

PD-AAN-923

ISN=33585

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P R O J E C T P A P E R

I T A L Y

SOUTHERN ITALY EARTHQUAKE RECONSTRUCTION PROGRAM

PDAAN 923  
ISN-33585

SECOND AMENDMENT  
TO  
PROJECT AUTHORIZATION

Name of Country: Italy Name of Project: Southern Italy Earthquake Reconstruction Program  
Number of Project: 145-81-01

1. Pursuant to Section 495B, "Italy Relief and Rehabilitation", of the Foreign Assistance Act of 1961, as amended, the Southern Italy Earthquake Reconstruction Program (the "Program") was authorized on April 15, 1981, and amended on September 24, 1982, for total authorized funding of \$47,765,000. That Authorization, as previously amended, is hereby further amended by increasing the authorized funding by not to exceed Eight Million United States Dollars (\$8,000,000) in grant funds over a two-year period from the date of this amendment, subject to the availability of funds in accordance with the A.I.D. OYB allotment process, for total life-of-project funding of \$55,765,000, to assist in financing the costs of goods and services required for the Program.

2. The program limitation of total imported shelf item purchases applicable to countries included in A.I.D. Geographic Code 899 is increased from \$250,000 to \$4,000,000.

3. A Program Agreement Amendment(s) may be negotiated and executed by the official(s) to whom such authority is delegated in accordance with A.I.D. regulations and Delegations of Authority.

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

Frank B. Kell  
M. Peter McPherson *fn*  
Administrator

Aug 21, 1983  
Date

Clearances:  
AA/NE:WAFord BL Date 8-24  
A-AA/PPC:RDerham FWZ Date 9-25-83  
*for* GC:RDerham [Signature] Date 8/28/83

NE/PD: SATaubenblatt SAT Date 8/19/83  
NE/PD/MENA: DMcCall DMcC Date 8/16/83  
NE/EUR: RMisheloff [Signature] Date 8/19/83  
NE/TECH: KSherper [Signature] Date 8/19/83  
GC/NE: RJohnson RO Date 8/19/83  
NE/DP: CJohnson CO Date 8/24/83  
AAA/SER: JOWens JF Date 8/22/83

GC/NE: BJanigian: paj: 8/15/83: X28244

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Southern Italy Earthquake Reconstruction Program  
(SIERP)

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Southern Italy: EARTHQUAKE RECONSTRUCTION PROGRAM

I. SUMMARY AND RECOMMENDATIONS

A. Grantee: The Government of Italy (GOI), including the Provinces of Avellino, Potenza and Salerno.

B. Implementing Agency: Agency for International Development Washington D.C. and the Office of A.I.D. Representative, Naples, Italy.

C. Amount: U.S. \$ 8.0 million

D. Project Purpose: To further assist Italy in its continuing reconstruction efforts related to the damage done by the November 23, 1980 earthquake that devastated a widespread area in Southern Italy.

E. Brief Project Description: Construction of one large high school, several smaller elementary schools and possibly one community center or other civic structure.

F. Grantee Contribution: In addition to an immediate allotment of \$1.3 million for relief efforts in 1980, the GOI approved an earthquake reconstruction law and appropriated several million dollars more for implementation of this legislation under which funds are made available for homeowners to rebuild or repair their homes and provincial authorities are give financial support in overcoming the damage done to public buildings and institutions. National budget constraints however, continue to impact on the GOI's ability to meet all demands fully.

Direct Italian contributions to this project will be in the form of site acquisition; construction of access roads; provisions of and hookups for sewerage, water, electricity and other utilities as needed. These Italian contributions are estimated at approximately \$1.0 million.

G. Views of the Ambassador and the Consul General: The American Ambassador in Rome and the Consul General in Naples support and recommend approval of this grant and its purpose.

H. Statutory Requirements: While Sec. 495 of the FAA exempts the program from usual statutory requirements, the program will

provide for adequate planning, and realistic cost estimates and prudent expenditure of U.S. Government funds.

I. Recommendation: Approval of a Grant of \$ 8.0 million to finance reconstruction, repair or completion of facilities destroyed by the earthquake or to build new support institutions needed to ameliorate and facilitate rebuilding of the social infrastructure in communities severely damaged by the November 1980 earthquake.

## II. Background and Prior Year Project Activities

### A. Historical Background

On November 23, 1980 at 07:30 P.M., a severe earthquake struck the southern part of the Italian Peninsula. The quake, with its epicenter at Eboli, registered 6.8 on the Richter Scale. It has been characterized as the most devastating disaster to strike Western Europe since World World II. The affected area (approximately 10,000 square miles - an area the size of Maryland) covers Southern Italy north and south of a line running east from the city of Naples to Potenza. This includes the Provinces (i.e. courties) of Naples, Salerno, Avellino, Benevento, Potenza and Caserta in the two Regions (states) of Campania and Basilicata. The city of Naples and the provincial cities of Salerno, Potenza and Avellino were damaged, and outside these urban centers 356 towns and villages, out of a total of 570, were damaged by the initial shock and its numerous after-shocks. Some towns and villages, in whole or in part, were simply flattened. The total population of the affected area is estimated at 4.5 million (or about 10% of the country's population) including the 1.3 million inhabitants of Naples. Major damage, however, was centered in Avellino, Salerno and Potenza Provinces, and it is in these provinces that A.I.D. has been conducting its assistance program.

