

## **Appendices**



## Appendix 1 Member List of the Study Team

### (1) Field Survey I (26 August, 2018 – 14 October, 2018)

	Name	Assignment	Affiliation
1	Ms. Yumi TOKUDA	Team Leader	Deputy Director, Basic Education Team 1, Basic Education Group, Human Development Department, JICA
2	Mr. Kozo KAWATA	Cooperation Planning	Basic Education Team 1, Basic Education Group, Human Development Department, JICA
3	Mr. Akira SUGIURA	Chief Consultant/ Architectural Planning	Mohri Architect & Associates, Inc.
4	Mr. Tomohiro SHITARA	Deputy Chief Consultant/ Narutal Conditions Survey	
5	Ms. Tamiko ARAMATA	Architectural Design 1/ Service Utility Planning	
6	Mr. Hiroyuki KAKIUCHI	Architectural Design 2	
7	Mr. Takeshi FUKUSHIMA	Construction Planning/ Cost Estimation	
8	Ms. Sachiyo ITO / Ms. Minako TAKAHASHI *	Procurement Information/Assistance in Implementing Organizational Arrangements	
9	Mr. Hirofumi YAMAUCHI	Equipment Planning	INTEM Consulting, Inc.
10	Ms. Akiko NAKANO	Educational Planning	PADECO Co., Ltd.
11	Ms. Tomoko FUJIKAWA	Architectural Design 3	Mohri Architect & Associates, Inc.

(2) Field Survey I-2 (17 July, 2019 – 3 March, 2019)

	Name	Assignment	Affiliation
1	Mr. Takeshi FUKUSHIMA	Construction Planning/ Cost Estimation	Mohri Architect & Associates, Inc.
2	Mr. Hirofumi YAMAUCHI	Equipment Planning	INTEM Consulting, Inc.

(3) Field Survey II (9 February 2020 – 15 February 2020)

	Name	Assignment	Affiliation
1	Ms. Yumi TOKUDA	Team Leader	Deputy Director, Basic Education Team 1, Basic Education Group, Human Development Department, JICA
2	Mr. Akira SUGIURA	Chief Consultant/ Architectural Planning	Mohri Architect & Associates, Inc.
3	Ms. Tamiko ARAMATA	Architectural Design 1/ Service Utility Planning	



# Appendix 2 Field Survey Schedule 1) Field Survey I (26 August, 2018 – 14 October, 2018)

	A1	A2	B	C	D	E	F	G	H	I	J
	Team Leader	Cooperation/Planning	Chief Consultant / Architectural Planning	Architectural Design 1 / Service Utility Planning	Design Chief Consultant / Natural Condition Survey	Architectural Design 2	Construction Planning / Cost Estimation	Procurement Info / Organizational Arrangement	Equipment Planning	Educational Planning	Architectural Design 3
	M. Yumi TOKUDA (Plan/Env. Dept./JICA)	M. Aino AWAYA (Plan/Env. Dept./JICA)	M. Aika SUGIURA (Mkt. Architect & Associates, Inc.)	M. Tomoo ABAYAMA (Mkt. Architect & Associates, Inc.)	M. Tetsuhiko SUDAHA (Mkt. Architect & Associates, Inc.)	M. Hiroyuki KAGUCHI (Mkt. Architect & Associates, Inc.)	M. Tetsuji FUJIBAYASHI (Mkt. Architect & Associates, Inc.)	M. Shinya TO (Mkt. Architect & Associates, Inc.)	M. Hisaharu YAMAMOTO (RETEC Consulting, Inc.)	M. Akira MUKAO (P&EC/CGI, Ltd.)	M. Tomoo FUJIBAYASHI (Mkt. Architect & Associates, Inc.)
1	26-Aug	Mon									
2	27-Aug	Mon									
3	29-Aug	Tue									
4	29-Aug	Tue									
5	30-Aug	Wed									
6	31-Aug	Thu									
7	1-Sep	Fri									
8	2-Sep	Sat									
9	3-Sep	Sun									
10	4-Sep	Mon									
11	5-Sep	Tue									
12	6-Sep	Wed									
13	7-Sep	Thu									
14	8-Sep	Fri									
15	9-Sep	Sat									
16	10-Sep	Sun									
17	11-Sep	Mon									
18	12-Sep	Tue									
19	13-Sep	Wed									
20	14-Sep	Thu									
21	15-Sep	Fri									
22	16-Sep	Sat									
23	17-Sep	Sun									
24	18-Sep	Mon									
25	19-Sep	Tue									
26	20-Sep	Wed									
27	21-Sep	Thu									
28	22-Sep	Fri									
29	23-Sep	Sat									
30	24-Sep	Sun									
31	25-Sep	Mon									
32	26-Sep	Tue									
33	27-Sep	Wed									
34	28-Sep	Thu									
35	29-Sep	Fri									
36	30-Sep	Sat									
37	1-Oct	Sun									
38	2-Oct	Mon									
39	3-Oct	Tue									
40	4-Oct	Wed									
41	5-Oct	Thu									
42	6-Oct	Fri									
43	7-Oct	Sat									
44	8-Oct	Sun									
45	9-Oct	Mon									
46	10-Oct	Tue									
47	11-Oct	Wed									
48	12-Oct	Thu									
49	13-Oct	Fri									
50	14-Oct	Sat									

(2) Field Survey I-2 (17 July, 2019 – 3 March, 2019)

