbursement, accompanied by necessary supporting documentation prescribed in Project Implementation Letters are to be received by A.I.D. or any bank described in Section 7.1. no later than nine (9) months following the PACD, or such other period as A.I.D. agrees to in writing. After such period, A.I.D., giving notice in writing to the Grantee, may at any time or times reduce the amount of the Grant by all or any part thereof for which requests for disbursements, accompanied by necessary supporting documentation prescribed in Project Implementation Letters, were not received before the expiration of said period.

Article 4: Conditions Precedent to Disbursement

SECTION 4.1. First Disbursement. Prior to the first disbursement under the Grant, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, the Grantee will, except as the Parties may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D.:

(a) An opinion of counsel acceptable to A.I.D. that this Agreement has been duly authorized and/or ratified by, and executed on behalf of, the Grantee, and that it constitutes a valid and legally binding obligation of the Grantee in accordance with all of its terms; and

(b) A statement of the name of the person holding or acting in the office of the Grantee specified in Section 8.2., and of any additional representatives, together with a specimen signature of each person specified in such statement.

SECTION 4.2. Disbursement for Construction Related to Grand Anse Area Development

Prior to any disbursement or to the issuance by A.I.D. of any documentation pursuant to which disbursement will be made under the Project for construction at either or both Camerhogne Park and sewer system locations under the Grand Anse area Development component, the Grantee shall, except as A.I.D. may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D., evidence of:

(a) An approved plan for the development of the area for which AID funds will be expended; and

(b) The Government's acquisition of necessary land easements and rights-of-way.

SECTION 4.3. Disbursement for Construction at the Frequente Industrial Park

Prior to any disbursement, or to the issuance by A.I.D. of any documentation pursuant to which disbursement will be made under the Project for construction activities at the Frequente Industrial Park location, the Grantee shall, except as A.I.D. may otherwise agree in writing, furnish to A.I.D., in form and substance satisfactory to A.I.D., evidence of:

(a) Agreement to move a 250,000 gallon tank, presently unused at the Point Salines International Airport, to Frequente for use as a water storage tank;

(b) A plan for the collection of back rents from companies currently occupying factory shells renovated by A.I.D. for the Industrial Development Corporation under previous infrastructure projects; and

(c) Written assurance that National Police Maintenance facilities will be moved from the Frequente Industrial Park within a reasonable period of time.

SECTION 4.4. Disbursement for Road Improvements

Prior to any disbursement, or to the issuance by A.I.D. of any documentation pursuant to which disbursement will be made under the Project for road improvements or hazard reductions, the Grantee shall, except as A.I.D. may otherwise agree in writing, furnish to A.I.D., in form and substance satisfactory to A.I.D.:

(a) Any required construction drawings and cost estimates;

(b) Detailed budgets for each separate activity; and

(c) Any required construction contracts.

SECTION 4.5. Disbursement for Carenage and Fort Improvements

Prior to any disbursement or to the issuance by A.I.D. of any documentation pursuant to which disbursement will be made under the Project for specific Carenage and fort improvement activities, the Grantee shall, except as A.I.D. may otherwise agree in writing, furnish in form and substance satisfactory to A.I.D.:

(a) A plan for specific improvement has been approved by government;

(b) Detailed budgets for each separate activity; and

(c) Any required construction contracts.

SECTION 4.6. Notification. When A.I.D. has determined that the Conditions Precedent specified in Section 4.1., 4.2., 4.3., 4.4. and 4.5. have been met, it will promptly notify the Grantee.

SECTION 4.7. Terminal Dates for Conditions Precedent

If all of the conditions specified in Section 4.1. have not been met within thirty (30) days from the date of this Agreement, or such later date as A.I.D. may agree to in writing, A.I.D., at its option, may terminate this Agreement by written notice to Grantee.

Article 5: Special Covenants

SECTION 5.1. Project Evaluation. The Parties agree to establish an evaluation program as part of the Project. Except as the Parties otherwise agree in writing, the program will include during the implementation of the Project and at one or more points thereafter:

- (a) Evaluation of progress toward attainment of the objectives of the Project;
- (b) Identification and evaluation of problem areas or constraints which may inhibit such attainment;
- (c) Assessment of how such information may be used to help overcome such problems; and
- (d) Evaluation, to the degree feasible, of the overall development impact of the Project.