The quake killed approximately 3,000 people and injured 7,700. It is estimated that living quarters for 250 - 300,000 people were also destroyed. Surveys indicate that roughly 100,000 structures such as schools, houses and public buildings were damaged or demolished. By the end of January 1981, the Italian Government had estimated that the cost of recovery (repair and reconstruction) would run to some \$18.5 billion. By now, this estimate is believed to have been a relatively conservative one especially in the light of an inflation rate which continues to run at about 17% per annum.

Following the November 23, 1980 earthquake that devastated much of Southern Italy, a Presidential Delegation, individual

members of Congress and a damage and reconstruction assessment team from the Agency for International Development visited the earthquake stricken areas. These officials, in cooperation with Italian authorities, outlined a program of reconstruction assistance deemed most appropriate for the use of the \$50 million provided by Congress for relief and reconstruction assistance. There was agreement by all concerned that the Agency for International Development should administer this program. Thereupon, the U.S. Ambassador in Italy requested that an A.I.D. office be established and staffed in Naples (co-housed with the American Consulate) to provide for direct U.S. management and supervision of the program. This office, staffed by an A.I.D. Representative opened in March 1981. The staff of this office has since been expanded by two other direct-hire foreign service officers, an experienced engineer and a project manager.

As a result of discussions with Italian Officials at all levels and after intensive tours of the earthquake zone, A.I.D. decided to focus its assistance on the reconstruction of damaged or destroyed schools, using permanent, traditional structures. It was the observation of the A.I.D. team which visited Italy shortly after the earthquake that of the various types of social infrastructure in the area, school buildings received the most damage. Their reconstruction would have substantial impact on a major percentage of the population, particularly when considering that numbers of new beneficiaries would be entering the schools each year. School buildings are permanent structures and are highly visible. Lack of adequate school facilities give further impetus to out migration thus further weakening the economic base of the area already suffering from an aging population.

Of the initial \$50 million provided by Congress in FY81 some \$4.2 million were used to cover the cost of immediate relief supplies and for the distribution of critical equipment during the first few weeks after the disaster. These efforts were under the direction of AID's office of U.S. Foreign Disaster Assistance and were concluded by January/February 1981.

When making plans for the FY 81 program, it was also considered prudent to make use of the presence and experience of a number of U.S. Private Voluntary Agencies (PVOs) operating in Italy. A \$4.0 million program segment was set aside from the available funds to provide the PVOs with matching grants to undertake a series of earthquake related social projects. The matching grant concept was used to further spur American private giving to earthquake relief fund drives. These drives were successful and the U.S. government contribution was matched dollar for dollar so that a total of \$8 million dollars became available for PVO sponsored and directed projects

The remaining \$ 41.8 million of the FY81 appropriation are being used to finance the construction of 12 schools (high schools, junior high schools and technical institutes) in the three hardest hit provinces: Avellino, Salerno and Potenza.

#### B. Construction Status of FY81 School Construction

The first two schools are expected to be completed by the first quarter of FY84. All of twelve schools in the FY81 program are scheduled for completion by April 1985. Table 1 on the following page indicates the present status of construction of the first twelve schools.

#### C. FY82 Program Overview

In December 1981, Congress provided an additional \$10 million to be used for diversified relief and reconstruction activities in Southern Italy. The Senate Appropriations Committee recommended that these FY82 funds be used in part for direct A.I.D. project activities as well as for A.I.D. supported activities of U.S. Private Voluntary Organizations in Italy. Accordingly FY82 funds were programmed and obligated as follows:

1. \$6 million for Operational Program Grants to PVOs (Catholic Relief Services, Save the Children Fund, and Salvation Army World Service.)
2. \$2 million to continue the PVO Matching Grant Program begun in 1981.
3. \$2 million for the bi-lateral construction program for an elementary school in the town of Calabritto which suffered extreme damage during the 1980 earthquake. The design for this school is presently underway, and construction contract award is scheduled for fall 1983.

Implementation of the FY82 Program also is moving forward as scheduled.

#### D. FY83 PROGRAM OVERVIEW

The Congress in early 1983 made available another \$10 million for Southern Italy Earthquake Reconstruction activities. A.I.D., after consultation with congressional quarters, decided that of this amount, \$8 million would be devoted to continued bi-lateral A.I.D. projects and \$2 million would be made available for Operational Program Grants in support of U.S. Private Voluntary Agency earthquake relief and rehabilitation Programs in Southern Italy.