			A	B
			Construction Planning / Cost Estimation	Equipment Planning
			Mr. Takeshi FUKUSHIMA (Mohri, Architect & Associates, Inc.)	Mr. Hirofumi YAMAUCHI (INTEM Consulting, Inc.)
1	17-Jul-2019	Wed		Tokyo --> Bangkok
2	18-Jul-2019	Thu		Survey on Cost Estimation (Equipment) @ Bangkok
3	19-Jul-2019	Fri		ditto
4	20-Jul-2019	Sat		ditto
5	21-Jul-2019	Sun	Tokyo --> Vientiane	Bangkok --> Vientiane
6	22-Jul-2019	Mon	AM: Courtesy Calls to JICA Laos Office and MOES PM: Survey on Cost Estimation (Construction)	AM: Courtesy Calls to JICA Laos Office and MOES PM: Survey on Cost Estimation (Equipment)
7	23-Jul-2019	Tue	Survey on Cost Estimation (Construction)	Survey on Cost Estimation (Equipment)
8	24-Jul-2019	Wed	ditto	ditto
9	25-Jul-2019	Thu	ditto	ditto
10	26-Jul-2019	Fri	ditto	ditto
11	27-Jul-2019	Sat	ditto	ditto
12	28-Jul-2019	Sun	Document Preparation	Document Preparation
13	29-Jul-2019	Mon	Survey on Cost Estimation (Construction)	Survey on Cost Estimation (Equipment) Vientiane -->
14	30-Jul-2019	Tue	ditto	--> Tokyo
15	31-Jul-2019	Wed	ditto	
16	1-Aug-2019	Thu	ditto	
17	2-Aug-2019	Fri	Survey on Cost Estimation (Construction) Vientiane -->	
18	3-Aug-2019	Sat	--> Tokyo	

(3) Field Survey II (9 February 2020 – 15 February 2020)

			Team Leader	Chief Consultant / Architectural Planning	Architectural Design 1 / Service Utility Planning
			Ms. Yumi TOKUDA (JICA)	Mr. Akira SUGIURA (Mohri, Architect & Associates, Inc.)	Ms. Tamiko ARAMATA (Mohri, Architect & Associates, Inc.)
1	9-Feb	Sun	Tokyo --> Vientiane		
2	10-Feb	Mon	Courtesy call to JICA Laos Office Meeting with MOES (Confirmation of Mission's Schedule) Meeting with MOES (Explanation of Draft Preparatory Survey Report)		
3	11-Feb	Tue	Joint Meeting with MOES and TTC representatives (Explanation on Components, Site Layout Plans, Further Arrangements for UXO Clearance, Implementation Schedule, etc.)		
4	12-Feb	Wed	Meeting with MOES (Discussion on Minutes of Discussions (mainly about Implementation Plan including PMU))		
5	13-Feb	Thu	Meeting with MOES (Discussion on Minutes of Discussion) Signing of Minutes of Discussion		
6	14-Feb	Fri	Report to JICA Office Meeting with World Bank Report to Embassy of Japan Vientiane -->	Meeting with MOF (Info Update on Tax Exemption)	
				Tax Dept. Custom Dept.	
7	15-Feb	Sat	--> Tokyo		

### Appendix 3 List of Parties Concerned in the Recipient Country

#### Ministry of Education and Sport

<b>Name</b>	<b>Position</b>	<b>Division/Department</b>
Mrs. Khanthaly Siriphongphanh	Permanent Secretary	Cabinet Office (CO)
Dr. Daravone Kittiphanh	Acting Permanent Secretary	CO
Mr. Thipphamonh Chanthalangsy	Deputy Permanent Secretary	CO
Mr. Vilavath Thepphithack	Deputy Permanent Secretary	CO
Mr. Bounmixay Sommany	Deputy Head of Division	CO
Mr. Keth Phanlack	Director General	Department of Teacher Education (DTE)
Mr. Khambai Khamsy	Deputy Director General	DTE
Mr. Sengkeo PHANTHALATH	Director of Division	DTE
Mr. Bouaphet Inthavong	Technical Staff	DTE
Mr. Sivixay Manivong	Deputy Director of Division	DTE
Mr. Sengphet Soumphonphakdy	Director of Division	Department of Finance (DOF) /Division of Education Construction Design and Management (ECDM)
Mrs. Khamla Lorvanxay	Technical Staff	DOF/ECDM
Mr. Bountong Santivong	Technical Staff	DOF/ECDM
Mrs. Malaylath	Technical Staff	DOF/ECDM
Mr. Sengthong Davone	Technical Staff	DOF/Accounting Division
Ms. Phetsourine Norasing	Deputy Director of Division	DOF/Accounting Division
Mrs. Chanthone	Director of Division	DOF/Division of Asset Management
Mr. Lueanglith Souvanhlasee	Technical Staff	DOF/Division of Asset Management
Mr. Inthavong Manithong	Deputy Director General	Department of Organization and Personnel (DOP)
Mr. Latsamee Thammavongsa	Director of Division	DOP
Mrs. Khampaseauth Kitignavong	Deputy Director General	Department of Planning (DP)
Mr. Anoupheng Keovongsa	Director of Division	DP
Mr. Khamphong SOMMALA	Director of Division	DP
Mr. Souksamone Xaphouvong	Deputy Director of Division	DP
Mrs. Manila Chanthadeth	Technical Staff	DP
Mr. Khamphamai Thonlamy	Technical Staff	DP

Mrs. Manola Mathmanysone	Deputy Director of Division	DP/EMIS Center
Ms. Syamphone Sengsulayvan	Technical Staff	DP/EMIS Center
Mr. Phouvanh Vong Soutthi	Deputy Director General	Department of External Relations (DER)
Mr. Sisamout Saenbouttaraj	Director of Division	DER
Mr. Bualaphanh	Deputy Director of Division	DER
Ms. Vatthanavanh Sayyasane	Technical Staff	DER
Mr. Banchong Latthavanh	Vice Director General	Department of General Education (DGE)
Mrs. Phouangsouk Xayyaboun	Deputy Director of Division	DGE
Mr. At Vongphachan	Deputy Director of Division	DGE
Mr. Simoungkhoun Vongchampa	Technical Staff	DGE
Dr. Mithong Souvanvixay	Director General	Department of Early Childhood Education (DECE)
Mrs. Viengkeo Phommachack	Deputy Director General	DECE
Mrs. Bounhieng Singvongsa	Deputy Director of Division	DECE
Mr. Soukthavy Chanphilom	Technical Staff	DECE
Mrs. Dara Khiemthammakhoun	Deputy Manger of Center	Inclusive Education Center (IEC)
Ms. Olady Chomlasy	Technical Staff	IEC
Mr. Oimany Sypheng	Deputy Director of Division	Teacher Development Center

