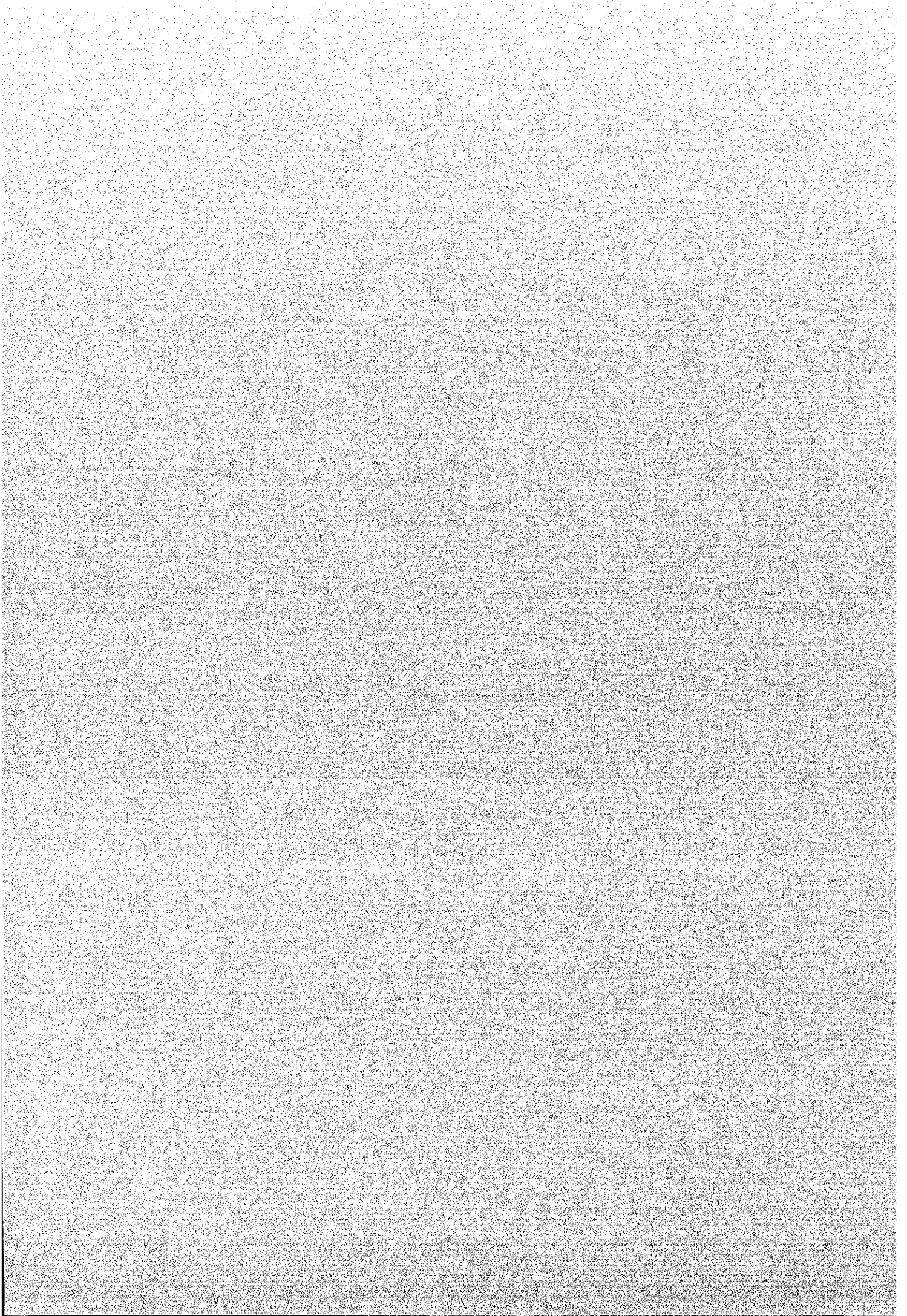


CHAPTER 4

EVALUATION AND RECOMMENDATIONS



CHAPTER 4 EVALUATION AND RECOMMENDATIONS

4-1 Evaluation and Corroboration for the Feasibility and Effects of the Project

(1) Evaluation for the Feasibility of the Project

As mentioned in the foregoing chapters, shortage of classrooms in UBC is very serious because the construction of new school facilities is hardly possible due to lingering shortage of finance to deal with the increase of children in school ages in line with the concentration of people in the city. Schools manage the overloading of classrooms by converting specified classrooms into ordinary classrooms, establishing temporary rooms by partitioning corridors and providing three or four shift schooling systems, etc. In spite of these efforts, however, the quality of education has been deteriorating because of insufficient lesson hours and other unfavorable influences. Most of the schools were constructed from the 1960s to the 1980s, and without proper maintenance of facilities some of them may have difficulties in continuous use in the future.

MOSTEC carried out repairs at 25 secondary schools in the country with financial aid from ADB, but the contents of the repairs were repainting or exchange of door and windows only. Unicef supported rehabilitation of primary school facilities in rural areas but not in UBC.

In particular, suburban areas of UBC face an excessive increase of population moving in from rural areas. Some areas, which have not been approved as legal inhabitation areas in the past, are hardly supplied with investment for urban infrastructure and public services. They do not usually have good accessibility to educational facilities, and existing schools do not have enough accommodation space. They face urgent necessity for additional classrooms. The project management capability of the implementing organization as well as the construction skills of local construction companies do not seem excellent. Necessity for Japanese contractor's skills in terms of work schedule management and quality control seems significantly higher.

(2) Corroboration for the Feasibility

- ① The target schools of the project are public schools where children from underprivileged families who are in other words the weak of the community study. The annual beneficiaries can be accounted as many as 14,560 people.
- ② Facilities and equipment to be supplied through the project are those for primary and junior secondary (compulsory) education which is considered as BHN.

- ③ Operation and maintenance of the schools will be continuously conducted with participation of community inhabitants who will be the beneficiaries of the project
- ④ This project will comply with superior programs including the Action Plans for Mongolia toward the 21st Century and the Educational Law.
- ⑤ This project is not income oriented.
- ⑥ This project will not unfavorably affect the environment. There is no need for large scale site preparation. Sewage water will be either discharged into the city sewage main or retrieved by vacuum cars.
- ⑦ There seems to be no difficulty in implementing the project in compliance with the regimen of Japanese Grant Aid.

(3) Expected Effects

① Improvement of the studying environment

Construction of 182 additional ordinary in this project is expected to contribute to the following improvements:

- Dismissal of three shift schooling (54 classes in the entire UBC)
- Dismissal of temporary classrooms (62 classrooms in the target schools)
- Return of specified classrooms now converted into ordinary classrooms (all the converted rooms in the target schools)
- Resolution of overloaded classes (The number of students will be decreased to 40 per class to ensure 1.35 m² floor area and 4.0 m³ volume per person.)

② Increase of school enrolment capacity

Through the above-mentioned improvement the capacity of schools will increase by around 5,300 people to deal with increase of demand in future.

③ Resolution of imbalanced accessibility to school places

It is estimated that the following four Duuregs will not be able to provide school places for all the children of school age by the year 2004 even if they conduct double shift schooling. Through this project, the enrolment rate is expected to be improved as shown in the table as a result of careful selection of target schools and appropriate scale of cooperation based on the assumed number of children in the school districts.

	Expected school enrolment without cooperation	Number of classrooms to be constructed	Expected school enrolment after the project
Chingeltei	62.9%	40	75.9%
Bagakhangai	69.0%	4	90.4%
Songinokhairkhan	76.9%	72	98.0%
Bayangol	92.2%	18	98.2%

Also in Duuregs which are expected to have enough school places in 2004, schools in such districts that have inconvenient public transportation systems or where neighboring schools are located in the distance are regarded as having strong necessity for additional classrooms and selected as the target schools for cooperation. Through a careful selection and appropriate scale of cooperation in consideration of current imbalances, the project will contribute to reducing traffic or other expenses to be borne by the underprivileged families and thus diminishing unenrolment or drop-outs for economic reasons.

④ Convenience of attending schools

Most of the students who now cannot attend schools within the school district and have to commute to schools in other districts by bus will be able to attend schools nearby. It will save time and expense, and diminish danger on the way to and from schools as well.

⑤ Promotion of public health

Many existing schools suffer from shortage of toilets and unsanitary conditions, because most of their toilets are broken or out of order. By providing sufficient number of new toilets (1 piece/40 people) and hand wash installations, this project will contribute to the promotion of public health.

4-2 Recommendations

As mentioned before, this project is expected to contribute significantly to the improvement of primary and secondary education in UBC that occupies one-fifth of the entire population of Mongolia. In this term this project is well worth realizing through Grant Aid from Japan, with considerable benefit thereby engendered. There seems no problems on the Mongolian side with regard to personnel and budget for the progress of the project. The following recommendations are presented for the smooth and effective implementation of the project.

(1) Exemption of Value Added Tax (VAT)

It is specified in the E/N that all the materials and services to be purchased for Grant Aid or loan projects are exempted from all the taxes to be imposed in the recipient country. However in Mongolia, there were no examples that VAT was exempted in the past. This is because there are no legal basis in Mongolian laws to exempt materials and services from taxes on the ground that they are relevant to international cooperation. At present, it is being discussed among the Japanese Embassy in Mongolia, JICA Mongolia Office and Mongolian Ministry of Finance to find a way to enable tax exemption and regarding its procedures. It is highly recommended them to make any form of agreement on tax exemption, even provisionally, and to ensure its realization. Otherwise, the Japanese contractor will have to bear as much as 13% loss of the sum of products and materials they will purchase in Mongolia.

(2) Implementation of Works under the responsibility of Mongolian Government

UBC is requested to ensure an access road to the site to demolish and remove obstacles in the site and complete grading the commencement of construction to be conducted by the Japanese side. During the construction period, UBC will need to complete intake piping work of electricity and water as well as connection work of heating piping and sewage piping without delay in line with the project schedule. MOSTEC, Ministry of Finance and UBC shall apply for and obtain various permits and approvals, and shall proceed tax exemption on materials, products and services to be purchased relevant to the project.

Upon signing of the E/N, the designated bank in Mongolia shall conclude banking arrangements (B/A) with a designated Japanese bank, or shall issue the authorization to pay (A/P) after the approvals of consultant agreement and construction contract.

(3) Recruitment of skillful and experienced teachers

In Mongolia payment to school teachers is quite low. Since the market economy system was introduced, they cannot live only on the salaries and have to have side jobs, and MOSTEC approves this. Many talented and experienced teachers have left the teaching profession. Those remaining have inevitably been losing incentive or willingness because they can expect better income from side jobs than from teaching at schools. Relocation of teachers and school staff including restructuring of excessive ones and the establishment of a more efficient educational management system are being

implemented under the ADB's instructions. During this procedure it is recommended to realize the proper evaluation of teachers to select appropriate talents and to improve conditions of teachers in terms of economy and teaching environment, in order to make the teaching job more attractive and thus to ensure skilful good teachers.

Other institutions like international aid organizations and NGOs also provide re-training programs for the teachers. It may be effective to improve the incentives of the teachers by combining such training and regular examination programs to promotion of payment.

(4) Staff arrangement of the implementation organization

As mentioned before, the implementation organization of this project is the UBC government and the Education Department is in charge. The actual staff in the Education Department concerned to the project is only one architect and he has to take care of everything about the project. As he is also assigned to management of all the school facilities in UBC area without any staff under him, it is afraid that he may be overloaded to respond the requests made by the Japanese side promptly.

(5) Collaboration with technical cooperation

The facilities and equipment to be provided through this Grant Aid project will be utilized more effectively for the improvement of quality of education if technical cooperation will realized. At present the following technical cooperation can be considered.

① Experts in educational administration

Improvement of software aspects of education is regarded essential including establishment of a master plan, retraining of teachers and improvement of textbooks and teaching aids. While Mongolia is not equipped with a master plan for the educational sector, it is recommended to send a specialist of educational administration as an advisor for policy making.

② JOCV members

There have been quite a few JOCV members sent to Mongolia as school teachers. The Mongolian education system is teachers of different specialties teach each subject for grade 5 and higher. It is expected JOCV members will be dispatched to the target schools of this project to teach lessons in science, mathematics, domestic science, music, arts and crafts.

ANNEX

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1. MEMBERS OF THE STUDY TEAM

(1) Basic Design Study

Name	Specialty	Title
Ms. Yoshie MURAMATSU	Leader	Second Project Study Division, Grant Aid Project Study Department, Japan International Cooperation Agency (JICA)
Mr. Takeo ETOH	Chief Consultant / Architectural Design	Yokogawa Architects & Engineers, Inc.
Mr. Keiji KAMEI	Education Planner / Social Environmental Specialist	Mohri, Architect & Associates, Inc.
Mr. Keiichi IDE	Facilities Planner I	Yokogawa Architects & Engineers, Inc.
Mr. Eiji KAKIZAWA	Facilities Planner II	Yokogawa Architects & Engineers, Inc.
Mr. Nobutaka TAKADA	Plumbing, Mechanical & Electrical Planner	Yokogawa Architects & Engineers, Inc.
Mr. Haruo KANEKO	Construction Planner / Quantity Surveyor	Mohri, Architect & Associates, Inc.
Ms. Makiko KATO	Interpreter	Yokogawa Architects & Engineers, Inc.

(2) Explanatory Study of the Basic Design Summary Report

Name	Specialty	Title
Ms. Kenji MATSUMOTO	Leader	Resident Representative, JICA Mongolia Office
Ms. Makiko WATANABE	Project Coordinator	Grant Aid Project First Group Japan International Cooperation Agency
Mr. Takeo ETOH	Chief Consultant / Architectural Design	Yokogawa Architects & Engineers, Inc.
Mr. Keiichi IDE	Facilities Planner I	Yokogawa Architects & Engineers, Inc.
Ms. Makiko KATO	Interpreter	Yokogawa Architects & Engineers, Inc.

2. STUDY SCHEDULE

(1) Basic Design Study

	Date	Day	A	B	C	D	E	F	G	H	
			Leader	Chief Consultant/Architectural Design	Education Planner/Social Environment Specialist	Facilities Planner I	Facilities Planner II	Plumbing, Mechanical & Electrical Planner	Construction Planner/QS	Interpreter	
			Ms. Yoshie Muramatsu	Mr. Takco Etoh	Mr. Keiji Kamei	Mr. Keiichi Ide	Mr. Eiji Kakizawa	Mr. Nobutaka Takada	Mr. Haruo Kaneko	Ms. Makiko Kato	
1	17-May	Mon	10:45 leaving Narita, 13:25 arriving in Peking							Accompanying B	Accompanying B
2	18-May	Tue	9:25 leaving Peking, 12:35 arriving in Ulaanbaatar Courtesy visit to the Japanese Embassy and JICA Office							Ditto	Ditto
3	19-May	Wed	Courtesy visit to authorities concerned, courtesy visit & discussions with MOSTEC & Ulaanbaatar City Govt.							Ditto	Ditto
4	20-May	Thu	Visit to Teachers Training School and similar school facilities, discussions with UNICEF/ADB							Accompanying D	Ditto
5	21-May	Fri	Meeting with area residents, discussions with UNDP, UNICEF			Site survey	Accompanying D		Ditto	Ditto	
6	22-May	Sat	Meeting with area residents			Site survey		Haneda → Ulaanbaatar	Ditto	Ditto	
7	23-May	Sun	Observation of private primary school and unified school facilities						Observation of private primary school & unified school facilities		
8	24-May	Mon	Discussions on the draft minutes w/ MOSTEC			Meeting w/ area residents	Accompanying B	Site survey	Visit to similar school facilities	Accompanying F	Accompanying B
9	25-May	Tue	Signing on the minutes Report to the JICA Office & the Japanese Embassy			Meeting w/ area residents	Ditto	Site survey	Distributing QS Data	Ditto	Ditto
10	26-May	Wed	Ulaanbaatar → Kansai Int. Airport → Haneda Airport	Meeting w/ area residents	Meeting w/ area residents	Site survey	Site survey	Accompanying D	Accompanying E	Ditto	
11	27-May	Thu		Meeting w/ area residents	Meeting w/ area residents	Site survey	Site survey	Ditto	Ditto	Ditto	
12	28-May	Fri		Meeting w/ area residents	Meeting w/ area residents	Site survey	Site survey	Ditto	Ditto	Ditto	
13	29-May	Sat		Meeting w/ area residents	Data filing	Site survey	Data Filing		Accompanying B		
14	30-May	Sun		Team meeting							
15	31-May	Mon		Data filing							
16	1-Jun	Tue		Schedule arrangement with UBC Education Department and MOSTEC							
17	2-Jun	Wed		Same as D	Data filing	Data filing and hearing from Mr. Toriumi about architecture in Mongolia				Data filing	
18	3-Jun	Thu		UBC Construct. & Eng. Facility Dept.	Schedule Arrangement w/ MOSTEC	Collecting maps	Site survey	Accompanying B	Survey of construction methods	Accompanying B	
19	4-Jun	Fri		Same as D	Observation of vocational school	Observation of Meteorological Center Project site by Grant Aid					
20	5-Jun	Sat		Same as D	Survey of equipment in similar school facilities	Observation of high-efficiency energy utilization project by UNDP			Cost estimation relevant survey	Accompanying B	
21	6-Jun	Sun		Heating Dept. & Const. Arch. Corp	Secondary school & Teachers' Training college	Site survey	Site survey	Accompanying B	Accompanying B		
22	7-Jun	Mon		Min. of Infrastructure Development, Water supply Dept.	Secondary school & Teachers' Training college	Site survey	Site survey	Ditto	Ditto	Ditto	
23	8-Jun	Tue		Data filing							
24	9-Jun	Wed	Data filing, team meeting								
25	10-Jun	Thu	National Fire Fighting, Electrical Line & Net Dept., Telecom Dept., Dept. of Public Health	National University, Ministry of Construction, Investment	Site re-survey	Site re-survey	Accompanying B	Survey of material & equipment supply	Accompanying B		
26	11-Jun	Fri	Statistical data, discussion	Discussion w/ MOSTEC	Site re-survey	Site re-survey	Ditto	Ditto	Ditto		
27	12-Jun	Sat	Ditto	Education Dept., UBC	Site re-survey	Site re-survey	Ditto	Ditto	Ditto		
28	13-Jun	Sun	EREL, collecting questionnaire answers	UBC Education Dept., discussion on equipment	City Const. & Eng. Dept., site re-survey	Site re-survey	Ditto	Ditto	Ditto		
29	14-Jun	Mon	Discussion w/ Construction Architecture-Corp. & MOSTEC	MOSTEC Primary & Secondary Education Dept.	MOSTEC Primary & Secondary Education Dept.	Ditto	Ditto	Ditto	Ditto		
30	15-Jun	Tue	Data filing								
31	16-Jun	Wed	Data filing, team meeting								
32	17-Jun	Thu	TEMPUS, data filing								
33	18-Jun	Fri	Data filing, team meeting								