STATUS FY81 SIERP CONSTRUCTION

TOWN	BID (Lire)	INVOICE (Lire)	% actual	CONSTRUCTION SCHEDULE		
				START (total) days	COMPLETE (used) days	%
NO	4,915,000,000	394,454,000	8.0%	7/27/82 (500)	12/9/83 (307)	61.4%
SI	2,736,000,000	753,640,000	27.5%	7/27/82 (475)	11/14/83 (307)	64.6%
ML	2,797,000,000	341,656,800	12.2%	11/10/82 (525)	4/18/84 (212)	40.4%
PI	4,970,000,000	1,860,808,070	37.4%	11/2/82 (525)	4/10/84 (210)	40.0%
BU	3,628,000,000	466,271,900	12.9%	11/3/82 (525)	4/11/84 (195)	37.1%
RI	3,495,000,000	336,800,050	9.6%	12/3/82 (525)	5/10/84 (179)	34.1%
CA	3,595,000,000	691,751,267	19.3%	11/4/82 (550)	5/7/84 (208)	37.8%
SA	2,162,000,000	209,550,000	9.7%	12/13/82 (550)	6/4/84 (179)	32.5%
AV	5,055,000,000	746,355,320	14.8%	12/13/82 (725)	12/7/84 (169)	23.3%
GM	3,750,000,000	394,851,690	10.51%	1/20/83 (550)	7/24/84 (131)	23.8%
SO	3,450,000,000	0	0.0%	2/2/83 (550)	8/6/84 (118)	21.5%
VA	3,450,000,000	358,927,760	10.1%	1/20/83 (550)	7/24/84 (131)	23.8%
TOTAL	<u>43,203,000,000</u>	6,555,066,857	15.2%	7100	2346	33.0%

Note: Status is as of May 31, 1983.

2. The expanded bi-lateral program will shift the emphasis from construction of large high schools encompassed in the original program to construction of smaller elementary schools. There are two reasons for this change. First, by entering a construction program of smaller structures we can hold the total construction time to a shorter period which would allow project completion basically within the existing PACD. Second, we believe that the Italian awareness of U.S. participation in reconstruction efforts improve with a greater number of construction activities.

In making the recommendation to expand the number of sites, we are cognizant of the impact upon AID/Naples staff and its monitoring responsibilities. An analysis of staff requirements can be found in Para. III.C. of this paper.

3. We have received a letter from the Italian Disaster Earthquake Assistance (IDEA) group informing AID that the \$ 2.0 million allocated to the PVO's would be divided as follows:

\$ 0.5 million	Salvation Army World Service
0.75 million	Save The Children Foundation
0.75 million	Catholic Relief Service.

### III. PROJECT ANALYSIS

#### A. Project Purpose and Strategy

1. The purpose of the U.S. aid made available by Congress continues to be that of prior year efforts. The program is based on a desire to assist the Government of Italy and the Italian people to overcome the lingering effects of the November 1980 earthquake. The assistance to be provided should demonstrate to the Italian people in a tangible and lasting way the bonds of friendship and cooperation that binds the U.S. and its close ally Italy. The program should provide clear evidence that the U.S. will stand by its friend and ally and will provide material response in time of need and catastrophe.

Experience over the past two years has shown that the criteria against which earlier U.S. assistance proposals were measured insure adequate treatment of humanitarian, foreign policy and other concerns.

The FY83 program will therefore continue to feature physical structures having permanance, and high visibility. As in

prior years activities will address humanitarian and social needs of a maximum impact in terms of direct and indirect beneficiaries. Implementation will remain under U.S. control (direct A.I.D. contracts for A & E and construction services), and overall composition of the program's sub-activities will be so tailored to fit snugly within the span of control, of the small A.I.D./Naples direct hire staff contingent (three U.S. direct hire officers) already on-board and authorized for FY84-FY85, and with staff beginning its phase-down in FY86.

Futhermore with AID/Naples exposure to the Italian A/E and construction sector over the past two years, implementation of program add-ons can be implemented under considerably more compacted time schedules than if new starts had to be made in other sectors. Valuable time is saved, and sufficient basis exists for expecting that FY83 activities following substantially in the foot-steps of the earlier year programs, can also be completed by the end of April 1985 - the Project Activity Completion Date (PACD) of the initial FY81 project.

#### B. FY83 Project Financing Plan

AID/Naples has received requests from Government of Italy officials which far exceed the availability of funds, therefore, selection of projects to be financed will be predicated on a number of factors. First, each individual project must meet the selection criteria shown in Paragraph III.D of this paper. Second, from those projects meeting this criteria, final selection also will take into account civic interest as determined by the ability of each community to meet requirements of site availability and utility connections in a timely manner. In addition, we will attempt to geographically distribute the subprojects throughout the "earthquake crater" zone.

Based upon the above philosophy, the following represents the tentative financial plan for subobligation of the FY 83 bi-lateral funds:

##### 1. Primary Program

a. Design and Supervision Services	\$ 760,000
b. Marsico Nuovo High School	3,500,000
c. Elementary School - Nusco	540,000
d. Community Center - Bisaccia	500,000
e. Other elementary or Junior High Schools*2	2,000,000
Subtotal	<u>7,300,000</u>
f. Contingencies (10%)	700,000
Total	<u><u>\$ 8,000,000</u></u>

Includes completion of school construction commenced outside of the project.

