4-3 Project Implementation Plan

4-3-1 Implementation Policies

The managing organization for the Project facility is under the President's Office. However, the Maldives' organization responsible for Project implemention is the Ministry of Foreign Affairs. They will be responsible for the following Project related items: contracts; detailed design; construction supervision; construction work; banking agreements.

The Ministry of Public Works and Labor will coordinate matters pertaining to Project construction with other related ministries.

After the signing of the Exchange of Notes for Project construction by the Maldives and Japanese Governments, the Ministry of Foreign Affairs will make a contract agreement with a Japanese consultant company based on the information contained in the Basic Design Study.

The consultant will discuss Project matters with the Ministry of Foreign Affairs and prepare the detailed design and tender documents for Project construction. The consultant will confirm whether or not the construction work items are being carried out satisfactorily and on schedule.

A diesel engine generator will supply the electricity needed for Project construction. The installation of electric power lines and telephone cable for use once the construction of Project facilities is completed will be undertaken by the Maldives' side. For smooth transition, the installation work must be accomplished prior to the Project's construction completion date.

The Project's construction schedule should be well planned to prevent idle periods and to preclude the need for rework. To do this, the types of material to be used should be limited, simple basic construction materials should be used, materials procured from Japan or other foreign countries must be shipped expeditiouly, and the specialists and skilled workers that are required must reach the Project site in a timely manner.

(1) Special Attention to be given to Construction Situation and to Project Construction

There is a great deal of construction work going on in Male' recently; however, most of the work is being performed by foreigners, such as Pilipinos, Sri Lankans, and Indians. It is extremely difficult to hire local workers. Furthermore, there are practically no skilled workers available in Male'.

Because of the lack of skilled, experienced local workers it is believed that the quality and scheduling of form work, reinforcing bar setting, concrete work, painting, and interior finishing work are adversely affected.

In male', building structures can often be seen that were constructed using poor techniques and poor supervision. Due to the lack of good quality materials, and workers' skill and experience, many buildings are poorly finished.

As Project construction must be completed within a short period of time and that accurate work is required, it would be difficult to utilize local contractors for Project construction.

As there are no detailed building codes in Maldives, no special attention will be necessary for Project facility design.

In view of the above, quick action by the Maldives' side will be required to ensure prompt unloading of Project use materials and equipment, and to see to it that the procedures for obtaining tax exemptions and customs clearances are carried out without delay. Also, prior to commencing Project construction, the Maldive's side should complete the following tasks: clearing the Project site, including areas for the laborers' temporary lodging, the preparation work space, and material storage, etc; the construction of wells for temporary use; the installation of power lines and telephone cable to the Project site; and obtaining whatever permission is necessary to commence Project construction.

There are two basketball courts, reinforced concrete spectator seats, and a lighting facility that must be completely removed by the Maldives' side prior to commencing Project construction.

For preparing project construction schedule, special attention must be paid to prevent working days from overlapping the Ramadan period.

4-3-2 Construction Supervision system

Based on the rules of the Government of Japan's grant aid programme, a Japanese consultant company will supervise Project construction in accordance with the terms of the contract agreement made with the Government of Maldives. The construction supervision work includes providing the construction contractors with technical guidance and supervising the contractors from a neutral standpoint in order to ensure that the construction work is in conformity with the construction contract agreement.

The consultant will make spot checks of the construction work on days agreed upon by the Maldives' side. To accomplish accurate construction work on schedule as well as to provide local workers with on-the-site technical training, Japanese engineers will be dispatched for Project construction. The construction supervision work entails the following major items:

(1) The Evaluation and Approval of Construction Drawings, etc.:

Evaluation and approval of construction drawings, building materials, finish material samples, and Project use equipment submitted by contractors.

(2) Supervision of Construction Work:

Evaluation of construction plans and schedules, providing guidance to contractors, reporting construction progress to the Maldives' Ministry of Foreign Affiars.

(3) Provide Assistance in Processing Contractor Fee Payments:

Evaluating and processing bills submitted by contractors both during and after Project construction.

(4) Inspecting and witnessing Field Tests:

The consultant will inspect the tests conducted during the Project construction period and will provide appropriate guidance.

Once Project construction is completed, the consultant will confirm every item described in the construction contract agreement, and witness the delivery of the completed Project facilities. The consultant will then receive a "work completion certificate" from an appropriate authority.

Periodically throughout the Project construction period the consultant will report construction progress, and fee payment procedures to Project related Japanese ministries and agencies. At the end of the construction period the consultant will report the delivery of completed Project facilities to the same ministries and organizations.

4-3-3 Material and Equipment Procurement Plan

Maldives imports practically all of its construction material. The only locally available material is coral sand, but recently it has been exceedingly difficult to obtain. The over mining of coral sand in the past has caused beach erosion and, as a result, the government has prohibited any further mining of the sand on many islands.

As all Project use construction material must be imported, the procurement plan must be prepared by taking into account the time involved for material and equipment to reach the Project site.

(1) Procurement Policies

Practically all construction materials needed for building Project

facilities must be imported from third countries, such as Singapore, Sri Lanka, etc. Materials not obtainable in third countries will be procured and shipped from Japan.

Wooden furniture is very expensive in Japan and will therefore be imported from third countries. Furniture fabricated from other types of material will be procured and shipped from Japan.

All equipment for Project use will be procured and shipped from Japan.

Table 4-3-3(1) lists Project use equipment and materials and the countries they are planned to be procured from.

(2) Shipping Plan

Including unloading and customs clearance times, it will take at least 1.5 to 2.0 months to ship equipment and materials from Japan to the Project site in Male'.

Careful preparation must be made to ensure that equipment and materials are shipped from Sri Lanka and Singapore in a timely manner.

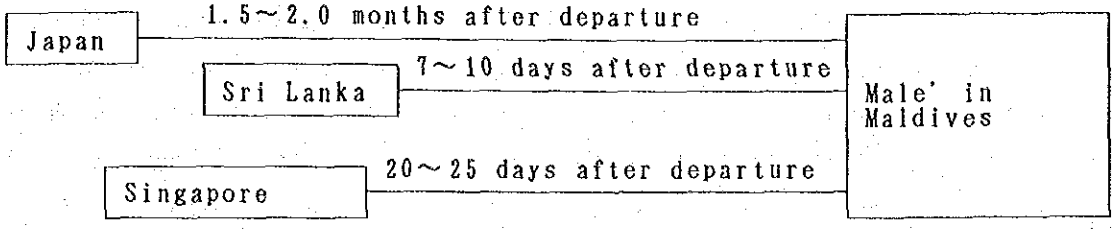
The Government of Maldives must ensure that Project use equipment and materials are promptly unloaded at Male' Port and that the appropriate customs clearances are obtained expeditiously.

The following diagram indicates the number of days required for equipment and materials to be shipped to the Project site in Male' from Japan, Sri Lanka, and Singapore.

Table 4-3-3 (1) Project use Construction Materials and Equipment and the Countries from Which They are Planned to be Produced.

Work Item	Country		
	Sri Lanka	Singapore	Japan
Building Construction	aggregate: Gravel and sand Bricks Concrete blocks Flooring Terrazzo blocks	Cement Sand frame Form material Lumber for bed Doors Iron fixtures	All other construction materials and equipment Roof materials Paint Water proof sheets Metal fittings Tiles Glass Interior finishing materials
Electrical & Plumbing Fixtures			Pumps, fans, valves Power distributions boards Power cables Electrical fixtures Transformers Lighting fixtures Sanitation clay fixtures
Equipment			All equipment for the Project

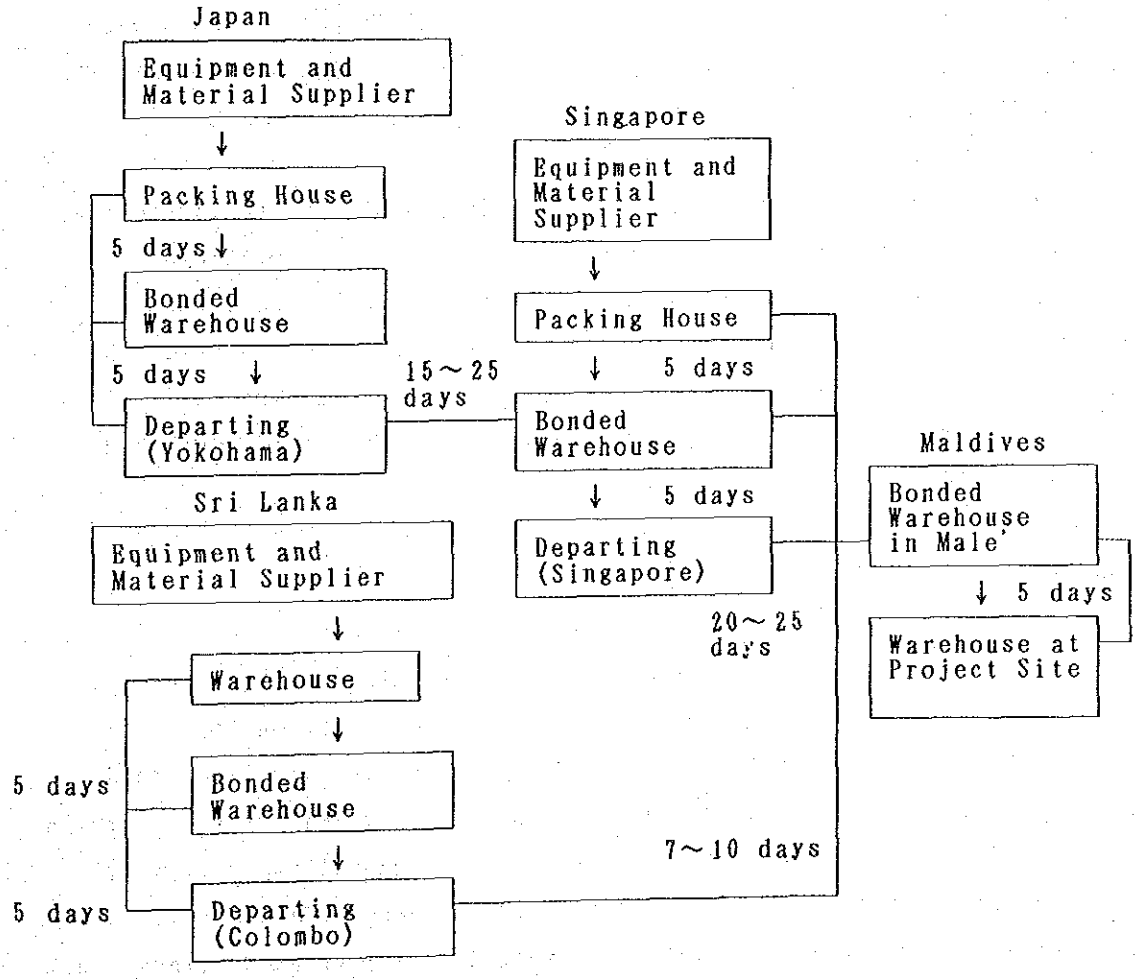
Fig. 4-3-3(1) Shipping Flow Chart



Freighter service is scheduled from Colombo in Sri Lanka once a month, and three times a month from Singapore. Materials and equipment coming from Japan will be shipped via Singapore.

The detailed shipping plan is shown in the following diagram:

Fig. 4-3-3(2) Detailed Shipping Flow Chart



4-3-4 Project Implementation Schedule

At the time when the Government of Japan approves the funding of the Project under the grant aid programme, the Exchange of Notes will be signed by representatives of the Japanese and Maldives' Governments. After the signing, Project implementation will be carried out in three steps: 1) preparation of the detailed design and tender documents; 2) tendering and making contract agreement; 3) Project construction.

(1) Preparation of Detailed Design and Tender Documents

After making the consultant contract agreement with the Government of Maldives and obtaining the Government of Japan's approval of the contract, the consultant will prepare the detailed design and tender documents based on the Basic Design Study Report.

Prior to making final decisions concerning Project facility details and specifications that may effect the operations and maintenance once the facilities are constructed, the consultant will discuss matters with the Maldives' side.

During the early part of the detailed design period, the consultant should confirm the boundaries of the undertakings to be borne by the Government of Maldives and of those to be undertaken by the Government of Japan under its grant aid programme thereby making it possible for the Government of Maldives to prepare its budgetary and organizational plans for Project implementation. It will require one and a half months to prepare the detailed design and tender documents.

(2) Tendering

After preparing the detailed design and tender documents, the consultant will announce tendering for Project construction work. The consultant will then conduct the pre-qualification evaluation of tender participants. Based on the evaluation, the Maldives' Ministry of Foreign Affairs, the agency responsible for Project implementation, will invite the qualified contractors to participate in the tendering and will conduct tendering in Japan. With the consultant acting as a witness, an

official representing the responsible agency will open the tendering. A contract agreement for Project construction will be made between the successful tenderer and the Government of Maldives.

It will require approximately one and a half months for tendering and making the contract agreement.

(3) Project Construction

After the successful contractor makes a contract agreement with the Government of Maldives, he will obtain approval of the contract from the Government of Japan and will then commence Project construction work.

In view of the types of Project facilities, the condition of the Project sites, and the methods for procuring Project use equipment, there might possibly be two work items that will have an effect on the overall Project construction time, they are: 1) foundation construction; 2) the undertakings to be carried out by the Maldives' side.

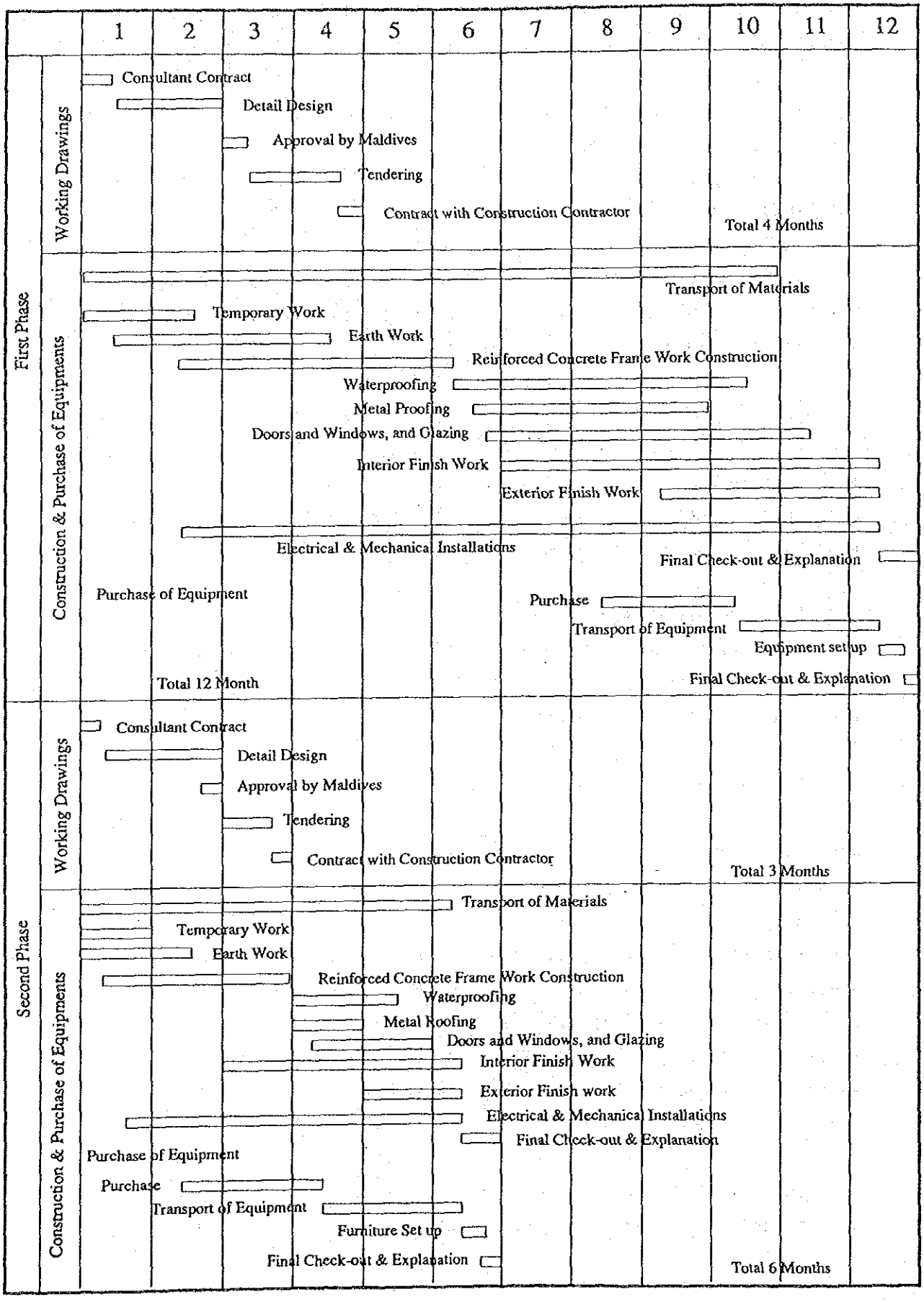
After receiving the reinforcing bars, the foundation construction work will swing into full scale operations. Thus, the period of time from the commencement of construction work until the reinforcing bars are received will affect the overall construction time.

It would be desirable to proceed with the earth work, foundation construction work, and building structure construction work during the dry season (November to April).