	Date	Day	A	B	C	D	E	F	G	H		
			Leader	Chief Consultant/Architectural Design	Education Planner/Social Environment Specialist	Facilities Planner I	Facilities Planner II	Plumbing, Mechanical & Electrical Planner	Construction Planner/QS	Interpreter		
			Ms. Yoshie Muramatsu	Mr. Takeo Etoh	Mr. Keiji Kamei	Mr. Keiichi Ide	Mr. Eiji Kakizawa	Mr. Nobutaka Takada	Mr. Haruo Kaneko	Ms. Makiko Kato		
29	14-Jun	Mon		UNPPA, SOROS climatological data	National University, UBC additional data	Site re-survey	Accompanying D	Accompanying D	Cost estimation relevant survey	Accompanying B		
30	15-Jun	Tue		Construction-Architecture Corp., discussion on teaching materials	Additional data, discussion on teaching materials	Construction-Architecture Corp., site vicinity map	Accompanying D	Accompanying D	Ditto	Ditto		
31	16-Jun	Wed		Statistical data, UBC additional data	UBC Education Dept., MOSTEC	Data filing	Accompanying D	Accompanying D, survey of infrastructure	Ditto	Ditto		
32	17-Jun	Thu		Data collection, Seismic Center	TACIS, MOSTEC	Ditto	Accompanying D	Boiler re-survey	Ditto	Ditto		
33	18-Jun	Fri		ADB survey, collecting additional data	Survey of UBC finance	Discussion on facility planning	Accompanying D	Discussion on utility planning, fire code	Ditto	Ditto		
34	19-Jun	Sat		Data filing						Ulaanbaatar → Peking	Ditto	
35	20-Jun	Sun		Data filing, team meeting						Ulaanbaatar → Narita	Data filing	
36	21-Jun	Mon		Discussion on screening, additional data collection							Survey of material & equipment supply	Accompanying B
37	22-Jun	Tue		Additional data, discussion w/ MOSTEC	Additional data	Additional data, data filing	Additional data			Peking → Shanghai	Ditto	
38	23-Jun	Wed		Additional data collection							Survey of material & equipment supply	Ditto
39	24-Jun	Thu		Report to the JICA Office, discussions w/ MOSTEC, UBC	Additional data	Additional data, discussions w/ MOSTEC, UBC	Survey of teachers' training college, additional data			Ditto	Accompanying E/C	
40	25-Jun	Fri		9:20 leaving Ulaanbaatar → 13:30 Seoul 15:30 → 17:40 arriving at Narita							Shanghai → Narita	Accompanying B

(2) Explanatory Study of the Basic Design Summary Report

	Date	Day	A	B	C	D	E
			Leader	Coordinator	Chief Consultant/ Architectural Design	Facilities Planner I	Interpreter
			Mr. Kenji Matsumoto	Ms. Makiko Watanabe	Mr. Takeo Etoh	Mr. Keiichi Ide	Ms. Makiko Kato
1	23-Aug	Mon		10:00 leaving Narita, 12:20 arriving in Seoul			
2	24-Aug	Tue		07:40 leaving Seoul, 10:30 arriving in Ulaanbaatar			
3	25-Aug	Wed		15:30 courtesy visit to the Japanese Embassy, 16:20 discussions with JICA Office,			
				9:30 discussions with MOSTEC, UBC (explanation of the basic design summary report)			
4	26-Aug	Thr		14:30 courtesy visit to Ministry of External Relations			
				15:30 discussions with MOSTEC, UBC (implemenation system, maintenance cost, etc.)			
5	27-Aug	Fri		9:30 discussions wi/ MOSTEC, UBC (Grant system, etc.)		Heatin Dept, etc.	Accompanying B
				14:30 discussions wi/ MOSTEC, UBC (minutes draft.)		Supplementary survey of the site	
6	28-Aug	Sat		10:00 discussions with Min. of Finance as to VAT exemption	9:30 discussions in terms of hardware	Supplementary survey of the site	Accompanying B
				14:00 courtesy visits to ADB 15:30 observation tour of candidate schools			
7	29-Aug	Sun		Data filing	AOS director	Supplementary site survey, AOS director	Accompanying B
				Observation tour of new brick factory Team meeting, data filing			
8	30-Aug	Mon		Data filing	Data filing		
9	31-Aug	Tue		9:30 ~ 12:00 discussions on the draft minutes			
				Signing on the minutes JICA Office	Attending signing on the minutes Discussions with UBC Education Dept.		
10	1-Sep	Wed		Report to the Japanese Embassy		UBC Const. Dept., etc.	Accompanying B
				Data filing	Discussions with UBC Educ. Dept.		
10	1-Sep	Wed		07:45 leaving Ulaanbaatar, 12:55 Kansai International Airport 14:45, arriving at Haneda 16:00			

3. LIST OF PARTY CONCERNED IN MONGOLIA

Ministry of External Relations

State Secretary	B. Davaadorj
Foreign Trade & Economic Cooperation Dept.	D. Boldbaatar (Director)
ditto	Lundaa Davaajargal
ditto	L. Nasanbuyan
ditto	Cerenjav

Ministry of Science, Technology, Education and Culture

State Secretary	R. Bat-Erdene
Strategic Management and Planning Dept.	PhD. Chagnaa Purevdorj (Director)
ditto	D. Erdenechimeg
ditto	P. Batrinchin
ditto	N. Nergui
ditto	U. Ganbold
ditto	Ch. Purev-Ochir
Policy Implementation Coordination Dept.	Sambuu Altangerel (Director)
ditto	D. Munkhjargal
ditto	J. Nurzed (Architect)
Department of External Cooperations	N. Urtnasan (Director)
ditto	P. Tengis
Information, Monitoring and Assessment Dept.	Lamzhav Battulga (Director)
ditto	Batjargal (Deputy Director)
Public Administration and Management Dept.	Baldan Baatarzorig (Director)

Ministry of Finance

Budget Policy Dept.	L. Dashdorj (Director)
ditto	B. Nanzaddorj (Officer)
Revenues and Taxes Division	K. Khurmetkhan (Head)

Government of Ulaanbaatar City

Vice Mayor	Y. Munkhjargal
Education Department	Dorj Purevdorj (Director)
Capital Investment Construction	Erdene Bayarmagnai (Officer)
Nonformal Education Center	S. Tumurbaatar (Director)
	A. Suhee
	D. Aleksandr
	N. Gombo (Architectural Consultant)
	L. Oyunuzul (Architectural Consultant)

City Construction & Engineering Facility Dept.	Ch. Erdene-ochir (Architect)
Land Management and Real Estate Registry Dept.	V. Purevsuren (former director)
Electrical Line and Net Dept	Bazargur (General Engineer)
Heating Line and Net Dept.	Sh. Munkhjargal (Technical Sec. Manager)
ditto	G. Lkhagva (Tech. Sec. Senior Engineer)
Water Supply Dept.	B. Purevjav (General Engineer)
ditto	Duhgarmaa (Tech. Examination Engineer)
Social Policy Dept.	M. Lhanaajav (Officer)
Statistic Information and Research Dept.	D. Dashijav (Specialist)
National University of Mongolia	
Vice Director	Suren Davaa
Faculty of Chemistry	Daichaa Dorj (Dean)
Faculty of Chemistry	Tsembel Darjaa (Lecturer)
State Pedagogical University of Mongolia	
Vice Rector	Ts. Batsuuri
Chairman, Director of Physics & Technology	N. Altangerel
Building College of Ulaanbaatar City	
Director	Baasanchoimbolin Chimeddorj
Light Industry College of Ulaanbaatar City	
Vice Director	O. Oyuntetegue
Teacher's College of Ulaanbaatar	Director
Infrastructure Development Agency	Chagsuren Duguitsagaan
Dept. of Construction and Architecture	B. Lkhagvasuren (Director)
National Fire Fighting Administrative Dept.	D. Erdenee
TELECOM MONGOLIA Exchange System Dept.	D. Dorjsuren (Chief Engineer)
National Health Bureau Audit Div.	G. Stendsuren (Manager)
Experts on Pediatric Health	O. Altahtuul
Asian Development Bank Representative Div.	Ph. D. R. Bandii
UNDP Deputy Resident Representative	Bruno J. Pouézat
Programme Officer	Pie Mark Meulenkamp
UNICEF Assistant Representative	Maria Gabriella De Vita
Programme Officer	Matthew Girvin
UNFPA Representative of Mongolia	Linda Demers
	Bayarmaa Batchuluun. MD
TACIS Executive Director	Baavgai Kyurenbaatar
TEMPUS Coordinator	Erdene Ishdorj
SOROS Foundation Deputy Director	P. Erdenejargal

Construction-Architecture Corporation	Director	Dr. D Dolgorsuren Khaisambuu
Research Center of Astronomy and Geophysics		Dr. T. Dugarmaa (Seismologist)
National Agency for Hydrometeorology and Environmental Monitoring		Lamjav Batnyam M. Sc.
Japanese Embassy	2nd Officer	Matoba
	3rd Officer	Fujimoto
JICA	Resident Representative (June)	Yoshifusa Shikama
	Resident Representative (August)	Kenji Matsumoto
	Assistant Resident Representative	Keizo Egawa
Dai Nippon Construction		
	Meteorological Radar Site Supervisor	Masaaki Baba

4. MINUTES OF DISCUSSIONS

Minutes of Discussions
on
the Basic Design Study on the Project for
the Improvement of Primary Education Facilities
in
Mongolia

Based on the results of the Preliminary Study, the Government of Japan has decided to conduct a Basic Design Study on the Project for Improvement of Primary Education Facilities in Mongolia (hereinafter referred to as "the Project"), and entrusted the study to Japan International Cooperation Agency (JICA).

JICA sent to Mongolia a study team, which is headed by Ms. Yoshie Muramatsu, Second Grant Aid Project Study Division, Grant Aid Project Study Department, JICA, and is scheduled to stay in the country from the 18th May to the 25th June, 1999.

The team held a series of discussions on the Project with the officials concerned of the Government of Mongolia and conducted a field survey at the study area.

As a result of discussions and field survey, both parties confirmed the main items described on the attached sheets. The team will proceed to further works and prepare a Basic Design Study Report.

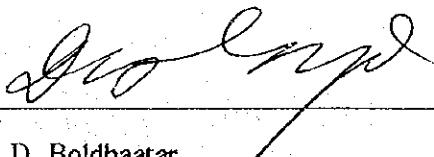
Ulaanbaatar, the 25th of May, 1999

林松美江

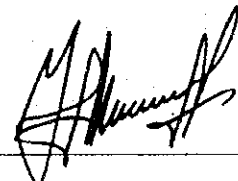
Ms. Yoshie Muramatsu
Leader
Basic Design Study Team
Japan International Cooperation Agency



Mr. R. Bat-Erdene
State Secretary
Ministry of Science, Technology, Education and Culture
Mongolia



Mr. D. Boldbaatar
Director
Department of Foreign Trade &
Economic Cooperation
Ministry of External Relations
Mongolia



Mr. Y. Munkhjargal
Vice Governor
Ulaanbaatar City
Mongolia

ATTACHMENT

1. Objective of the Project

The objectives of the Project are to improve the physical educational environment by designing, constructing buildings which are necessary in order to accommodate the school children at compulsory educational level (grade 1-8) of the existing schools in Ulaanbaatar City and providing basic equipment for them, and to eliminate the present problems such as overcrowded classes, three or four shifts sessions, temporally classrooms, conversion of special classrooms to normal classrooms.

2. Responsible and Executing Organization

Responsible Organization: Ministry of External Relations

Ministry of Science, Technology, Education &
Culture (MOSTEC)

Executing Organization: Ulaanbaatar City (UBC)

Project Unit for the Project will be established by the mid of June under the responsibility of MOSTEC.

3. Project Site

The thirty-five (35) sites listed in Annex-1 have been confirmed as the candidate sites to be surveyed for the Project.

4. Contents of the Request from Mongolian Government

At the time of preliminary study Mongolian side requested classrooms, headmaster's room, sanitation facilities, multi-purpose room and laboratory.

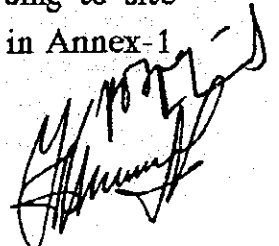
However, due to the analysis in Japan and the result of discussions, both parties agreed that the final request is the items attached as Annex-2.

5. Basic Policies of Cooperation

(1) Selection of Project Sites

Both parties agreed to the criteria for the Site Selection listed in Annex-3. However, project sites will be determined by Japanese side according to site survey and analysis in Japan, therefore the areas and schools listed in Annex-1 are not confirmed subject to be aided by Japanese Grant.

日本側



(2) Design of Facilities and Equipment

Both parties agreed to the principle for the Design of Buildings and Equipment listed in Annex-4. However, targeted facilities and equipment will be determined by Japanese side according to site survey and analysis in Japan, therefore the requested facilities and equipment listed in Annex-2 are not confirmed subject to be aided by Japanese Grant.

6. Japan's Grant Aid Program

The MOSTEC and UBC has understood the system and characteristics of Japan's Grant Aid Program explained in Annex-5.

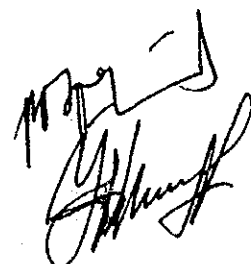
7. Necessary Measures to be Taken by the Mongolian Side

- (1) The Mongolian side will take necessary measures described in Annex-6 for the smooth implementation of the Project, on the condition that Japan's grant aid is extended to the Project.
- (2) The MOSTEC and UBC assign (a) officer(s), who is in charge of the Project and responsible to supervise the construction and maintenance of the schools, to accompany the study team surveying the Project sites and the existing schools.
- (3) For the smooth operation while surveying the existing schools, UBC shall secure that school masters, teaching and administration staff assist the survey. UBC shall also support the study team for conducting interviews with parents and representatives of communities.
- (4) UBC must prepare 2 copies of documents which guarantee the legal right for using project sites authorized by the governor by 16th June, 1999.

8. Further Schedule of the Study

- (1) JICA will prepare a draft report of the Study, and dispatch a mission in order to explain the contents to the Mongolian side in late August, 1999.
- (2) In case that the contents of the report is accepted in principle by Mongolian side, JICA will complete the final report of the Study and will send it to Mongolia around November, 1999.

7/7/99



Annex-1 The List of Schools to be Surveyed

1	The 62nd School	SONGINOKHAIRKHAN
2	The 37th School	CHINGELTEI
3	The 42nd School	SONGINOKHAIRKHAN
4	The 2nd School	SUKHBAATAR
5	The 67th School	SONGINOKHAIRKHAN
6	The 76th School	SONGINOKHAIRKHAN
7	The 28th School	BAYANGOL
8	The 94th School	BAGAKHANGAI
9	The 84th School	BAYANZURKH
10	The 65th School	SONGINOKHAIRKHAN
11	The 20th School	BAYANGOL
12	The 72nd School	CHINGELTEI
13	The 60th School	KHAN-UUL
4	The 5th School	CHINGELTEI
15	The 58th School	SUKHBAATAR
16	The 97th School	BAYANZURKH
17	The 21st School	BAYANZURKH
18	The 13th School	BAYANGOL
19	The 40th School	BAYANGOL
20	The 73rd School	BAYANGOL
21	The 32nd School	KHAN-UUL
22	The 18th School	KHAN-UUL
23	The 52nd School	KHAN-UUL
24	Buyant Ukhaa United School	KHAN-UUL
25	The 1st School	SUKHBAATAR
26	The 9th School	SONGINOKHAIRKHAN
27	The 75th School	KHAN-UUL
28	The 105th School	SONGINOKHAIRKHAN
29	The 33rd School	BAYANZURKH
30	The 14th School	BAYANZURKH
31	The 46th School	BAYANGOL
32	The 92nd School	BAYANZURKH
33	The 10th School	KHAN-UUL
34	The 87th School	BAYANZURKH
35	The 48th School	BAYANZURKH

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Annex-2 Requested Components

1 Buildings

- (1) Classrooms**
- (2) Staff Rooms**
- (3) Sanitation Facilities**

2 Equipment

- (1) Desks and Chairs**
- (2) Educational Materials and Equipment**

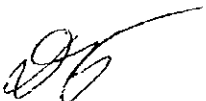
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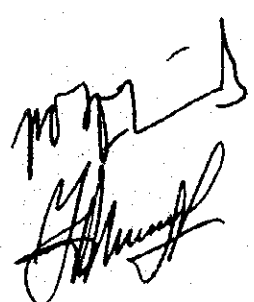


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Annex-3 Criteria for the Site Selection

1. Give a priority to the site which urgently needs the extension of classrooms because overcrowding cannot be dissolved even if the double shift session and/or multi-grade session are adopted.
2. Give a priority to the site which urgently needs the reconstruction of normal classrooms because of over aging and/or damage of the existing buildings.
3. Give a priority to the site whose present and future demand for primary education facilities is quantitatively estimated by the data of the number of school-aged children, access rate to primary education and so on.
4. Give a priority to the site for which UBC shall be able to keep enough teachers, staff and budget to run and maintain properly.
5. Any plan for school construction either by the MOSTEC, UBC or international / bilateral donors should not be made at the same project site.
6. The legal rights for using a project site and site clearance must be secured by the UBC.
7. Proper access road must exist in order to carry construction materials and equipment into each project site.
8. A project site which is topographically inappropriate for construction (e.g. steep land, swamp, etc.) shall be eliminated.
9. A project site where natural and environmental or social hazards which endangers the workers safety during the implementation of the project will foreseen shall be eliminated.