## 2. Supplemental Program - Completion of Schools

The Region of Basilicata started construction on a large number of Junior High Schools following the earthquake, but due to the non-availability of continuing funds, some of the projects have not been completed. A list of these schools is shown in Table 2 on the following page. The Assessore (Provincial Minister of Education) has requested AID/Naples to consider assisting with the completion of these projects. AID/Naples would like to maintain an option to assist in this request on a selective basis when all criteria for subproject selection can be met and it is deemed to be in the best interest of the U.S. Government to complete a particular school construction. A decided advantage to the U.S. efforts, would be maximum exposure for a minimum cost. If this element of the proposed program is approved, it would be done through a modified fixed amount reimbursement so that the contract with the existing contractor could be continued unchanged.

This type of program would allow the use of small sums of money in an expeditious manner. The present GOI request involves sub-projects varying in size from \$25,000 to \$250,000.

### C. Project Activities and Outputs

The Italian Government having watched the U.S. program in Southern Italy to date with satisfaction and appreciation, recently held discussions with the AID/Representative during which the government tabled a number of requests believed by them to be high on their list of critical requirements for utilization of the most recent appropriation of funds. A.I.D. Naples was gratified to see that rehabilitation of the physical components of the educational system was the first item mentioned. The government specifically asked for:

1. The construction of a 20 (twenty) room four track high school badly needed in the town of Marsico Nuovo (Potenza Province). The "Assessore" for Public Education in the Region of Basilicate has done an unusual amount of educational planning, particularly for Junior High and High Schools in this area in terms of present and future enrollments, projected manpower training needs of the region, maximum utilization of a few sites though carefully chosen central locations, easily accessible to a wide student population by school bus system. In the case of the Marsico Nuovo project, unoccupied prime land has been set aside, adequate utilities are already in place nearby, the setting for the school is a highly visible one for the community and surrounding area.

Table 2

LIST OF POTENTIAL PROJECTS

1. Miscellaneous

ACERENZA	Elementary School
SATRIANO	Junior High School
BISACCIA	Community Center
NUSCO	Elementary School with Gym
LAVIANO	Elementary School
CONZA DELLA CAMPANIA	Jr. High School (5 rooms)
MORRA de DANTIS	Jr. High School (6 rooms)

2. Schools To be Completed (Region of Basilicata)

MASCHITO	Jr. H. School	Lire	50,000,000
EPISCOPIA	Jr. H. School	Lire	350,000,000
RUOTI	Jr. H. School	Lire	30,000,000
TOLVE	Jr. H. School	Lire	74,300,000
ROTONDA	Jr. H. School	Lire	342,000,000
RIVELLO	Jr. H. School	Lire	300,000,000
TRECCHINA	Jr. H. School	Lire	30,000,000
FRANCAVILLA	Jr. H. School	Lire	30,000,000
AVIGLIANO	Jr. H. School	Lire	100,000,000
PIGNIOLA	Jr. H. School	Lire	390,000,000
VIGGIANO	Jr. H. School	Lire	95,000,000
S. CHIRICO N.	Jr. H. School	Lire	200,000,000
TERRANOVA		Lire	300,000,000

3. New Schools (Region of Basilicata)

Marsico Nuova	High School
Lauria	Jr. H. School

2. AID/Naples is also considering small (5 - 9) elementary schools or junior high schools as a supplement to the program. These schools are less expensive to construct not only because of the reduced number of class facilities, but also because under Italian Law, schools with less than 10 classrooms are not required to have gymnasiums, craft rooms or cafeteria and kitchen facilities. However, such facilities will be included, although not legally required, when appropriate. Entering into this phase of school construction has the advantage of providing a heavier distribution of U.S. assisted schools in the earthquake area, and thus offers increased visibility to the U.S. efforts. It also offers shorter construction time, permitting completion of buildings funded by the latest appropriate (FY 83) by April 1985, i.e. within the PACD of the original project.

3. A further request was made for assistance in the completion of some fifteen (15) other small schools built by the Italian Government to replace schools destroyed in the earthquake, but not completed due to lack of adequate financial resources. AID/Naples understands that in each case the amount of infusion of additional funds now required is relatively small - somewhere between \$25,000 - \$250,000 in each case. Again a small input would enable a wider spread of the U.S. assistance effort throughout communities of the area. A little extra input can achieve a U.S. earthquake assistance relationship in places where none existed heretofore. The extra number of places to be covered is still under review. It is proposed to use a modified FAR system with an advance, if appropriate, to allow local governments to complete these buildings by using the original contractor(s). However, AID/Naples would have its own A & E contracted firms review the structures and perhaps modify the facades in a manner that will assure the completed buildings to have an imprimatur similar to the other schools in the program which display the distinct characteristics and influence of American design preferences for structures of this type in the area.