SECTION 5.2. Legislative Enactments and Policies. The Grantee covenants that, unless A.I.D. may otherwise agree in writing:

- (a) The Government of Grenada shall enact legislation requiring all existing and proposed businesses, hotels and residences in the area served by the proposed sewer system to hook up to that system within a reasonable period of time and prescribe suitable designs for future septic tank construction;
- (b) The Government of Grenada shall enact legislation to collect appropriate user fees for all present and future hookups to the sewer system required under the above legislative covenant;
- (c) The Government of Grenada shall establish a water quality testing unit to monitor water pollution in the Grand Anse area; and
- (d) The Government, through the Industrial Development Corporation (IDC) shall establish a policy on rates of rent for industrial space managed by the IDC.

Article 6: Procurement Source

SECTION 6.1. Foreign Exchange Costs. Disbursements pursuant to Section 7.1. will be used exclusively to finance the costs of goods and services required for the Project having with respect to goods their source and origin and with respect to services their nationality in the United States (Code 000 of the A.I.D. Geographic Code Book as in effect at the time orders are placed or contracts entered into for such goods or services) ("Foreign Exchange Costs"), except as A.I.D. may otherwise agree in writing, and except as provided in the Project Grant Standard Provisions Annex, Section C.1(b), with respect to marine insurance. Ocean transportation costs will be financed under the Grant only on vessels under flag registry of the United States, except as A.I.D. may otherwise agree in writing.

SECTION 6.2. Local Currency Costs. Disbursements pursuant to Section 7.2. will be used exclusively to finance the costs of goods and services required for the Project having their source and, except as A.I.D. may otherwise agree in writing, their origin in Grenada ("Local Currency Costs"). To the extent provided for under this Agreement, "Local Currency Costs" may also include the provision of local currency resources required for the Project.

Article 7: Disbursements

SECTION 7.1. Disbursement for Foreign Exchange Costs

(a) After satisfaction of Conditions Precedent, the Grantee may obtain disbursements of funds under the Grant for the Foreign Exchange Costs of goods or services required for the Project in accordance with the terms of this Agreement, by such of the following methods as may be mutually agreed upon:

(1) by submitting to A.I.D., with necessary supporting documentation as prescribed in Project Implementation Letters, (A) requests for reimbursement for such goods or services, or, (B) requests for A.I.D. to procure commodities or services in the Grantee's behalf for the Project; or,

(2) by requesting A.I.D. to issue Letters of Commitment for specified amounts (A) to one or more U.S. banks, satisfactory to A.I.D., committing A.I.D. to reimburse such bank or banks for payments made by them to contractors or suppliers, under Letters of Credit or otherwise, for such goods or services, or (B) directly to one or more contractors or suppliers, committing A.I.D. to pay such contractors or suppliers for such goods or services.

(b) Banking charges incurred by Grantee in connection with Letters of Commitment and Letters of Credit will be financed under the Grant unless the Grantee instructs A.I.D. to the contrary. Such other charges as the Parties may agree to may also be financed under the Grant.

SECTION 7.2. Disbursement for Local Currency Costs

(a) After satisfaction of Conditions Precedent, the Grantee may obtain disbursements of funds under the Grant for Local Currency Costs required for the Project in accordance with the terms of this Agreement, by submitting to A.I.D., with necessary supporting documentation as prescribed in Project Implementation Letters, requests to finance such costs.

(b) The local currency needed for such disbursements may be obtained:

(1) by acquisition by A.I.D. with U.S. dollars by purchase or;

(2) by A.I.D. (i) requesting the Grantee to make available the local currency for such costs, and (ii) thereafter making available to the Grantee, through the opening or amendment by A.I.D. of Special Letters of Credit in favor of the Grantee or its designee, an amount of U.S. Dollars equivalent to the amount of local currency made available by the Grantee, which dollars will be utilized for procurements from the United States under appropriate procedures described in Project Implementation Letters.

The U.S. dollar equivalent of the local currency made available hereunder will be, in the case of Subsection (b)(1) above, the amount of U.S. dollars required by A.I.D. to obtain the local currency, and in the case of Subsection (b)(2) above, an amount calculated at the rate of exchange specified in the applicable Special Letter of Credit Implementation Memorandum hereunder as of the date of the opening or amendment of the applicable Special Letter of Credit.