#### TTC

<b>Name</b>	<b>Position</b>	<b>Division/Department</b>
Mr. Khamsouk Thongkan	Director	Luang Nam Tha TTC
Mrs. Nouanchanh Thippavong	Vice Director	Luang Nam Tha TTC
Mr. Nolasing Fongmisay	Vice Director	Luang Nam Tha TTC
Mr. Jab Vongthavy	Vice Director	Luang Nam Tha TTC
Mr. Bounsouvanh Lattana	Director	Luang Prabang TTC
Mr. Sonepeth Sisaath	Vice Director	Luang Prabang TTC
Mr. Houmphan Khonesavat	Vice Director	Luang Prabang TTC
Mr. Thonglor Khounsavat	Vice Director	Luang Prabang TTC
Mr. Vanny Yang Chia Moua	Director	Khang Khay TTC
Mr. Soutchanthong Chanthavong	Vice Director	Khang Khay TTC
Mrs. Chanmala Southammavong	Director	Ban Keun TTC
Mr. Payath Latana	Vice Director	Ban Keun TTC
Mr. Phouthachanh Latsavong	Vice Director	Ban Keun TTC

Mr. Outhai Phavatsady	Vice Director	Ban Keun TTC
Mr. Khoun Phommatha	Vice Director	Ban Keun TTC
Mrs. Vila Sengsavang	Director	Dong Kham Xang TTC
Mr. Somphone Chantamaly	Vice Director	Dong Kham Xang TTC
Mr. Syphone Vannalath	Vice Director	Dong Kham Xang TTC
Mr. Bounleuth Singlattana	Vice Director	Dong Kham Xang TTC
Mr. Dalavong Nginsavong	Head of Finance Unit	Dong Kham Xang TTC
Mr. Latsamee Phaxaysy	Director	Savannakhet TTC
Mr. Phomma Xayyavong	Head of Administrative Office	Savannakhet TTC
Mr. Soudone Vongsavanh	Vice Director	Saravan TTC
Mrs. Phouvieng Inthasone	Vice Director	Saravan TTC
Mr. Phone Phouvanhno	Director	Pakse TTC
Mr. Somxay Thepsombat	Vice Director	Pakse TTC
Mr. Sourichanh	Vice Director	Pakse TTC
Mr. Khonesavanh Nanthavong	Vice Director	Pakse TTC
Mr. Bounpheng	Vice Director	Pakse TTC

#### Provincial Education and Sports Service (PESS)

<b>Name</b>	<b>Position</b>	<b>Division/Department</b>
Mr. Khamnouan Souvannasouk	Vice Director	Luang Nam Tha PESS/Division of Statistic and planning
Mr. Bounchin Atphasouk	Technical Staff	Luang Nam Tha PESS/Provincial Unit for Construction and Development Assistance (PUCDA)
Mr. Saiysavan Chanmanit	-	Luang Prabang PESS
Mr. Phetthachan Chanthavong	-	Xieng Khouang PESS/Division of Teacher Development
Mr. Done Duouangphachanh	Head of Division	Vientiane PESS/Division of Teacher Development
Mr. Vilaysack Dalaseng	Technical Staff	Vientiane Capital PESS
Mr. Phouviaksone Vongphouthone	-	Vientiane Capital PESS/PUCDA
Mr. Bounnam Sysouthammavong	Technical Staff	Vientiane Capital PESS

Mr. Sansack Saytongvath	Technical Staff	Vientiane Capital PESS
Mr. Anorath Phomvochan	Head of Division	Savannakhet PESS
Mr. Ketkhamkhoun Matmanivong	Technical Staff	Savannakhet PESS
Mr. Kongkeo Xaychamphone	Technical Staff	Savannakhet PESS/PUCDA
Mr. Sounee Nammaboualy	-	Saravan PESS
Mr. Bounpakhong Khamphilay	-	Saravan PESS
Ms. Khamkhong Chanthavongsack	-	Saravan PESS
Mr. Hatthaboun Xaphakdy	-	Pakse PESS/PUCDA

#### Educational Equipment Production Factory Enterprise

Name	Position	Division/Department
Mr. Sonexay Phetphachanh	Director	Educational Equipment Production Factory Enterprise

#### Other Educational Institutions

Name	Position	Division/Department
Mr. Souvannavong	Director	Lower Secondary School of National University of Laos
Mr. Kongta	Vice Director	Lower Secondary School of National University of Laos
Mr. Khamphout Phimmasone	Director	Gifted and Ethnic Group School

#### Ministry of Finance

Name	Position	Division/Department
Mr. Boupaseuth Sikounlabout	Acting Director General	Customs Department
Mr. Souksavanh Bouapha	Head of Division	Customs Department
Mr. Saymonolinh Sinbandith	Head of Division	Customs Department
Mr. Khampoun Inpenglasabout	Head of Division	Customs Department
Ms. Monekeo Dalavong	Deputy Head of Division	Customs Department
Mr. Phaivanh	Technical Staff	Customs Department
Mr. Chanthakhan Luanglath	Technical Staff	Customs Department
Mr. Vangyiay Xaynalor	Deputy Head of Division	Tax Department
Ms. Dalaphone	Technical Staff	Tax Department
Mr. Khamsaveng	Technical Staff	Tax Department

Mr. Vanphaxay Keosomphanh	Technical Staff	Tax Department
Mr. Soukphaivanh Khammanivong	Technical Staff	Tax Department
Ms. Aliya Boulom	Technical Staff	External Finance Division

#### Ministry of Natural Resources and Environment (MONRE)

Name	Position	Division/Department
Mr. Somvang Bouttavong	Head of Division	Department of Natural Resource and Environmental Policy

#### UXO related Organizations

Name	Position	Division/Department
Mr. Nanthavangsa	GIS analysis	Headquarters of National Regulatory Authority for the Unexploded Ordinance (UXO)/Mine Action Sector (NRA)
Mr. Phoukao Kedmyxay		NRA Savannakhet
Mr. Nanthavangsa		NRA Savannakhet
Mr. Santi Khotisen	Vice coordinator of prefecture	UXO Lao Laung Prabang
Mr. Bounpheng Davongsone	-	UXO Lao Xieng Khuang
Ms. Chanthavone	-	UXO Lao Champasak
Mr. Bualong Inthavong	-	UXO Lao Champasak
Mr. Thongbier Xingkhaophet	-	UXO Lao Saravan
Mr. Boutsy Duangphanya	-	UXO Lao Saravan
Mr. Outtama Insoulivong	-	UXO Lao Saravan
Mr. Wanthong Khamdala	-	UXO Lao Saravan
Mr. Subin	-	UXO Lao Savannakhet
Mr. Amkha Thammasith	Vice Director	Labor and Welfare Bureau of Luang Nam Tha Prefecture
Mr. Saysengya Lueangvanna	-	Labor and Welfare Bureau of Luang Nam Tha Prefecture