Depending on the progress of the construction work, Project use equipment will be shipped from the countries where they were procured. Upon arrival, the equipment will be installed and undergo test operations. As the equipment will not require a long period of time to install, it is planned for their installation work to commence approximately two months prior to the scheduled Project construction completion date.

In view of the scale of the Project and the types of facilities to be provided, it will require approximately 14 months to complete Project

Table 4-3-4(1) Tentative Construction Schedule



construction if no difficulties are encountered in the procurement of equipment and materials, and the Government of Maldives is able to completed its undertakings smoothly. The Project's multi-purpose hall will be constructed within the 12-month Phase I period; classroom and administration building within the 6-month Phase II period.

The Project construction schedule is shown in Table 4-3-4(1).

4-3-5 Construction Costs to be Borne by the Maldives' Side

Following are the estimated costs for Project construction to be borne by the Maldives' side:

Undertakings to be borne by the Maldives' side is estimated to be about 1,221,000 Rufiyaa.

The cost breakdown is as follows:

Project site area cleaning:	395,000 Rufiyaa
Retaining wall (seawall):	522,000 Rufiyaa
Removal of existing structure:	98,000 Rufiyaa
Installation of utilities:	34,000 Rufiyaa
Pavement construction:	172,000 Rufiyaa
TOTAL	1,221,000 Rufiyaa

The 1990 budget amount of the Ministry of Finance is 128,830,397 Rufyaa. About 0.97% of the budget will be used to finance the above estimated costs.

4-3-6 Boundary of Responsibilities for Project Construction

The boundaries of Project construction work to be borne by the Government of Japan and Maldives' side are as follows:

(1) Work to be Borne by the Government of Japan:

1) Project Building Construction:

- First Phase: Multi-purpose hall building construction and provision of equipment
- Second Phase: Classroom and administration building construction and provision of equipment

(2) Undertakings to be Borne by the Government of Maldives:

1) Project Site Area Cleaning:
- Removal of existing basketball courts and spectator seats (the work is to be started by August)
- Making a garden and planting trees
- To clear, level and reclaim the site

2) Utility Work:
- Installation of power cables from power mains (cables will be provided by the Japanese side)
- Connection of sewer pipe to sewer main
- Securing telephone lines

3) All necessary construction other than those to be borne by the Japan side
- Retaining wall (seawall) construction and Fence Work
- Pavement construction

4) Undertakings Related to Project Construction
- Processing of tax exemption and customs clearances for Project use products
- According foreign personnel (mainly Japanese) with Project related services during their stay in Maldives.

CHAPTER 5 PROJECT EFFECTS AND CONCLUSION

CHAPTER 5 PROJECT EFFECTS AND CONCLUSION

The Government of Maldives established the following objectives as a part of the Second National Development Plan:

1) Expanding education
2) Promoting the development of human resources
3) Alleviating regional differences

The Government has been striving to develop its manpower; however, due to the lack of social education facilities, proper education is not being provided. The gymnastics facilities needed for improving the health and physical strength of the young people are not being built because priority has been given to the construction of classrooms for accommodating the rapidly increasing child population.

Maldives is an archipelago nation consisting of more than one thousand islands. The largest island is about 2 km² in size. Although the total population in Male', the country's capital, is only about 61,000, the population density is extremely high. The establishment of an overall land use policy is, therefore, of utmost urgency.

(1) Project Effects

Under the above circumstances, construction of multiple purpose use Project facilities will make it possible to conduct the following: 1) physical education; 2) vocational education; 3) the dissemination of health and hygienic information; 4) various other activities and social events. And, as a result, the following effects will be achieved:

1) Improvement of Physical Education

Plans have been made to conduct gymnastics, volleyball, and basketball training at the Project's multi-purpose hall.

2) Improvement of Vocational Education

The Project facilities will be the first to be able to provide

government employees with the various training courses for qualifying them to be the top level workers who are much sought after in Maldives. Thus, the training problems caused by the lack of facilities will be eliminated once the Project is completed. As particularly important subject in the National Development Plan is the training of government employees working on the atolls.

There is an extreme shortage of skilled and semiskilled workers in Maldives. The Project facilities will contribute to training the manpower needed in the fields of photography, embroidery and garment making.

3) Improvement of Health Education

Television and radio have been providing the inhabitants with conventional education services. Being a one-way form of communications, the degree of understanding by the inhabitants is not known. After the Project facilities are completed, direct communications between the instructors and the inhabitants will become possible. Thus, the development of health information dissemination services which is of utmost importance in Maldives will be achieved.

As the Project facilities will be able to accommodate small groups of people who desire to attend important and/or urgent health seminars, a very active and efficient means for disseminating information concerning hygiene will be established.

4) Contribution to the Comprehensive Land Use Policy

The Project facilities will be able to accommodate the holding of public examinations, community activities, official meetings, governmental events, etc. In this way, the facilities will help to alleviate Male''s land problems and will be in line with the aims of the Government of Maldives' effective land use policy.

(2) Management and Operation Method

In order to achieve the above-mentioned Project effects, the

management and operation of the Project facilities are to be conducted in the following manner:

1) Management and Maintenance

The Project facilities are for non-commercial use. The management and maintenance costs will be financed by the President's Office -- the budgetary fund should be prepared by the Office. A new organization responsible for the management and maintenance will be established and will come under the control of the President's Office.

Costs for instructors and trainees will be paid by each responsible ministry or organization. The necessary budgets to meet the payments should be prepared.

2) Instructors

The instructors for the various seminars and training programmes to be held in the Project facilities will be dispatched from 1) the United Nations Development Programme (UNDP), 2) the Japan Overseas Cooperation Volunteers (JOCV), and 3) the Government of Maldives. The Government of Maldives has requested technical cooperation for dispatching the instructors from the U.N. and Japan. Also, the Government should prepare the budgetary fund for obtaining the instructors.

(3) Conclusion

In view of the present situations in Maldives, the Project's multi-purpose facility will help further the development of human resources and social education. It will also play a vital role in advancing national development. Thus, it can be concluded that the implementation of the Project will be of tremendous value to the country as it moves forward in the development of its human resources.

The implementation of the Project will help alleviate the problems brought about by the lack of social education facilities. At the project facilities, adults and youths alike can enjoy equal educational

opportunities; government employees will be able to receive the training that will qualify them to occupy the leading worker positions so desperately needed for national development. For these reasons, it is thought to be appropriate and worthwhile to implement the Project under the grant aid programme of the Government of Japan.

Furthermore, the ministries and organizations of the Government of Maldives that are associated with the Project have already been preparing their budget plans for the management, operation, and maintenance of Project facilities. It is considered that they will have the necessary funds and personnel for carrying out their responsibilities.

(4) Recommendations

1) The Project will be implemented through mutual cooperation between Japan and Maldives. It is of vital importance that the work to be borne by the Maldives' side is positively carried out. In particular, the preparation work, such as the clearing of the Project site and the installation of the power supply lines to the site, to be undertaken by the Maldives' side must be completed on time.

2) Maldives should make an attempt to gradually replace the instructors dispatched by the United Nations Development Programme and the Japan Ovedrseas Cooperation Volunteers with its own instructors who have received appropriate training.

3) When Maldives install air conditioning facility in the multi-purpose hall in the future, it is necessary to replace transformer to be able to supply enough power for the facility.

APPENDICES

APPENDICES

1. List of the Study Team Members

(1) Basic Design Study Team

NAME	ASSIGNMENT	AFFILIATION
Takumi Matsuda	Team Leader	Grant Aid Division Ministry of Foreign Affairs
Satoru Watanabe	Coordinator	Second Basic Design Study Division Grant Aid Planning & Survey Department, Japan International Cooperation Agency
Tatsuru Ogawa	Architectural Planning	Mohri, Architect & Associates, Inc.
Makoto Nishino	Architectural Design	Mohri, Architect & Associates, Inc.
Shinsuke Nomura	Facility Planning	Mohri, Architect & Associates, Inc.

(2) Draft Final Report Explanation Team

NAME	ASSIGNMENT	AFFILIATION
Takumi Matsuda	Team Leader	Grant Aid Division Ministry of Foreign Affairs
Tatsuru Ogawa	Architectural Planning	Mohri, Architect & Associates, Inc.
Shinsuke Nomura	Facility Planning	Mohri, Architect & Associates, Inc.

2. Itinerary of the Study Team

(1) Basic Design Study Team

DAY	DATE(1990)	TIME	ACTIVITIES
1	Feb. 1(Thu)		Departed Tokyo, Arrived Bangkok
2	Feb. 2(Fri)		Departed Bangkok, Arrived Colombo
		16:00 to 17:00	Paid a courtesy visit upon the Japanese Embassy in Colombo. Met Counselor Takada and Second Secretary Kanzaki.
		17:20 to 18:30	Paid a courtesy visit upon JICA Office in Colombo and explained the study schedule and the study plan to manager Yasuki.
		19:00	Held a meeting with Deputy Director Kazuhiro Iryu, Economic Div., U.N.Dept., Ministry of Foreign Affairs at the Hotel.
3	Feb. 3(Sat)		Departed Colombo: arrived Male'
		12:00 to 14:00	Held a meeting at the Ministry of Foreign Affairs (MFA) and explained the objectives of the Study and the Team's schedule.
		14:00 to 15:00	Held a meeting at the hotel with Mr. Yuki of JOCV.
		15:30 to 16:45	Inspected the Project site.
		17:15 to 18:15	Held a meeting among the team at the hotel.
		19:30 to 21:00	Attended a party held by Maldives MFA
		21:00 to 02:00	Held a meeting among the Team at the Hotel.
4	Feb. 4(Sun)	09:00 to 13:30	Team Leader Matsuda and members Watanabe and Nomura Discussed the contents of Maldives' request with

			Maldives Officials at MFA
		09:00 to 11:30	Members Ogawa and Nishino inspected the geological survey site.
		14:00 to 18:50	Members Ogawa and Nishino inspected the geological survey site and attended a meeting with Maldives official at the Ministry of Public Works and Labour (MPWL).
		15:00 to 18:00	Team leader Matsuda and members Watanabe and Nomura inspected project related facilities, the Youth Centre and the Islamic Centre.
		22:00 to 23:00	Held a meeting among the Team at the hotel.
5	Feb. 5(Mon)	08:30 to 13:30	Examined the contents of Maldives' request at MFA.
		10:15 to 11:00	Members Ogawa and Nishino attended a meeting with Maldives Officials at MPWL.
		11:15 to 12:00	Members ogawa and Nishino confirmed the project site boundary with the officials of MPWL.
		14:30 to 16:15	Inspected Project related facilities at Karaafaanu Primary School and Majediyya Secondary School
		19:00 to 22:00	Held a discussion with JOCV members at the hotel.
		22:30 to 23:00	Held a meeting amoung the team at the hotel.
6	Feb. 6(Tue)	08:40 to 11:30	Team leader Matsuda and members Watanabe and Nomura discussed the contents of the Maldives' request with Maldives officials at MFA.
		11:30 to 14:00	Team leader Matsuda and members Watanabe and Nomura inspected the Educational Development Centre of the Ministry of Education.

		09:20 to 10:30	Members Ogawa and Nishino held a discussion with Maldives officials at MPWL.
		12:30 to 13:00	Members Ogawa and Nishino visited the Maldives Weather Bureau.
		13:00 to 14:00	Members Ogawa and Nishino held a meeting with Water Supply Dept. officials.
		15:00 to 17:15	Team leader Matsuda and members Watanabe and Nomura visited the UNDP office and inspected Aminia Secondary School and the Male' English School (private school).
		15:00 to 15:30	Members Ogawa and Nishino inspected harbour and road conditions.
		19:00 to 21:00	The Team held a party at the hotel.
		21:50 to 04:30	Prepared the draft of the Minutes of Discussion.
7	Feb. 7(Wed)	09:00 to 14:00	Team leader Matsuda and members Watanabe and Nomura discussed the contents of the Maldives' request with Maldive's officials at MFA.
		10:00 to 10:50	Members Ogawa and Nishino Held a meeting with NPWL officials.
		11:00 to 11:30	Members Ogawa and Nishino held discussions with Water Supply Dept. officials.
		11:50 to 12:20	Members Ogawa and Nishino inspected the geological survey work at the Project site.
		12:25 to 12:40	Members Ogawa and Nishino held discussions with officials of the Maldives' Weather Bureau.
		12:45 to 13:15	Members Ogawa and Nishino held discussions with officials of the Male' Municipality.
		14:15 to 16:15	The Team inspected Project related

			facilities.
		16:30 to 18:00	The team discussed the contents of the Minutes of Discussions with MFA officials.
8	Feb. 8(Thu)	08:30 to 10:00	Team leader Matsuda and members Watanabe and Nomura held a meeting and discussed the contents of the Minutes of Discussions at the hotel.
		09:35 to 09:50	Members Ogawa and Nishino held a discussion with MPWL officials.
		10:00 to 10:50	Members Ogawa and Nishino inspected the geological survey work at the Project site.
		11:00 to 11:45	Members Ogawa and Nishino held a discussion with Male' Municipality officials.
		12:00 to 12:30	Members Ogawa and Nishino held discussion with officials of the Maldives Electric Dept.
		11:00 to 14:15	Team leader Matsuda and members Watanabe and Nomura discussed the contents of the Minutes of Discussion with Maldives officials at MFA.
		15:30 to 17:00	Held a meeting concerning the Minutes of Discussions with Maldives officials at MFA. The Minutes of Discussions was signed by both parties at 17:00.
		19:00 to 02:00	Held a meeting among the Team at the hotel and clarified obtained data.
9	Feb. 9(Fri)	08:00 to 12:00	Held a meeting among the Team at the hotel and clarified obtained data. Team leader Matsuda and members Watanabe departed Male' and arrived at Colombo.
10	Feb. 10(Sat)	09:30 to 11:45	Members Nomura, Ogawa and Nishino held a meeting at the Mohri Architect & Associates, Office (MAA) in Male'.

		12:00 to 13:00	Held discussions wikth Maldives officials at MFA.
		14:00 to 18:00	Inspected Project related facilities.
11	Feb. 11(Sun)	10:00 to 10:30	Members Ogawa and Nishino held discussions with officials of the Water Supply Dept.
		10:00 to 11:00	Member Nomura held a discussion with Maldives Officials at MFA.
		10:45 to 13:30	Members Ogawa and Nishino inspected Project related facilities.
		11:00 to 13:00	Member Nomura clarified obtained data at MAA.
		13:30 to 14:00	Members Ogawa and Nishino held discussions with MPWL officials.
		15:00 to 17:30	Held a meeting among the Team at MAA and clarified obtained data.
		19:00 to 22:00	Held a discussion with Mr. Kikami of UNICEF and Mr. Yuki of JOCV at the hotel.
12	Feb. 12(Mon)	09:00 to 11:45	Inspected Project related facilities, and Jamaludheen Primary School and the Karaafaanu Primary School
		12:00 to 13:00	Members Ogawa and Nishino held discussions with NPWL officials.
		12:00 to 13:00	Member Nomura held a discussion with Maldives officials at MFA.
		13:30 to 15:00	Held a discussion at UNICEF office.
		14:25 to 17:00	Held a meeting among the Team at MAA and clarified obtained data.
13	Feb. 13(Tue)	09:30 to 10:00	Held discussions with Maldives officials at MFA.
		10:15 to 14:00	Inspected the Thaajudheen Primary School, the Institute for Teacher Education, and the Blue(Ghazi) Buildings.
		15:10 to 16:30	Held discussions with JOCV members.
		16:30 to 17:30	Held a meeting among the Team at MAA and clarified obtained data.

14	Feb. 14(Wed)	09:10 to 10:10	Inspected the Iskandhar Primary School
		10:30 to 11:30	Inspected the Male' Vocational Training Centre.
		12:00 to 12:30	Member Nomura held discussions with Maldives officials at MFA.
		15:00 to 18:00	Held a meeting among the Team at MFA and clarified obtained data.
15	Feb. 15(Thu)	09:30 to 10:00	Member Nomura held discussions with Maldives officials at MFA.
		09:30 to 10:40	Member Ogawa and Nishino held discussions with MPWL officials.
		11:00 to 11:30	Held discussions with Male' Municipality officers.
		12:00 to 13:00	Held discussions with OPPD officials.
		14:15 to 16:00	Conducted construction condition servey and collected data.
		16:15 to 17:00	Inspected facilities at Karaafaanu Primary School.
		17:15 to 19:30	Held a meeting among the Team at MAA and clarified obtained data.
16	Feb. 16(Fri)	17:30 to 21:00	Inspected Project related facility, Kurumba Hall.
17	Feb. 17(Sat)	09:30 to 10:30	Held discussions with Maldives officials at MFA.
		11:00 to 12:00	Inspected the Project site.
		14:30 to 15:00	Held discussions with Maldives officials at MFA.
		16:00 to 18:00	Held a meeting among the Team at MAA.
18	Feb. 18(Sun)	09:00 to 12:00	Held a meeting among the Team at MAA.
		13:00 to 14:00	Held a meeting with Maldives officials at MFA.
			Members Nomura, Ogawa and Nishino departed Male' and arrived Colombo.
19	Feb. 19(Mon)	10:00 to 10:45	Paid a courtesy visit upon Japanese Embassy in Colombo and reported the field survey results.
		11:00 to 12:00	Paid a courtesy visit to the JICA office in Colombo and reported the

			field survey results.
		15:00 to 18:30	Conducted construction field survey and collected data.
		20:00 to 24:00	Prepared report at the hotel.
20	Feb. 20(Tue)	10:50 to 12:00	Reported the filed survey results and presented the report to the JICA office in Colombo.
		13:30 to 17:30	conducted construction field survey and collected data.
21	Feb. 21(Wed)		Members Nomura, Ogawa and Nishino departed Colombo and arrived at Singapore.
		22:00 to 23:00	Held a meeting among the Team at the hotel concerning the geological survey data.
22	Feb. 22(Thu)	09:00 to 18:00	Conducted construction field survey and collected data. Held a meeting among the Team concerning the geological survey data.
23	Feb. 23(Fri)		Members Nomura, Ogawa and Nishino departed Singapore and arrived at Tokyo.