SECTION 7.3. Other Forms of Disbursement. Disbursements of the Grant may also be made through such other means as the Parties may agree to in writing.

SECTION 7.4. Rate of Exchange. Except as may be more specifically provided under Section 7.2., if funds provided under the Grant are introduced in Grenada by A.I.D. or any public or private agency for purposes of carrying out obligations of A.I.D. hereunder, the Grantee will make such arrangements as may be necessary so that funds may be converted into local currency of Grenada at the highest rate of exchange which, at the time the conversion is made, is not unlawful.

Article 8: Miscellaneous

SECTION 8.1. Communications. Any notice, request, document, or other communication submitted by either Party to the other under this Agreement will be in writing or by telegram or cable, and will be deemed duly given or sent when delivered to such part at the following addresses:

To the Grantee:	Minister of Works
Mail Address:	Young Street St. George's, Grenada

To A.I.D. : AID Representative
Mail Address: United States Agency for International
Development
P.O. Box 445
St. George's
Grenada

All such communications will be in English, unless the Parties otherwise agree in writing. Other addresses may be substituted for the above upon the giving of notice.

SECTION 8.2. Representatives. For all purposes relevant to this Agreement, the Grantee will be represented by the individual holding or acting in the Office of Minister of Works and A. I. D. will be represented by the individual holding or acting in the office of the AID Representative, each of whom, by written notice, may designate additional representatives for all purposes other than exercising the power under Section 2.1. to revise elements of the amplified description in Annex I. The names of the representatives of the Grantee, with specimen signatures, will be provided to A. I. D. , which may accept as duly authorized any instrument signed by such representatives in implementation of this Agreement, until receipt of written notice of revocation of their authority.

SECTION 8.3. Standard Provisions Annex. A "Project Grant Standard Provisions Annex" (Annex II) is attached to and forms part of this Agreement.

IN WITNESS WHEREOF, the Grantee and the United States of America, each acting through its duly authorized representative, have caused this Agreement to be signed in their names and delivered as of the day and year first above written.

UNITED STATES OF AMERICA

GOVERNMENT OF GRENADA

By: _____
John C. Leary

By: _____
Herbert A. Blaize

Title: Charge d'Affaires

Title: Prime Minister and
Minister for Home Affairs,
Security, Information,
Finance, Trade &
Industrial Development

By: _____
William B. Erdahl

By: _____
Keith Mitchell

Title: AID Representative

Title: Minister of Works,
Communications, Public
Utilities, & Community
Development

AMPLIFIED PROJECT DESCRIPTION

SECTION 1: PROJECT PURPOSE

The purpose of the Infrastructure Revitalization III Project is to create an infrastructure environment that will stimulate investment and productive activity for economic growth in Tourism, Agricultural and Light Manufacturing Sectors, thereby increasing employment, personal income and foreign exchange.

SECTION 2: DETAILED DESCRIPTION

Infrastructure Revitalization III will provide infrastructure improvements through the five project components discussed below. In addition, funding will be earmarked for a financial audit and project evaluation.

1. GRAND ANSE TOURISM DEVELOPMENT

The Tennessee Valley Authority (TVA) study prepared preliminary designs and costs for the improvement of the Camerhogne Park and the Grand Anse area. The plan recommends several land improvements and enhancements. In cooperation with the Ministry of Tourism, approximately \$150,000 of project funds will be made available to fund mutually agreed upon subprojects, such as road relocation and land clearing and drainage.

The TVA also recommended various alternatives for a sewage treatment facility and the necessary pipelines and appurtenances needed to reduce the beach pollution in the Grand Anse area. This project component will provide approximately \$1,350,000 to finance all, or parts of the sewer system, if mutually agreed upon.

The cooperation and involvement of the Ministries of Health, Tourism and Works and other Government agencies as required will be necessary to assure that the treatment system selected will do the job in a most economical way consistent with its critical purpose of reducing pollution. AID will assist in providing design services and environmental assessments.