Department of Public Works of Luang Prabang Province

<b>Name</b>	<b>Position</b>	<b>Division/Department</b>
Mr. Simon Khan Panyasavath	Vice Director	Department of Public Works of Luang Prabang Prefecture

Development Partners

<b>Name</b>	<b>Position</b>	<b>Division/Department</b>
Dr. Sarah Rich	Senior Consultant in Curriculum Development and Teacher Education	BEQUAL
Ms. Corine Vis	Consultant in Curriculum of Primary Education	BEQUAL
Ms. Nantawan Hinds	Programme Officer	UNESCO Bangkok Office
Ms. Takaho Fukami	Chief of Education Programme	UNICEF Laos Office
Mr. Phouvanh Phommalangsy	Education Specialist	World Bank Laos Office
Ms. Phetviengkhone Sayasane	Specialist for management of educational project	USAID Laos Office
Mr. Kiyotaka Tamari	Country Director	Shanti Volunteer Association Laos Office

Embassy of Japan

<b>Name</b>	<b>Position</b>	<b>Division/Department</b>
Mr. Kentaro Nakajima	First Secretary	Embassy of Japan in the Lao PDR
Ms. Asuka Kato	Second Secretary	

JICA Laos Office

<b>Name</b>	<b>Position</b>	<b>Division/Department</b>
Mr. Yoshiharu Yoneyama	Chief Representative	JICA Laos Office
Mr. Sjunskue Sakudo	Senior Representative	JICA Laos Office
Ms. Akiko Sanada	Senior Representative	JICA Laos Office
Ms. Akiko Sanada	Senior Representative	JICA Laos Office
Ms. Yuko Ishizuka	Representative	JICA Laos Office
Mr. Mudai Suzuki	Representative	JICA Laos Office
Mr. Saiyavong Phommachack	National Staff	JICA Laos Office



**Appendix 4. Minutes of Discussions  
and Technical Notes**



**4-1. Minutes of Discussions**  
**(Signed on September 21, 2018)**

**Minutes of Discussions**  
**on the Preparatory Survey on the Project for**  
**Improvement of Teacher Training Colleges in the Lao People's Democratic Republic**

In response to the request from the Government of the Lao People's Democratic Republic (hereinafter referred to as "Lao PDR"), the Government of Japan decided to conduct a Preparatory Survey on the Project for Improvement of Teacher Training Colleges (hereinafter referred to as "the Project"), and entrusted the Preparatory Survey to Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent the Preparatory Survey Team for the Outline Design (hereinafter referred to as "the Team") to the Lao PDR, headed by Ms. Yumi Tokuda, Senior Deputy Director of Basic Education Team 1, Basic Education Group, Human Development Department, and is scheduled to stay in the country from August 26th to October 18th, 2018.

The Team held a series of discussions with the officials concerned of the Government of the Lao PDR and conducted field surveys in the Project sites. In the course of the discussions, both sides have confirmed the main items described in the attached sheets.

Vientiane, September 21<sup>st</sup>, 2018



徳田 由美

Yumi TOKUDA  
Leader  
Preparatory Survey Team  
Japan International Cooperation Agency  
Japan



Khanthaly SIRIPHONGPHANH

Khanthaly SIRIPHONGPHANH  
Permanent Secretary  
Cabinet Office  
Ministry of Education and Sports  
Lao People's Democratic Republic

## ATTACHMENT

### 1. Objective of the Project

The objective of the Project is to improve the quality of the teacher training environment for pre-primary, primary and secondary education in the Lao PDR, thereby contributing to the improvement of the quality of basic education in the nation.

### 2. Title of the Preparatory Survey

Both sides confirmed the title of the Preparatory Survey as “the Preparatory Survey on the Project for Improvement of Teacher Training Colleges”.

### 3. Project Site

3-1. Both sides confirmed that the sites of the Project are eight Teacher Training Colleges (hereinafter referred to as “TTCs”), including their demonstration schools, namely Luang Nam Tha TTC, Luang Prabang TTC, Khang Khay TTC, Ban Keun TTC, Dong Kham Xang TTC, Savannakhet TTC, Saravan TTC and Pakse TTC in the Lao PDR which are shown in the Annex 1.

3-2. Both sides understood that, while it is desirable to include all the eight TTCs in the Project to avoid the regional gap and enhance the balanced development, it is not guaranteed that the Project includes all the eight TTCs in consideration of the budget allocated for the Project by the Government of Japan.

### 4. Responsible Authority for the Project

4-1. The Ministry of Education and Sports (hereinafter referred to as “MOES”) will be the executing agency for the Project (hereinafter referred to as the “Executing Agency”). The Executing Agency shall coordinate with all the relevant authorities to ensure smooth implementation of the Project and ensure that the undertakings for the Project shall be taken care by relevant authorities properly and on time. The organization chart of MOES is shown in the Annex 3.

4-2. The Lao PDR side agreed to establish the Project Management Unit (hereinafter referred to as the “PMU”) in MOES consists of Cabinet Office, Department of Teacher Education, Department of Organization and Personnel, Department of Planning, Department of Finance, Department of External Relations, Department of General Education and Department of Early Childhood Education. PMU works under the supervision of the Executing Agency to coordinate with the relevant authorities and the local authorities for the smooth and effective implementation of the Project.



5. Items requested by the Government of the Lao PDR

As a result of discussions, both sides confirmed that the items requested by the Government of Lao PDR are as shown in the Annex 2.

  - 5-1. JICA will assess the feasibility of all the above requested items through the survey and will report the findings to the Government of Japan. The final scope of the Project will be decided by the Government of Japan.
  - 5-2. The component of the Project will be designed based on the standards applicable in the Lao PDR with necessary modifications.
  - 5-3. The Government of the Lao PDR shall submit an official request to the Government of Japan through a diplomatic channel by the end of January, 2019.
  