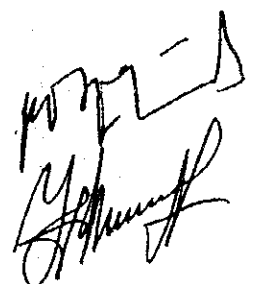
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Annex-4 Principle for the Design of Buildings and Equipment

- 1. Buildings and Equipment will be designed to achieve the purpose of the project and to maximize its effect, respecting the standards and laws of educational facilities in Mongolia.**
- 2. Buildings and Equipment will be designed to match with the natural environment, social conditions and educational policies in the target areas.**
- 3. Buildings and Equipment should satisfy the minimal functions as basic educational facilities.**
- 4. Buildings and Equipment should secure the enough durability against predictable natural disaster.**
- 5. Buildings and Equipment will be designed to be maintained by no special skill and easily procurable spare parts.**

ЖАА



Annex-5 Japan's Grant Aid Scheme

1. Grant Aid Procedures

1) Japan's Grant Aid Program is executed through the following procedures.

- Application (Request made by the recipient country)
- Study (Basic Design Study conducted by JICA)
- Appraisal & Approval (Appraisal by the Government of Japan and Approval by the Cabinet)
- Determination of Implementation (The Note exchanged between the Governments of Japan and the recipient country)

2) Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA (Japan International Cooperation Agency) to conduct a study on the request.

Secondly, JICA conducts the study (Basic Design Study) using (a) Japanese consulting firm(s).

Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Program, based on the Basic Design Study report prepared by JICA, and the results are then submitted to the Cabinet for approval.

Fourthly, the project, once approved by the Cabinet, becomes official with the Exchange of Notes signed by the Government of Japan and the recipient country.

Finally, for the implementation of the project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.

2. Basic Design Study

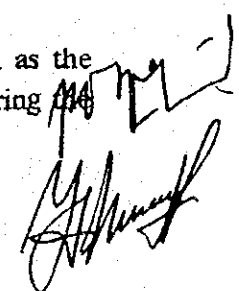
1) Contents of the study

The aim of the Basic Design Study (hereafter referred to as "the Study") conducted by JICA on a requested project (hereafter referred to as "the Project") is to provide a basic document necessary for the appraisal of the Project by the Government of Japan. The contents of the Study are as follows :

- a) Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation.
- b) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social and economic point of view.
- c) Confirmation of items agreed on by both parties concerning the basic concept of the Project.
- d) Preparation of a basic design of the Project.
- e) Estimation of costs of the Project.

The contents of the original request are not necessarily approved in their initial form as the contents of the Grant Aid project. The Basic Design of the Project is confirmed considering the guidelines of the Japan's Grant Aid Scheme.

7774

The Government of Japan requests the Government of the recipient country to take whatever measures are necessary to ensure its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the organization in the recipient country actually implementing the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country through the Minutes of Discussions.

2) Selection of Consultants

For smooth implementation of the Study, JICA uses (a) registered consultant firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms. The selected firm(s) carry(ies) out a Basic Design Study and write(s) a report, based upon terms of reference set by JICA. The consultant firm(s) used for the Study is(are) recommended by JICA to the recipient country to also work on the Project's implementation after the Exchange of Notes, in order to maintain technical consistency.

3. Japan's Grant Aid Scheme

1) What is Grant Aid?

The Grant Aid Program provides a recipient country with non-reimbursable funds to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for economic and social development of the country under principles in accordance with the relevant laws and regulations of Japan. Grant Aid is not supplied through the donation of materials as such.

2) Exchange of Notes (E/N)

Japan's Grant Aid is extended in accordance with the Notes exchanged by the two Governments concerned, in which the objectives of the Project, period of execution, conditions and amount of the Grant Aid are confirmed.

3) "The period of the Grant Aid" means the one fiscal year which the Cabinet approves the Project for. Within the fiscal year, all procedures such as exchanging of the Notes, concluding contracts with (a) consultant firm(s) and (a) contractor(s) and final payment to them must be completed. However, in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Governments.

4) Under the Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant Aid may be used for the purchase of the products or services of a third country.

However, the prime contractors, namely, consulting, constructing and procurement firms, are limited to "Japanese nationals." (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons of Japanese nationality.)

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5) Necessity of "Verification"

The Government of recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan. This "Verification" is deemed necessary to secure accountability to Japanese taxpayers.

6) Undertakings required of the Government of the Recipient Country

In the implementation of the Grant Aid Project, the recipient country is required to undertake such necessary measures as the following:

- (1) To secure land necessary for the sites of the Project and to clear, level and reclaim the land prior to commencement of the construction.
- (2) To provide facilities for the distribution of electricity, water supply and drainage and other incidental facilities in and around the sites.
- (3) To secure buildings prior to the procurement in case the installation of the equipment.
- (4) To ensure all the expenses and prompt excursion for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid.
- (5) To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts.

7) "Proper Use"

The recipient country is required to maintain and use the facilities constructed and the equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for this operation and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.

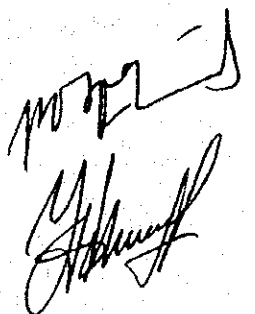
8) "Re-export"

The products purchased under the Grant Aid should not be re-exported from the recipient country.

9) Banking Arrangements (B/A)

- a) The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in a bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the Verified Contracts.
- b) The payments will be made when payment requests are presented by the Bank to the Government of Japan under an authorization to pay issued by the Government of the recipient country or its designated authority.

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Annex-6 Necessary Measures to be taken by the Mongolian Side

Following necessary measures should be taken by the Mongolian side on condition that the Grant Aid by the Government of Japan is extended to the Project:

1. Ulaanbaatar City (UBC) should prepare the land for the Project and secure the legal rights to build facilities.
2. UBC should secure, clear, level and reclaim the site for the Project prior to its implementation.
3. UBC should provide proper access road to the Project area, if necessary.
4. UBC should remove the existing facilities, if necessary. However, The MOSTEC and UBC should guarantee the school lessons even for the construction period.
5. UBC should undertake incidental outdoor works, such as landscaping, fencing, exterior lighting and others in and around the Project site, if necessary.
6. UBC should provide electricity, water, telephone, drainage, sewage and other incidental facilities into the Project site borderline, if necessary.
7. The MOSTEC and UBC should allocate appropriate budget and teaching and administrative staff for proper and effective operation and maintenance of buildings and equipment provided under the Project.
8. Mongolian side should bear commissions to a Japanese bank for its banking services based upon the Banking Arrangement, namely the advising commission of the "Authorization to Pay" and payment commission.
9. Mongolian side should ensure prompt unloading, tax exemption, customs clearance at the port of disembarkation and prompt internal transportation therein of the materials and equipment for the Project purchased under the Grant Aid.
10. Mongolian side should exempt Japanese juridical and physical nationals engaged in the Project from customs duties, internal taxes and other fiscal levies which may be imposed in Mongolia with respect to the supply of the products and services under the verified contracts.
11. Mongolian side should accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into Mongolia and stay therein for the performance of their work in accordance with the relevant laws and regulations in Mongolia.
12. Mongolian side should provide necessary permissions, licenses and other authorizations for implementing the Project, if necessary.
13. Mongolian side should bear all the expenses, other than those to be borne by the Japan's Grant Aid within the scope of the Project.
14. The MOSTEC and UBC should carry on the activities to maximize the effect of the Project such as teacher training, curriculum development, text book distribution and so on.
15. The MOSTEC and UBC should make effort to gain its self-reliance and accountability.
16. The MOSTEC should monitor and supervise regularly the operation and maintenance activities for the buildings and equipment provided under the Project by UBC, local communities and school committees. The MOSTEC should always find out where the responsibility for the proper use in the facilities.

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Minutes of Discussions
on
Basic Design Study on the Project for
the Improvement of Primary Education Facilities
in
Mongolia
(Explanation on Draft Report)

In May 1999, the Japan International Cooperation Agency (hereinafter referred to as 'JICA') dispatched a Basic Design Study Team on the Project for the Improvement of Primary Education Facilities in Mongolia (hereinafter referred to as "the Project"), and through discussion, field survey, and technical examination of the results in Japan, JICA prepared a draft report of the Study.

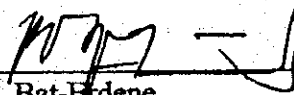
In order to explain and consult with the officials concerned from the Government of Mongolia on the components of the draft report, JICA sent to Mongolia the Draft Report Explanation Team (hereinafter referred to as 'the Team'), headed by Mr. Kenji Matsumoto, Resident Representative, JICA Mongolia Office from 24th August to 1st September, 1999.

As a result of discussions and field survey, both parties confirmed the main items described on the attached sheets.

Ulaanbaatar, 30th August, 1999



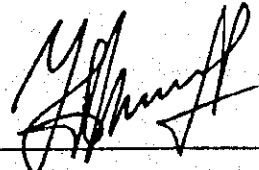
Mr. Kenji Matsumoto
Leader
Draft Report Explanation Team
Japan International Cooperation Agency



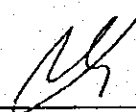
Mr. R. Bat-Erdene
State Secretary
Ministry of Science, Technology, Education and
Culture
Mongolia



Mr. D. Boldbaatar
Director
Department of Foreign Trade and
Economic Cooperation
Ministry of External Relations
Mongolia



Mr. Y. Munkhjargal
Vice Governor
The Capital City Governor's Office
Mongolia



Mr. L. Dashdorj
Director
Budget Policy Department
Ministry of Finance
Mongolia

ATTACHMENT

1. Components of the Draft Basic Design Report

The Government of Mongolia agreed and accepted in principle the components of the draft report explained by the Team.

2. Contents of the Items of the Project

Both sides have confirmed the sixteen (16) sites and each item which will be constructed or procured under the Japanese Grant Aid attached as Annex-1.

3. Japan's Grant Aid Programme

The Mongolian side understands the Japan's Grant Aid Scheme as explained by the Team and described in Annex-5 of the Minutes of Discussions signed by both parties on 25th May, 1999.

4. Necessary Measures to be Taken by the Mongolian Side

- (1) The Mongolian side will take necessary measures described in Annex-2 for the smooth implementation of the Project, on the condition that Japan's grant aid is extended to the Project.
- (2) UBC will complete all the necessary measures for expected project sites in phase 1 by March 2000, phase 2 by October 2000, and phase 3 by October 2001.
- (3) UBC will assign (an) officer(s) who will be responsible for the administrative work during the implementation stage of the Project.
- (4) The MOSTEC and UBC will allocate appropriate budget, teaching and administrative staff to ensure the proper and effective operation and maintenance of the buildings and equipment provided under the Project.
- (5) UBC will get the permission on the location of the new school buildings by 9th September, 1999.
- (6) The Mongolian side will exempt Japanese juridical and physical nationals engaged in the Project from customs duties, internal taxes including VAT, and other fiscal levies which may be imposed in Mongolia regarding the supply of products and services under verified contracts.

5. Schedule of the Study

JICA will complete a final report of the Study in accordance with the confirmed items, and send Mongolia by November, 1999.

Annex-1 List of Sites and Items to be provided under the Japanese Grant Aid Project

I. Sites

- | | |
|--|------------------|
| 1. The 62nd School | SONGINOKHAIRKHAN |
| 2. The 37th School | CHINGELTEI |
| 3. The 67th School | SONGINOKHAIRKHAN |
| 4. The 76th School | SONGINOKHAIRKHAN |
| 5. The 28th School | BAYANGOL |
| 6. The 94th School | BAGAKHANGAI |
| 7. The 65th School | SONGINOKHAIRKHAN |
| 8. The 72nd School | CHINGELTEI |
| 9. TSETSEE GUN S.D.
(former 60th School) | KHAN-UUL |
| 10. The 58th School | SUKHBAATAR |
| 11. The 13th School | BAYANGOL |
| 12. BUYANT UKHAA S.D.
(former 7th School) | KHAN-UUL |
| 13. The 9th School | SONGINOKHAIRKHAN |
| 14. The 105th School | SONGINOKHAIRKHAN |
| 15. SETGEMJ S.D.
(former 46th School) | BAYANGOL |
| 16. The 92nd School | BAYANZURKH |

II. Items

1. Buildings

- (1) Classrooms
- (2) Staff Rooms
- (3) Sanitation Facilities

2. Equipment

- (1) Desks and Chairs
- (2) Education Materials and Equipment
- (3) Maintenance Equipment

Annex-2 Necessary Measures to be taken by the Mongolian Side

Following necessary measures should be taken by the Mongolian side on condition that the Grant Aid by the Government of Japan is extended to the Project:

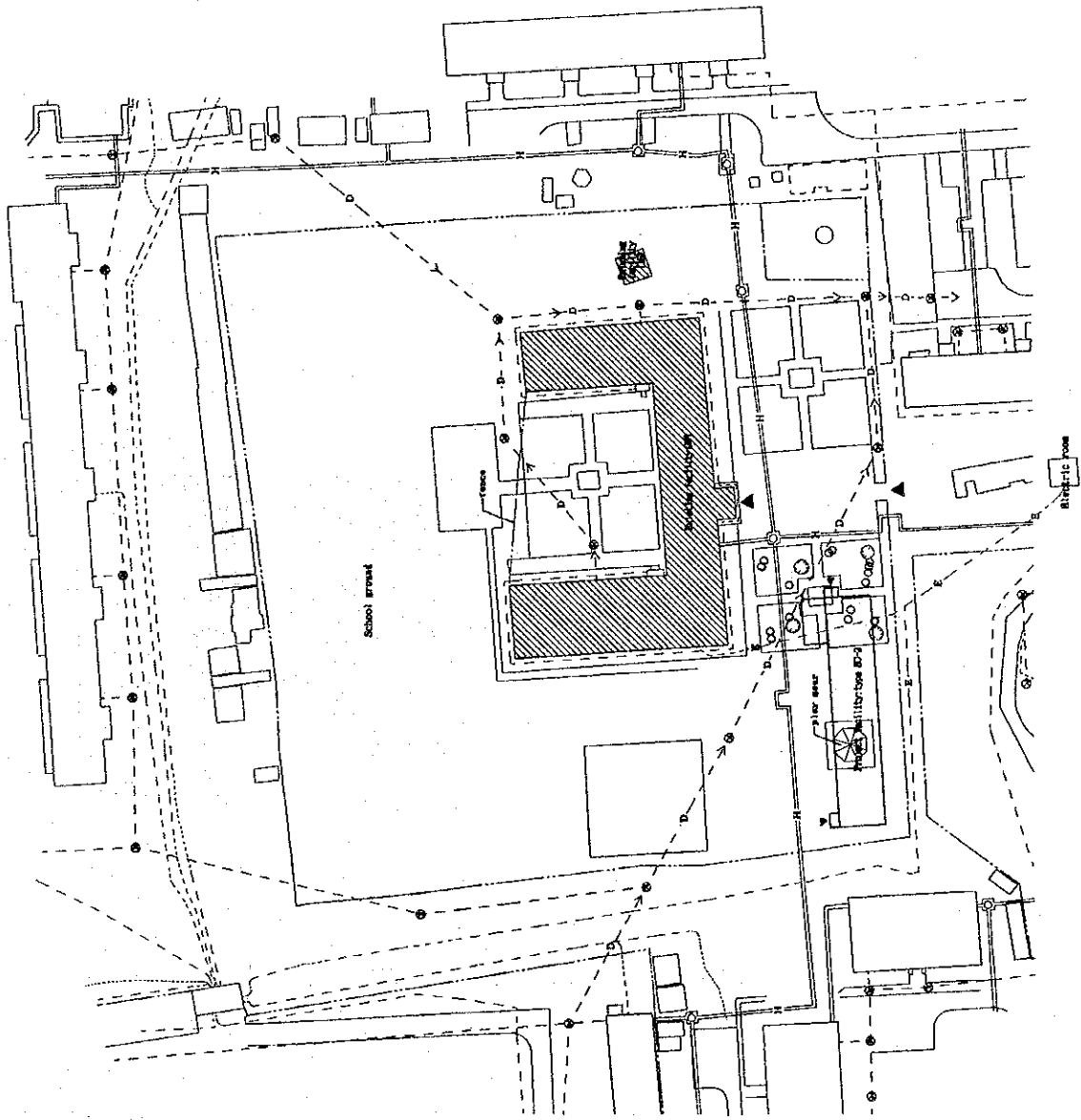
1. Ulaanbaatar City (UBC) should prepare the land for the Project and secure the legal rights to build facilities.
2. UBC should secure, clear, level and reclaim the site for the Project prior to its implementation.
3. UBC should provide proper access road to the Project area, if necessary.
4. UBC should remove the existing facilities, if necessary. However, the MOSTEC and UBC should guarantee the school lessons even for the construction period.
5. UBC should undertake incidental outdoor works, such as landscaping, fencing, exterior lighting and others in and around the Project site, if necessary.
6. UBC should provide electricity, water, telephone, drainage, sewage and other incidental facilities into the Project site borderline, if necessary.
7. The MOSTEC and UBC should allocate appropriate budget and teaching and administrative staff for proper and effective operation and maintenance of buildings and equipment provided under the Project.
8. UBC should bear commissions to a Japanese bank for its banking services based upon the Banking Arrangement, namely the advising commission of the "Authorization to Pay" and payment commission.
9. Mongolian side should ensure prompt unloading, tax exemption, customs clearance at the port of disembarkation and prompt internal transportation therein of the materials and equipment for the Project purchased under the Grant Aid.
10. Mongolian side should exempt Japanese juridical and physical nationals engaged in the Project from customs duties, internal taxes including VAT, and other fiscal levies which may be imposed in Mongolia with respect to the supply of the products and services under the verified contracts.
11. Mongolian side should accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into Mongolia and stay therein for the performance of their work in accordance with the relevant laws and regulations in Mongolia..
12. Mongolian side should provide necessary permissions, licenses and other authorizations for implementing the Project, if necessary.
13. Mongolian side should bear all the expenses, other than those to be borne by the Japan's Grant Aid within the scope of the Project.
14. The MOSTEC and UBC should carry on the activities to maximize the effect of the Project such as teacher training, curriculum development, text book distribution and so on.
15. The MOSTEC and UBC should make effort to gain its self-reliance and accountability.
16. The MOSTEC should monitor and supervise regularly the operation and maintenance activities for the buildings and equipment provided under the Project by UBC, local communities and school committees. The MOSTEC should always find out where the responsibility for the proper use in the facilities lies.