(2) Draft Final Report Explanation Team

DAY	DATE(1990)	TIME	ACTIVITIES
1	Jun.13(Wed)		Departed Tokyo, Arrived Colombo
2	Jun.14(Thu)		Departed Colombo, Arrived Male'
		18:00 to 20:30	Held a meeting among the Team at the hotel.
3	Jun.15(Fri)	09:00 to 17:00	Held a social gathering with JOCV members.
			(Maldives' Holiday)
		18:00 to 19:30	Held a meeting among the Team at the hotel.
		19:30 to 21:00	Prepared the draft of the Minits of Discussion.
4	Jun.16(Sat)	09:00 to 10:30	Held a meeting at the Ministry of Foreign Affiars (MFA) and explained the Draft Final Report and the Team's schedule.
		10:30 to 13:00	Held a meeting with MFA and the Office for Physical Planning and Design (OPPD).
		14:00 to 15:00	Inspected the project site.
		17:00 to 18:00	Held a meeting among the team at the hotel.
5	Jun.17(Sun)	10:00 to 13:00	Visited at the Ministry of Public Works and Labour (MPWL) to see the Minister Kamaludeen
		11:00 to 11:30	Team leader Matsuda held a discussion with MPWL officials.
			Member Nomura held a discussion with officials at Ministry of Health and Welfare.
		12:00 to 13:00	Member Ogawa inspected the Project site.
			Member Nomura held a discussion with

			Youth Centre officials.
		15:00 to 17:00	Member Ogawa and Nomura held a meeting at the Mohri, Architect & Associates Office (MAA) in Male'.
6	Jun. 18(Mon)	10:00 to 11:00	Team leader Matsuda held a discussion with MFA officials. Members Ogawa and Nomura held a discussion with OPPD officials.
		11:15 to 12:15	Team leader Matsuda inspected the Breakwater Project site. Member Ogawa held a discussion with MPWL officials. Member Nomura held a discussion with officials at Ministry of Education.
		12:30 to 13:00	Members Ogawa and Nomura held a discussion with MPWL officials.
		13:00 to 14:00	Held a meeting with Mr. Oishi, JICA at the hotel during the lunch time.
		14:30 to 17:00	Members Ogawa and Nomura held a meeting and clarified obtained data at MAA.
7	Jun. 19(Tue)	09:15 to 10:30	Held a joint meeting with concerned organizations at MFA.
		10:30 to 13:00	Held a discussion with MFA and OPPD officials, and discussed the contents of the Memorandum.
		13:00	The Minutes of Discussions was signed by both parties at 13:00.
		15:00 to 16:00	Members Ogawa and Nomura inspected the Project site.
		16:00 to 17:00	Members Ogawa and Nomura held a meeting at MAA.
		19:00 to 21:30	The team held a party at the hotel.
8	Jun. 20(Wed)	10:00 to 11:00	Held a meeting among the team at the

			hotel.
		14:00 to 15:00	Held a discussion with MPWL officials.
		15:00 to 15:30	Members Ogawa and Nomura inspected the Project site.
		16:00 to 18:00	Members Ogawa and Nomura clarified obtained data at MAA.
		19:00 to 22:00	Attended a party held by Maldives MFA.
9	Jun. 21(Thu)	10:00 to 12:00	Prepared the report for JICA Sri Lanka office.
		14:00 to 15:00	Held a meeting among the Team at the airport.
			Departed Male', arrived Colombo.
10	Jun. 22(Fri)	09:30 to 10:00	Paid a courtesy visit to the JICA office (to Mr. Niino) in Colombo and reported the discussion and survey results.
		10:30 to 13:00	Paid a courtesy visit upon Japanese Embassy (to Ambassador Nitta and Mr. Odagiri) in Colombo and reported the discussion and survey results.
		15:00 to 17:00	Member Ogawa visited the Ministry of Education in Sri Lanka for another project by the requirement of JICA. Member Nomura conducted construction field survey.
		19:00 to 22:00	The team held a party and social gathering with Japanese Embassy and JICA officials.
11	Jun. 23(Sat)		Departed Colombo, arrived Singapole.
		17:00 to 17:30	Conducted construction field survey
		18:00 to 19:00	Held a meeting among the Team at the hotel.
12	Jun. 24(Sun)		Departed Singapole, arrived Tokyo.

3 List of Personnel Interviewed

(1) Maldives' Side Personnel

·Ministry of Foregin Affairs

Mr. Mohamed Shihab	: Director of External Resources
Mr. Abdul Hameed Zakariyya	: Asst. Director of External Resources
Mr. Ahmed khaleel	

·Ministry of Planning and Environment

Mr. Hamdun A. Hameed	: Undersecretary

·President's Office

Mr. Abdulla Zameer	: Personnel Service Officer

·Ministry of Atolls Administration

Mr. Abdul Hamyd Husyn	: Project Officer

·Ministry of Health and Welfare

Mr. Mohamed Rasheed	: Asst. Director of Planning and Co-ordination

·Ministry of Tourism

Mr. Ahmed Shameem	: Asst. Director

·Ministry of Jastice

Mr. Mohamed Hassan	: Sr. Undersecretary

·O.P.P.D.

Mr. Mohamed Gasim	: Architect
Mr. Ibrahim Rafeeq	: Structural Engineer

·Youth Centre

Mr. Hussain Mohamed Didi	: Administrator
Mr. Abdul Latheef Mahamood	: Youth Officer
Mr. Abdul Ghanee Ismail	: Senior Secretary
Mr. Zakariyya Hussain	: Programme officer

·Ministry of Education

Ms. Asima Mohamed	: Undersecretary
Mr. Hamid A. Ghafoor	: Supervisor of Physical Education & Sports
Mr. Abdul Ghanee	: Asst. Director of V.T.C.
Mr. Ismail Naseem	: Sr. Educational Administrator
Mr. Abdul Sattar Hassan	: Deputy Director of Nonformal Education Unit
Mr. Ahmed Ali Maniku	: Ast. Director of I.T.E.
Mr. Ibrahim Waheed	: Asst. Director of Department of Public Eyam.
Mr. Mohamed Yoosaf	: Officer of E.D.C.

·Karaafaanu School

Mr. Rasheed	: Asst. Prirciple

·Majeediya School

Mr. S.G. Samuel	: Principle
Mr. Zamire	
Mr. Hameed	
Mr. Amarasena	

·Aminia School

Mr. Shirley Windus	: Physical Training Instructor

·Jamaaluddeen School

Mr. Ssmail Wajeeh	: Asst. Principle

·Taajudhdheen School

Ms. Rashida Ywosut	: Acting Principle

·Iskandar School

Ms. L.S.G. De. Silra	: Principle

·Male English School (Prirate)

Mr. Ali Musihata	: Asst. Principle

・Ministry of Public Works and Labour

Mr. Abdulla Kamaludeen	: Minister
Mr. Ahmed Ashraf	: Asst. Project Officer
Mr. Maizan Ibrahim Maniku	: Director of Public Works

・Department of Information and Broadcasting

Mr. Abudullah Rasheed	: Director

・Maldives Water and Sanitation Authority

Mr. Farroq Mohamed Hassan

・Male' Municipality

Mr. Abudullah Saleen

・Department of Meteorology

Mr Tsmail Zahir	: Asst. Director

・Maldives Electricity Board

Mr. Mohamed Rasheed	: Senior Engineer
Mr. Ibrahim Hassan	: Senior Electrical Engineer

(2)The United Nations and Japan Overseas Cooperation Volunteers

1)UNDP

Ms. Maxine E. Olson	: Resident Representative
Mr. Natsuki Hiratsuka	: Deputy Resident Representative

2)UNICEF

Dr. Cornel J. Goudswaard	
Mr. Tatsuru Mikami	: Asst. Programme Officer

3)JOCV

Mr. Isaku Yuki	: Coordinator
Ms. Mutsuko Gonokami	: Photography/Youth Centre
Mr. Hiromasa Ogawa	: Physical Education/Ministry of Education
Mr. Toshikazu Moto	: Volleyball/Youth Centre
Ms. Izumi Morimoto	: Pharmaceutics/Public Health Centre
Ms. Chizuru Yamazaki	: Nursing/Central Hospital
Mr. Takashi Saito	: Physical Education/Ministry of Home Affairs and Sports
Mr. Naoaki Asakawa	: Physical Education/Indoor Studium
Mr. Satoshi Wakayama	: Physical Education/Ministry of Home Affairs and Sports

4. Minutes of Discussions

(1) Basic Design Study

MINUTES OF DISCUSSIONS ON THE PROJECT FOR CONSTRUCTING THE CENTRE FOR SOCIAL EDUCATION IN THE REPUBLIC OF MALDIVES

In response to the request of the Government of the Republic of Maldives, the Government of Japan decided to conduct a basic design study on the Project for Constructing the Centre for Social Education (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA"). JICA sent to the Republic of Maldives the study team headed by Mr. Takumi Matsuda, Official, Grant Aid Division, Ministry of Foreign Affairs, from Febraury 1 to February 23, 1990.

The team conducted the field surveys on the Project site and had a series of discussions on the Project with the concerned officials of the Government of Maldives.

As a result of the study, both parties have agreed to recommend to respective Government that major points of understanding reached between them, attached herewith, should be examined towards the realization of the Project.

Male', February 8, 1990

Takumi Matsuda
Team Leader,

Basic Design Study Team,
JICA

Abdul Hameed Zakariyya
Assistant Director, External Resources
Ministry of Foreign Affairs,
The Government of the Republic of Maldives

ATTACHMENT

1. Project Name

The name of the Project is "The Project for Constructing the Centre for Social Education."

2. Objective of the Project

The Objective of the Project is to construct the facility and to provide the equipment to expand educational opportunities.

3. Executing Agency

The Ministry of Foreign Affairs will be responsible for executing the Project during the construction period. The Ministry of Public Works and Labour will be responsible for the implementation of the Project during the construction. After the completion of construction, a new organization under the President's Office will be responsible for maintenance and administration of the Centre.

Besides, each Ministry and/or organization using the Centre will allocate the necessary budget to carry out different programmes/courses/activities in the Centre.

4. Request of the Government of the Republic of Maldives

The Government of the Republic of Maldives requires the facility and equipment for executing the following activities:

- development of gymnastics
- conducting national level examinations
- development of health information dissemination services
- training Government officers
- designing ready-made garments and embroidery
- language training

5. Project Site

The site for the Project is located at Male' as shown in Annex I.

6. Grant Aid Programme

6.1) The Maldives side has understood the system of Japan's Grant Aid Programme and the principle for the use of Japanese consulting firm and contractor for the implementation of the Project.

6.2) The team will convey to the Government of Japan the desire of the Government of Maldives that the former takes necessary measures to cooperate in implementing the Project and provides necessary facilities and equipment under the Japan's Grant Aid Programme.

6.3) The Government of Maldives will take necessary measures as shown in ANNEX II on condition that the Grant Aid by the Government of Japan would be extended to the Project.

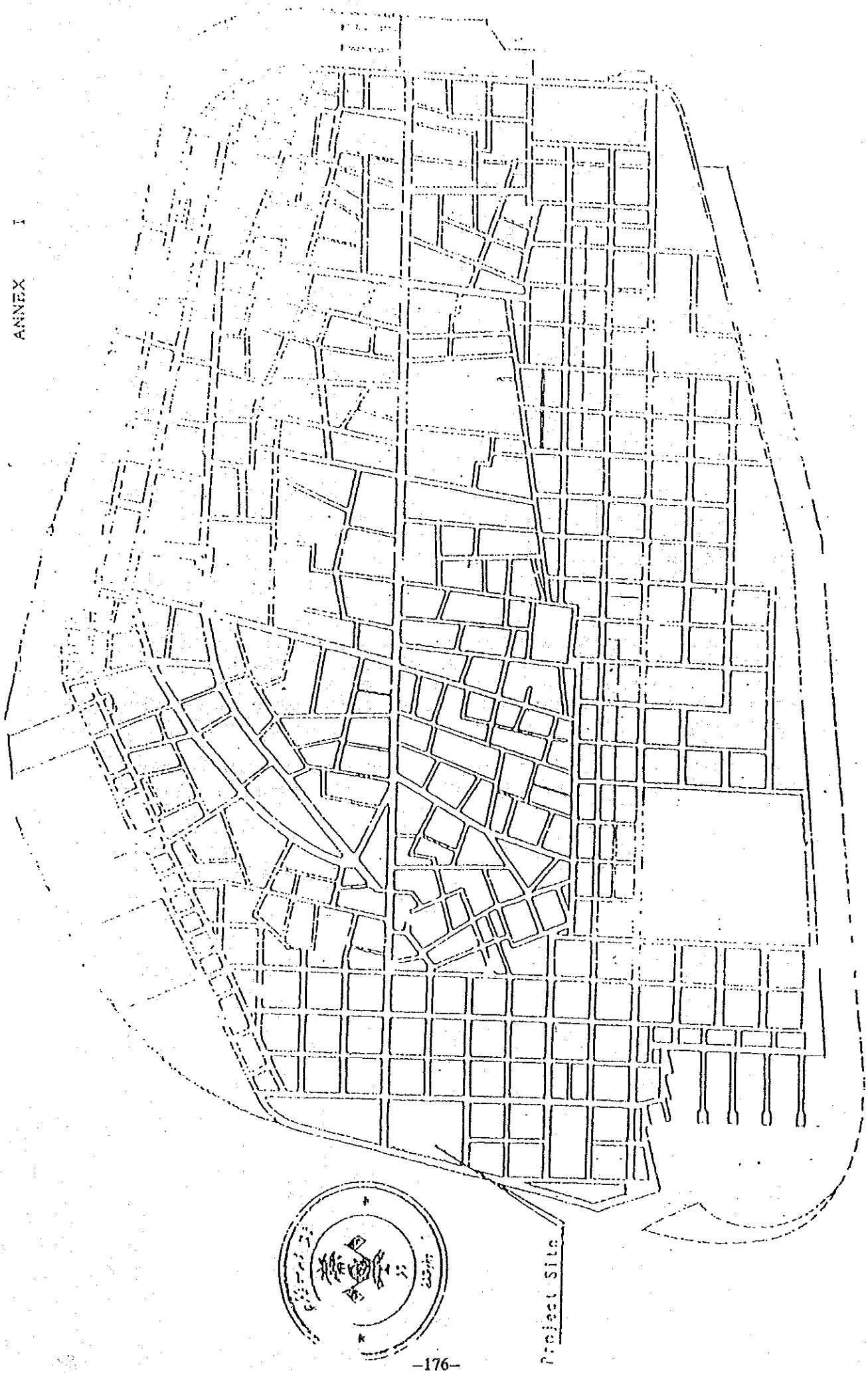
The Government of Maldives will provide facilities for the distribution of telephone and drainage leading and up to the site. The issue of provision of facilities for distribution of electicity and water supply will, however, be discussed and sorted out at the time of despatch of another team.

7. Reporting

A draft final report including an appropriate layout and design will be prepared after the home office work in Japan.

The team mentioned in paragraph 6.3 above will explain it to, and discuss it with, the concerned officials of the Government of Maldives.

ANNEX I



ANNEX II

Necessary measures to be taken by the Government of Maldives:

1. To secure the site for the Project

2. To clear and reclaim the site prior to the commencement of the construction work

3. To ensure prompt unloading, tax exemption and customs clearance of the Project goods at the port and/or airport of disembarkation in the Maldives

4. To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contracts such facilities as may be necessary for their entry into the Republic of Maldives and stay therein for the performance of their work

5. To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the Republic of Maldives with respect to the supply of the products and services under the verified contracts

6. To maintain and use properly and effectively the facilities constructed and the equipment provided under the Grant Aid

7. To bear all the expenses other than those to be borne by the Grant Aid necessary for the execution of the Project

ANNEX III

LIST OF PARTICIPANTS

Maldives Delegation

1.	Mr. Mohamed Shihab Director of External Resources	Ministry of Foreign Affairs
2.	Mr. Abdul Hameed Zakariyya Assistant Director External Resources	Ministry of Foreign Affairs
3.	Mr. Hamdun Hameed	Ministry of Planning and Environment
4.	Mr. Ibrahim Manik	Ministry of Public Works and Labour
5.	Mr. Ahmed Ashraf	Ministry of Public Works and Labour
6.	Mr. Mohamed Gasim	Office for Physical Planning and Design
7.	Mrs. Asima Mohamed	Ministry of Education
8.	Mr. Mohamed Rasheed	Ministry of Health and Welfare
9.	Mr. Ahmed Shameem	Ministry of Tourism
10.	Mr. Abdul Hamyd Huseyn	Ministry of Atolls Administration
11.	Mr. Mohamed Hassan	Ministry of Justice
12.	Mr. Abdulla Zameer	President's Office
13.	Mr. Hussain M. Didi	Youth Centre

Japanese Delegation

1. Mr. Takumi Matsuda Grant Aid Division	Ministry of Foreign Affairs
2. Mr. Satoru Watanabe Basic Design Study 2nd Division	JICA
3. Mr. Tatsuru Ogawa	Mohri Architect and Associates
4. Mr. Makoto Nishino	Mohri Architect and Associates
5. Mr. Shinsuke Nomura	Mohri Architect and Associates

(2) Draft Final Report Explanation

MINUTES OF DISCUSSIONS ON THE DRAFT REPORT OF BASIC DESIGN STUDY ON THE PROJECT FOR CONSTRUCTING THE CENTRE FOR SOCIAL EDUCATION IN THE REPUBLIC OF MALDIVES

In response to the request of the Government of the Republic of Maldives for the Grant Aid project for constructing the Centre for Social Education (hereinafter referred to as "the Project"), the Government of Japan decided to conduct a basic design study on the Project and entrusted the study to the Japan International Cooperation Agency (JICA), JICA dispatched a study team to the Republic of Maldives, headed by Mr. Takumi Matsuda, Grant Aid Division, Economic Cooperation Bureau, Ministry of Foreign Affairs of the Government of Japan, from February 1 to 23, 1990.