6. Procedures and Basic Principles of Japanese Grant Project
  - 6-1. The Team explained and the Lao PDR side agreed that the procedures and basic principles of Japanese Grant as described in the Annex 4 to be applied to the Project.
  - 6-2. The Lao PDR side agreed to undertake the necessary measures, as described in the Annex 5, for smooth implementation of the Project. The contents of the Annex 5 will be elaborated and refined during the survey and be agreed in the mission dispatched for explanation of the Draft Preparatory Survey Report. The contents of Annex 5 will be updated as the Preparatory Survey progresses, and eventually, will be used as an attachment to the Grant Agreement.
  - 6-3. Both side agreed that the eligible nationality of the prime construction firms and/or procurement firms, are nationals of the recipient country or other country(ies). The eligible nationality will be examined, and will be agreed at the Preparatory Survey for the explanation of the Draft Report. The Lao PDR side pointed out that the eligible nationality of the prime construction firms and/or procurement firms (suppliers) be prioritized for Lao nationals over other country(ies). Both sides confirmed that the eligible nationality will be finalized in the Grant Agreement.
  - 6-4. The bidding/selection and conclusion of contracts of the products and services covered by the Project will be conducted in the Lao PDR based on the result of the Preparatory Survey. The Lao PDR side agreed that the products and services covered by the Project will be solely procured in accordance with “JICA’s Procurement Guidelines of the Japanese Grants (for Japanese consultant and local contractors) (Tentative Type-II)”.
  - 6-5 The Lao PDR side agreed that the currency for contract of prime construction and/or procurement firms is internationally traded foreign currency acceptable to JICA, that is US dollar, which will be stipulated in the Grant Agreement. The Lao PDR side understood the flow of payment as shown in the Annex 4 and confirmed to take necessary measures for the payment in a timely manner. The Lao PDR side explained



that Bank of the Lao PDR as the “Recipient Bank” will conclude the banking arrangement (hereinafter referred to as the “Banking Arrangement”) with a bank in Japan (hereinafter referred to as the “Agent Bank”), which will be stipulated in the Grant Agreement.

6-6. The Lao PDR side agreed that procurement type of Japanese Project Grant and the feasibility of issues mentioned above in 6-3, 6-4, and 6-5 will be further examined by Japan side based on the result of this field survey and that the result of examination will be explained at the Preparatory Survey for the explanation of the Draft Preparatory Survey Report.

#### 7. Schedule of the Survey

7-1. The Team will proceed with further survey in the Lao PDR until October 18th, 2018.

7-2. JICA will prepare a draft Preparatory Survey Report in English and dispatch a mission to the Lao PDR in order to explain its contents around April, 2019.

7-3. If the contents of the draft Preparatory Survey Report is accepted and the undertakings for the Project are fully agreed by the Lao PDR side, JICA will finalize the Preparatory Survey Report in English and send it to the Lao PDR side around July, 2019.

7-4. The above schedule is tentative and subject to change.

#### 8. Environmental and Social Considerations

8-1. The Lao PDR side confirmed to give due environmental and social considerations during implementation, and after completion of the Project, in accordance with the JICA Guidelines for Environmental and Social Considerations (April, 2010).

8-2. The Project is categorized as “C” from the following considerations:

Not located in a sensitive area, nor has it sensitive characteristics, nor falls it into sensitive sectors under the Guidelines, and its potential adverse impacts on the environment are not likely to be significant.

#### 9. Other Relevant Issues

##### 9-1. Future Plan of the Number of TTC Students

MOES explained that the average number of students at each TTC will be maintained at around 1,000. MOES promised to provide the future plan of the number of students for each TTC by November, 2018 in order for Japan side to estimate the appropriate scale of the project components.

##### 9-2. Ministerial Document regarding the Function of Demonstration School

The Lao PDR side promised to provide a ministerial document by the end of October,

2018, which states that the specialized functions of the demonstration schools which are different from the network schools.

9-3. Ministerial Document of the Establishment of Secondary Demonstration Schools

The Lao PDR side promised to issue a ministerial document by the end of December, 2018, which prescribes establishment of secondary demonstration schools for all the eight TTCs. The Team explained and the Lao PDR side understood that the Project may not cover the secondary demonstration schools if the decree is not issued by the deadline.

9-4. Number of Classes per Grade in the Demonstration Schools

Both sides confirmed that the number of classes would be, in principle, one per grade in each demonstration school from N1 to M7<sup>1</sup>. The number of classrooms covered by the Project for each demonstration school will be determined based on the said principle, existing usable classrooms, demand in surrounding area, current number of classes per grade and the budget limitation.

9-5. Multi-grade Classes

Both sides confirmed that classrooms specialized for multi-grade classes will not be covered by the Project.

9-6. Land Certificate and UXO Clearance Certificate

The Lao PDR side agreed to provide land certificates and UXO clearance certificates necessary for the Project. The details of the documents will be confirmed in the technical notes which will be agreed and signed between the Team and the Lao PDR side at the end of the field survey.

9-7. Exemption of Taxes, Duties and Levies

The Lao PDR side agreed to take necessary measures to ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the Lao PDR with respect to the purchase of products and/or services to be exempted.

9-8. Measures to be taken in case that problems arise

The Lao PDR side confirmed that when problems such as delay of construction works

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<sup>1</sup> The grades of demonstration schools are Nursery 1 to 3 (N1~3), Kindergarten 1 to 3 (K1~3), Primary 1 to 5 (P1~5), and Secondary 1 to 7 (M1~7).



or procurement of equipment by contractors/suppliers arise during the implementation of the Project, MOES will take necessary measures in accordance with technical opinion of the consultant in a timely manner.

9-9. Modification of the scope to be covered by the grant

The Lao PDR side agreed that in case of the amount of the grant, which includes the contingency, is not enough to cover the entire construction works and/or procurement of equipment on the implementation of the Project, the Lao PDR side will modify the scope of construction works and/or procurement of equipment so that they are covered by the grant, based on technical opinion of the consultant and be in charge of the other remaining scope by its own side.