5. ESTIMATION OF COSTS TO BE BORNE BY MONGOLIA

School	Site Measurement	Demolition and Removal of Obstacles				Within the Site			Outside		Total
		Surface obstacles removal	Elec pipe cut & relocation	Water pipe cut & relocation	Sewage pipe cut & relocation	Grading	Heating pipe connection	Sewage pipe connection	Elec power intake	Water intake	
Phase 1											
No. 62 School		500,000	1,636,000				287,250	194,000	501,000	164,500	
No.65 School		500,000	1,770,000				315,000		633,000		
No.72 School	1,000,000						315,000		164,000	171,000	
No.58 School							315,000		488,000		
No.13 School		200,000					287,000	2,150,000	496,000	147,000	
Buyant Ukhaa S.D. (Ex No.7)						1,800,000	287,000		322,000		
	1000000	1,200,000	3,406,000	0	0	1,800,000	1,806,250	2,344,000	2,604,000	482,500	14,642,750
Phase 2											
No.67 School	1,000,000	1,000,000	2,521,000				315,000		684,000		
No.37 School		500,000	1,500,000			1,500,000	315,000		653,000		
SETGEMJ. S.D (Ex No.46)		500,000					315,000	1,358,000	2,025,000		
TSETSEE.GUN S.D. (Ex No.60)							315,000		2,000,000		
No.76 School		500,000	821,000				315,000		588,000		
	1,000,000	2,500,000	4,842,000	0	0	1,500,000	1,575,000	1,358,000	5,950,000	0	18,725,000
Phase 3											
No.94 School							238,000	194,000	154,000		
No.9 School	1,000,000		3,172,000			4,500,000	315,000	194,000	2,000,000		
No.105 School	1,000,000				7,363,000		315,000		284,000	179,000	
No.92 School	1,000,000				4,136,000	4,200,000	315,000		639,000	179,000	
No.28 School		500,000					287,000	4,032,000	368,000	165,000	
	3,000,000	500,000	3,172,000	0	11,499,000	8,700,000	1,470,000	4,420,000	3,445,000	523,000	36,729,000

6. OTHER RELEVANT DATA

(1) Plot Plan of Each Site



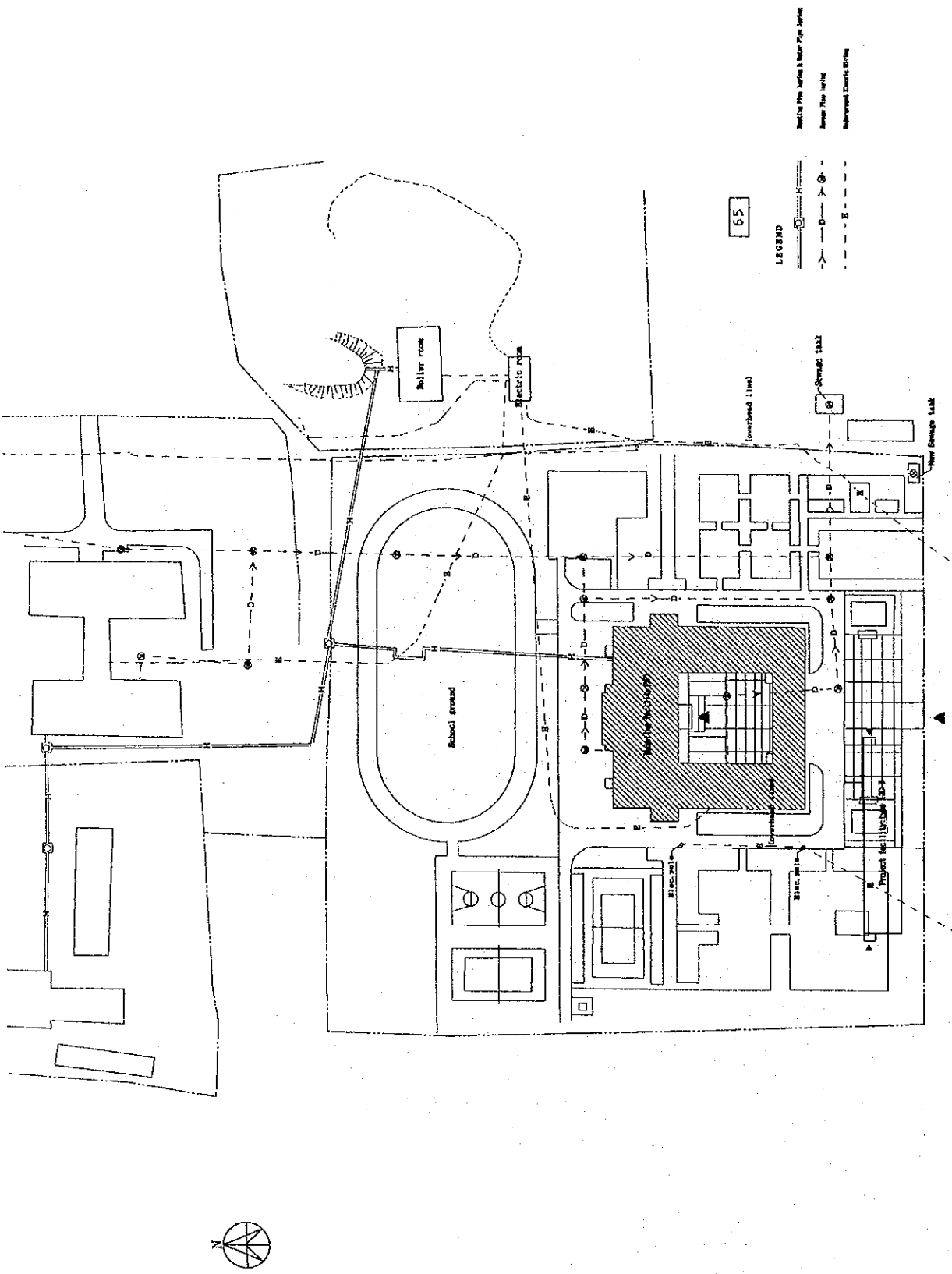
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LEGEND

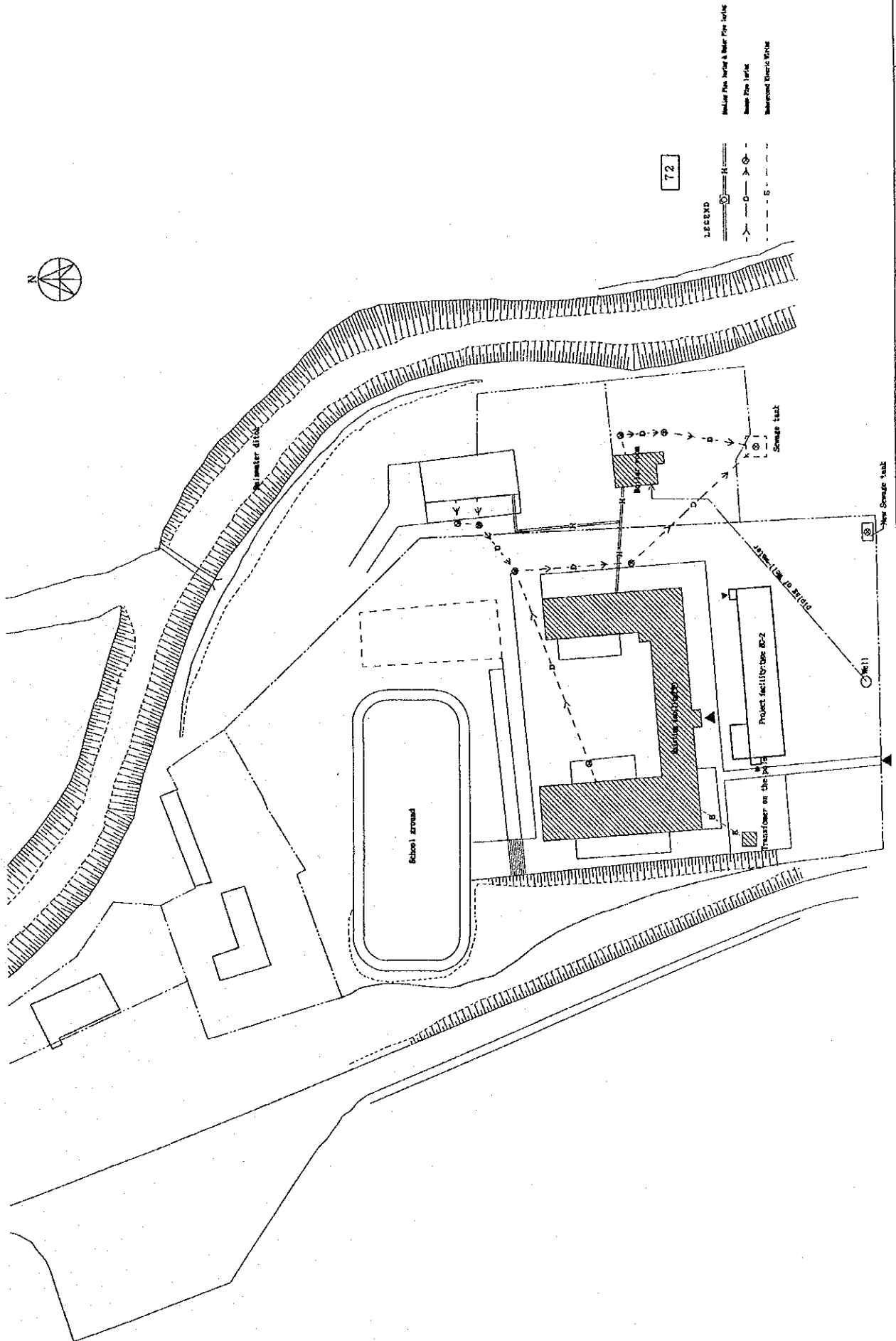
- (with circle) --- Inside the fence & Water Pipe Mark
- (with circle) --- Outside the fence
- (with circle) --- Measurement Electric Wiring

No. of site : 65
 Name of Daureg :
 Scale 1:1000

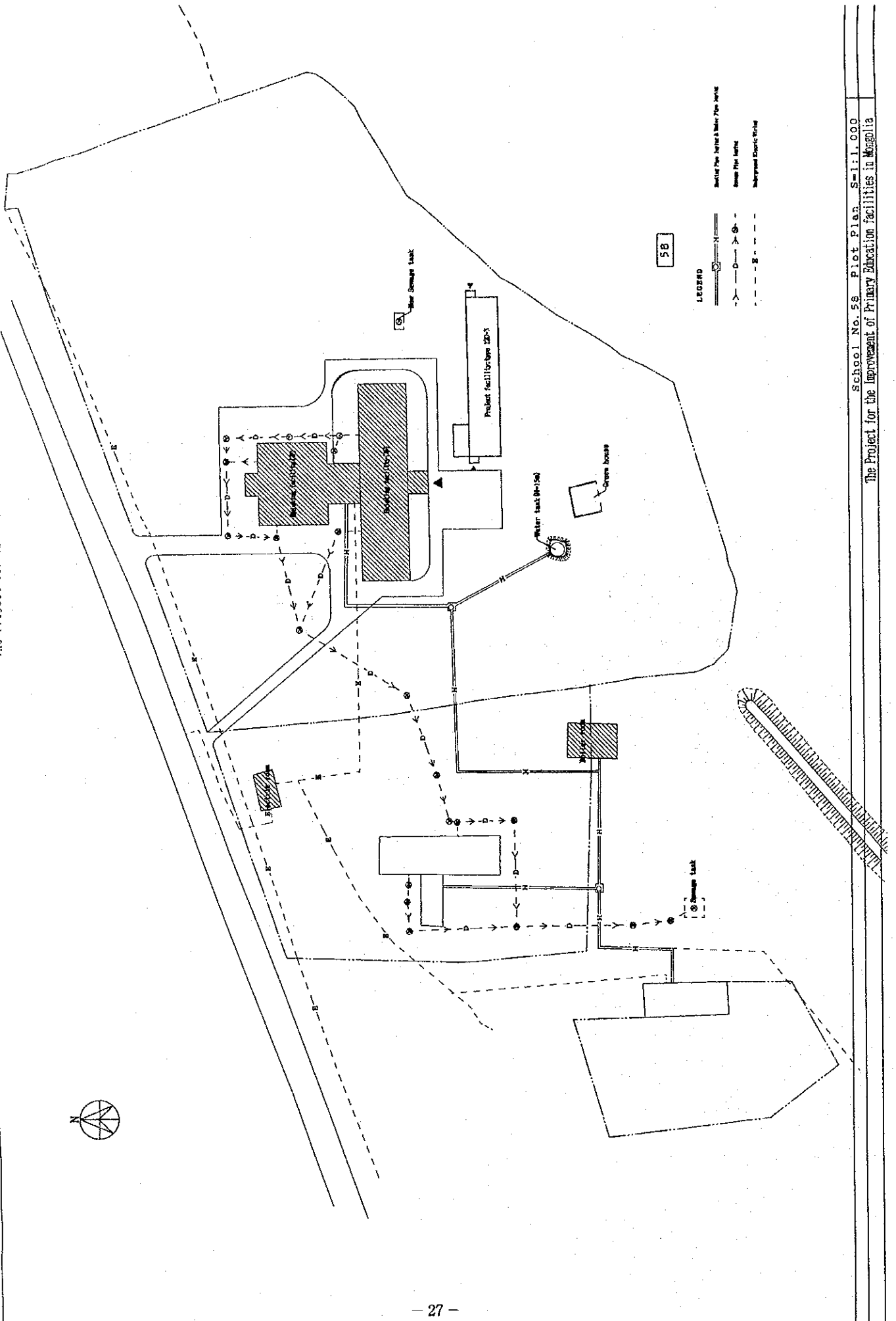
The Project for the Improvement of Primary Education Facilities in Wonsella / Plot Plan



School No. 65 Plot Plan Selli. 000
 The Project for the Improvement of Primary Education Facilities in Wonsella



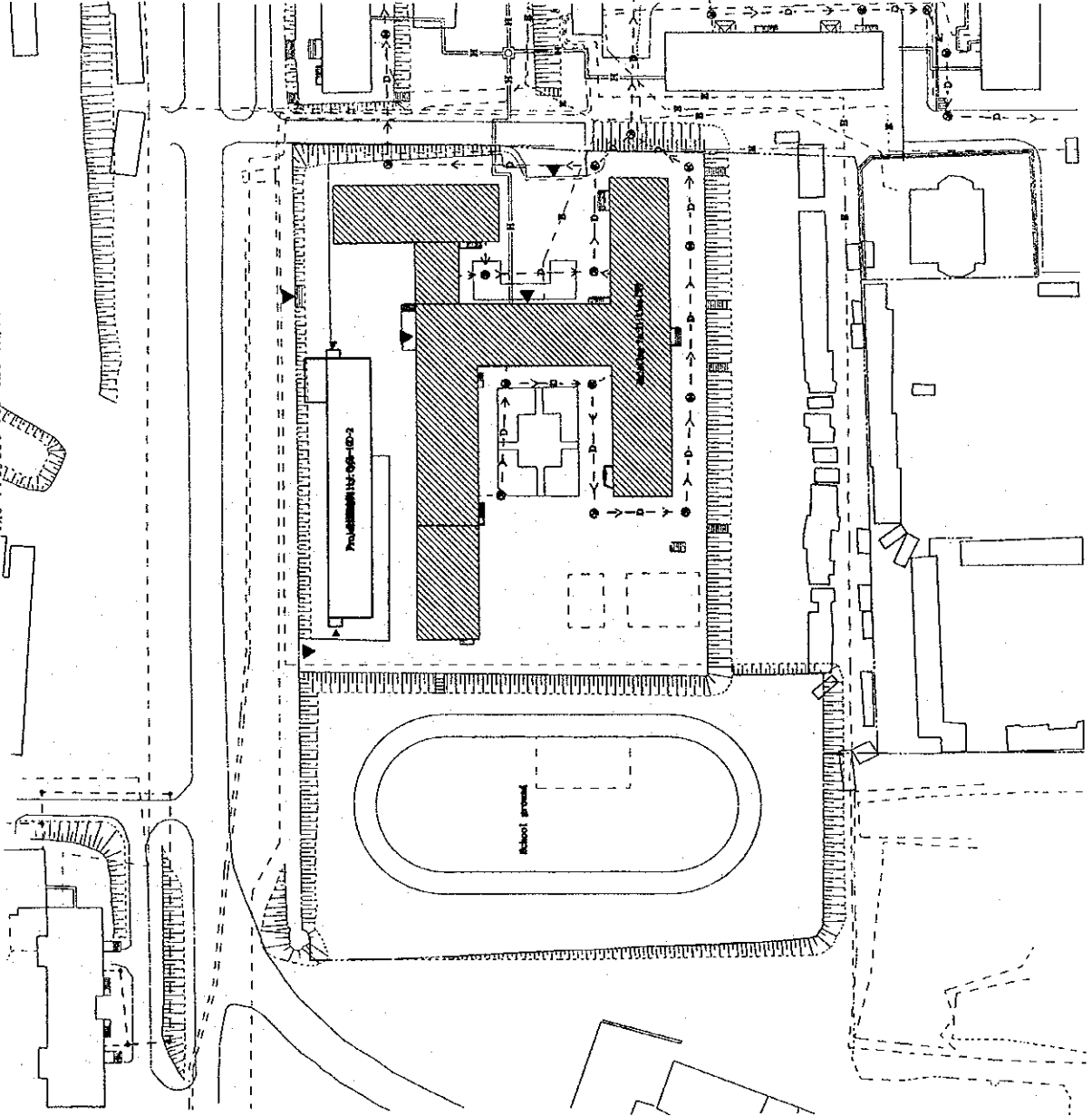
No. of site : 58
 Name of District :
 The Project for the improvement of Primary Education Facilities in Mongolia / Plot plan
 Scale 1:1,000