As a result of the study, JICA prepared and submitted a Draft Final Report on the study and dispatched a Mission to explain and discuss it from June 13 to 24, 1990.

Both parties had a series of discussions on the Report and have agreed to recommend to their respective Governments that the major points of understanding reached between them, attached herewith, should be examined towards the realization of the Project.

Male', June 19, 1990.

Takumi Matsuda

Mr. Takumi Matsuda
Team Leader
Draft Report Team of
Basic Design Study Team
JICA

Mohd Shihab

Mr. Mohamed Shihab
Director of External Resources
Ministry of Foreign Affairs
The Government of the
Republic of Maldives

ATTACHMENT

1. The Maldives side agreed in principle to the basic design proposed in the Draft Final Report (with minor but appropriate alteration mutually agreed upon to be incorporated in the Final Report).

2-1. The Maldives side understood the system of Japan's Grant Aid and confirmed the necessary measures to be taken by Maldives side which are manifested in the ANNEX II of MINUTES OF DISCUSSIONS on the Project signed on February 8, 1990 (hereinafter to referred to the Minutes).

2-2. The Maldives side agreed to provide facilities for distribution of electricity, telephone, drainage, and other incidental facilities to the Project site at its own expense, set forth in Article 6.3 of the attachment to the Minutes.

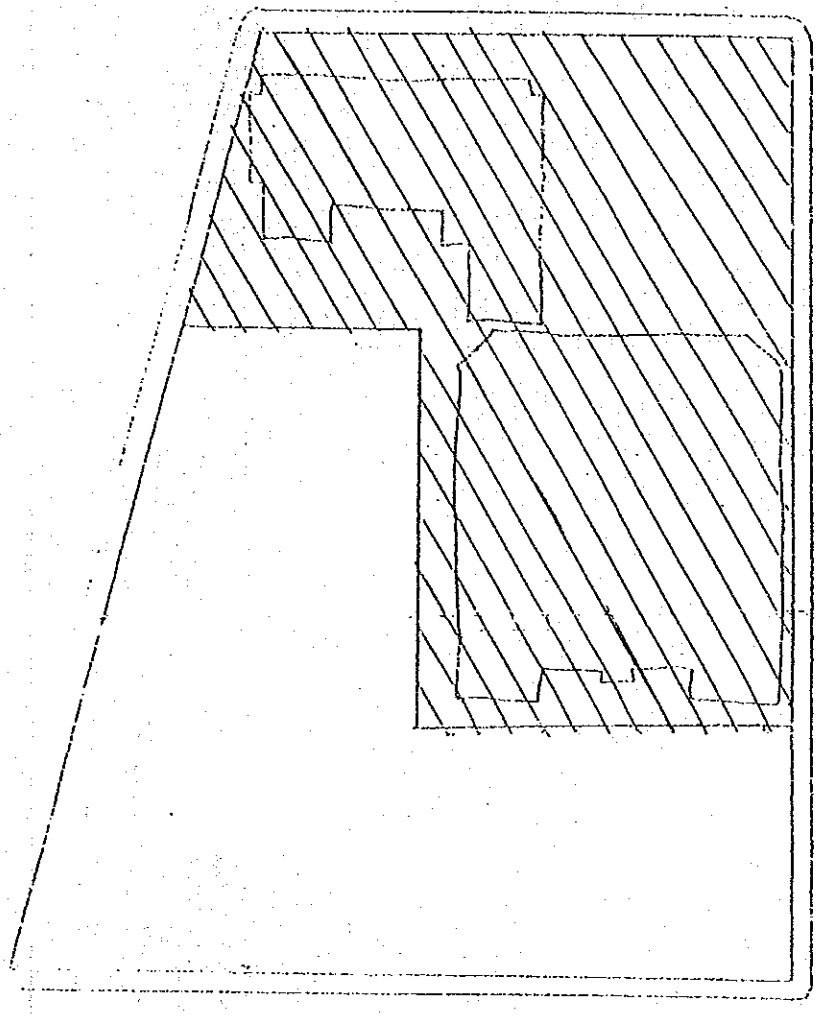
3. The Maldives side agreed to remove at its own expense, the two basketball courts, spectator seats and other objects existing at the Project site as soon as possible.

4. The Maldives side ensured that the necessary budget and the adequate number of personnel for the effective operation and maintenance of the facilities and eqipment provided under the Grant Aid would be secured.

5. The site for Project is the hatched area marked in ANNEX (approximately 6,000m^2).

6. The Final Report (10 copies in English) on the Project will be submitted to the Maldives side by the end of August, 1990.

ANNEX



5. Project Site Survey Data

(1) Topographic Survey

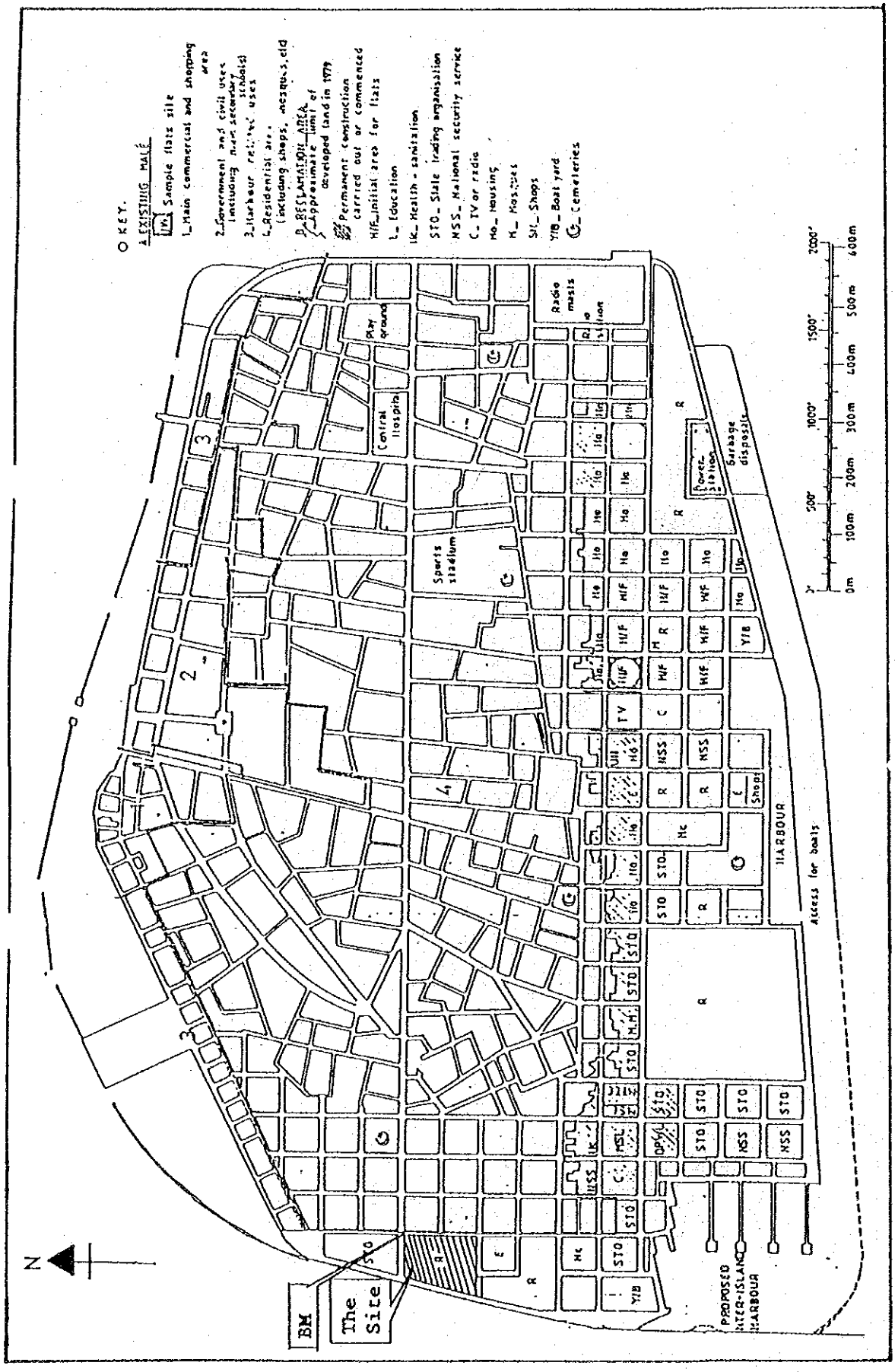
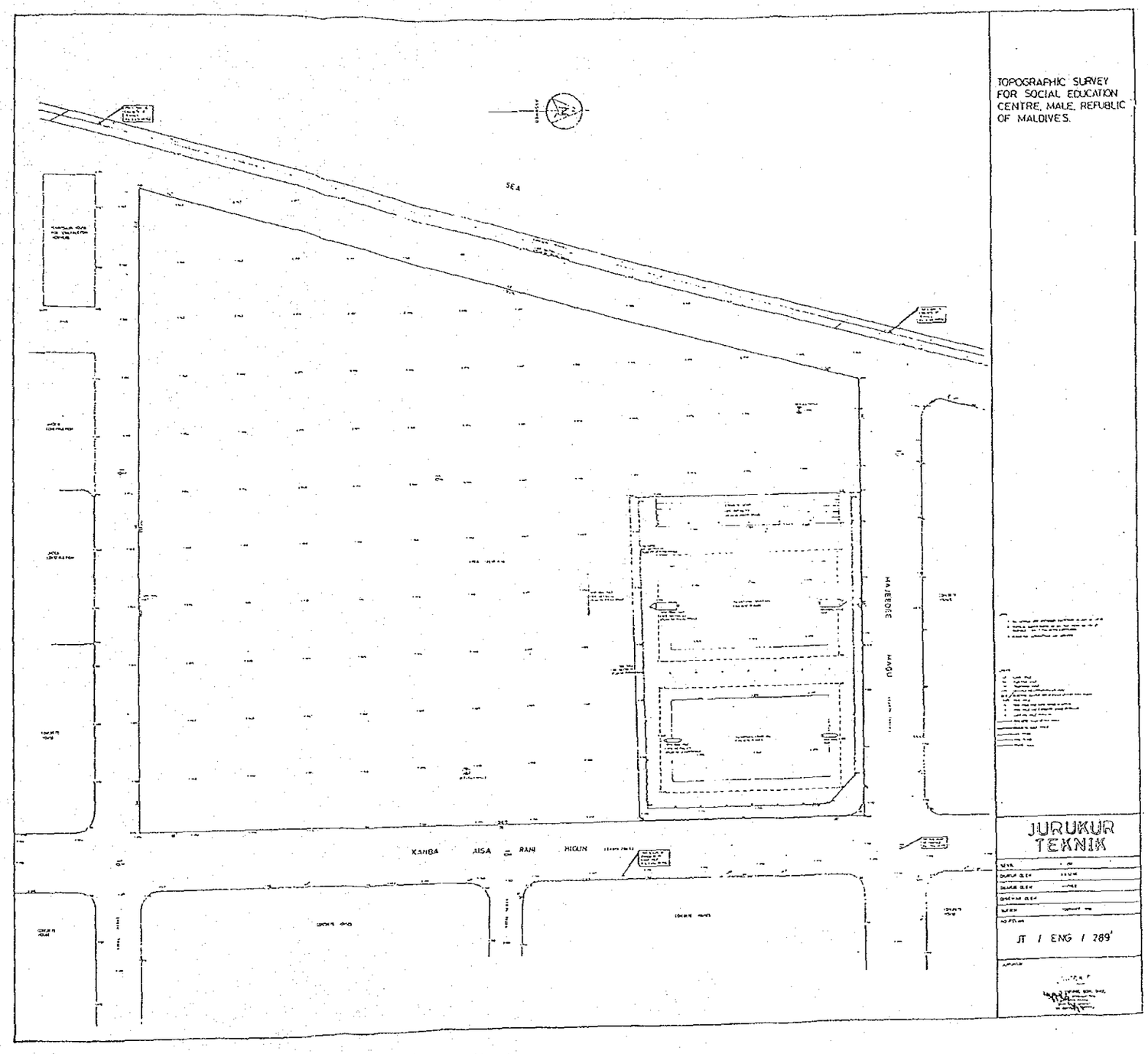


Figure 1 Location of Project Site


TOPOGRAPHIC SURVEY
FOR SOCIAL EDUCATION
CENTRE, MALE, REFUBLIC
OF MALDIVES.
SEA
KANIBA
AISA
RANI
HIGUN
JURUKUR
TEKNIK
JT / ENG / 289

(2) Boring Survey

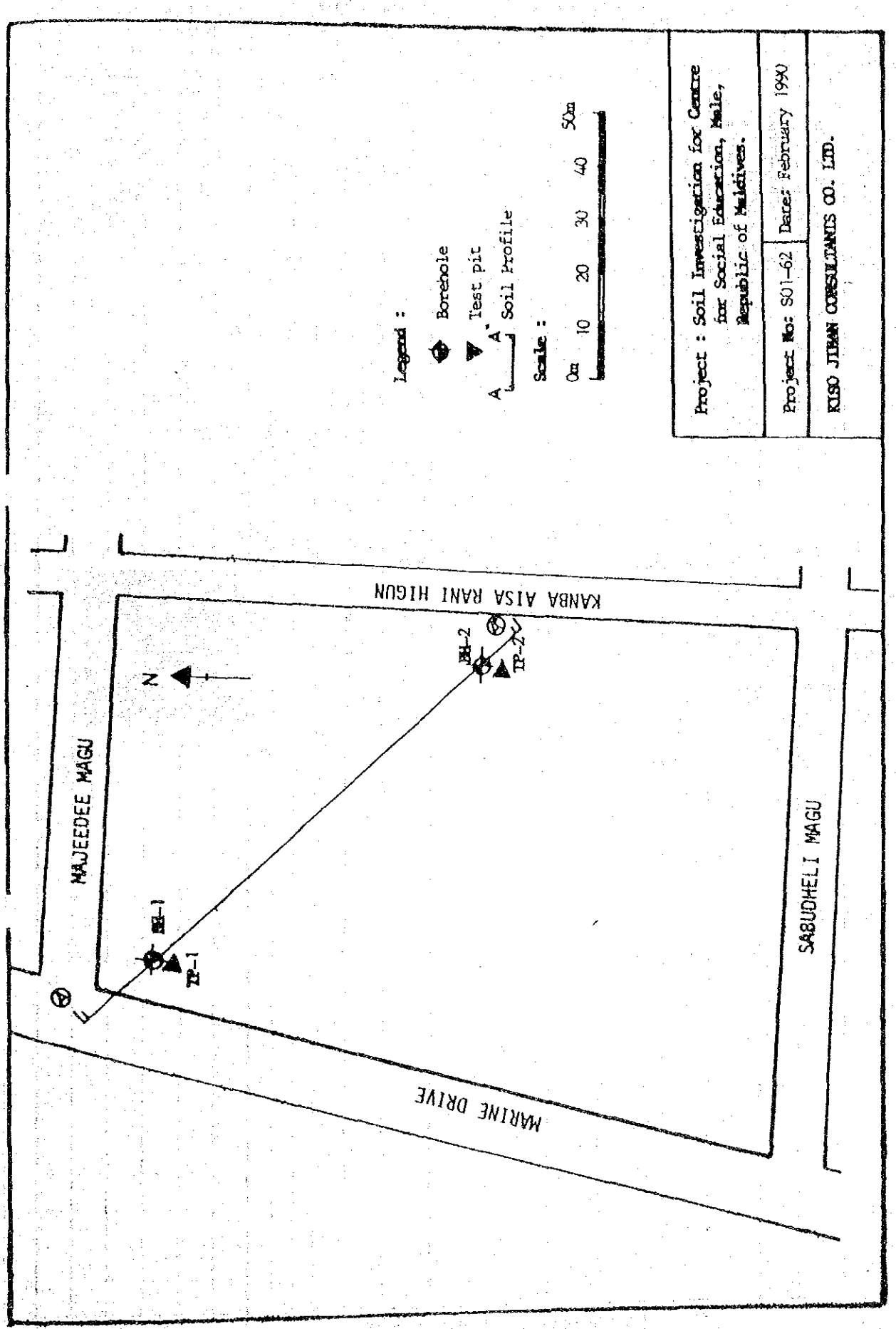


Figure 2 Locations of Exploratory Drilling and Test Pits

FIG A-1 DRILLING LOG

Project No. S01-62 Project Centre for Social Education Male, Maldives Type of Drilling Rotary wash boring