4. A special request was also made for inclusion in the program the construction of a multi-purpose community center for the town of Bisaccia. This will be a multi-functional building, with an entrance hall, general all-purpose community auditorium, social assistance area, out-patient facility and dispensary on the first floor. The second floor will house a cultural center and library. While this item alone would not be covered entirely by the justifications made for emphasis on the educational sector of the program, we feel it has merit of its own.

D. CRITERIA FOR SELECTION OF SCHOOL RECONSTRUCTION PROJECTS.

In selecting from the many requests those localities having schools and other worthy projects to be aided by U.S. assistance funds, the following Project criteria will be applied:

1. Damage

The community must have suffered substantial damage in the November 1980 earthquake.

2. Economic Base

The economic base of the community must appear to have adequate viability for stable growth.

3. Managerial Talent

The mayor, other local and provincial staff must possess adequate management talent and skills in the judgment of AID/Naples and must demonstrate a keen interest in the reconstruction/rehabilitation of the sub-project to be undertaken. This is a measurable fact in terms of cooperation with the project and AID as seen from early commitment and provision of non AID-financed inputs, and the competence and planning skills evident by the quality of project proposal documents submitted to AID/Naples.

4. Destroyed/Damaged Facilities

Schools to be assisted in reconstruction or rehabilitation work will be those located in areas where previously existing facilities were destroyed or damaged. However, the assisted facility need not arise again in the same location or community as before. Where sound planning dictates relocation to another nearby community or site, this criteria would also have been satisfied. Localities already having received major GOI or other donor assistance for similar construction will be given lower priority, unless other overriding considerations prevail.

5. Priority

The facility is one of the, but not necessarily the priority need as expressed by the community and or the province.

6. AID - Management Concern

The location of the facility must have physical year-round

accessibility to the same degree as the other earlier earthquake assisted projects.

### 7. Visibility

The sub-project should of itself provide adequate visibility for the U.S. earthquake efforts. Additionally, the community's administration must fully understand and agree to obtain/provide appropriate publicity for the USG effort as determined by AID/Naples.

### E. Technical/Financial Analysis

#### 1. General Architectural/Structural Design Requirements:

a. The present Italian School Instruction Law (Decreto Ministeriale 18 Dic 1975) require the following space allocation for five class-room size elementary school:

Site size	2295 sq m.
Gross building area	765 sq. m.
Max students per class	25
Additional facilities may include:	
dining hall	
group activities room	
library	
storage/work room	
toilets	
small health care room	
common areas	
small administration office.	

b. Italian School Instruction Law require the following minimum site and building areas for elementary schools:

School Size	Site Size	Building Size
6 Classroom	2,755 sm	918 sm
7 Classroom	3,215 sm	1,071 sm
8 Classroom	3,675 sm	1,224 sm
9 Classroom	4,130 sm	1,377 sm
10 Classroom	5,670 sm	1,890 sm
15 Classroom	7,965 sm	2,655 sm

c. Criteria regarding space requirements for administrative services, conference rooms, offices, sanitary

facilities, gymnasium, and cafeteria/multipurpose halls will be decided based upon normal Italian school requirements plus community needs on a case by case study. Detailed space allocation and structural design criteria, therefore, will be tailored to the particular needs of each selected community based upon discussions with civic and educational officials together with independent AID/Naples studies. All structural designs will take into consideration appropriate building codes and other regulations concerning structural design and seismic requirements.

## 2. Analysis of Construction Costs

Based on contracts awarded to date, AID/Naples has prepared the following summary per meter cost analysis of each school in the initial program. This cost analysis is used to program the FY83 funds which is sufficient to satisfy Section 611 of the Foreign Assistance Act. The costs per square meter are reasonable and in line with or below average market conditions at the time of each contract award.

Table 3

<u>School Name</u>	<u>Building Size (per sq. meter)</u>	<u>Cost (per sq. meter)</u>
<u>Blurock Design</u>		
Nocera Inferiore	5452	Lire 901,500
Siano	3383	808,750
Muro Lucano	3138	891,300
Picerno	3997	1,243,400
Buccino	4077	889,870
Rionero	3945	885,930
Average of Blurock Design		<u>( 936,800)</u>
<u>Passantino Design</u>		
Calitri	5750	Lire 607,830
S. Angelo	3242	666,870
Avellino	6511	776,380
Grottaminarda	6112	613,550
Solofra	5448	633,530
Vallata	5077	676,870
Average of Passantino Design		<u>( 662,500)</u>

The cost of constructing the new facilities to be financed under this new FY83 A.I.D. Grant will generally reflect the average costs noted above, adjusted for escalation. These average costs, which range from Italian Lire 607,000 (\$434) to Italian Lire 1,243,000 (\$888) per square meter are considered reasonable for the facilities proposed. Essentially all construction material and fixed equipment to be incorporated into the work are manufactured locally, there are no foreign exchange costs involved.

b. Cost Estimates

(1) The estimated cost for a five room elementary school is as follows:

(a) Construction cost 765 s.m. x lire 800,000	Lire 612,000,000
(b) Landscaping/sport field	80,000,000
(c) Contingency	<u>68,000,000</u>
Total	<u><u>Lire 760,000,000</u></u>

(approximately \$ 550,000)

The cost estimate assumes a square meter cost of Italian Lire 640,000 escalated by 25% to reflect a 17% annual inflationary cost increase from actual bid prices received on the last 6 school bids to a mid-point in the new construction program. A 10% contingency has been added for unforeseen extra work orders (ie., foundation problems, etc.).