School No. 58 Plot Plan S-1:1,000
 The Project for the Improvement of Primary Education Facilities in Mongolia

No. of site : 13
 Name of District :
 Scale : 1:1000

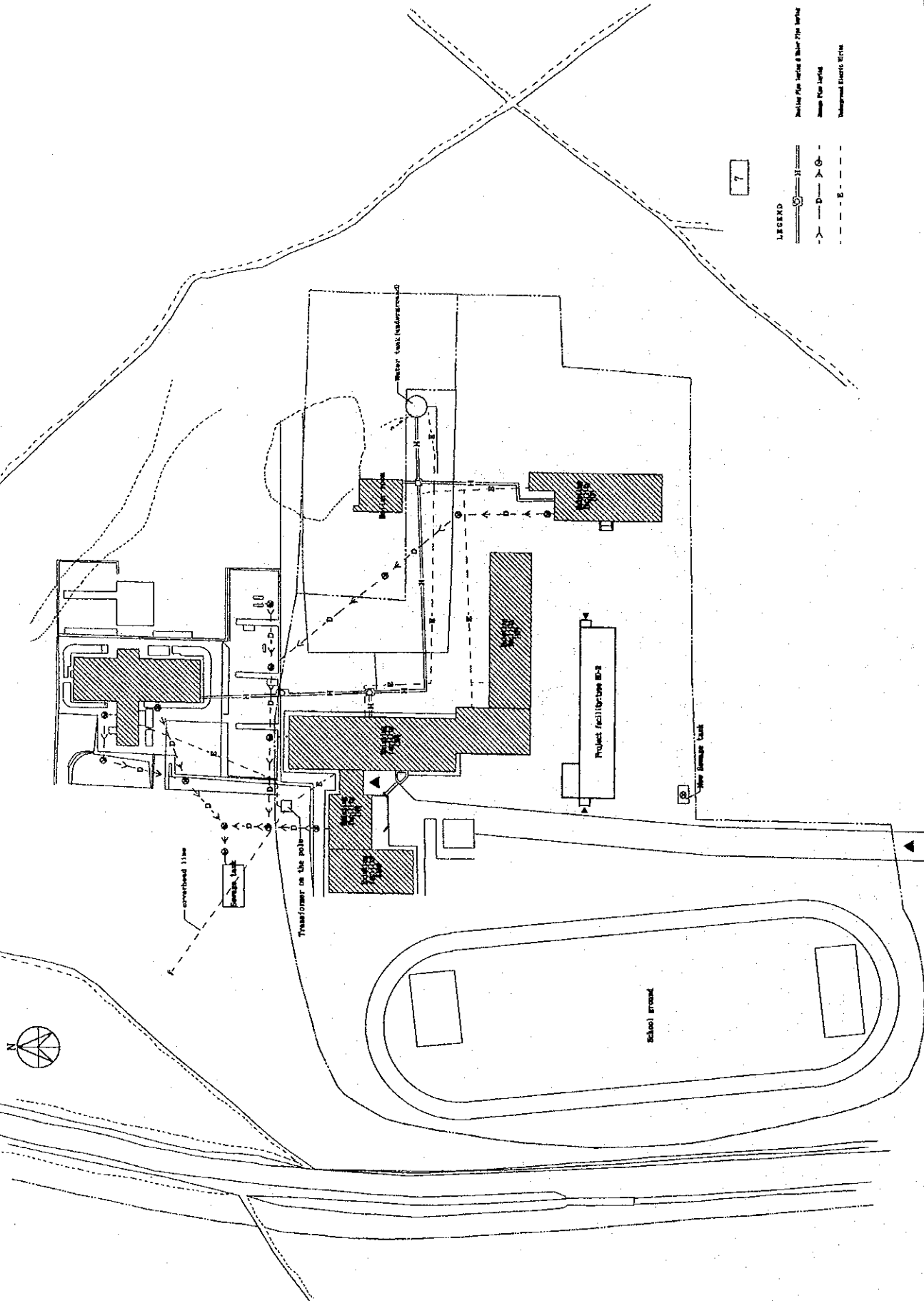
The Project of the Improvement of Primary Education Facilities in Mongolia / Pilot Plan



13

- LEGEND
- H — Existing Pipe Lines & Water Pipe Lines
 - A — A — Existing Sewer Lines
 - B — B — Proposed Electric Lines

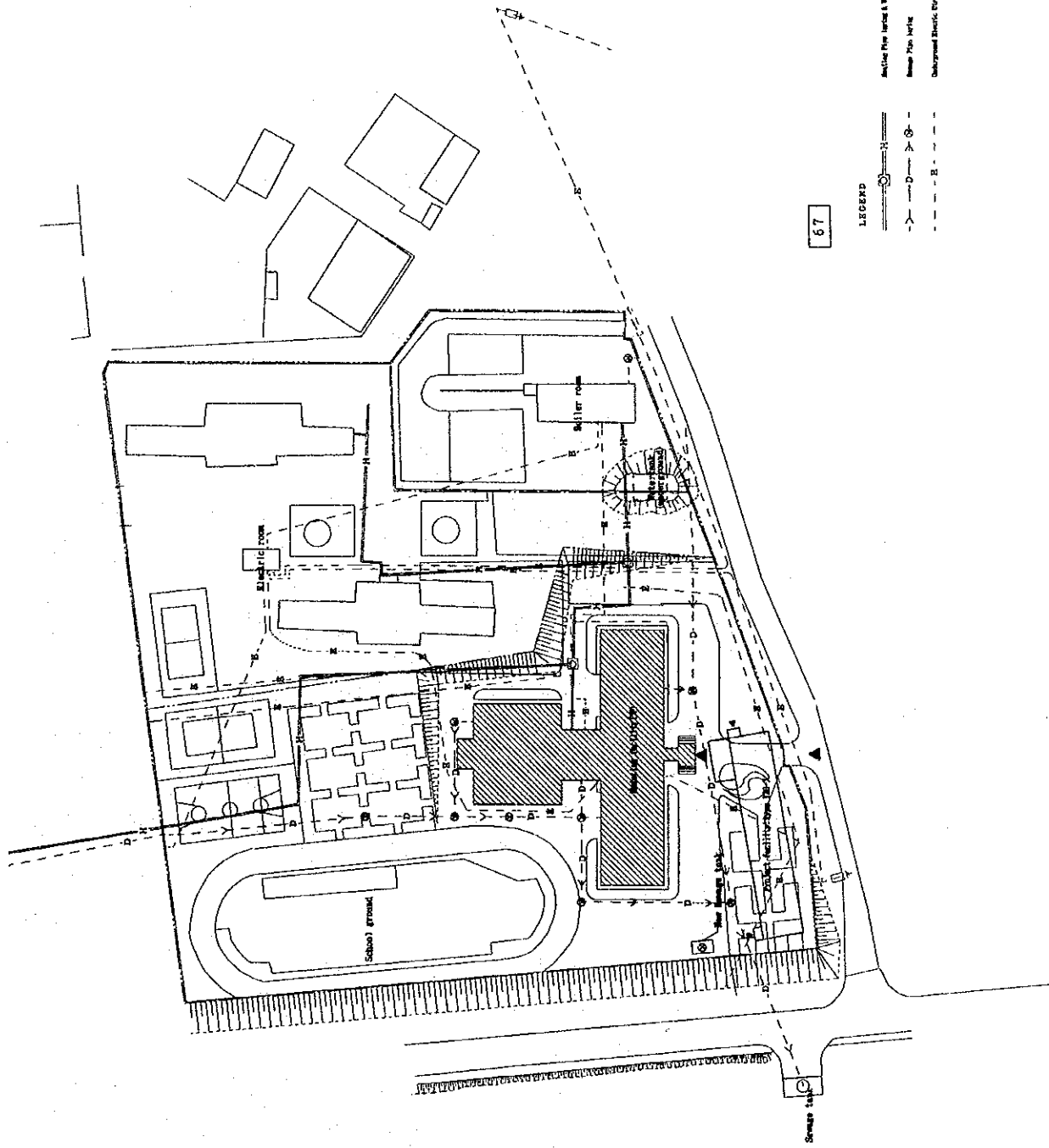
School No. 13 Pilot Plan S=1:1,000
 The Project for the Improvement of Primary Education Facilities in Mongolia



LEGEND

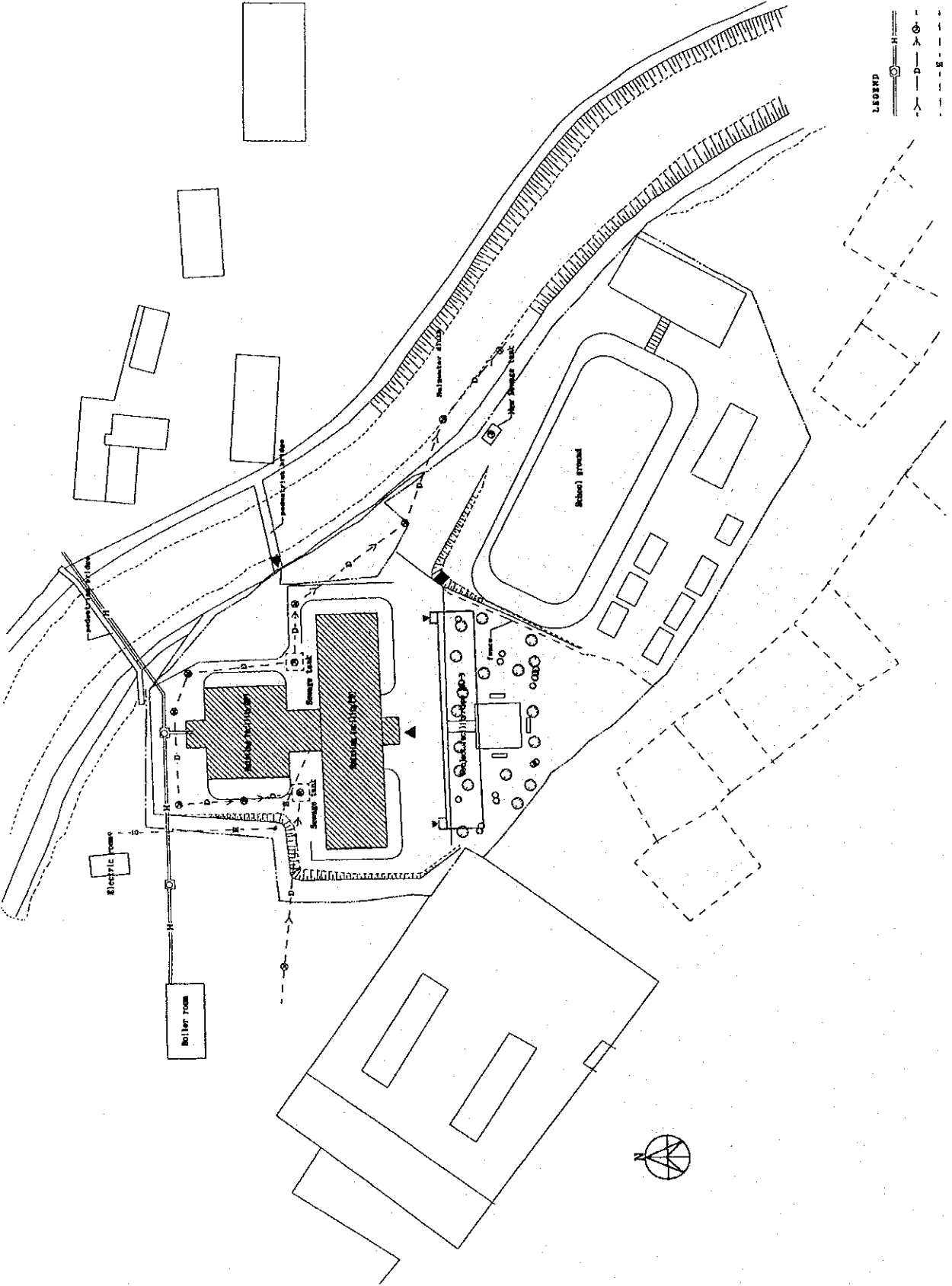
- Water supply
- Power
- Drainage

The Project for the Improvement of Primary Education Facilities in Mongolia / Plot plan



67

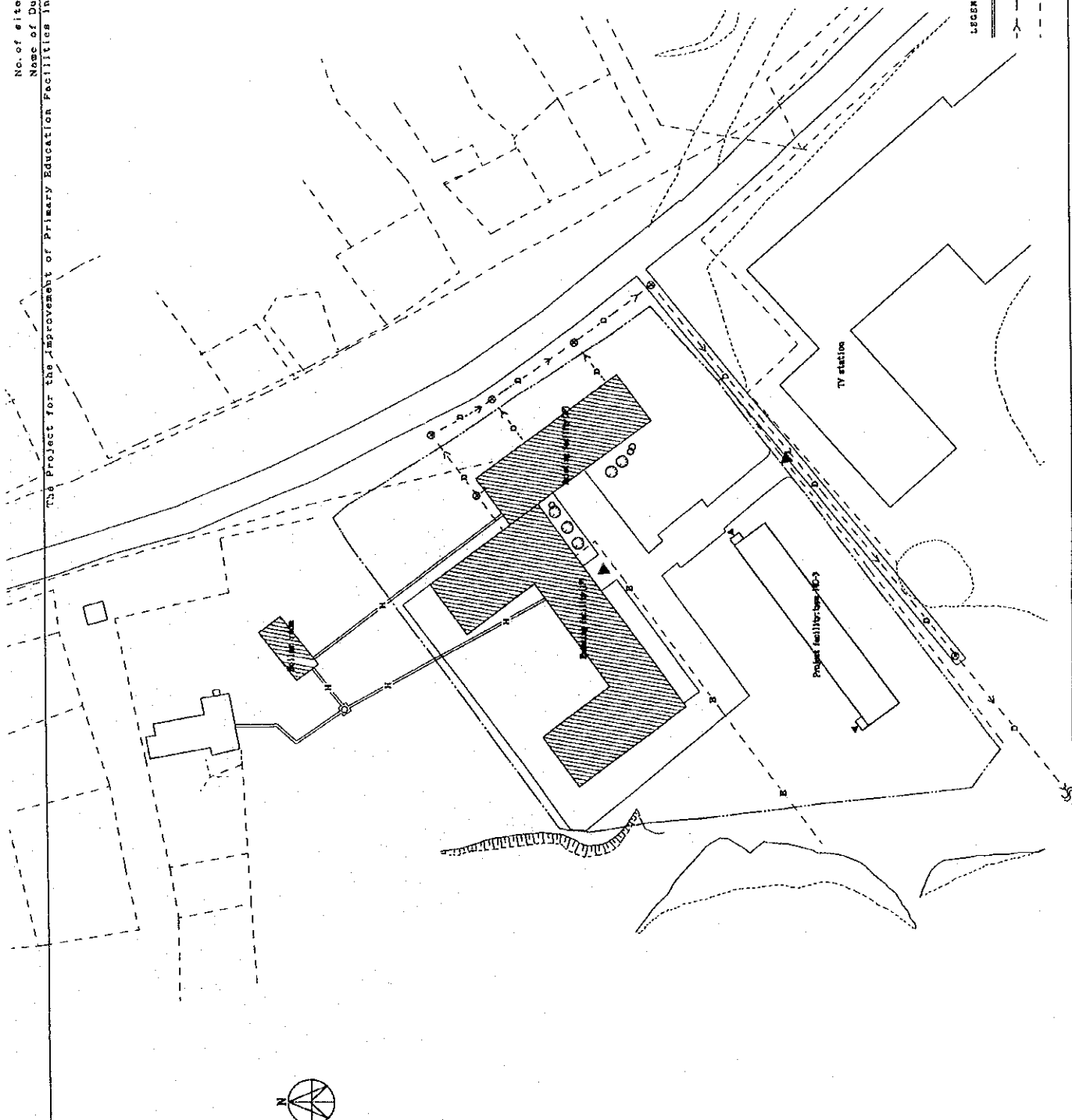
- LEGEND
- Active Pipe lines & Water Pipe Wells
 - Water Pipe Wells
 - Underground Electric Wiring



37

LEGEND

- ▬▬▬▬ Heating Pipe (with a boiler pipe symbol)
- ▬▬▬▬ Sewerage Pipe (with a pipe symbol)
- — — — — Water supply pipe (with a pipe symbol)
- — — — — Improvement Electric Wire (with a dashed line symbol)