2. CARENAGE/FORT RESTORATION AND DEVELOPMENT

The TVA also studied the need for improvements to enhance tourism along the Carenage and in Forts George and Frederick. Preliminary design costs and plans were presented. Mutual agreement will be reached between AID and the Ministries of Tourism and Works on those priority improvements to be financed with \$240,000 of AID funds. This project component also provides \$60,000 of AID assistance in financing additional design and feasibility studies for further improvement of the Carenage.

3. FREQUENTE INDUSTRIAL PARK DEVELOPMENT

This component will provide \$1,800,000 for the completion of the Frequente Industrial Park. The funds are intended to finance 42,000 square feet of new factory space and to renovate another 29,000 square feet of existing building space. Funds will also be directed to providing infrastructure improvements to the park including paved roads, draining, fencing, lighting, standby power and the erection of a Government provided 250,000 gallon water tank for park fire protection and the maintenance of pressure in the water system. AID in cooperation with the Industrial Development Corporation (IDC) and the Ministry of Works, will provide such engineering and contract management as necessary to carry out the work.

4. PEARLS INDUSTRIAL PARK STUDY

As a result of preliminary examination of Grenada's need for factory space, this project component will finance a study of the feasibility of, and benefits derived from, locating an industrial park in the vicinity of Pearls Airport. AID will finance and make necessary contracting arrangements for the conduct of this study. This component will provide \$50,000 for the feasibility study.

5. ROAD IMPROVEMENT AND TRANSPORTATION HAZARD REDUCTION

The efficient operation of Grenada's highway system is frequently hampered by landslides, flooding and bridge failures which pose a hazard to traffic. In cooperation with the Ministry of Works, \$300,000 of AID funds will be made available to alleviate those transportation hazards having highest priority impacts on the movement of traffic and produce. It is anticipated that the Ministry of Works, either with its own forces or those provided by local contractor will carry out individual site improvements at fixed costs to be agreed upon by AID and the Ministry.

SECTION 3: PROJECT ADMINISTRATION AND IMPLEMENTATION

As with prior AID financed Infrastructure Revitalization Projects I and II, most of the work requires extensive contract management, which, in the past, was mostly carried out by AID. In an effort to increase Government of Grenada participation in project implementation and management, AID will look to high level ministerial cooperation in assigning appropriate Government Ministry representatives to actively participate in implementation of this project. It is further understood that if the Government demonstrates a capacity to contractually administer project work, AID will provide guidance in host country contracting where appropriate. .

SECTION 4: ILLUSTRATIVE FINANCIAL PLAN

Summary cost estimates in millions US dollars are as follows:

<u>COMPONENT</u>	<u>AID FUNDS</u>
1. Grand Anse Tourism Development	1.50
2. Carenage/Fort Restoration and Development	.30
3. Frequente Industrial Park Development	1.80
4. Pearls Industrial Park Study	.05
5. Raod/Bridge Hazard Reduction	.30
6. Project Financial Oversight	.04
7. Evaluation	<u>.01</u>
	\$ 4.00

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PROJECT GRANT STANDARD

PROVISIONS ANNEX

Definitions: As used in this Annex, the "Agreement" refers to the Project Grant Agreement to which this Annex is attached and of which this Annex forms a part. Terms used in this Annex have the same meaning or reference as in the Agreement.

Article A: Project Implementation Letters

To assist Grantee in the implementation of the Project, A.I.D., from time to time, will issue Project Implementation Letters that will furnish additional information about matters stated in this Agreement. The parties may also use jointly agreed-upon Project Implementation Letters to confirm and record their mutual understanding on aspects of the implementation of this Agreement. Project Implementation Letters will not be used to amend the text of the Agreement, but can be used to record revisions or exceptions which are permitted by the Agreement, including the revision of elements of the amplified description of the Project in Annex I.

Article B: General Covenants

SECTION B.1. Consultation. The Parties will cooperate to assure that the purpose of this Agreement will be accomplished. To this end, the Parties, at the request of either, will exchange views on the progress of the Project, the performance of obligations under this Agreement, the performance of any consultants, contractors or suppliers engaged on the Project, and other matters relating to the Project.