(2) For a comparison, using similar unit cost figures as above, it is estimated that a nine room elementary school would cost:

(a) Construction costs 1,377 s.m. x lire 800,000	Lire 1,101,600
(b) Landscaping/sport field	144,400
(c) Contingencies	<u>104,000</u>
Total	<u><u>Lire 1,350,000</u></u>

(approximately \$1,000,000)

(3) The cost estimate for the approximately twenty classrooms Marsico Nuovo High School is:

(a) Construction Costs		
4,500 s.m. x lire 950,000		Lire 4,270,000
(b) Landscape/sport field		230,000
(c) Contingencies		<u>400,000</u>
Total		<u><u>Lire 4,900,000</u></u>

(approximately \$3,500,000)

A higher unit construction cost has been utilized for this larger school because of the added complexity of high schools (laboratories, etc.).

### 3. Contracting Procedures

All design will be undertaken by the A/E consortium selected from the May 12, 1983 competition which followed the Commerce Business Daily advertisement of April 19, 1983. The final selection and contracting for these services is being undertaken at the time of preparation of this paper and will be available to immediately undertake this program design without any interruption in program sequence. An A.I.D./Naples Evaluation Committee has completed review of 40 submittals and recommended a short list of seven consortiums (U.S.-Italian groups). Starting June 15, an Evaluation Committee will interview all firms on the short list in Washington, DC and make a recommendation to the AID/Representative to Italy on the rank order of these firms. It is planned to start contract negotiations in Naples on July 13 with the first ranked firm. The Regional Contracting Officer is scheduled to visit Naples for these negotiations.

When the original AID financed earthquake reconstruction school program was initiated, direct A.I.D. contracts were awarded on the basis of competitive bidding from a prequalified list of contractors. No U.S. firms participated in the first two bids, therefore, only Italian contractors are being considered. Contracts for the construction of schools and other buildings under this project extension will be awarded in the same manner. Bidding and contract negotiations will be conducted by the Regional Contracting Officer located in USAID/Rabat while on TDY to Naples.

All projects are carried out under fixed price (Lump Sum) contracts. The Technical specifications for materials and

construction methods will be prepared by the design A/E and will be in accordance with U.S. and Italian standards. The general provisions will be similar to those presently in effect for the original program.

#### 4. Summary and Cost Estimate of Proposed AID-Financed Program Extension

Table 2 is a tentative list of potential schools to be included for consideration under this proposed AID-financed program. As can be noted, the program is concentrated largely in the center of the "earthquake crater" zone. The list of potential projects is larger than the available financing, therefore, there should be no concern regarding sub-obligation of all available funds. The list may be modified to delete sub-projects or add elementary or junior high schools to the program by AID/Naples in consultation with Italian Government officials. Those towns meeting all selection criteria which will assure rapid compliance with the program requirement of land availability and utilities connections, will be given priority. In the past, AID/Naples experienced extreme difficulty in forcing compliance with program requirements. In this program extension, we plan to enter into firm subproject determinations only after a community can guarantee availability of land and assure water and power connects. It is for this reason that we do not plan to establish a final list of subprojects until after compliance with AID requirements.

A second major change in program concept is the elimination of a requirement for the community to conduct the topographic/cadastral survey and the soils exploration. Obviously the original inclusion of this obligation was an attempt to shift some of the cost to the community to assure their participation in the program; however, this approach proved extremely costly to A.I.D. Problems which could have been foreseen if the A/E had been tasked with these duties are continuing to arise during the on-going construction phase for the first 12 schools. This has been due to inaccurate topographic mapping and incomplete geological investigations resulting in higher than anticipated construction contract change order costs.

It is standard practice world wide to leave these two elements of verification to the design A/E to assure full design responsibility on their part. Unless the A/E conducts these studies, they cannot be held responsible for either the accuracy of quantities (and therefore the construction costs), but worse, they cannot be held fully responsible for structural design when geological conditions vary from those supplied by an outside source. In all future design contracts, topographic and geological studies will be the responsibility of the A/E.

The mission will make final selection of sites, from eligible sub-projects submitted, based upon community needs and ability to fulfill CPs. The same conditions precedent and covenants as those in the existing grant as amended would apply to the new obligation.

#### 5. Proposed Construction Schedule

Construction contract schedule for the original program and the new proposed projects are shown on Appendix A. Based on the present plans, all construction will be completed by April 1985, within the presently established PACD, except for the Marsico Nuovo High School which is scheduled for completion before the end of FY 85.