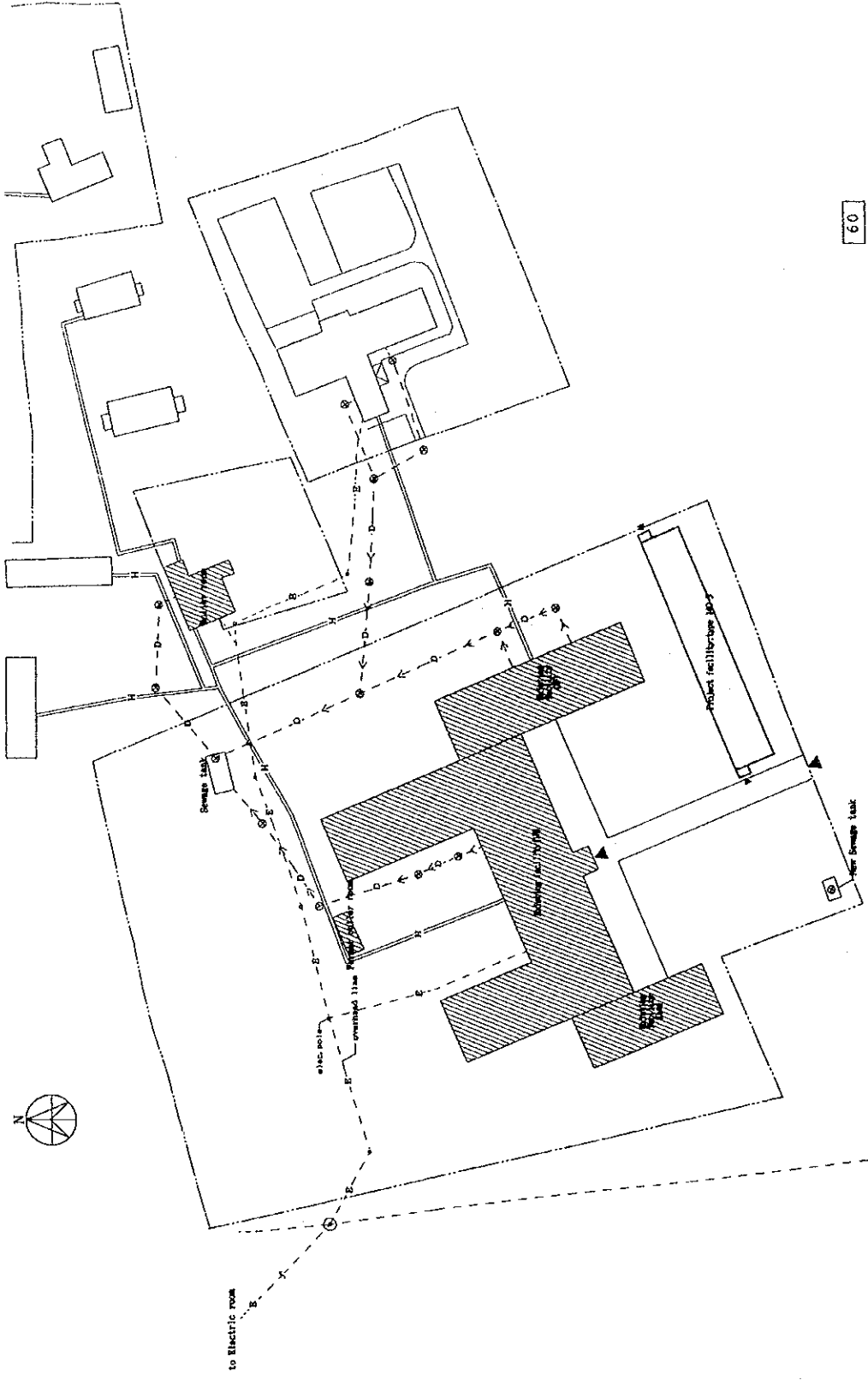


46

LEGEND

- Water Pipe (Water & Sewer Pipe)
- Sewer Pipe
- Improved Electric Wire

School No. 46 Plot Plan Scale 1:1000
 The Project for the Improvement of Primary Education Facilities in Mongolia

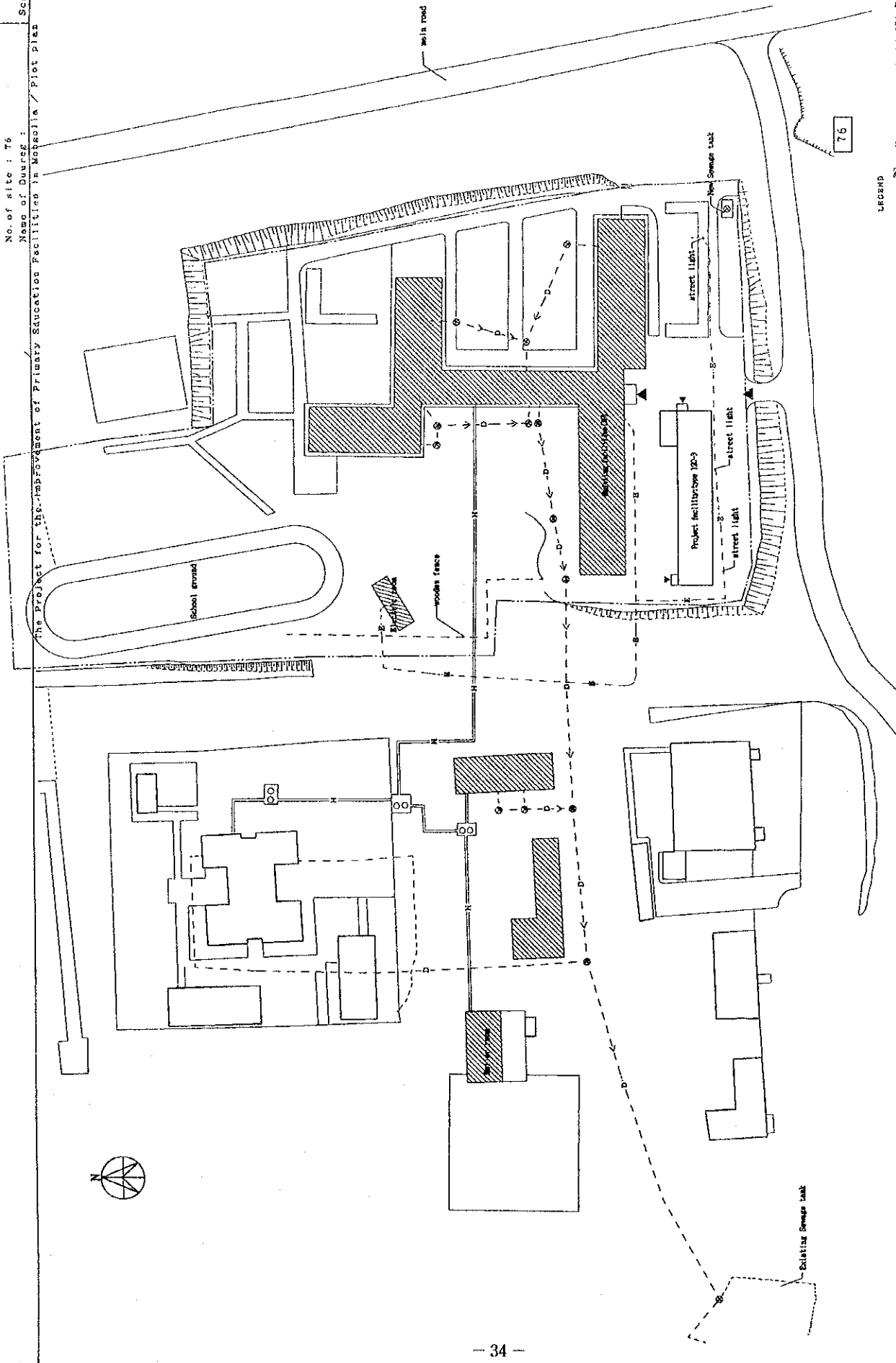


60

- LEGEND
- Water Pipe (Solid & Water Pipe Center)
 - Sewer Pipe (Solid)
 - Underground Electric Wiring

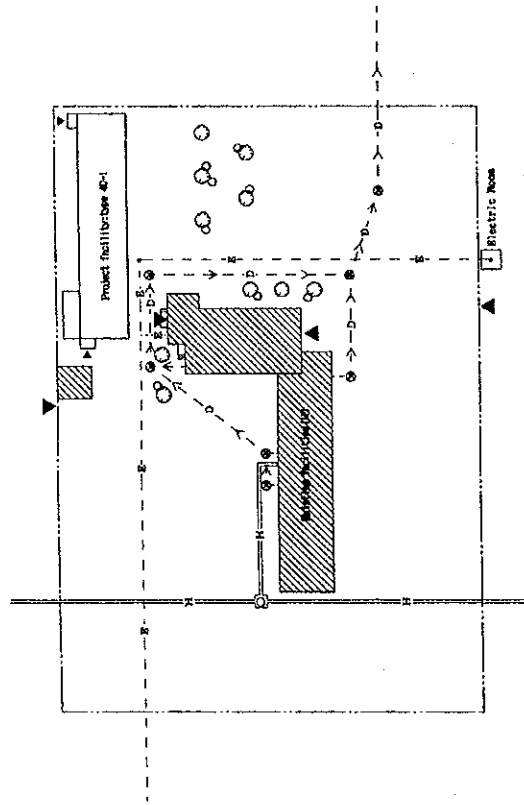
Wall Int

No. of site : 76
 Name of District :
 The Project for the Improvement of Primary Education Facilities in Mongolia / Plot plan
 Scale 1:1000



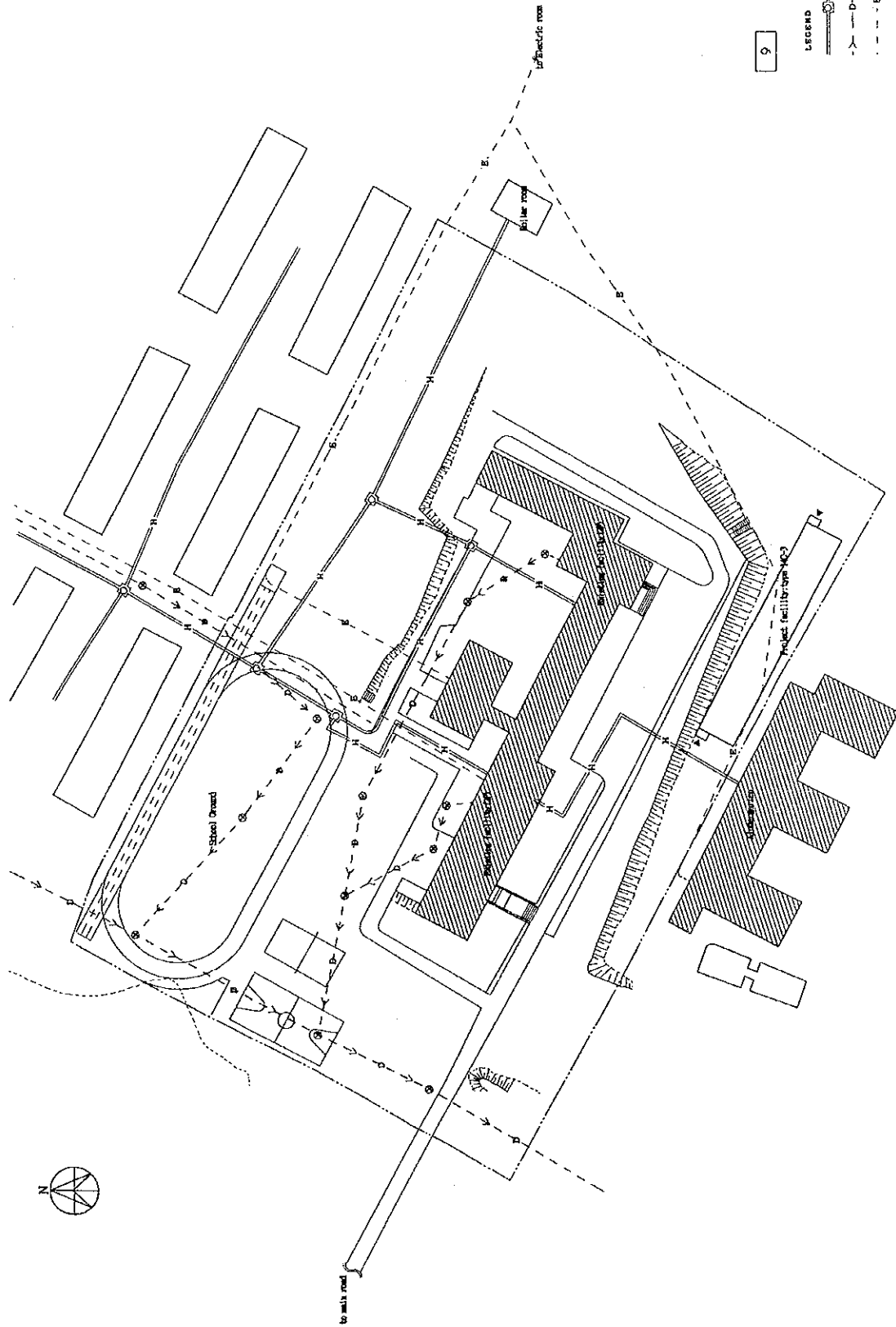
- LEGEND
- Water pipes
 - Electricity
 - Gas
 - Sewer
 - Street lights
 - Wells
 - Existing Sewage tank

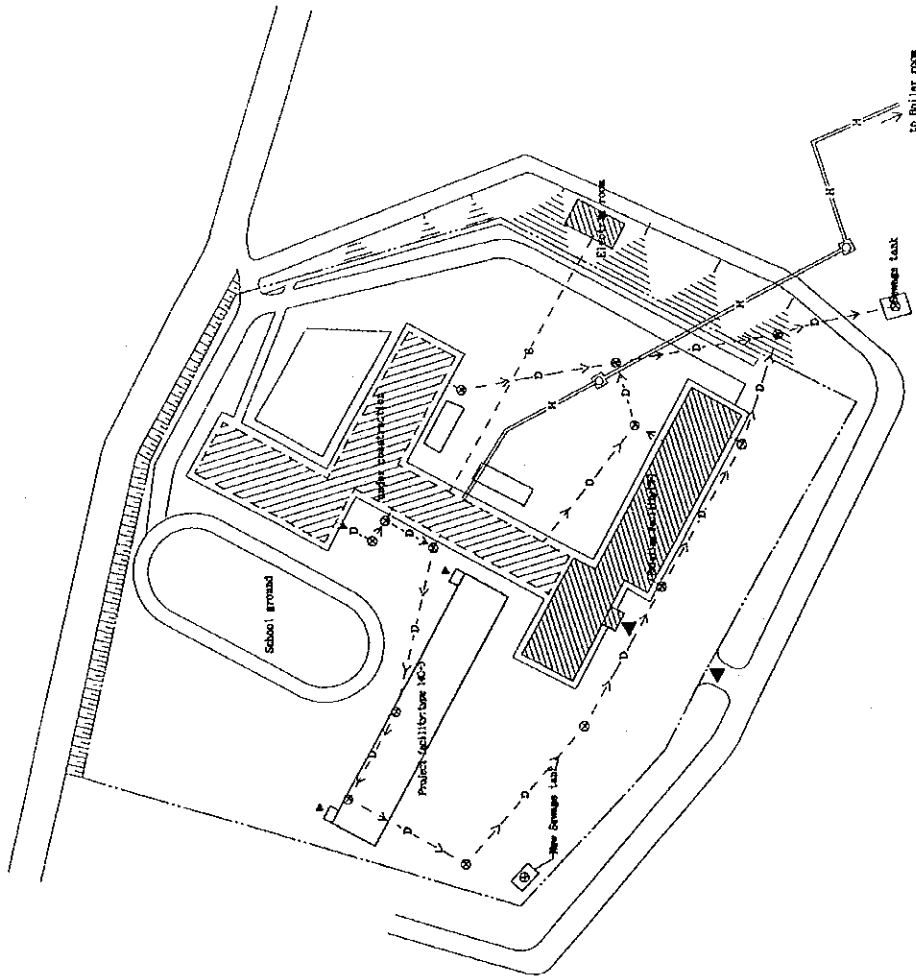
School No. 76 Plot Plan Scale 1:1000
 The Project for the Improvement of Primary Education Facilities in Mongolia



94

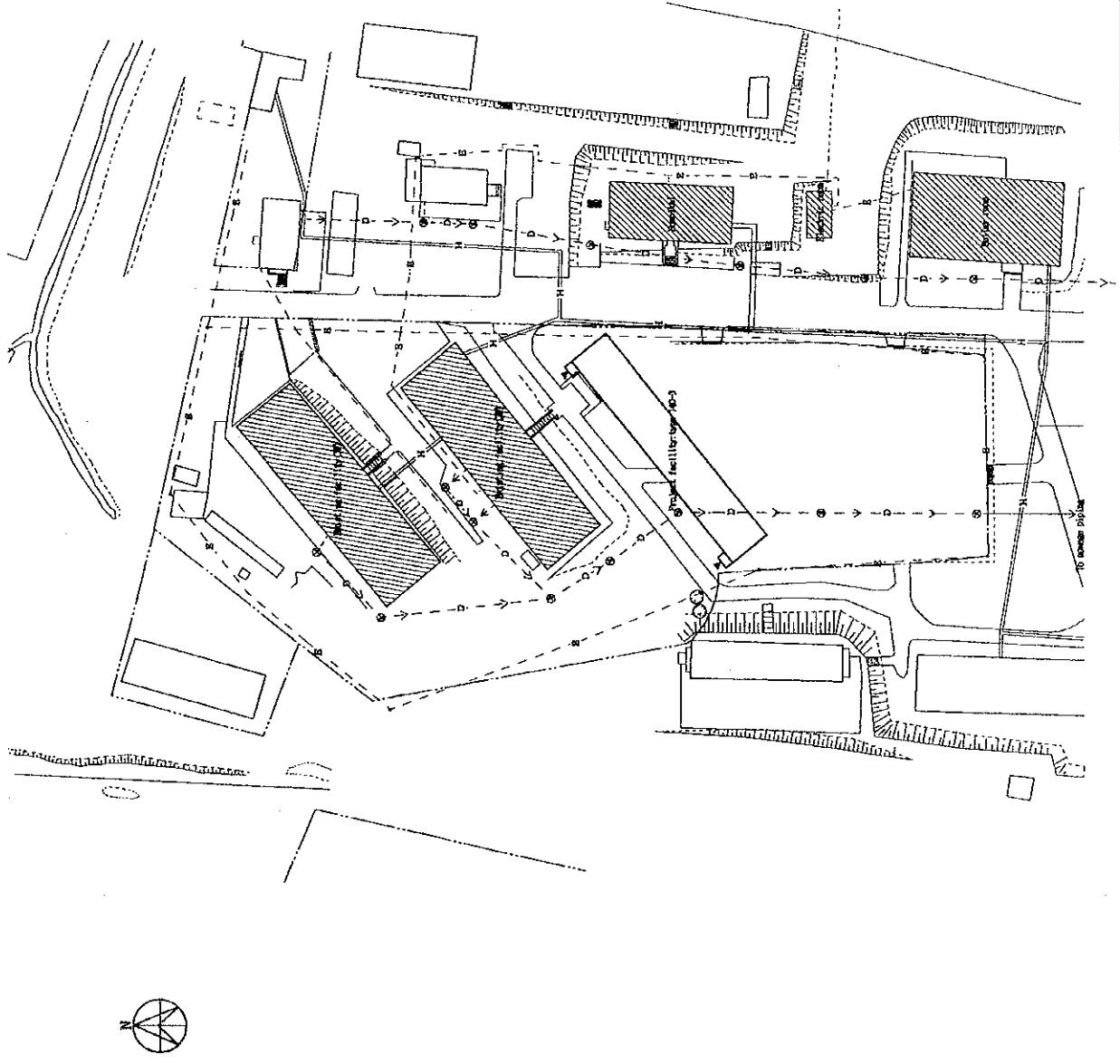
- LEGEND
- Water Pipe (Water & Sewer Pipe)
 - Manhole
 - Substation Electric Line