SECTION B.2. Execution of the Project. The Grantee will:

- (a) carry out the Project or cause it to be carried out with due diligence and efficiency, in conformity with sound technical, financial, and management practices, and in conformity with those documents, plans, specifications, contracts, schedules, or other arrangements, and with any modifications therein approved by A.I.D. pursuant to this Agreement; and
- (b) provide qualified and experienced management for, and train such staff as may be appropriate for the maintenance and operation of the Project, and, as applicable for continuing activities, cause the Project to be operated and maintained in such manner as to assure the continuing and successful achievement of the purposes of the Project.

SECTION B.3. Utilization of Goods and Services

- (a) Any resources financed under the Grant will, unless otherwise agreed in writing by A.I.D., be devoted to the Project until the completion of the Project, and thereafter will be used so as to further the objectives sought in carrying out the Project.

- (b) Goods or services financed under the Grant, except as A.I.D. may otherwise agree in writing, will not be used to promote or assist a foreign aid project or activity associated with or financed by a country not included in Code 935 of the A.I.D. Geographic Code Book as in effect at the time of such use.

SECTION B.4. Taxation

- (a) This Agreement and the Grant will be free of any taxation or fees imposed under laws in effect in the territory of the Grantee.
- (b) To the extent that (1) any contractor, including any consulting firm, any personnel of such contractor financed under the Grant, and any property or transaction relating to such contracts and (2) any commodity procurement transaction financed under the Grant are not exempt from identifiable taxes, tariffs, duties, or other levies imposed under laws in effect in the territory of the Grantee, the Grantee will, as and to the extent provided in and pursuant to Project Implementation Letters, pay or reimburse the same with funds other than those provided under the Grant.

SECTION B.5. Reports, Records, Inspections, Audits

The Grantee will:

- (a) furnish A.I.D. such information and reports relating to the Project and to this Agreement as A.I.D. may reasonably request;
- (b) maintain or cause to be maintained, in accordance with generally accepted accounting principles and practices consistently applied, books and records relating to the Project and to this Agreement, adequate to show, without limitation, the receipt and use of goods and services acquired under the Grant. Such books and records will be audited regularly, in accordance with generally accepted auditing standards, and maintained for three years after the date of last disbursement by A.I.D.; such books and records will also be adequate to show the nature and extent of solicitations of prospective suppliers of goods and services acquired, the basis of award of contracts and orders, and the overall progress of the Project toward completion; and
- (c) afford authorized representatives of a Party the opportunity at all reasonable times to inspect the Project, the utilization of goods and services financed by such Party, and books, records, and other documents relating to the Project and the Grant.

SECTION B.6. Completeness of Information. The Grantee confirms:

- (a) that the facts and circumstances of which it has informed A.I.D., or caused A.I.D. to be informed, in the course of reaching agreement with A.I.D. on the Grant, are accurate and complete, and include all facts and circumstances that might materially affect the Project and the discharge of responsibilities under this Agreement;

- (b) that it will inform A.I.D. in timely fashion of any subsequent facts and circumstances that might materially affect, or that it is reasonable to believe might so affect, the Project or the discharge of responsibilities under this Agreement.

SECTION B.7. Other Payments. Grantee affirms that no payments have been or will be received by any official of the Grantee in connection with the procurement of goods or services financed under the Grant except fees, taxes, or similar payments legally established in the country of the Grantee.

SECTION B.8. Information and Marking. The Grantee will give appropriate publicity to the Grant and the Project as a program to which the United States has contributed, identify the Project site, and mark goods financed by A.I.D., as described in Project Implementation Letters.

Article C: Procurement Provisions

SECTION C.1. Special Rules

- (a) The source and origin of ocean and air shipping will be deemed to be the ocean vessel's or aircraft's country of registry at the time of shipment.
- (b) Premiums for marine insurance placed in the territory of the Grantee will be deemed an eligible Foreign Exchange Cost, if otherwise eligible under Section C.7(a).
- (c) Any motor vehicles financed under the Grant will be of United States manufacture, except as A.I.D. may otherwise agree in writing.
- (d) Transportation by air, financed under the Grant, of property or persons, will be on carriers holding United States certification, to the extent service by such carriers is available. Details on this requirement will be described in a Project Implementation Letter.

SECTION C.2. Eligibility Date. No goods or services may be financed under the Grant which are procured pursuant to orders or contracts firmly placed or entered into prior to the date of this Agreement, except as the Parties may otherwise agree in writing.