#### 6. Summary of Technical Soundness

Basic building designs which will be adopted for the smaller elementary schools will be relatively simple, and construction methods to be employed will not involve highly specialized technology and in many cases construction will be fairly labor intensive. The expanded construction program thus will provide employment opportunities for both skilled and unskilled labor.

The Government of Italy has developed sufficient planning data to determine the technical feasibility of the projects. Detailed architectural/engineering plans for all schools included in this program extension will be completed utilizing the services of the newly selected A/E consortium of an American and an Italian firm. The cost estimate for the entire program is deemed reasonable firm, thereby meeting the requirements of Section 611 of the Foreign Assistance Act.

#### F. Environmental Analysis

##### 1. Land Use Planning

Land to be utilized for the school construction program is the responsibility of the municipalities in which the schools or other buildings are to be constructed. In accordance with land use plans, these properties will be reserved for the new building facilities.

##### 2. Wastewater Disposal

Wastewater generated from sanitary and kitchen facilities provided in each school or other building will be disposed of through the municipal sewage collection system or, where soil conditions permit, through individual septic tank systems.

Provisions for the disposal of wastewater are included in the final design drawings. Where septic tanks are utilized, absorption fields will be designed so as to prevent the effluent from polluting groundwater resources.

### 3. Disruption Due to Construction Activities

Sites for the School expansion program are widely scattered throughout the country; hence, construction activities at a particular site will not cause major disruptions to pedestrian or vehicle traffic and will not present hazards to the general public. In most cases, because of the earthquake damage was so extensive, the normal questions of disruptions of services is not an issue since the immediate areas are under almost total reconstruction. Nevertheless, the general conditions of contract will require the construction contractor to make provisions for maintaining traffic and take other safety precautions required to protect both construction workers and local inhabitants.

### 4. Environmental Summary and Conclusions

The construction program to be funded under this A.I.D. Grant will enable a greater number of school-age children to have access to quality education, through the replacement of damaged schools, and will enable the communities in which the schools are located to grow both socially and economically. As no adverse environmental effects are foreseen, the net result will be a discernible improvement in the human environment.

### G. AID/Naples Staff Requirements

We believe that the presently assigned three U.S. direct hire staff is adequate to monitor this proposed expanded bi-lateral and PVO program without any additional American staff. However, the NE/Bureau has expanded the request for Engineer Nagy's service beyond the immediate region (of Tunis, Rabat and Lisbon) to also include assistance to Muscat/Oman; therefore, it will be necessary to add a local hire PSC's Italian Engineer. This position would be project funded and not add to the Operating Expense budget.

The additional Italian Engineer is needed to more closely follow AID Direct Contract construction activities and to provide continuity during the Regional Engineer's absences. Mr. Nagy is scheduled for four more TDY's and a home leave during the remainder of this calendar year (18 weeks absence out of the next 28 weeks), therefore the hiring of an additional PSC staff engineer is required as soon as approval is received and recruitment completed.

In addition, with the added clerical responsibilities generated to monitor the ever increasing PVO activities and to assist the existing local hire secretary with the bi-lateral program, we are considering the addition of one bi-lingual secretary (local PSC hire). This position will be established for only 18 months, then it will be abolished.

#### H. GOI, US PRIVATE AND OTHER DONOR ASSISTANCE

GOI expenditures for immediate relief and subsequent rehabilitation and reconstruction efforts through 1982 are estimated at some \$ 6 billion.

U.S. Private Organizations (not including USG assistance to PVO disaster efforts in Italy) are estimated to have collected contributions of close to \$ 23 millions through special fund raising drives and similar activities.

The International Community (Governments and Private Organizations) are believed to have provided the Italian Government and the earthquake stricken area with about \$ 140 million in cash or in kind contributions. In addition, the European Economic Community made available a \$1.2 billion reconstruction loan which is still being drawn down.

It should be noted that above aid was committed or made available as an early response to the disaster. Contributions in 1982-3 seem to have slowed down considerably if they have not already ceased totally. GOI sources when queried could not cite any recent (post 1982) internationally sourced aid commitment other than the U.S. one. Official information on possible continuing efforts on the part of international private organizations is not available, but to the best of the information available to AID/Naples it is not now of significant dimension.

#### IV. IMPLEMENTATION SCHEDULE

##### A. Implementation Schedule

##### Schedule

<u>DATE</u>	<u>ACTION</u>	<u>RESPONSIBILITY</u>
1. 7/15/83	Authorization of AID Grant	AID
2. 7/29/83	Signature of grant agreement	AID/GOI
3. 3/30/84	Signature of all construction contracts	AID/Naples RCO/Rabat
4. 5/1/84	Construction is begun on all AID financed School projects	Contractors
5. 4/1/85	All schools completed	Contractors
6. 5/1/85	Final inspection and Evaluation	AID/Naples

##### B. Reporting Requirements

The A/E firms supervising construction contracts are required to submit monthly, progress reports including construction photographs and fiscal information. The PVOs are required to submit quarterly reports. In addition, AID/Naples produces a Quarterly Report covering all aspects of the SIERP which notes problems encountered in carrying out the construction activities or PVO activity delays and steps taken to remedy these problems.