Annex 1 Project Site

Annex 2 Requested Items with Priorities

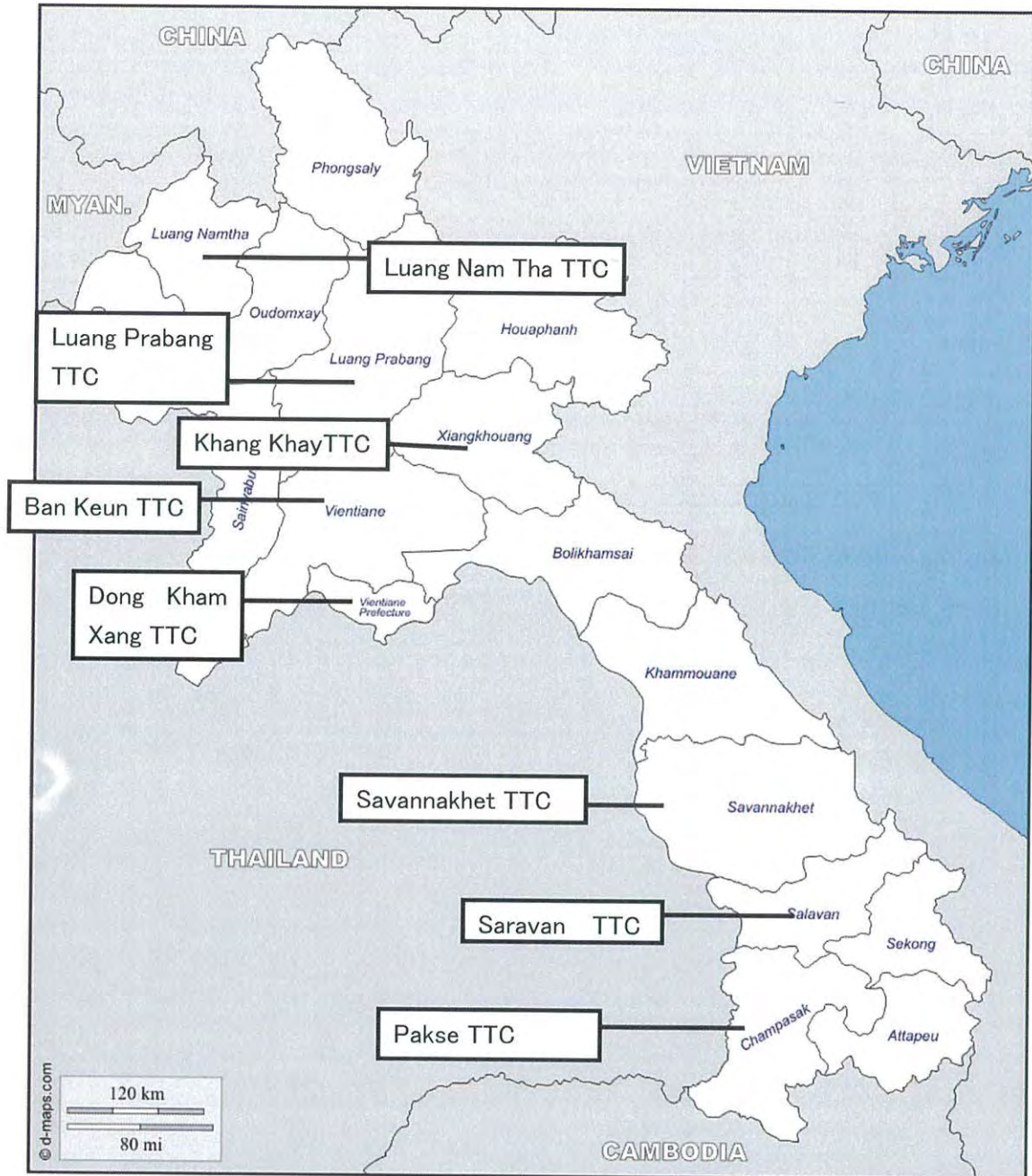
Annex 3 Organization Chart

Annex 4 Japanese Grant

Annex 5 Major Undertakings to be taken by the Government of the Lao PDR



Map of 8 TTCs



**Requested Items with Priorities****1. Facilities****(1) Luang Nam Tha TTC**

Priority <sup>1</sup>	Item
A	Reconstruction of Pre-primary Demonstration School
A	Reconstruction of Primary Demonstration School
A	Reconstruction of Secondary Demonstration School
C	Additional construction of Dormitory
C	Reconstruction or rehabilitation of Library

**(2) Luang Prabang TTC**

Priority	Item
A	New construction of Secondary Demonstration School
A	Reconstruction of Toilet Building
B	New construction of Complex Building containing library, laboratories and computer rooms
B	Additional construction or reconstruction of Pre-primary Demonstration School
B	Reconstruction of Primary Demonstration School
C	Additional construction of Dormitory

**(3) Khang Khay TTC**

Priority	Item
A	New construction of Pre-primary Demonstration School
A	New construction of Primary Demonstration School
A	New construction of Secondary Demonstration School
B	Reconstruction of TTC Classroom Building
C	Additional construction of Dormitory

<sup>1</sup> Legend for Priorities

A: To be covered by the Project with higher priority.

B: Considered to be covered by the Project, if the budget allocated for the Project allows.

C: Not to be covered by the Project in consideration of the budget allocated for the Project.



(4) Ban Keun TTC

Priority	Item
A	Reconstruction of Pre-primary Demonstration School
A	Reconstruction of Primary Demonstration School
A	Reconstruction of Secondary Demonstration School
B	Additional construction of TTC Classroom Building
C	Additional construction of Dormitory
C	Reconstruction of Library

(5) Dong Kham Xang TTC

Priority	Item
A	Additional construction of Pre-primary School
A	Reconstruction of Primary Demonstration School
A	New construction of Secondary Demonstration School <sup>2</sup>
A	Reconstruction of TTC Classroom Building
C	Additional construction of Dormitory
C	Reconstruction or rehabilitation of Library

(6) Savannakhet TTC

Priority	Item
A	Reconstruction of Pre-primary Demonstration School
A	Reconstruction of Primary Demonstration School
A	New construction of Secondary Demonstration School
A	Reconstruction of Toilet Building
C	Additional construction of Dormitory

(7) Saravan TTC

Priority	Item
A	Reconstruction of Pre-primary Demonstration School
A	New construction of Secondary Demonstration School

<sup>2</sup> Only if necessity of establishment of a secondary demonstration school is justified through further analysis of the situation of secondary teacher training at Dong Kham Xang TTC as well as MOES's future strategies on secondary teacher training.