SECTION C.3. Plans, Specifications, and Contracts. In order for there to be mutual agreement on the following matters, and except as the Parties may otherwise agree in writing:

- (a) The Grantee will furnish to A.I.D. upon preparation:
- (1) any plans, specifications, procurement or construction schedules, contracts, or other documentation relating to goods or services to be financed under the Grant, including documentation relating to the prequalification and selection of contractors and to the solicitation of bids and proposals. Material modifications in such documentation will likewise be furnished A.I.D. on preparation;

- (2) such documentation will also be furnished to A.I.D., upon preparation, relating to any goods or services which, though not financed under the Grant, are deemed by A.I.D. to be of major importance to the Project. Aspects of the Project involving matters under this sub-section (a) (2) will be identified in Project Implementation Letters;
- (b) Documents related to the prequalification of contractors, and to the solicitation of bids or proposals for goods and services financed under the Grant will be approved by A.I.D. in writing prior to their issuance, and their terms will include United States standards and measurements;
- (c) Contracts and contractors financed under the Grant for engineering and other professional services, for construction services, and for such other services, equipment, or materials as may be specified in Project Implementation Letters, will be approved by A.I.D. in writing prior to execution of the contract. Material modifications in such contracts will also be approved in writing by A.I.D. prior to execution; and
- (d) Consulting firms used by the Grantee for the Project but not financed under the Grant, the scope of their services and such of their personnel assigned to the Project as A.I.D. may specify, and construction contractors used by the Grantee for the Project but not financed under the Grant, shall be acceptable to A.I.D.

SECTION C.4. Reasonable Price. No more than reasonable prices will be paid for any goods or services financed, in whole or in part, under the Grant. Such items will be produced on a fair and, to the maximum extent practicable, on a competitive basis.

SECTION C.5. Notification to Potential Suppliers. To permit all United States firms to have the opportunity to participate in furnishing goods and services to be financed under the Grant, the Grantee will furnish A.I.D. such information with regard thereto, and at such times, as A.I.D. may request in Project Implementation Letters.

SECTION C.6. Shipping

- (a) Goods which are to be transported to the territory of the Grantee may not be financed under the Grant if transported either: (1) on an ocean vessel or aircraft under the flag of a country which is not included in A.I.D. Geographic Code 935 as in effect at the time of shipment; or, (2) on an ocean vessel which A.I.D., by written notice to the Grantee has designated as ineligible; or (3) under an ocean or air charter which has not received prior A.I.D. approval.
- (b) Costs of ocean or air transportation (of goods or persons) and related delivery services may not be financed under the Grant, if such goods or persons are carried: (1) on an ocean vessel or aircraft under the flag of a country not, at the time of shipment,

- identified under the paragraph of the Agreement entitled "Procurement Source: Foreign Exchange Costs", without prior written A.I.D. approval or on a non-U.S. flag air carrier if a U.S. flag carrier is available (in accordance with criteria which may be contained in Project Implementation Letters) without prior written A.I.D. approval; or (2) on an ocean vessel which A.I.D., by written notice to the Grantee, has designated as ineligible; or (3) under an ocean vessel or air charter which has not received prior A.I.D. approval.
- (c) Unless A.I.D. determines that privately owned United States-flag commercial ocean vessels are not available at fair and reasonable rates for such vessels, (1) at least fifty percent (50%) of the gross tonnage of all goods (computed separately for dry bulk carriers, dry cargo liners and tankers) financed by A.I.D. which may be transported on ocean vessels will be transported on privately owned United States-flag commercial vessels, and (2) at least fifty percent (50%) of the gross freight revenue generated by all shipments financed by A.I.D. and transported to the territory of the Grantee on dry cargo liners shall be paid to or for the benefit of privately owned United States-flag commercial vessels. Compliance with the requirements of (1) and (2) of this subsection must be achieved with respect to both any cargo transported from U.S. ports and any cargo transported from non-U.S. ports, computed separately.