Hole Number BH-1 Elevation RL +1.00m m. Date 4/2/90 - 6/2/90

Water Table GL -0.4 m. Driller Kiso-Jiban (Wong)

Remarks
P : SPT Spoon Sample
C : NMLC Core Sample
RL 0.0m = MPWL 100.0m

Scale in m	Elevation in m	Depth in m	Thickness in m	Legend	Type of Soil	Colour	Relative Density or Consistency	General Remarks	Sampling: Depth in m.	Sampling: Sample No.	Standard Penetration Test & Core Recovery (CR): N-Value Blows/30cm	Blows Per Each 10cm: 10 cm	10 cm	10 cm	N - Value 10 20 30 40 50 / RQD CR / 20 40 60 80 100%
	1.00	0.00													
1					Coral sand	Light grey	Loose	Fill. With shell fragments, plastic, wood and cloth etc.	1.15 1.45	P=1	7	2	2	3	
2	-0.50	1.50	1.50												
3					Coral sand	Light grey	Medium	With gravel size coral. (No foreign matters)	2.15 2.45	P=2	14	5	5	4	
	-2.20	3.20	1.70						3.15 3.45	P=3	4	1	1	2	
4					Sandy coral gravel	White to light grey	Very loose to medium	6.50m - 8.80m a skelton like coral structure filled with silty sand. Boulder size coral is possible.	4.15 4.45	P=4	19	7	7	5	
5									5.15 5.45	P=5	17	9	6	2	
6									6.15 6.45	P=6	11	6	3	2	
7									7.15 7.45	P=7	2	0	1	1	
8									8.15 8.45	P=8	2	1/20	1/10		
9									9.15 9.45	P=9	17	4	4	9	
10	-8.80	9.80	6.60						10.00						
11					Coral rock	White		Friable by hammer.		C-1					94/100
12									11.50	C-2					94/100
13									13.00						
14										C-3					94/100
	-13.50	14.50	4.70						14.50						
15						-END OF DRILLING-									
16															
17															
18															
19															
20															
21															
22															
23															
24															
25															
26															
27															
28															
29															
30															
31															

KISO-JIBAN CONSULTANTS CO.,LTD. Page.A-1

FIG A-2 DRILLING LOG

Project No. S01-62 Project Centre for Social Education Male, Maldives Type of Drilling Rotary wash boring

Hole Number BH-2 Elevation RL 11.10m m. Date 6/2/90 - 7/2/90

Water Table GL -0.4 m. Driller Kiso-Jiban (Wong)

Remarks
P : SPT Spoon Sample
C : HWLC Core sample
RL 0.0m = MPWL: 100.0m

Scale in m	Elevation in m	Depth in m	Thickness in m	Legend	Type of Soil	Colour	Relative Density or Consistency	General Remarks	Sampling Depth in m	Sample No.	N-Value (Blows/30cm)	Blows Per Each 10cm 10 cm	10 cm	10 cm	Standard Penetration Test & Core Recovery (CR) N - Value 10 20 30 40 50 / RQD / CR 20 40 60 80 100%
	1.10	0.00													
1					Gravelly sand	Light grey	Medium	With cobble and boulder. With shell fragments, plastic, wood and etc.							
2	-0.40	1.50	1.50						1.15 1.45	P=1	14	5	5	4	
					Sand	White	Loose and medium	Sand is composed of shell fragment and coral.	2.15 2.45	P=2	9	4	3	2	
3									3.15 3.45	P=3	8	3	3	2	
4									4.15 4.45	P=4	7	3	2	2	
5									5.15 5.45	P=5	10	4	3	3	
6									6.15 6.45	P=6	10	3	3	4	
7									7.15 7.45	P=7	11	3	4	4	
8									8.15 8.45	P=8	19	7	6	6	
9	-7.70	8.80	7.30						9.15 9.45	P=9	27	11	8	8	
10					Gravelly sand	Light grey	Medium	With silt. (Weathered coral rock.)	10.15 10.45	P=10	13	6	4	3	
11	-9.60	10.70	1.90						11.00						
					Coral rock	Light brown		Friable by hammer. Honey combed zones are present.		C-1					87 100
12									12.50						
13										C-2					60 100
14									14.00						
15	-14.40	15.50	4.80							C-3					65 100
16						-END OF DRILLING-			15.50						
17															
18															
19															
20															
21															
22															
23															
24															
25															
26															
27															
28															
29															
30															
31															

KISO-JIBAN CONSULTANTS CO.,LTD. Page A-2

FIGURE

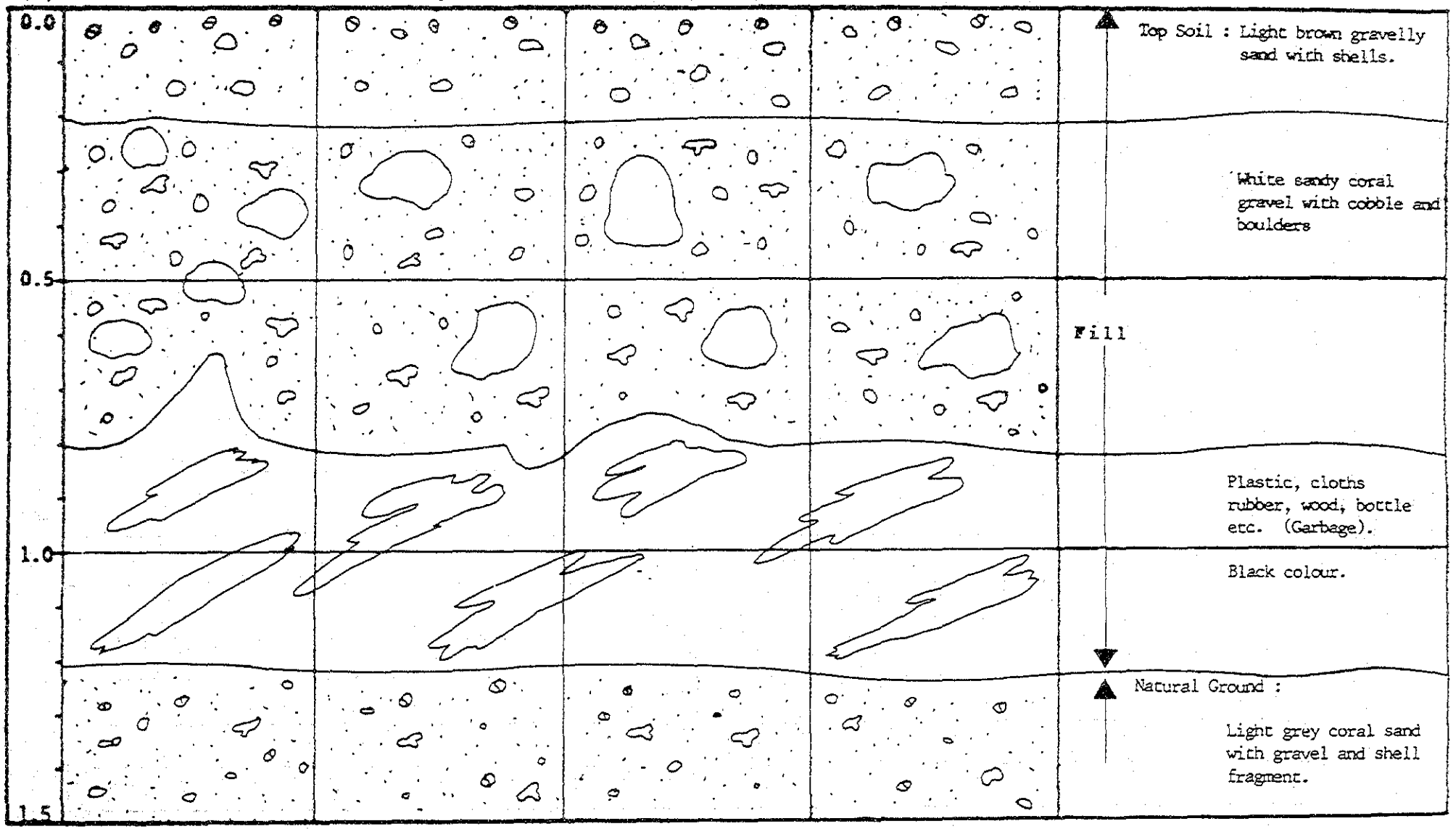
DESCRIPTION OF TEST PIT

Project No.: SOI-62

Project: Soil Investigation for Centre for Social Education, Male, Maldives

Test Pit No.: TP-1

Ground Elevation: ML +1.0m Test Elevation: ML -0.2m Engineer: Veera Date: 6/2/1990



KISO-JIBAN CONSULTANTS CO., LTD.

N, E, S, W Indicate 4 Sides of Pit

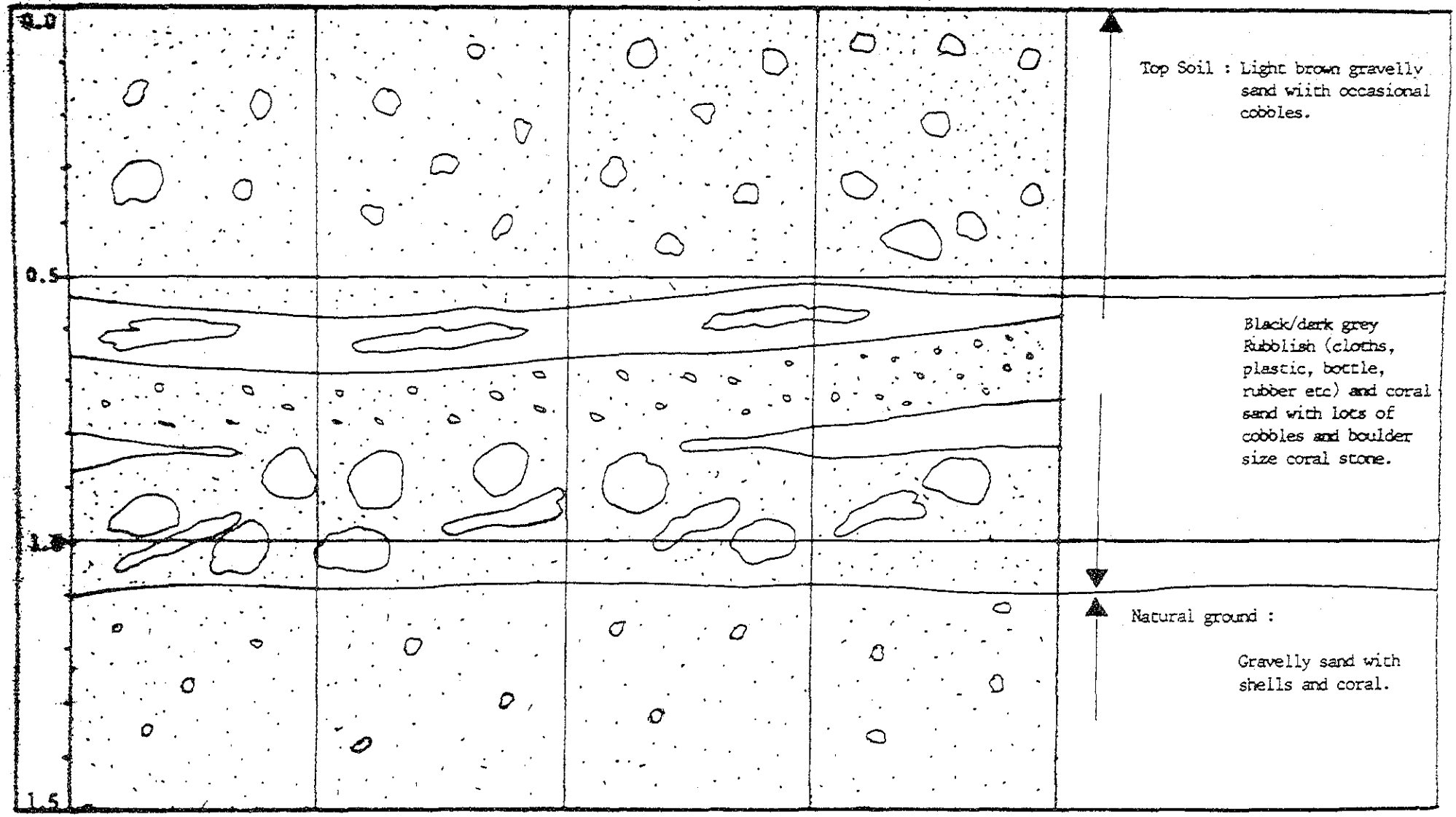
DESCRIPTION OF TEST PIT

Project No.: S01-62

Project: Soil Investigation for Centre for Social Education, Male, Maldives

Test Pit No.: TP-2

Ground Elevation: KL +1.10m **Test Elevation:** KL -0.10m **Engineer:** Weera **Date:** 6/2/1990



KISO-JIBAN CONSULTANTS CO., LTD.

N, E, S, W Indicate 4 Sides of Pit

Table 2 Quantity of Laboratory Work performed

Borehole Number	Index Property Test on soil sample			Chemical Property Test on soil sample			Chemical Property Test on water sample		
	Natural Water Content Test (No.)	Specific Gravity (No.)	Sieve Analysis (No.)	PH Value (No.)	Total Sulphate Content (No.)	Chloride Content (No.)	PH Value (No.)	Total Sulphate Content (No.)	Chloride Content (No.)
BH-1	4	3	4	1	1	1	1	1	1
BH-2	4	4	4	2	2	2	1	1	1
CM-1	-	-	-	-	-	-	1	1	1
Total	8	7	8	3	3	3	3	3	3

TABLE 3.1 SUMMARY OF SOIL TEST

Project: Centre for Social Education Male, Maldives (S01-62)

Standard: B.S.1377 : 1975

Borehole No.		BH-1				BH-2				
Sample No.		P-1	P-2	P-5	P-9	P-1	P-2	P-5	P-7	P-10
Sample depth		1.00 m ~ 1.45 m	2.00 m ~ 2.45 m	5.00 m ~ 5.45 m	9.00m ~ 9.45m	1.00m ~ 1.45m	2.00m ~ 2.45m	5.00 m ~ 5.45 m	7.00 m ~ 7.45 m	10.00 m ~ 10.45 m
Condition of sample		D	D	D	D	D	D	D	D	D
Natural water content, %		36.4	32.3	24.9	34.9	-	31.7	32.6	33.4	24.9
Specific gravity		-	2.821	2.809	2.797	-	2.824	2.865	2.865	2.828
Wet density, kN/m^3		-	-	-	-	-	-	-	-	-
Dry density, kN/m^3		-	-	-	-	-	-	-	-	-
Natural void ratio		-	-	-	-	-	-	-	-	-
Degree of saturation, %		-	-	-	-	-	-	-	-	-
Atter. rg limits	Liquid limit, %	-	-	-	-	-	-	-	-	-
	Plastic limit, %	-	-	-	-	-	-	-	-	-
	Plasticity index	-	-	-	-	-	-	-	-	-
Grain size-analysis	Gravel ,%	12	33	31	41	-	23	2	2	27*
	Sand ,%	78	57	44	43	-	66	88	88	54*
	Silt ,%	10	10	25	16	-	11	10	10	19*
	Clay & colloid ,%					-				
	Max. diameter ,mm	19.1	19.1	19.1	19.1	-	19.1	9.52	4.76	19.1
	Diam. at 60% ,mm	0.46	1.42	1.28	2.10	-	0.83	0.65	0.54	0.34
	Diam. at 10% ,mm	0.074	0.074	-	-	-	-	0.09	0.073	-
Visual soil description		Sand with Silt	Sand with Silt and Gravel	Silty Sand with Gravel	Silty Sand with Gravel	Sand with Silt and Gravel	Sand with Silt and Gravel	Sand with Silt	Sand with Silt	Sand with Silt and Gravel
Unified Soil Classification		SW-SM	SW-SM	SM	SM	SW-SM	SW-SM	SW-SM	SW-SM	SW-SM
Unconfine compression test	Undisturbed sample, kPa	-	-	-	-	-	-	-	-	-
	Strain at failure, %	-	-	-	-	-	-	-	-	-
Triaxial compression test	Angle of internal friction (°)	-	-	-	-	-	-	-	-	-
	Cohesion intercept, kPa	-	-	-	-	-	-	-	-	-
	Condition of drainage	-	-	-	-	-	-	-	-	-
Consoli-dation test	Preconsolidation pressure, kPa	-	-	-	-	-	-	-	-	-
	Compression index	-	-	-	-	-	-	-	-	-
Chemical test	pH value	8.0	-	-	-	8.1	8.2	-	-	-
	Total sulphate content as SO_3, (%)	0.48	-	-	-	0.50	0.42	-	-	-
	Chloride content as Cl, (%)	0.13	-	-	-	0.14	0.14	-	-	-