##### C. Evaluation

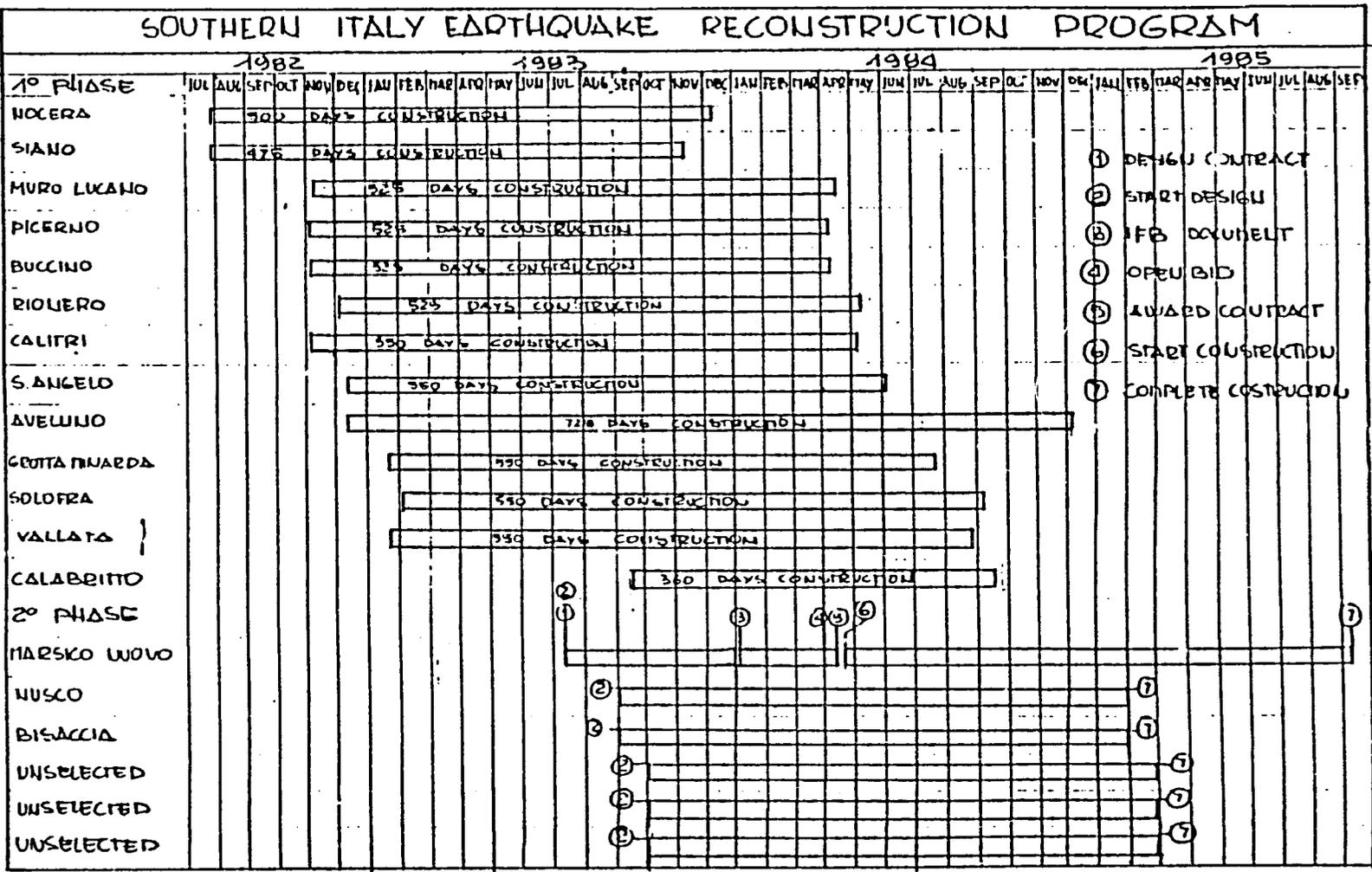
Subsequent to the final inspection of completed school buildings, an evaluation of the project will be conducted to determine to what extent project purposes have been achieved. Not only will the physical existence of new structures be verified, the use to which those facilities are being put will be examined. A detailed evaluation "scope of work" remains to be developed, but at a minimum such criteria as the following will be included:

1. Pupil attendance
2. Use of building for other purposes (e.g., adult education in evening hours, community activities, etc.)
3. Maintenance of buildings

An evaluation of the project will be conducted in September, 1984. A second evaluation including evaluation of "Procedures", "Impact" and "Lessons Learned" will be conducted in late 1985 or early 1986.

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APPENDIX A



- ① DESIGN CONTRACT
- ② START DESIGN
- ③ IFF DOCUMENT
- ④ OPEN BID
- ⑤ AWARDED CONTRACT
- ⑥ START CONSTRUCTION
- ⑦ COMPLETE CONSTRUCTION