SECTION C.7. Insurance

- (a) Marine insurance on goods financed by A.I.D. which are to be transported to the territory of the Grantee may be financed as a Foreign Exchange Cost under this Agreement provided, (1) such insurance is placed at the lowest available competitive rate, and (2) claims thereunder are payable in U.S. dollars or, as A.I.D. may agree in writing, the currency in which such goods were financed or in any freely convertible currency. If the Grantee (or government of Grantee), by statute, decree, rule, regulation, or practice discriminates with respect to A.I.D.-financed procurement against any marine insurance company authorized to do business in any State of the United States, then all goods shipped to the territory of the Grantee financed by A.I.D. hereunder will be insured against marine risks and such insurance will be placed in the United States with a company or companies authorized to do a marine insurance business in a state of the United States.
- (b) Except as A.I.D. may otherwise agree in writing, the Grantee will insure, or cause to be insured, goods financed under the Grant imported for the Project against risks incident to their transit to the point of their use in the Project; such insurance will be issued on terms and conditions consistent with sound commercial practice and will insure the full value of the goods. Any indemnification received by the Grantee under such insurance will be used to replace or repair any material damage or any loss of the goods insured or will be used to reimburse the Grantee for the replacement or repair of such goods. Any such replacement will be of source and origin of countries listed in A.I.D. Geographic Code 935 as in effect at the time of replacement, and, except as the Parties may agree in writing, will be otherwise subject to the provisions of the Agreement.

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SECTION C. 8. U.S. Government-Owned Excess Property. The Grantee agrees that wherever practicable United States Government-owned excess personal property, in lieu of new items financed under the Grant, should be utilized. Funds under the Grant may be used to finance the costs of obtaining such property for the project.

Article D: Termination; Remedies

SECTION D.1. Termination. Either Party may terminate this Agreement by giving the other Party thirty (30) days written notice. Termination of this Agreement will terminate any obligations of the Parties to provide financial or other resources to the Project pursuant to this Agreement, except for payment which they are committed to make pursuant to non-cancellable commitments entered into with third parties prior to the termination of this Agreement. In addition, upon such termination A.I.D. may, at A.I.D.'s expense, direct that title to goods financed under the Grant be transferred to A.I.D. if the goods are from a source outside Grantee's country, are in a deliverable state and have not been offloaded in ports of entry of Grantee's country.

SECTION D. 2. Refunds

- (a) In the case of any disbursement which is not supported by valid documentation in accordance with this Agreement, or which is not made or used in accordance with this Agreement, or which was for goods or services not used in accordance with this Agreement, A.I.D., notwithstanding the availability or exercise of any other remedies under this Agreement, may require the Grantee to refund the amount of such disbursement in U.S. Dollars to A.I.D. within sixty (60) days after receipt of a request therefor.
- (b) If the failure of Grantee to comply with any of its obligations under this Agreement has the result that goods or services financed under the Grant are not used effectively in accordance with this Agreement, A.I.D. may require the Grantee to refund all or any part of the amount of the disbursements under this Agreement for such goods or services in U.S. Dollars to A.I.D. within sixty (60) days after receipt of a request therefor.
- (c) The right under subsection (a) or (b) to require a refund of a disbursement will continue, notwithstanding any other provisions of this Agreement, for three (3) years from the date of the last disbursement under this Agreement.
- (d) (1) Any refund under subsection (a) or (b), or (2) any refund to A.I.D. from a contractor, supplier, bank or third party with respect to goods or services financed under the Grant, which refund relates to an unreasonable price for or erroneous invoicing of goods or services, or to goods that did not conform to specifications, or to services that were inadequate, will (A) be made available first for the cost of goods and services required for the Project, to the extent justified, and (B) the remainder, if any, will be applied to reduce the amount of the Grant.

- (e) Any interest or other earnings on Grant funds disbursed by A.I.D. to the Grantee under this Agreement prior to the authorized use of such funds for the Project will be returned to A.I.D. in U.S. Dollars by the Grantee.

SECTION D.3. Non-Waiver of Remedies. No delay in exercising any right or remedy occurring to a Party in connection with its financing under this Agreement will be construed as a waiver of such right or remedy.

SECTION D.4. Assignment. The Grantee agrees, upon request, to execute an assignment to A.I.D. of any cause of action which may accrue to the Grantee in connection with or arising out of the contractual performance or breach of performance by a party to a direct U.S. Dollar contract with A.I.D. financed in whole or in part out of funds granted by A.I.D. under this Agreement.