B	Reconstruction of Primary Demonstration School
B	Additional construction of TTC Classroom Building

(8) Pakse TTC

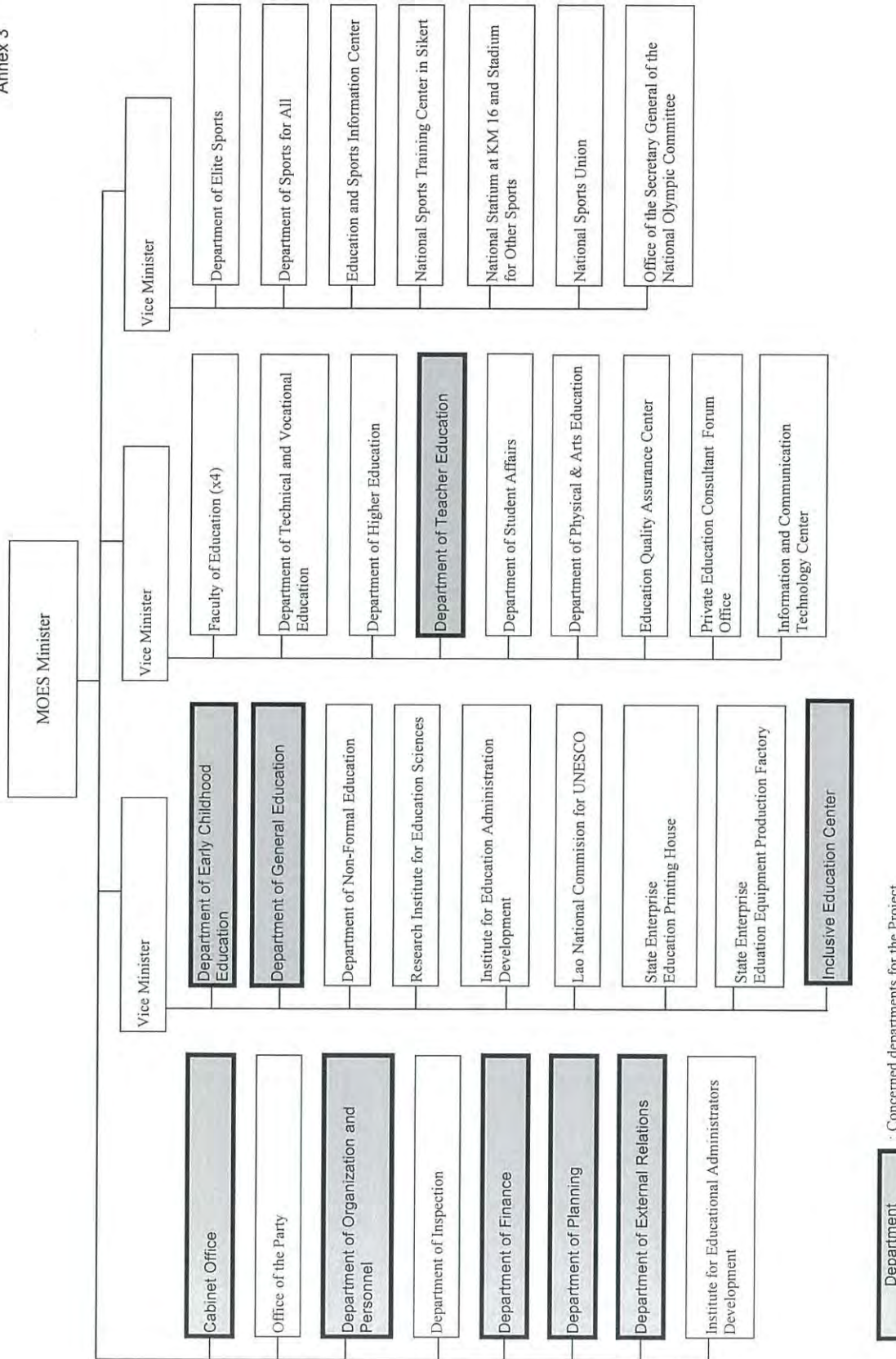
Priority	Item
A	Reconstruction of Primary Demonstration School
A	Reconstruction of Dormitory
A	Reconstruction or additional construction of Secondary Demonstration School
B	Reconstruction of TTC Classroom Building
B	Reconstruction of Pre-primary Demonstration School

**2. Equipment**

Priority	Item
A	Equipment for Demonstration Schools: MOES standard equipment for pre-primary, primary and secondary schools
B	Equipment for TTC: Only frequently used but missing equipment items which are necessary for TTC curricula

END

Annex 3





## JAPANESE GRANT

The Japanese Grant is non-reimbursable fund provided to a recipient country (hereinafter referred to as “the Recipient”) to purchase the products and/or services (engineering services and transportation of the products, etc.) for its economic and social development in accordance with the relevant laws and regulations of Japan. Followings are the basic features of the project grants operated by JICA (hereinafter referred to as “Project Grants”).

### 1. Procedures of Project Grants

Project Grants are conducted through following procedures (See “PROCEDURES OF JAPANESE GRANT” for details):

#### (1) Preparation

- The Preparatory Survey (hereinafter referred to as “the Survey”) conducted by JICA

#### (2) Appraisal

- Appraisal by the government of Japan (hereinafter referred to as “GOJ”) and JICA, and Approval by the Japanese Cabinet

#### (3) Implementation

##### Exchange of Notes

- The Notes exchanged between the GOJ and the government of the Recipient

##### Grant Agreement (hereinafter referred to as “the G/A”)

- Agreement concluded between JICA and the Recipient

##### Banking Arrangement (hereinafter referred to as “the B/A”)

- Opening of bank account by the Recipient in a bank in Japan (hereinafter referred to as “the Bank”) to receive the grant

##### Construction works/procurement

- Implementation of the project (hereinafter referred to as “the Project”) on the basis of the G/A

#### (4) Ex-post Monitoring and Evaluation

- Monitoring and evaluation at post-implementation stage

### 2. Preparatory Survey

#### (1) Contents of the Survey

The aim of the Survey is to provide basic documents necessary for the appraisal of the the Project made by the GOJ and JICA. The contents of the Survey are as follows:

- Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of

## Appendix 4-1. Minutes of Discussions (Signed on September 21, 2018)

relevant agencies of the Recipient necessary for the implementation of the Project.