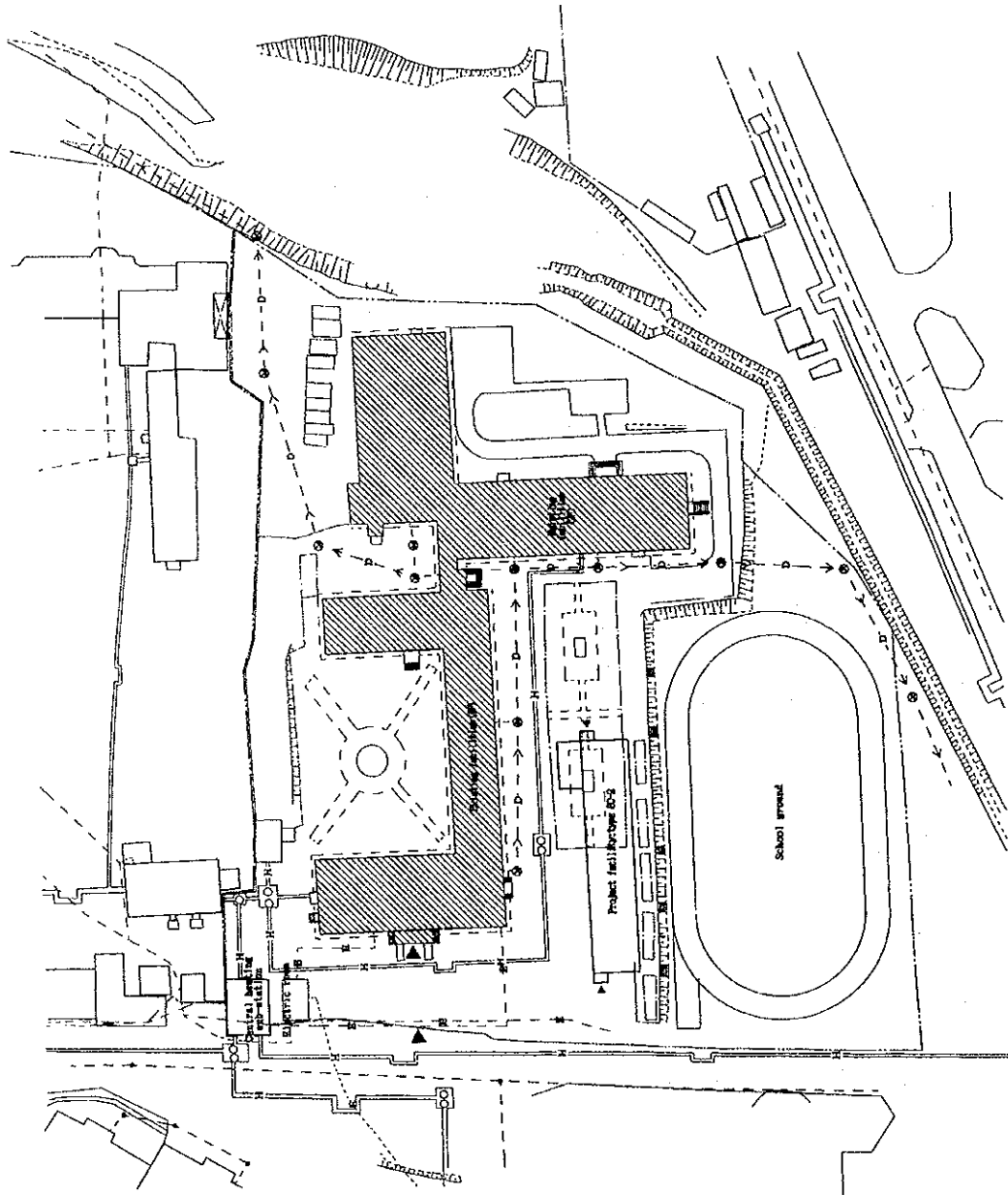
105

- LEGEND
- Heating Pipe (solid line)
 - - - Water Pipe (dashed line)
 - ⋯ Sewerage Pipe (dotted line)



92

- LEGEND
- H --- Medical Plan (Area & Water Plan same)
 - A --- Drainage Plan (Area)
 - B --- Underground Electric Cable

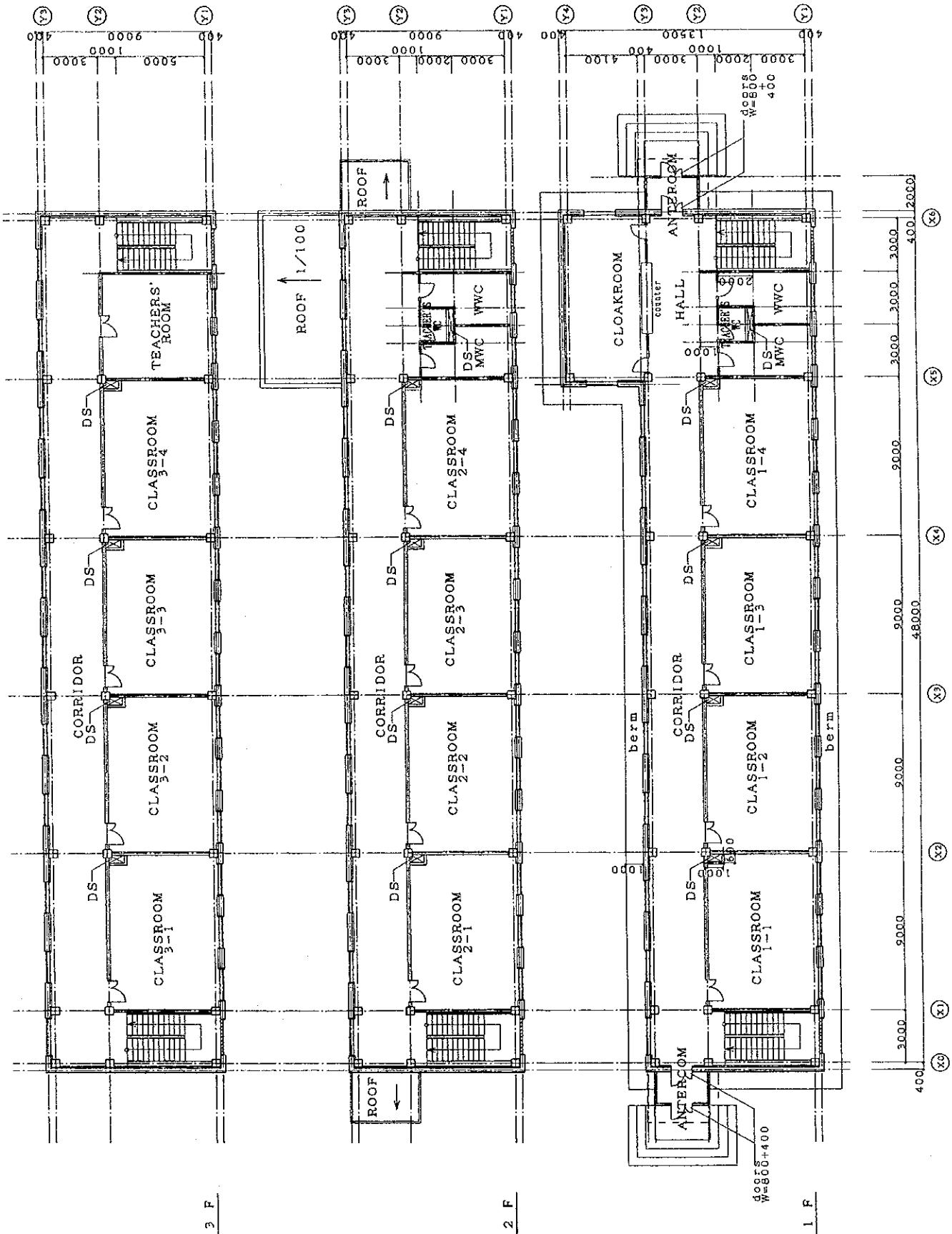


28

LEGEND

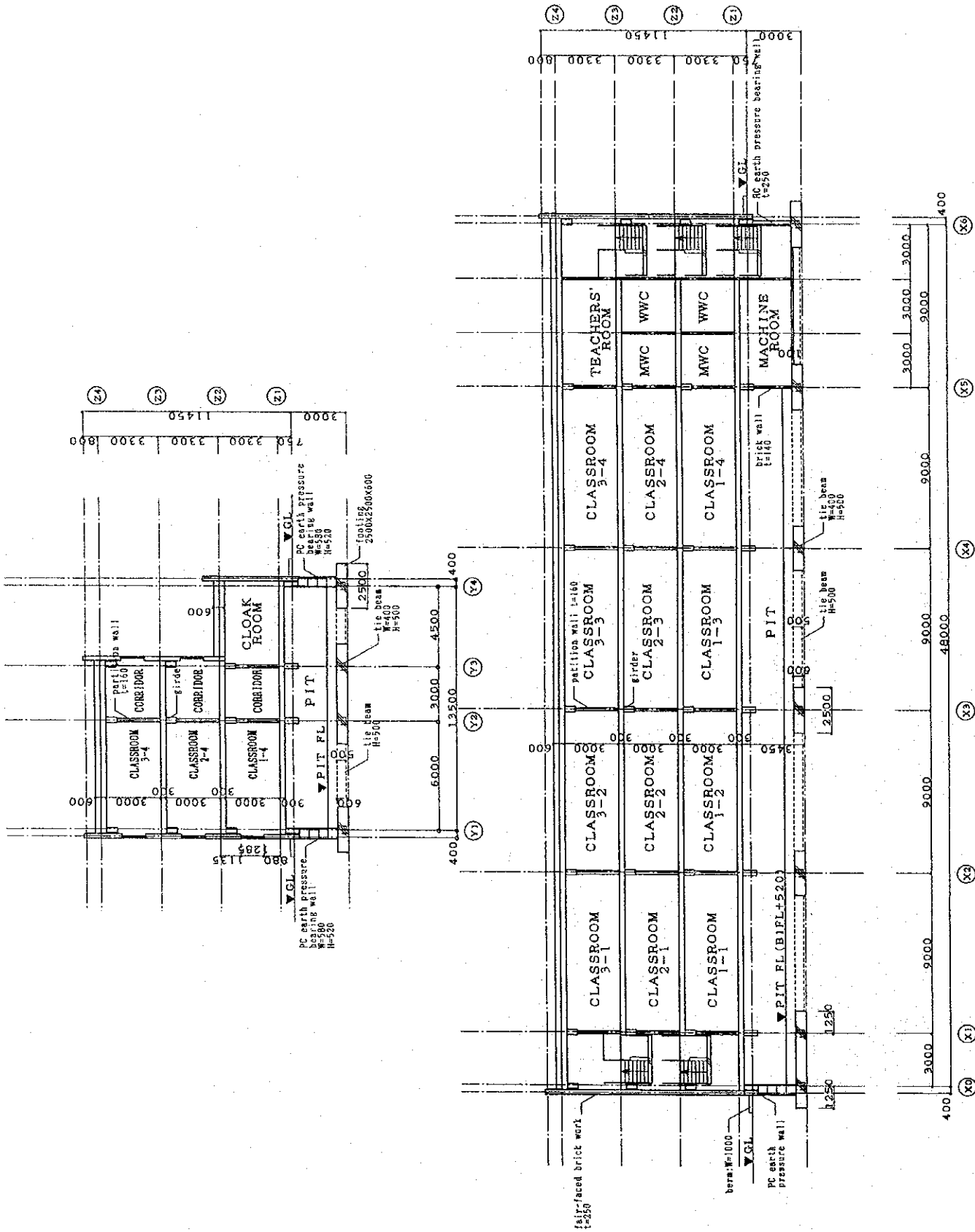
- Water Pipe (with & without Valve)
- Sewer Pipe
- Overhead Electric Wire