Remarks :
D : Disturbed
* : Amount of sample for test is insufficient

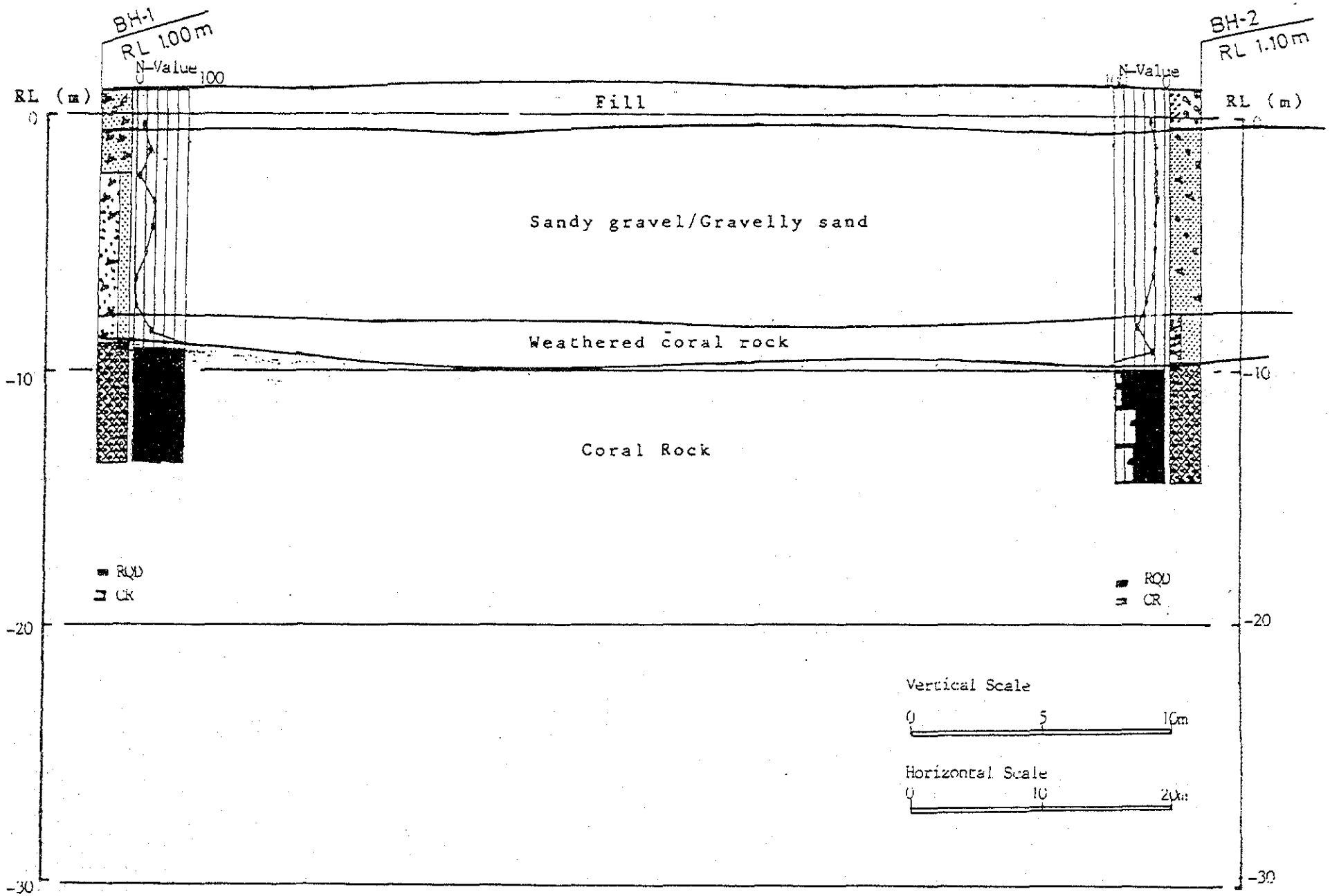


Figure 4 Soil Profile A-A'

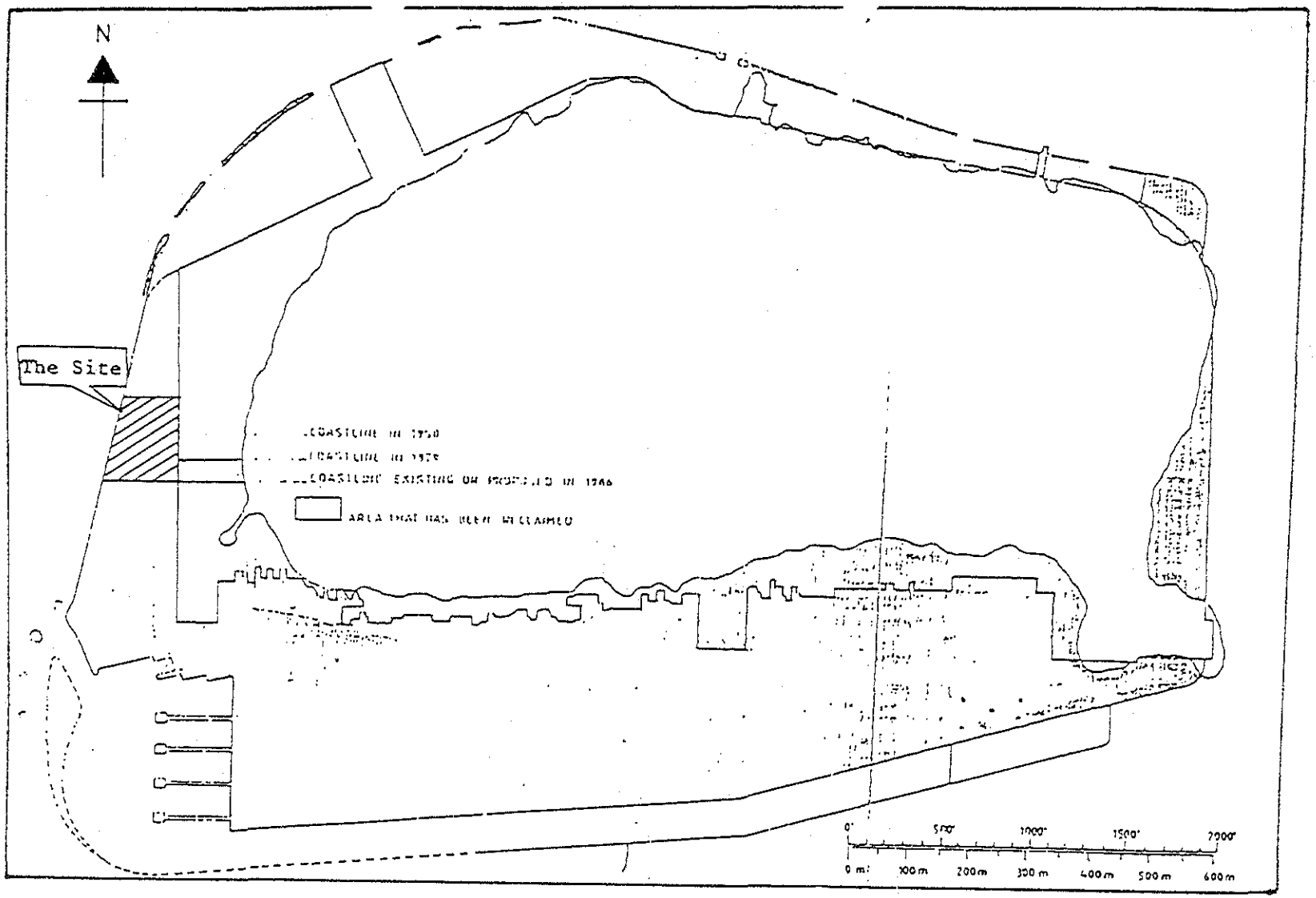


Figure 3 Site Location in Relation to Reclamation Map of Male

Table 3.2 Results of chemical tests for water samples

Sample Number	Depth (m)	PH Value	Total Sulphate Content (as SO_3), g/litre	Chloride Content (as Cl), g/litre
BH-1/W-1	1.00	7.4	0.53	4.48
BH-2/W-1	1.00	7.4	0.65	6.37
CM-1	-	7.9	0.33	1.32

GRAIN SIZE DISTRIBUTION

Project Male Maldives Job No. SC1-62

Location of Project Boring No. BH-1

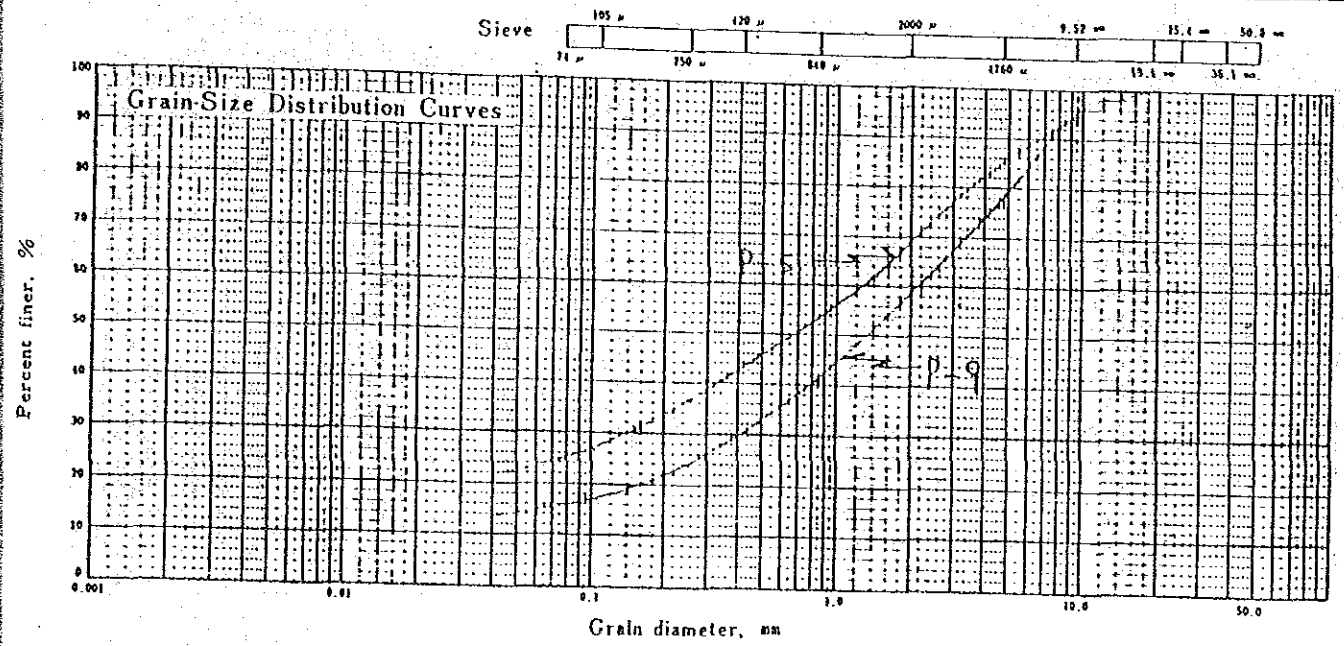
Tested by Date of Testing

Sample No., Depth : No. P-5 (5.00 m ~ 5.45m) Specific Gravity, Gs= 2.809

	Diam. mm	50.8	38.1	25.4	19.1	9.52	4.76	2.00	0.84	0.42	0.25	0.105	0.074
Sieve	% Passing				100	95.0	85.1	69.0	53.9	44.1	36.7	28.9	24.8
Hydro.	Diam. mm												
	% Passing												

Sample No., Depth : No. P-9 (9.00 m ~ 9.45m) Specific Gravity, Gs= 2.797

	Diam. mm	50.8	38.1	25.4	19.1	9.52	4.76	2.00	0.84	0.42	0.25	0.105	0.074
Sieve	% Passing				100	95.6	77.6	59.3	41.1	29.9	23.4	16.7	16.0
Hydro.	Diam. mm												
	% Passing												



Colloid	Clay	Silt	Sand	Gravel
0.001	0.005	0.074	2.0	

Sample No., Depth	No. P-5 5.00m~5.45m	No. P-9 9.00m~9.45m	Sample No., Depth	No. P-5 5.00m~5.45m	No. P-9 9.00m~9.45m
Larger than 4.76mm	15 %	23 %	Max. diam.	19.1 mm	19.1 mm
4.76~2 mm	16 %	18 %	Diam. at 60%	1.28 mm	2.10 mm
2~0.42 mm	25 %	29 %	Diam. at 30%	0.14 mm	0.42 mm
0.42~0.074 mm	19 %	14 %	Diam. at 10%	— mm	— mm
0.074~0.005 mm	25 %	16 %	Coefficient of uniformity	—	—
Smaller than 0.005mm	25 %	16 %	Coefficient of curvature	—	—
Smaller than 0.001mm	— %	— %			
2000μ Sieve Passing	69 %	59 %			
420μ Sieve Passing	44 %	30 %			
74μ Sieve Passing	25 %	16 %			

Project Centre for Social Education Male, Maldives Job No. SOI-82

Location of Project ______ Boring No. FH-2

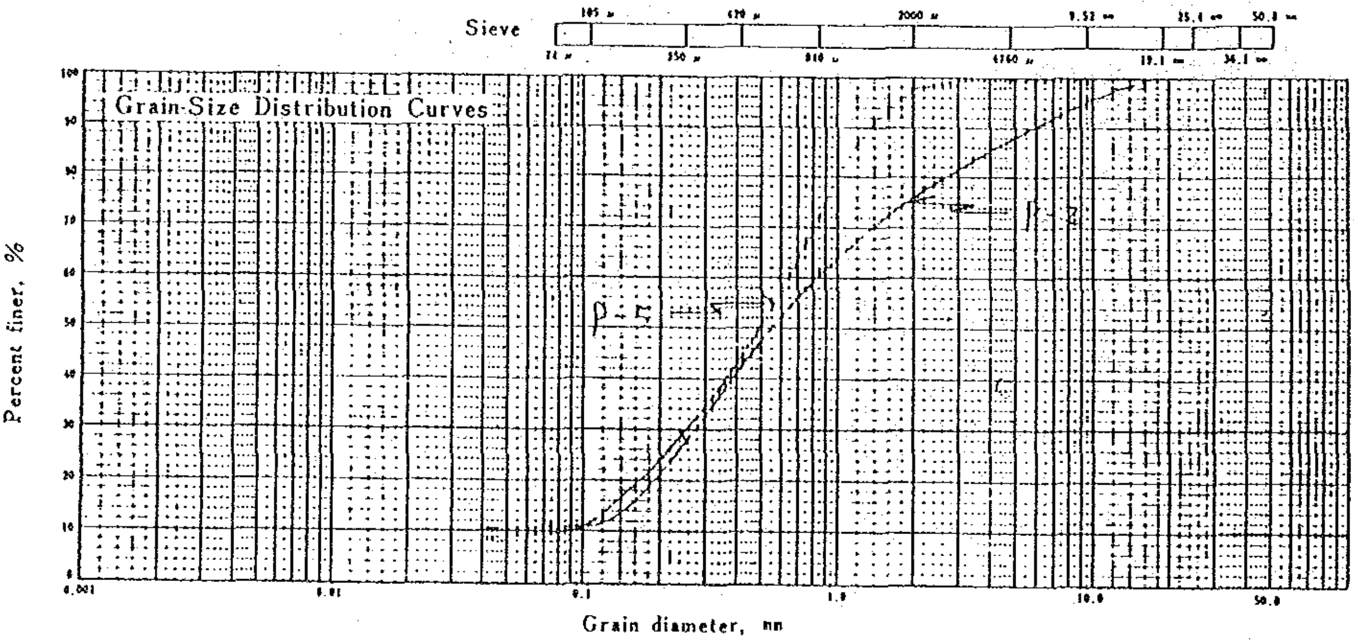
Tested by ______ Date of Testing ______

Sample No., Depth: No. P-2 (2.00 m ~ 2.45 m) Specific Gravity, Gs= 2.824

Sieve	Diam. mm	50.8	38.1	25.4	19.1	9.52	4.76	2.00	0.84	0.42	0.25	0.105	0.074
	% Passing				100	94.6	86.4	76.5	60.6	43.7	26.9	11.0	11.0
Hydro.	Diam. mm												
	% Passing												

Sample No., Depth: No. P-5 (5.00 m ~ 5.45 m) Specific Gravity, Gs= 2.865

Sieve	Diam. mm	50.8	38.1	25.4	19.1	9.52	4.76	2.00	0.84	0.42	0.25	0.105	0.074
	% Passing					100	99.3	97.7	72.4	44.4	28.6	11.0	9.5
Hydro.	Diam. mm												
	% Passing												



Colloid	Clay	Silt	Sand	Gravel
0.001	0.005	0.074	2.0	

Sample No., Depth	No. P-2 2.00m ~ 2.45 m	No. P-5 5.00m ~ 5.45 m	Sample No., Depth	No. P-2 2.00m ~ 2.45 m	No. P-5 5.00 m ~ 5.45 m
Larger than 4.76mm	14 %	1 %	Max. diam.	19.1 mm	9.52 mm
4.76 ~ 2 mm	9 %	1 %	Diam. at 60%	0.83 mm	0.65 mm
2 ~ 0.42 mm	33 %	54 %	Diam. at 30%	0.28 mm	0.25 mm
0.42 ~ 0.074 mm	33 %	34 %	Diam. at 10%	— mm	0.09 mm
0.074 ~ 0.005 mm	} 11 %	} 10 %	Coefficient of uniformity	—	7.22
Smaller than 0.005mm	%	%	Coefficient of curvature	—	1.07
Smaller than 0.001mm	— %	— %			
2000μ Sieve Passing	77 %	98 %			
420μ Sieve Passing	44 %	44 %			
74μ Sieve Passing	11 %	10 %			

GRAIN SIZE DISTRIBUTION

Project Male Maldives Job No. 201-12

Location of Project Boring No. BH-2

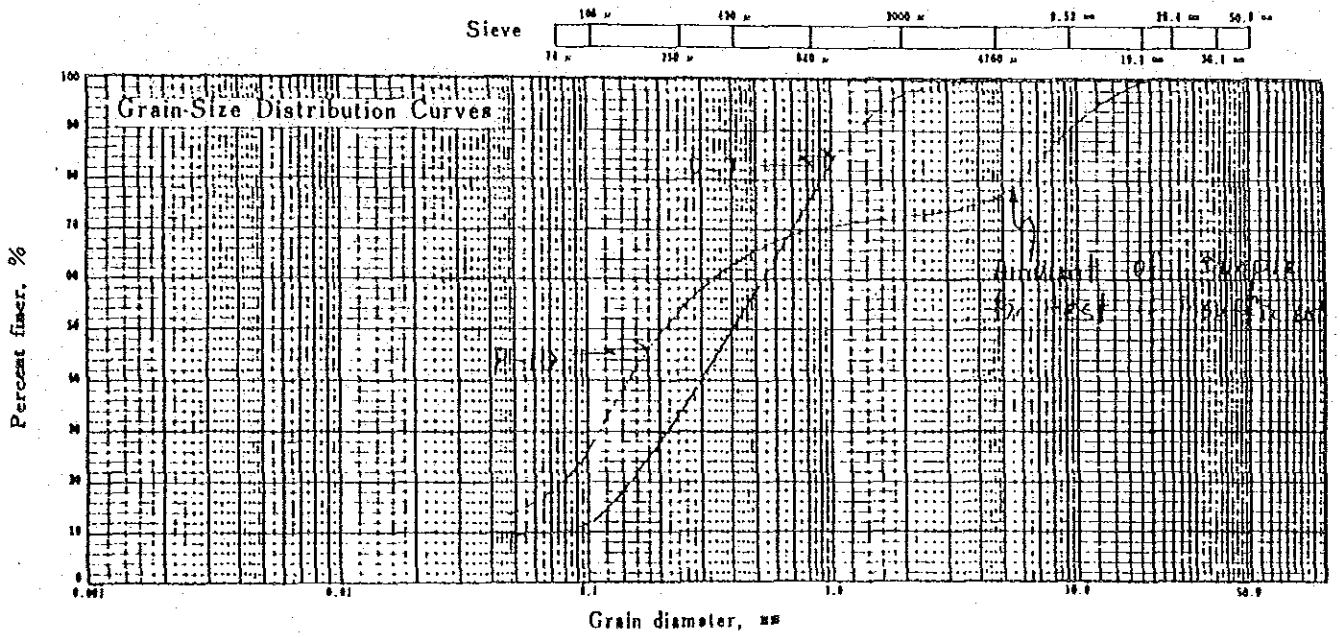
Tested by Date of Testing

Sample No., Depth : No. P-7 (7.00 m ~ 7.45 m) Specific Gravity, Gs = 2.865

Sieve	Diam. mm	50.8	38.1	25.4	19.1	9.52	4.76	2.00	0.84	0.42	0.25	0.105	0.074
	% Passing						100	17.5	76.8	51.3	33.9	12.3	10.2
Hydro.	Diam. mm												
	% Passing												

Sample No., Depth : No. P-10 (10.00 m ~ 10.45 m) Specific Gravity, Gs = 2.828

Sieve	Diam. mm	50.8	38.1	25.4	19.1	9.52	4.76	2.00	0.84	0.42	0.25	0.105	0.074
	% Passing				100	91.0	76.0	73.3	70.1	62.6	59.7	28.1	18.9
Hydro.	Diam. mm												
	% Passing												



Colloid	Clay	Silt	Sand	Gravel

Sample No., Depth	No. P-7 7.00 m ~ 7.45 m		No. P-10 10.00 m ~ 10.45 m		Sample No., Depth	No. P-7 7.00 m ~ 7.45 m	No. P-10 10.00 m ~ 10.45 m
Larger than 4.76mm	0	%	24	%	Max. diam.	4.76 mm	19.1 mm
4.76~2 mm	2	%	3	%	Diam. at 60%	0.54 mm	0.34 mm
2~0.42 mm	47	%	9	%	Diam. at 30%	0.22 mm	0.11 mm
0.42~0.074 mm	41	%	45	%	Diam. at 10%	0.073 mm	— mm
0.074~0.005 mm	10	%	19	%	Coefficient of uniformity	7.40	—
Smaller than 0.005mm		%		%	Coefficient of curvature	1.23	—
Smaller than 0.001mm	—	%	—	%			
2000μ Sieve Passing	98	%	73	%			
420μ Sieve Passing	51	%	64	%			
74μ Sieve Passing	10	%	19	%			

GRAIN SIZE DISTRIBUTION

Project Centre for Social Education, Male', Maldives — Job No. S01-62

Location of Project — Boring No. BH-1

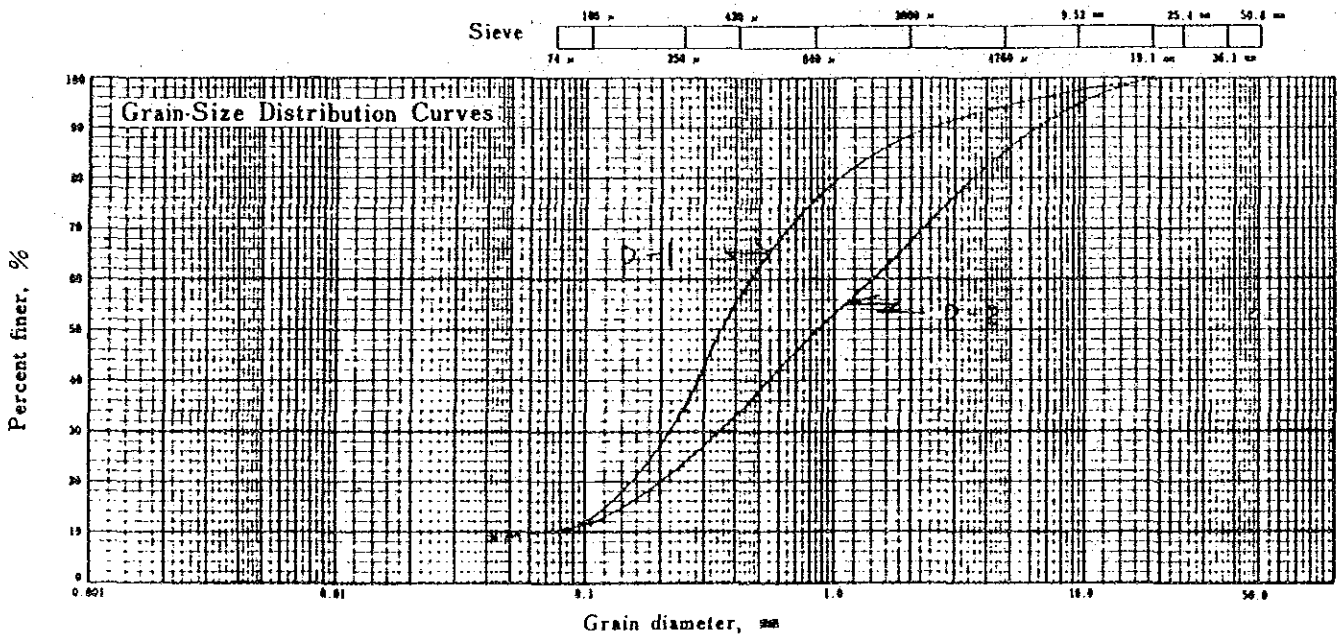
Tested by — Date of Testing

Sample No., Depth : No. P-1 (1.00 mm ~ 1.41 mm) Specific Gravity, Gs= —

	Diam. mm	50.8	38.1	25.4	19.1	9.52	4.76	2.00	0.84	0.42	0.25	0.105	0.074
Sieve	% Passing				100	96.7	93.5	88.4	76.5	56.4	34.2	12.0	10.2
Hydro.	Diam. mm												
	% Passing												

Sample No., Depth : No. P-2 (2.00 mm ~ 2.41 mm) Specific Gravity, Gs= 2.821

	Diam. mm	50.8	38.1	25.4	19.1	9.52	4.76	2.00	0.84	0.42	0.25	0.105	0.074
Sieve	% Passing				100	94.8	85.6	66.8	49.9	33.4	23.0	11.4	10.3
Hydro.	Diam. mm												
	% Passing												



Colloid	Clay	Silt	Sand	Gravel
0.001	0.005	0.074	2.0	

Sample No., Depth	No. P-1 1.00 mm ~ 1.41 mm		No. P-2 2.00 mm ~ 2.41 mm		Sample No., Depth	No. P-1 1.00 mm ~ 1.41 mm		No. P-2 2.00 mm ~ 2.41 mm	
Larger than 4.76mm	6	%	14	%	Max. diam.	19.1	mm	19.1	mm
4.76~2 mm	6	%	19	%	Diam. at 60%	0.46	mm	1.42	mm
2~0.42 mm	32	%	34	%	Diam. at 30%	0.22	mm	0.35	mm
0.42~0.074 mm	46	%	23	%	Diam. at 10%	0.074	mm	0.074	mm
0.074~0.005 mm	} 10	%	} 10	%	Coefficient of uniformity	6.22		19.2	
Smaller than 0.005mm		%		%	Coefficient of curvature	1.42		1.17	
Smaller than 0.001mm	—	%	—	%					
2000μ Sieve Passing	88	%	67	%					
420μ Sieve Passing	56	%	33	%					
74μ Sieve Passing	10	%	10	%					

(3) Meteorological Data

Table 1. 21 Years Monthly Means 1967～1987

Month	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Means
Temperature Min ℃	29.7	30.1	30.9	31.4	31.0	30.5	30.4	30.1	30.1	30.0	30.0	29.8	30.3
Temperature Max ℃	25.5	25.7	26.0	26.4	26.3	26.0	25.7	25.6	25.3	25.3	25.3	25.3	25.7
Wind Speed m/sec	5.4	4.5	3.7	3.9	5.2	5.3	4.9	4.6	5.4	5.1	4.5	4.8	4.8
Rainfall mm	79.1	54.9	85.9	133.1	225.0	157.6	162.6	189.7	233.3	228.7	201.9	225.5	1977.3

Source: Some Meteorological Data 1966-1987

Table 2. 5 Years Monthly Means, Duration of Sunshine, 1984～1988

Month	Jan.	Feb.	M Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Fire Yearly Average hrs	227.8	245.5	253.7	234.6	240.5	193.1	249.2	200.8	203.4	247.9	233.5	227.0	2757.1

Source: Statistical Year Book of Maldives 1989

Table 3. Wind Directions in Male', 1987 (Percentage of Observation form)

	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM	VRB	Others
Jan.	9	13	54	12	5	1	1	-	-	-	-	-	1	1	-	3	-	-	-
Feb.	2	7	37	47	1	-	-	-	-	-	-	-	-	-	1	2	2	1	-
Mar.	9	12	32	25	2	-	-	-	-	-	-	-	1	1	2	10	2	4	-
Apr.	3	3	3	3	2	-	3	1	2	3	4	4	13	14	16	5	12	8	1
May.	-	-	-	-	-	1	-	4	7	5	12	15	24	6	4	-	17	4	1
Jun.	-	-	-	-	-	-	-	-	-	1	9	20	48	17	4	-	1	-	12
Jul.	-	-	-	-	-	-	-	-	6	6	8	8	20	21	19	6	3	2	-
Aug.	1	-	-	-	-	-	-	2	6	16	15	15	20	11	5	1	8	-	5
Sep.	-	-	-	-	-	-	-	-	-	-	3	18	24	28	20	2	5	-	2
Oct.	1	-	2	-	-	-	-	-	-	8	17	17	28	12	8	2	5	-	4
Nov.	-	1	-	-	-	-	-	2	3	5	7	11	37	8	7	-	18	1	4
Dec.	1	1	12	15	2	-	1	-	2	4	4	4	23	5	2	-	21	1	2

Source: Some Meteorological Data 1966～1987

Table 4 Monthly Mean Rainfall in Male'

Month	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Rainfall mm	47	65	5	96	211	159	229	137	343	319	150	137

Table 5 Monthly Mean Temperature in Male'

Month	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Temperature ℃	29	30	31	31	31	31	30	30	29	30	30	30

Source: World Data Book (Asia)

Table 6 Meteorological Records

	Data Observed	date
Highest temperature	34.1℃	16.28 April 1973
Lowest temperature	17.2℃	11 April 1978
Highest wind	31.9 m/sec	3 November 1978
Heaviest rainfall for 24 hrs.	175.9 mm	23 December 1977

Source: Som Meteorological Data 1966～1987

(4)Material Survey (Sieve Analysis for Fine Aggregate)

UNIVERSITY OF MORATUWA

Department of Civil Engineering

Moratuwa, Sri Lanka

Tel : Head — 505422
Gen. — 507567, 507568

Fax : 507622

Your Ref:

Our Ref: CE/30/ST/90/ 16/07/90

Sample - Fine Aggregate

Sieve size (mm)	Weight retained (g)	% Passing
4.75		100.0
3.35	21.0	95.0
2.36	21.0	90.8
1.70	50.0	80.7
1.18	84.0	63.7
0.850	90.0	45.5
0.600	112.0	22.9
0.425	66.0	9.5
0.300	34.0	2.6
0.212	10.0	0.6
0.150	01.0	0.40
0.075	02.0	0.0
Pan	---	0.0

$d_{50} = 0.920$ $\qquad \frac{D_{60}}{d_{10}} = \frac{1.10}{0.43} = 2.56$

Relative density (specific gravity) on oven-dried basis = 2.65

Relative density on a saturated and surface dry basis = 2.65

Apparent relative density = 2.65

Water absorption (% of dry mass) = 0.11%

UNIVERSITY OF MORATUWA
Department of Civil Engineering
Moratuwa, Sri Lanka

Tel : Head — 505422
Gen. — 507567, 507568

Fax: 507622

Your Ref:

Our Ref: CE/30/ST/90/ 16/07/90

Sample - Coarse Aggregate

Sieve size (mm)	Weight retained (g)	% Passing
25 (1")	---	100.0
19 (3/4")	212	95.8
12.5 (½")	4020	16.0
9 (3/8")	683	2.4
6.25 (¼")	105	0.3
4.75	--	0.3
3.35	--	0.3
Pan	15	0.0