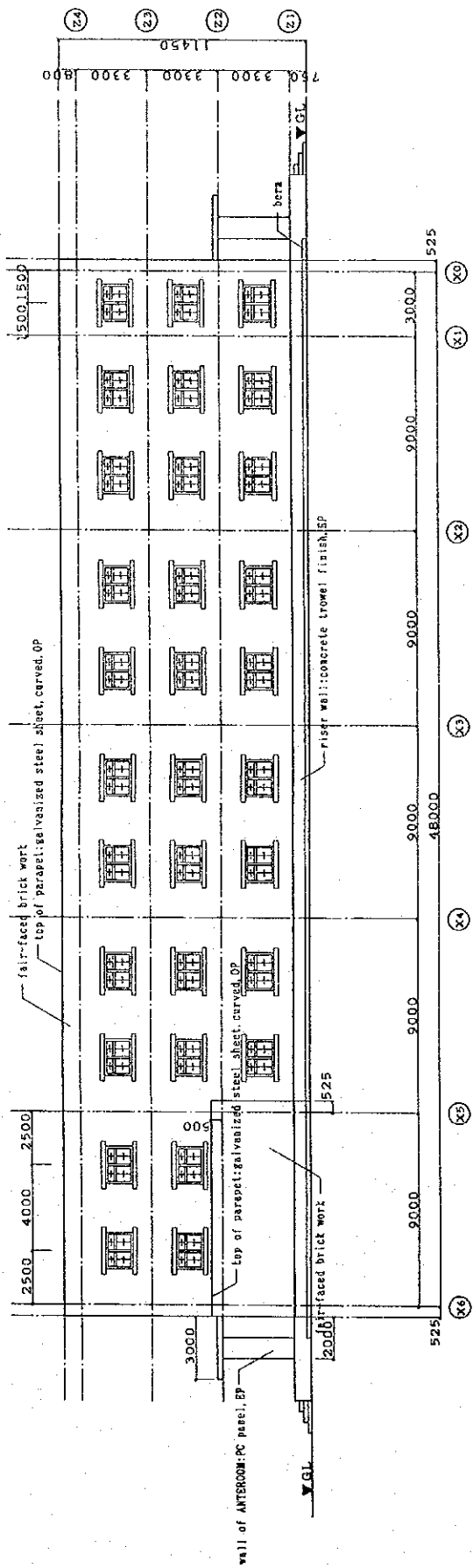
(2) Typical Drawings



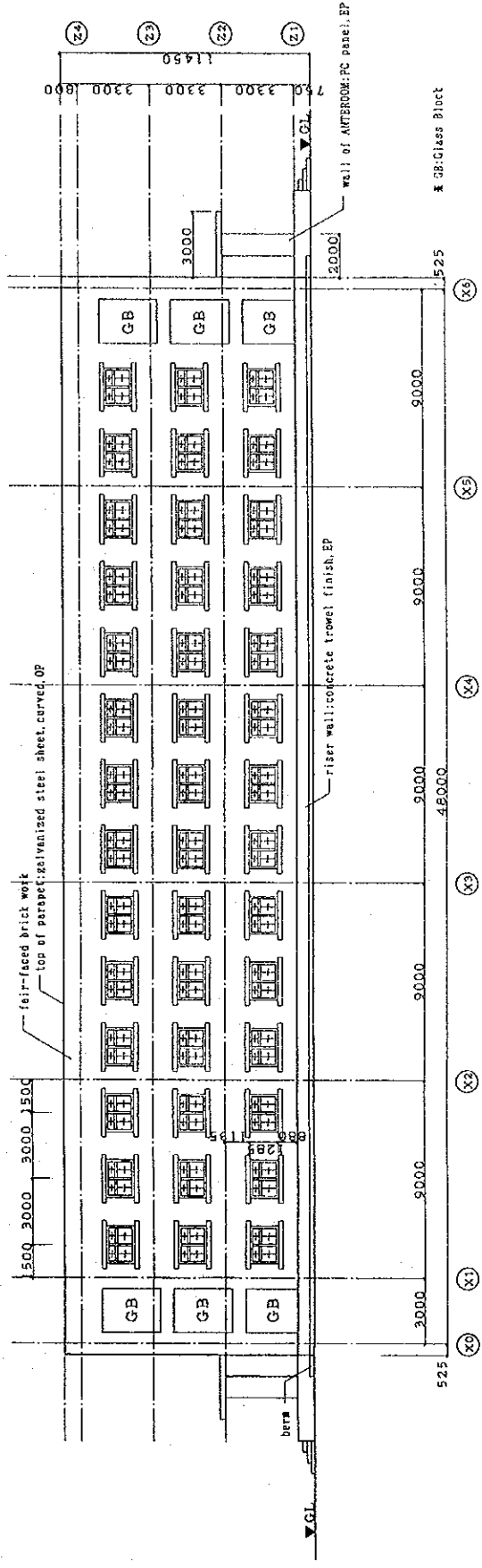
PLAN (120-3) S-1:200

The Project for the improvement of Primary Education facilities in Mongolia



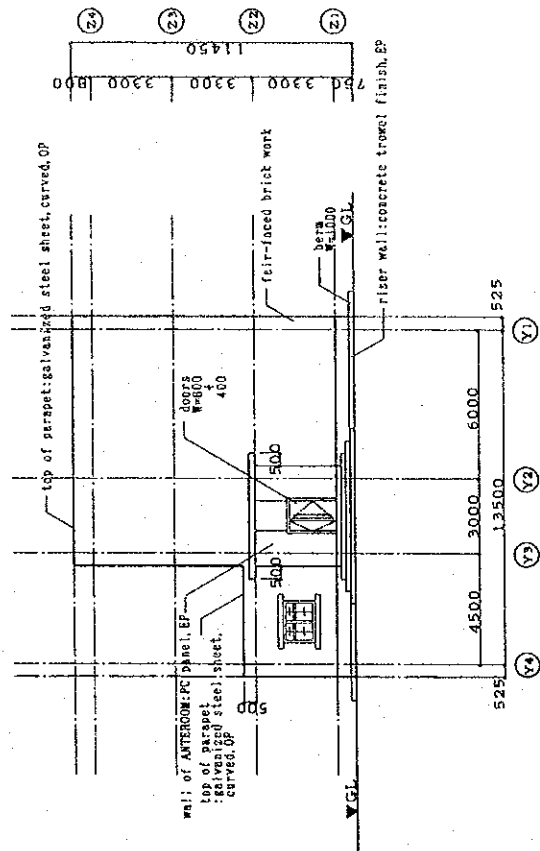


NORTH ELEVATION

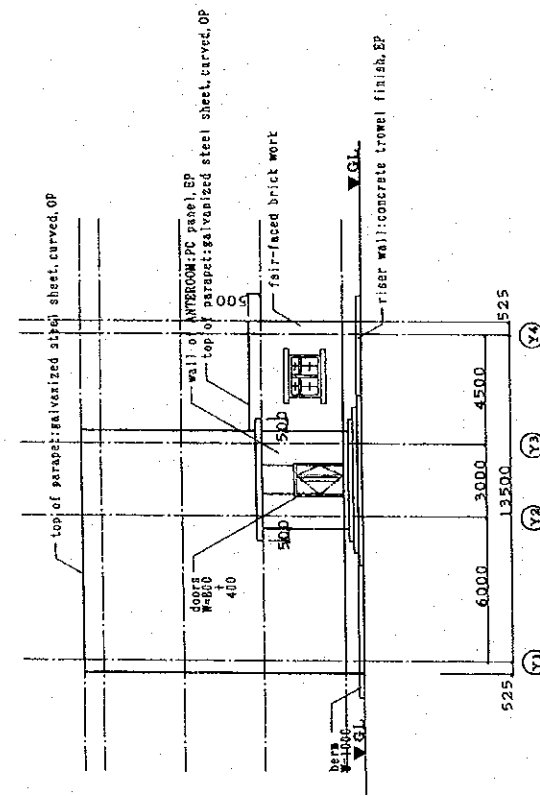


SOUTH ELEVATION

NORTH/SOUTH ELEVATION (1.2C-3) S=1:200
 The Project for the Improvement of Primary Education facilities in Mongolia



WEST ELEVATION



EAST ELEVATION

(3) Conditions of Surveyed Schools in Software Aspects

Priority	School	Duureg	School District	No. of Students	No. of Teachers	No. of School Staff	No. of Classes	Shifts	No. of Classrooms	Remarks
1	No. 62 School	Songnokhairkhan	19(100%), 5(50%),	2,360	74	26	63	2&3		Most students expect to proceed to higher education.
3	No. 42 School	Songnokhairkhan	1, 2	2,100	75	25	59	2&3	28+3	Students are increasing, coming from military bases nearby.
5	No. 67 School	Songnokhairkhan	7, 8	1,830	68	25	49	2	20+2	About 90% of the inhabitants live in gels.
6	No. 76 School	Songnokhairkhan	9, 10(half)	2,100	82+12	28	58	2&3	21+7	Many inhabitants live in gels.
10	No. 65 School	Songnokhairkhan	3, 4	2,269	69	29	54	2	26+5	Rapid increase in population.
26	No. 9 School	Songnokhairkhan	5(half), 6, 7(33%)	1,639	72	26	51	2	18+10	8 classes in each grade. Using adjacent kindergarten.
28	No. 105 School	Songnokhairkhan	8(50), 10(50), 11(100)	1,310	55	11	40	2	20+4	Opened in 1997. Gel area. Many people living on pension. Low income standard.
2	No. 37 School	Chingeltei	17,18	1,750	36	16	48	3	18+6	About 700 students in the school district attend the school in central UBC.
12	No. 72 School	Chingeltei	15(100%), 16(100%)	1,787	59	25	48	2	27+2	Gel area. Nearly 40% living on pension. Lower middle income standard.
14	No. 5 School	Chingeltei	4, 6	2,200	73	35	56	2		Only school providing night shift schooling for 9 & 10th graders.
4	No. 2 School	Sukhbaatar	6, 7, 8 (all half)	2,210	72	23	56	2	30	Lending classrooms to private foreign language school after 17:00.
15	No. 58 School	Sukhbaatar	15(100%), 16(100%)	Approx. 2,000	70	20	50	2	22+4	Gel area. People move in to look for larger land. Low income standard.
25	No. 1 School	Sukhbaatar	1	1,950	68	27	56	2	27	Approx. 1000 students attend from out of the school district.
9	No. 84 School	Bayanzurkh	15(40%), 18(80%)	2,400	104	16	61	2&3	25+4	Former Soviet Union standards. Many salaried families. Middle income standard.
16	No. 97 School	Bayanzurkh	4(half), 7	2,100	75		53	2	27+2	Used to be a facility for military families.
17	No. 21 School	Bayanzurkh	6, 15(half), 18(half)	1,614	65	15	44	2&3	23+6	Constructed by financial aid from China.
29	No. 33 School	Bayanzurkh	3	2,139	61	26	51	2&3	29+7	Constructed by financial aid from Soviet Union.
30	No. 14 School	Bayanzurkh	13(100%)	1,500	60	18	40	2		Many salaried families. High unemployment rate. Gel area. Low income standard.
32	No. 92 School	Bayanzurkh	19(100%), 8(50%) 10(50%), 14(30%)	1,250	42	15	33	2&3	16+ converted bldg.	Converted from old military facilities, inappropriate for classrooms. Overcrowded. East perimeter of UBC. Gel area. 70% unemployed. Population increase. Low income.
34	No. 87 School	Bayanzurkh	10(100%)	791	37	20	28	1.5	21	Converted from old military facilities, inappropriate for classrooms. East of UBC. Gel area. Many unemployed and farmers. Low income.
35	No. 48 School	Bayanzurkh	1, 2	2,520	72	32	56	2&3	28	Covering gel areas in the distance (2 hours). All students come by bus.
7	No. 28 School	Bayangol	11,12	2,500	75	20	62	2	31	Half of the inhabitants are in gel areas. (11 hours)
11	No. 20 School	Bayangol	1,2,3	2,600	84	23	65	2	32+4	Former Soviet Union's school. Well equipped. Neat. Integrated housing area. 80% inhabitants are railroad workers. Upper middle income standard.
18	No. 13 School	Bayangol	9, 10, 13	2,100	68	13	52	2	24+4	Large population area. Surrounded by high-rise apartment buildings.
19	No. 40 School	Bayangol	14, 15	2,600	68	20	51	2&3	18+2	A 150 parent meeting was held to answer the study team.
20	No. 73 School	Bayangol	3	1,194	44	20	35	2&3	15+4	School for railroad worker families. Equipped with a dormitory.
31	SETGEMJ. S.D. (Ex No.46)	Bayangol	11(12%), 7&8 in Chingeltei	1,331	55	25	39	2	14+6	Plenty gel inhabitants. Lower middle income standard. 3 shift schooling during December and April. Equipped with coal boiler system of its own.
8	No. 94 School	Bagakhangai	2	340	15	5	13	4	2+2	Expected to have 2 classes in Grades 1 - 8 by the year 2001.
13	TSETSEE GUN S.D. (Ex No.60)	Khan-uul	7(50%), 8(100%)	1,604	59	18	43	2	19+4	Unified with No. 59 School, located 13 km apart. 4 classrooms, 114 students, 8 teachers, 3 staff. People are moving in.
21	No. 32 School	Khan-uul	11	578	32	10	24	2	12	More than half of the students attend in the special class.
22	No. 18 School	Khan-uul	3	1,600	66	26	45	2	29+2	All the classes are special foreign language class.
23	No. 52 School	Khan-uul	1(70%), 2(70%)	1,804	63	18	48	2	24+ converted bldg.	Friendship school with Cuba. Integrated housing area. Lower middle income standard.
24	Buyant Ukhaa S.D. (Ex No.7)	Khan-uul	9(100%), 10(100%)	1,980			53	2	21+4	Unified with No. 87 School. Approx. 700 students in primary level (16 classes). Various size of rooms. Near the airport. West perimeter of UBC. Many airport and MIAT worker families. Middle income standard.
33	No. 10 School	Khan-uul	12(100%)	762	36	19	25	2	20+ converted bldg.	Outskirts of UBC (satellite city). Bio-combination & military facilities, country cottages. Lower middle income standard.
27	No. 75 School									Field survey was rejected.

(4) Infrastructural Conditions of School Facilities Surveyed

Space for extension

A : a 20m x 50m space ensured without any preconditions. (No underground piping)
 B : a 20m x 50m space ensured, need for cutting, leveling, reclaiming of ground.
 C : hard to ensure a 20m x 50m space.

Heating evaluation

⊙ means no capacity limit.
 Figures indicate the allowable maximum capacity for construction

Priority	School	Duureg	Space for Extension	Site Preparation	Embedded Objects	Electricity	Water Supply	Non-potable water	Heating			Hot Water	Sewage	Black Water	Access	Existing School Building	No. of Existing Classrooms			Gymnasium, Library & Other Facilities	Special Conditions
									Central	Type	Revaluation						Ordinary Classroom	Temporary Classroom	Special Room		
1	No.62 School	Songinokhairkhan	A		None	Supplied	City water		○		2600	Supplied	○	Discharge	400m from main road unpaved	3 floors	23	1	7	Size Grade : Ordinary	
3	No.42 School	Songinokhairkhan	B	Removing unused sewage pipe	Sewage pipe (unused)	Supplied	Water wagon			OC	3620	No	×	Cess pool	500m from main road unpaved	1 floor + 2 floors	20	3	13	Size Grade : Ordinary	
5	No.67 School	Songinokhairkhan	B	Removing trees & curbstones	None	Supplied	Well			OC	5800	No	×	Cess pool	200m from main road gravel	3 floors	15	0	10	Size Grade : Ordinary	
6	No.76 School	Songinokhairkhan	B	Removing concrete slab, leveling	None	Supplied	Well			OP	No reply	No	×		100m from main road unpaved	3 floors	20	5	8	Size Grade : Ordinary	Using toilets outside of the school.
10	No.65 School	Songinokhairkhan	A		None	Supplied	Water wagon			OC	6000	Supplied	×	Cess pool	200m from main road gravel	3 floors	19	4	9	Size Grade : Ordinary	
26	No.9 School	Songinokhairkhan	B	Cut & fill (1m)	None	Supplied	Well			OC	15520	No	○	Discharge	201m from main road gravel	2 floors	18	0	7	Size Grade : Ordinary	
28	No.105 School	Songinokhairkhan	B	Cut & fill (1m)	None	Supplied	City water			OC	4700	Supplied	×	Cess pool	500m from main road unpaved	3 floors	8	5	9	Not constructed	Construction sustained by half. Classes are held in the completed rooms. No expectation for restart of construction.
2	No.37 School	Chingeltei	B	Removing existing obstacles, leveling	None	Supplied	Well			OP	6600	Supplied	×	Cess pool	200m from main road unpaved	3 floors	15	4	6	Size Grade : Ordinary	
12	No.72 School	Chingeltei	A		None	Supplied	City water			OP	6000	Supplied	×	Cess pool	Adjacent to main road	3 floors	19	3	10	Size Grade : Ordinary	
14	No.5 School	Chingeltei	B	Removing trees & concrete slabs, leveling	None	Supplied	City water		○		0	Supplied	○	Discharge	Adjacent to main road	4 floors	25	0	9	Size Grade : Ordinary	Excessive number of students due to relocation of No. 2 school.
4	No. 2 School	Sukhbaatar	A		None	Supplied	City water		○		600	Supplied	○	Discharge	120m from main road gravel	3 floors	25	3	12	Size Grade : Ordinary	
15	No.58 School	Sukhbaatar	A		None	Supplied	Well			OS	2300	Supplied	○	Cess pool	100m from main road gravel	3 floors	10	5	10	Size Grade : Ordinary	
25	No. 1 School	Sukhbaatar	C		Electric wires	Supplied	City water		○		0	No	○	Discharge	Adjacent to main road	4 floors	19	1	10	Size Grade : Ordinary	School premises is small.
9	No.84 School	Bayanzurkh	A		None	Supplied	City water		○		1600	Supplied	○	Discharge	1 Km from main road gravel	3 floors	27	4	9	Size Grade : Ordinary	
16	No.97 School	Bayanzurkh	B	Removing old heating pipe	Old heating pipe	Supplied	City water		○		1600	Supplied	○	Discharge	200m from main road paved	2 floors	24	3	5	Size Grade : Ordinary	Old heating pipes in the construction site.
17	No.21 School	Bayanzurkh	A		None	Supplied	City water		○		2600	Supplied	○	Cess pool	200m from main road gravel	3 floors	16	2	9	Size Grade : Ordinary	
29	No.33 School	Bayanzurkh	A		None	Supplied	City water		○		2000	Supplied	○	Discharge	Adjacent to main road	2 floors	20	4	9	Size Grade : Ordinary	
30	No.14 School	Bayanzurkh	A		None	Supplied	City water		○		2500	Supplied	○	Discharge	Adjacent to main road	4 floors	15	2	9	Size Grade : Ordinary	
32	No.92 School	Bayanzurkh	B	Cut & fill (1m), relocating sewage pipe	Sewage pipe	Supplied	City water			OP	3200	No	○	Discharge	600m from main road unpaved	2 floors	12	2	8	Small	Old military base. Various size of rooms, inappropriate for classroom. Old boiler system.
34	No.87 School	Bayanzurkh	A		None	Supplied	None			OC	3850	Supplied	×	Cess pool	700m from main road unpaved	2 floors	14	1	6	A separate gymnasium	Old military base. Various size of rooms, inappropriate for classroom. Old boiler system.
35	No.48 School	Bayanzurkh	B	Parking area	None	Supplied	City water	Shallow well	○		1200	Supplied	○	Discharge	Adjacent to main road	2 floors	25	2	6	Size Grade : Ordinary	
7	No.28 School	Bayangol	A		None	Supplied	City water		○		200	Supplied	○	Discharge	Adjacent to main road	3 floors	24	5	9	Size Grade : Ordinary	
11	No.20 School	Bayangol	A		None	Supplied	City water		○		2800	Supplied	○	Discharge	Adjacent to main road	3 floors	33	0	12	Size Grade : Ordinary	School once occupied by the Soviet Union, good grade Many classrooms.
18	No.13 School	Bayangol	B	Relocating containers	None	Supplied	City water		○		1500	Supplied	○	Discharge	Adjacent to main road	2 floors	22	5	7	Size Grade : Ordinary	
19	No.40 School	Bayangol	A		None	Supplied	City water		○		1200	Supplied	○	Discharge	Adjacent to main road	2 floors	20	3	10	Size Grade : Ordinary	
20	No.73 School	Bayangol	B	Relocating electric wires	Electric wires	Supplied	City water		○		1400	No	○	Cess pool	Adjacent to main road	2 floors	10	4	8	Size Grade : Ordinary	Dormitory provided, school for family members of railway company workers.
31	SETGEMJ. S.D. (Ex No.46)	Bayangol	A		None	Supplied	Water wagon			OS	1500	No	○	Discharge	Adjacent to main road	1 floor + 2 floors	10	11	10	Small	
8	No.94 School	Bagakhangai	A		None	Supplied	Well			OA	⊙	Supplied	○	Discharge	100m apart from UBC A station 200m away	1 floor	2	2	0	Utilizing a converted build+U191ng	School for Grade 1-8. Originally a kindergarten
13	TSETSEE GUN S.D. (Ex No.60)	Khan-uul	A		None	Supplied	Well			OC	5700	No	×	Cess pool	Adjacent to main road	1 floor + 2 floors	12	4	8	Size Grade : Ordinary	Unified with No.59 school, located 13km apart. Students over Grade 5 come to No.60 school.
21	No.32 School	Khan-uul	B	Cut & fill (1m)	None	Supplied	City water		○		2600	No	×	Cess pool	Adjacent to main road	1 floor	13	0	2	Small	Converted from Dog House. Small classrooms. Being located in the campus of Agricultural College, inconvenient for access.
22	No.18 School	Khan-uul	B	Scraping topsoils	None	Supplied	City water		○		2500	Supplied	○	Discharge	200m from main road gravel	3 floors	24	1	7	Size Grade : Ordinary	Small premises.
23	No.52 School	Khan-uul	A		None	Supplied	City water		○		0	Supplied	○	Discharge	200m from main road gravel	2 floors	20	0	9	Size Grade : Ordinary	
24	Buyant Ukhaa S.D. (Ex No.7)	Khan-uul	A		None	Supplied	Water wagon			OC	3000	No	×	Cess pool	200m from main road unpaved	1 floor + 2 floors	11	6	9	Size Grade : Ordinary	Various size of classrooms Branch B : need to return to kindergarten Branch C : inappropriate for classroom
33	No.10 School	Khan-uul	A		None	Supplied	None	Shallow well		OP	No reply	No	×	Cess pool	100m from main road unpaved	2 floors	10	2	9	Size Grade : Ordinary	
27	No.75 School																				

Type of heating system OC: City boiler system OS: School-owned boiler system
 OP: Private boiler company OA: Area boiler system

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