$d_{50} = 12.7$ $\qquad \frac{d_{60}}{d_{10}} = \frac{13.75}{10.5} = 1.31$

Relative density (Specific gravity) on oven-dried basis = 2.63

Relative density on a saturated and surface dry basis = 2.64

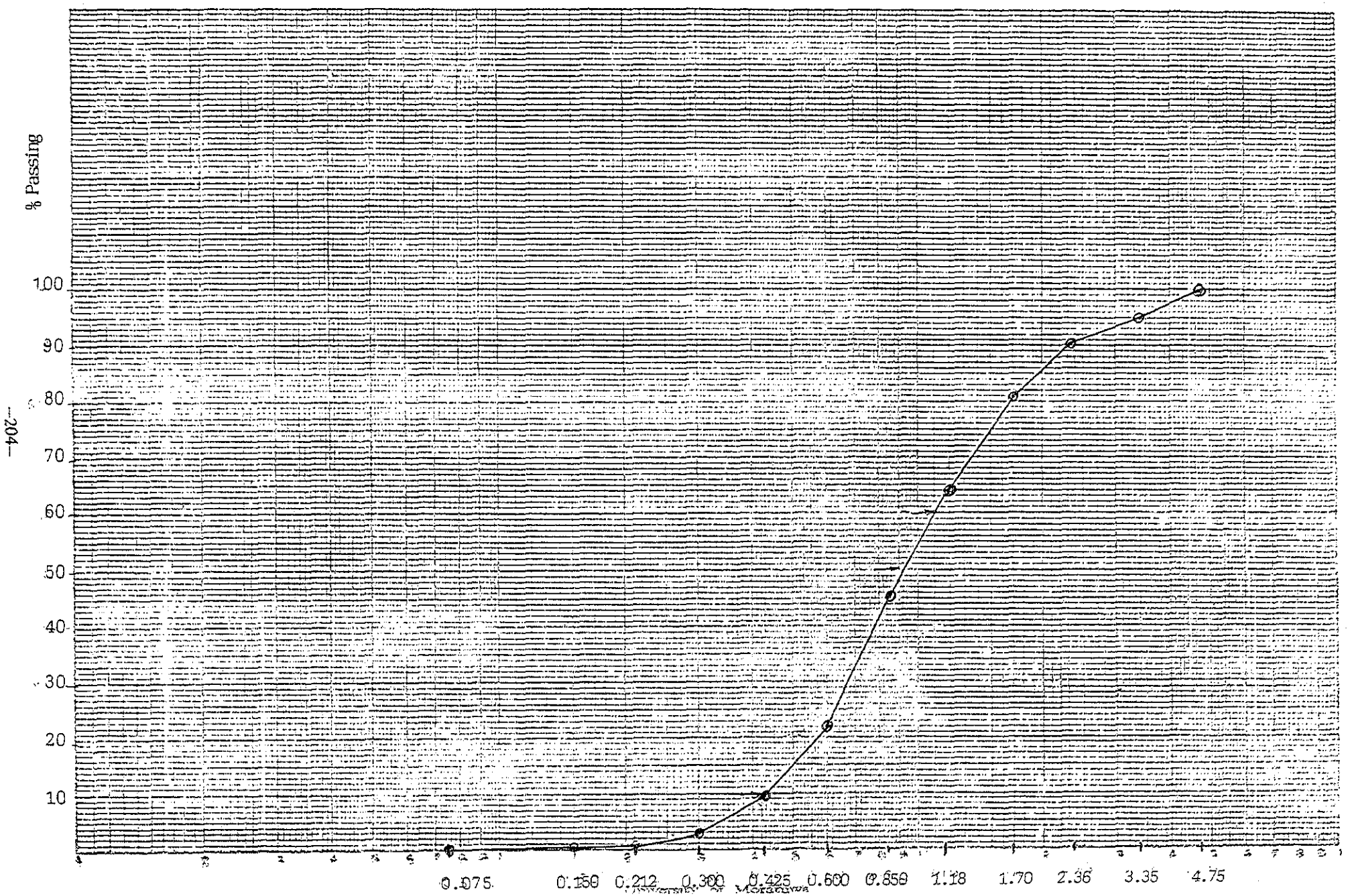
Apparent Relative density = 2.66

Water absorption (% of dry mass) = 0.37%

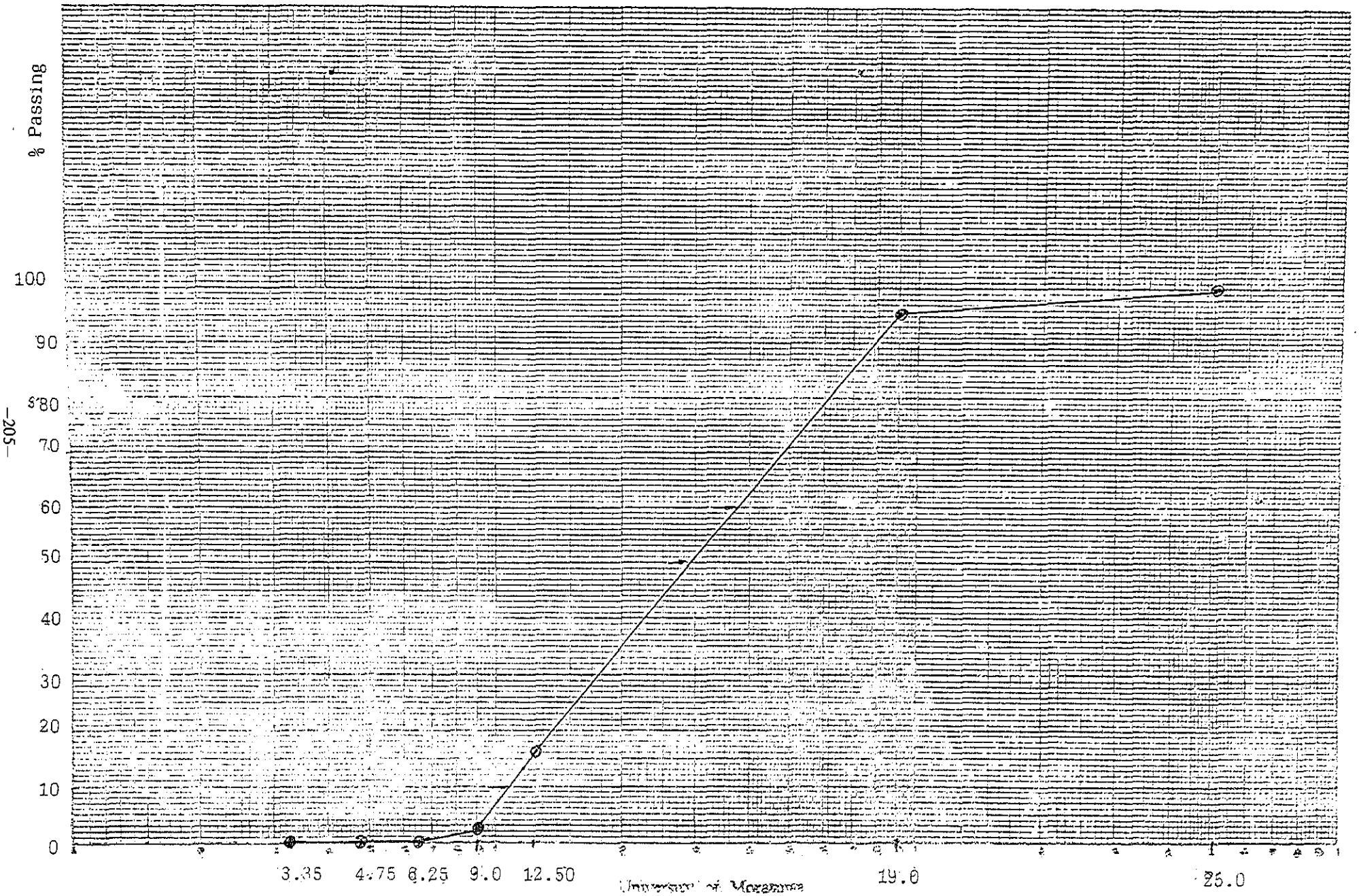
Dr.A.A.D.A.J.Perera
Lecturer in Civil Eng.

Dr.W.Samarasinghe.
Senior Lecturer in Civil Eng.

GRADING CURVE FOR SAMPLE OF FINE AGGREGATE



GRADING CURVE FOR SAMPLE OF COARSE AGGREGATE



6. Attachment

Table 1. Utilization Record of Majeediya Schhol Hall in 1989

MAJEEDIYA SCHOOL

9 Jan' 89 - 30 Jan'89	G.C.E Exam	(Public Examinations)
15 Jan' 89	Parent Teacher Meeting	(Gr. 7 ah Promote VI - - Kudhinge)
3 Feb' 89	Staff Meeting	
22 Feb' 89	Cub Scout Meeting	
24 Feb' 89	Staff Meeting	
9 March 89	Martyr's day activities	
13 March 89	Commonwealth Day Meeting	
18 March 89	Meeting (Ekuveringe Gulhun)	
23 March 89	Meeting (Old Pupils)	
6 April 89	School Health Fair	
13 April 89	Staff Meeting	
19 April 89	School's Anniversary Meeting	
27 April 89	Meeting	
2 May 89	Lailathul Gadri Vileyrey faahaga kurun	
6 May 89	Eidge salaam kurun (Dhivehi Naadhee and- - Qawmee Markaz)	
11 May 89	Ekuveringe Gulhun (Meeting)	
12 May 89	Staff Meeting	
14 May 89	Ekuveringe Gulhun (Meeting)	
18 May 89	Music Show on the ocassion of Children's Day	
22 May 89	Meeting (School's Grade 5,6 Teachers)	
24 May 89	Inaugural meeting of Senior Literacy Association)	
28 May 89	Meeting Grade 6,7 Children and Musthafa Luthfee)	
30 May 89	Meeting Grade 7 Children and Musthafa Luthfee)	
31 June 89	Concert (62nd Anniversary)	
15 June 89	Prefect's Party	

26 June 89	Inaugral Meeting of 6th Science Exhibition
2 July 89	Party given by the President to the members of -
	- Cricket Foundation (Cricket Foundation)
	Party to Celebrate SEC's 10th Anniversary
6 July 89	Prize Day
25 July 89	Party (Independance Day) (President's Office)
8 August 89	Staff Meeting
9 August 89	"
12 - 19 August 89	School Entrance Test
21 Sept' 89	Seminar (Teachers)
	Reception for the Students whose performances at the -
	G.C.E Exam were well
1 Oct' 89	National Day Meeting
4 Oct' 89	Grade 8,9,10 Literacy Association Meeting
16 Oct' 89	Scout Association (Meeting)
21 Oct'. 89	Staff Meeting
23 Oct' 89	Parent Teacher Meeting on request of the Education-
	Ministry
24 Oct' 89	UN Day Activities
25 Oct' 89	English Day (Inaugral Meeting)
25 - 30 Oct' 89	English Day Activities
3 Nov' 89	Victory Day Meeting
5 Nov' 89	Minister meets the Prefects

Table 2. Utilization Record of Aminiya Schhol Hall in 1989

AMINIYA SCHOOL

7.1.89	Jinsul Latheefunge Rooh
26.4.89	Transtel Pvt Ltd (Exam)
24.8.89	" "
20.10.89	Meeting (Dhaandhoo Island Development and Voluntary- - Service Organisation)
7.12.89 - 8.12.89	Exhibition (Society for Health Education)

SCHOOL ACTIVITIES

16.12.89	Prefects Party
13.3.89	Commonwealth Day
16.3.89	Girl Guide Ceremony
2. 4.89 - 10.4.89	: First Term Test
1.5.89 - 07.5.89	: Singing Practice
18.5.89	Children's Day
19.6.89	Prize Day
July	Sport Practice
15.8.89 - 22.8.89	: Second Term Test
23.9.89 - 26.9.89	: PTA Meeting
23.9.89	Dhivehi Day
8.10.89 - 10.10.89	: Talent Time Concert
16.10.89	World Food Day
16.10.89	Inaugural session of Enrolment classes Grade 10
22.10.89 - 26.10.89	: PTA Meeting
24.10.89	UN Day activities
25.10.89	Special PTA Meeting
20.10.89	Literacy Day

3.11.89	Victory Day
13.11.89	Enrolment of Service Guides
19.11.89	Special Lecture for students
28.11.89 - 6.12.89	: Promotion Test
12.12.89	Teachers Social

Every Monday and Tuesday Islam classes for Grade 10 from 10.30 - 11.45

September '89	TT Practice
Music Practice	1.30 - 6.00

Table 3. Utilization Record of Jamaaludheen Schhol Hall in 1989

JAMAALUDHEEN SCHOOL

Jan' 89	G.C.E Exams
31st Jan' 89	M.T.C.C
11th Sept' 89	Dept' Post and Telecommunication
11th May 89	"
17th May 89	Girl Guide Association
1st May 89	Arabiyya
27th Nov' 89	"
6th Dec' 89	Dhandhoo Island Development and Voluntary -
	- Services Organisation
30th Nov' 89	President's Reception
2nd - 4th Dec' 89	Art Exhibition
7th Oct' 89	President's Office
10th - 12th Dec' 89	Concert
14th June 89	Athama Group
22 Nov - 2 Dec	Arabiyya
28th Sept' 89	Blue Peace Organisation
8th - 11th July 89	DIB Photo Exhibition
17th- 19th May 89	Girl Guide Petrol Leaders Training
1st - 4th May 89	Boy Scout Association
14th - 16th Oct' 89	Brownie Enrolment
18th - 24th Oct' 89	Health Information to parents
10th Oct' 89	English Day
11th Oct' 89	Dhivehi Day
End of Oct'	Cub Scout Enrolment
21st - 22nd Sept'. 89	T.T Tournament

Every Monday ITE Islam Class

Table 4. Utilization Record of Iskandar Schhol Hall in 1989

ISKANDAR SCHOOL

15.2.89 - 21.2.89	Photo Exhibition	(Information Dept)
27.3.89 - 28.3.89	"	"
8.6.89 - 11.6.89	" (Russia)	"
27.7.89 - 18.9.89	"	(M. Kulhavagge)
14.9.89 - 15.9.89	Food Fair	(Health & Welfare)
4.11.89 - 7.11.89	Aliya School Concert	(Aliya School)
19.10.89 - 20.10.89	Photo Exhibition	(Information)
29.10.89 - 30.10.89	Meeting	(Forte Maldives)
7.11.89 - 8.11.89	Food Fair	(Henveiru Avah - - Kuriaruvaa Committee)

- Brownie / Cub Meetings and Enrolments
- Parent Teacher Meeting

Table 5. Utilization Record of Kalaafaan Schhol Hall in 1989

KALAAFAAN SCHOOL

8th Sept' 89	Stage Show	(Maldives Soviet Friendship)
27th - 30th Sept' 89	E.P.S.School's Concert	
5th Sept' 89	One Man Show	(Education Ministry & British Council)
9th Oct' 89	Prize Giving	(Basic Education)
11th Oct' 89	Prophet Mohameds Birthday Meeting	(Religious Affairs)
16th Oct' 89	World Food Day	(A Meeting Organised by MPE and - - Ministry of Fisheries & Agriculture)
23rd Oct' 89	Inter School Art Exhibition to mark UN Day	
24th Oct' 89	Art Exhibition Prize Giving	
29th Oct' 89	Allied Health	(Meeting)
31st Oct' 89	Atolls and Administration	(Meeting)
1st - 3rd Nov' 89	M.E.S Concert	
2nd Nov' 89	Meeting Victory Day	(M.E.S & E.P.S.S)
4th Nov' 89	Magic Show	(Maldives Soviet Friendship Society)
9th Nov' 89	M.E.S Concert	
17th Nov' 89	President's Office (Reception - Small State Conference)	
26th Nov' 89	K.S Concert	
5th Dec' 89	"	
7th Dec' 89	"	
9th - 11th Dec' 89	Henveiru School	
12th Dec' 89	Galholhu Madrasa's Stage Show	
14th - 18th Dec' 89	ITE Stage Show Practices	
19th Dec' 89	ITE Ceremony	
20th Dec' 89	STO Meeting (25th Anniversary)	
3rd - 5th Jan' 90	National Library Stage Show	
9th - 25th Jan' 90	G.C.E Exam	

Table 6. Weekly Utilization Schedule of Jamaaludheen Schhol Hall in 1990

MORNING SESSION.

TIME	SATURDAY	SUNDAY	MONDAY	TUESDAY	WEDNESDAY
7.05 – 7.40.	4 E	4 A	3 C	4 H	5 B
7.40 – 8.15	5 G	3 H	3 B	5 E	—
8.15 – 8.50	5 D	3 G	—	3 A	4 F
50 – 9.05 RECESS 9.05 – 9.40	4 D	3 F	4 G	4 I	5 F
9.40 – 10.15	4 B	3 E	5 C	—	—
10.15 – 10.50	5 I	3 D	4 J	—	—
10.50 – 11.25	—	4 C	5 H	—	5. A

AFTERNOON SESSION.

TIME	SATURDAY	SUNDAY	MONDAY	TUESDAY	WEDNESDAY
1.05 – 1.40	1 A	1 E.	2 I	3 K	—
1.40 – 2.15	1 B	1 F	2 H	3 J	2 B
2.15 – 2.50	1 K	1 J	2 G	3 I	2 A
2.50 – 3.05 RECESS 3.05 . 3.40	—	1 I	2 F	1 H	3 I
3.40 – 4.15	1 C	2 K	2 O	1 G	2 D
4.15 – 4.50	1 D.	2 J	3 L	2 C	—

Table7. Construction Expense borne by Maldives' Side 1.Pavement Construction

	Item	Quant.	U.	Material (MRf)		Labour (MRf)	
				Rate	Amount	Rate	Amount
1	Excavatin GL-450, 2.2m, l=200m	198	m^3			13	2,574
	Backfillig t=240, w=1.5m, l=200m	72	m^3			13	936
	Gravel t=100, w=1.5m, l=200m	30	m^3	130	3,900	13	390
	Sand t=50, w=1.5m, l=200m	15	m^3	177	2,655	13	195
2	Mortar bed(under U-shape trench) t=50, w=0.5m, l=200m	5	m^3	2,300	11,500	50	250
	Mortar bed t=50, w=0.3m, l=200m	3	m^3	2,300	6,900	50	150
	Mortar for paving tiles t=300, w=0.1m, l=200m	6	m^3	2,300	13,800	50	300
3	Paving concrete block tile 1 210x210x60, l=200	960	n.	6	5,760	1	960
	Paving concrete block tile 2 210x105x60, w=1.5m, l=200	13,700	n.	3	41,100	1	13,700
	Concrete block for site border 290x150x1000	200	n.	77	15,400	10	2,000
	Concrete drain cover 400x1000x80	200	n.	64	12,800	10	2,000
	U-shape trench 400x450x1000	200	n.	153	30,600	20	4,000
	Total				144,415		27,455
	Total						171,870 Rufiyya

Table8. Construction Expense borne by Maldives' Side 2.Removal of Basketball courts

	Item	Quant.	U.	Cost (MRf)	
				Rate	Amount
1	Basketball courts and stadium area 2170m^2	2170	m^2	45	97,650
	Total				97,650

Table9. Construction Expense borne by Maldives' Side 3. Retaining Wall Construction
(1= Retainig wall 200m + flower base 100m)

	Item	Quant.	U.	Material (MRf)		Labour (MRf)	
				Rate	Amount	Rate	Amount
1	Excavatin GL-700, w=0.8m, l=300m	168	m^3			13	2,184
	Backfillig t=320, w=0.65m, l=300m	62	m^3			13	806
	Gravel t=100, w=0.7m, l=300m	21	m^3	130	2,730	13	273
	Sand t=60, w=0.7m, l=300m	13	m^3	980	12,740	—	incl. Labour
2	Concrete 600x180+150x2120l=300m	128	m^3	980	125,440	—	incl. Labour
3	Form H2300x2 (both side) l=300m	1,380	m^2	116	160,080	—	incl. Labour
4	Reinforcing bar 0.15t/m^3 (per concrete unit volume) x128	19	t	5200	98,800	—	incl. Labour
5	Plaster H=1800x2(both side) l=300m	1,080	m^2	70	75,600	—	incl. Labour
6	Painting H=1800x2(both side) l=300m	1,080	m^2	40	43,200	—	incl. Labour
	Total				518,590		3,263
	Total						521,853 Rufiyya

ORGANIZATIONAL CHART OF MALDIVES YOUTH CENTRE

Chart 1. Organization of the Youth Centre