- Evaluation of the feasibility of the Project to be implemented under the Japanese Grant from a technical, financial, social and economic point of view.
- Confirmation of items agreed between both parties concerning the basic concept of the Project.
- Preparation of an outline design of the Project.
- Estimation of costs of the Project.
- Confirmation of Environmental and Social Considerations

The contents of the original request by the Recipient are not necessarily approved in their initial form. The Outline Design of the Project is confirmed based on the guidelines of the Japanese Grant.

JICA requests the Recipient to take measures necessary to achieve 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 executing agency of the Project. Therefore, the contents of the Project are confirmed by all relevant organizations of the Recipient based on the Minutes of Discussions.

### (2) Selection of Consultants

For smooth implementation of the Survey, JICA contracts with (a) consulting firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms.

### (3) Result of the Survey

JICA reviews the report on the results of the Survey and recommends the GOJ to appraise the implementation of the Project after confirming the feasibility of the Project.

## 3. Basic Principles of Project Grants (contract with Japanese consultant and local contractors)

### (1) Implementation Stage

#### 1) The E/N and the G/A

After the Project is approved by the Cabinet of Japan, the Exchange of Notes (hereinafter referred to as “the E/N”) will be signed between the GOJ and the Government of the Recipient to make a pledge for assistance, which is followed by the conclusion of the G/A between JICA and the Recipient to define the necessary articles, in accordance with the E/N, to implement the Project, such as conditions of disbursement, responsibilities of the Recipient, and procurement conditions. The terms and conditions generally applicable to the Japanese Grant are stipulated in the “General Terms and Conditions for Japanese Grant (January 2016).”

## Appendix 4-1. Minutes of Discussions (Signed on September 21, 2018)

### 2) Banking Arrangements (B/A) (See “Financial Flow of Grant” for details)

- a) The Recipient shall open an account or shall cause its designated authority to open an account under the name of the Recipient in the Bank, in principle. JICA will disburse the Japanese Grant in Japanese yen for the Recipient to cover the obligations incurred by the Recipient under the verified contracts.
- b) In case of Japanese consultant, the Japanese Grant will be disbursed when payment requests are submitted by the Bank to JICA under an Authorization to Pay (A/P) issued by the Recipient.
- c) In case of local contractors, the Japanese Grant will be disbursed when requests for disbursement are submitted by the Recipient to JICA.

### 3) Procurement Procedure

The products and/or services necessary for the implementation of the Project shall be procured in accordance with JICA's procurement guidelines as stipulated in the G/A.

### 4) Selection of Consultants

In order to maintain technical consistency, the consulting firm(s) which conducted the Survey will be recommended by JICA to the Recipient to continue to work on the Project's implementation after the E/N and G/A.

### 5) Eligible source country

In using the Japanese Grant disbursed by JICA for the purchase of products and/or services, the eligible source countries of such products and/or services shall be Japan and/or the Recipient. The Japanese Grant may be used for the purchase of the products and/or services of a third country as eligible, if necessary, taking into account the quality, competitiveness and economic rationality of products and/or services necessary for achieving the objective of the Project. However, the prime consulting firm, which enter into contracts with the Recipient, are limited to "Japanese nationals", while the prime constructing firms, which enter into contracts with the Recipient, could be nationals of the recipient country or other country(ies) if deemed it necessary .

### 6) Contracts and Concurrence by JICA

The Recipient will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be concurred by JICA in order to be verified as eligible for using the Japanese Grant.

### 7) Monitoring

The Recipient is required to take their initiative to carefully monitor the progress of the Project in order to ensure its smooth implementation as part of their responsibility in the G/A, and to regularly report to JICA about its status by using the Project Monitoring Report (PMR).

### 8) Safety Measures

The Recipient must ensure that the safety is highly observed during the implementation of the Project.

9) Construction Quality Control Meeting

Construction Quality Control Meeting (hereinafter referred to as the “Meeting”) will be held for quality assurance and smooth implementation of the Works at each stage of the Works. The member of the Meeting will be composed by the Recipient (or executing agency), the Consultant, the Contractor and JICA. The functions of the Meeting are as followings:

- a) Sharing information on the objective, concept and conditions of design from the Contractor, before start of construction.
- b) Discussing the issues affecting the Works such as modification of the design, test, inspection, safety control and the Client’s obligation, during of construction.

(2) Ex-post Monitoring and Evaluation Stage

- 1) After the project completion, JICA will continue to keep in close contact with the Recipient in order to monitor that the outputs of the Project is used and maintained properly to attain its expected outcomes.
- 2) In principle, JICA will conduct ex-post evaluation of the Project after three years from the completion. It is required for the Recipient to furnish any necessary information as JICA may reasonably request.

(3) Others

1) Environmental and Social Considerations

The Recipient shall carefully consider environmental and social impacts by the Project and must comply with the environmental regulations of the Recipient and JICA Guidelines for Environmental and Social Considerations (April, 2010).

2) Major undertakings to be taken by the Government of the Recipient

For the smooth and proper implementation of the Project, the Recipient is required to undertake necessary measures including land acquisition, and bear an advising commission of the A/P and payment commissions paid to the Bank as agreed with the GOJ and/or JICA. The Government of the Recipient shall ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the Recipient with respect to the purchase of the Products and/or the Services be exempted or be borne by its designated authority without using the Grant and its accrued interest, since the grant fund comes from the Japanese taxpayers.

Appendix 4-1. Minutes of Discussions (Signed on September 21, 2018)

3) Proper Use

The Recipient is required to maintain and use properly and effectively the products and/or services under the Project (including the facilities constructed and the equipment purchased), to assign staff necessary for this operation and maintenance and to bear all the expenses other than those covered by the Japanese Grant.

4) Export and Re-export

The products purchased under the Japanese Grant should not be exported or re-exported from the Recipient.

Attachment 1 Procedures of Japanese Grant

Attachment 2 Financial Flow of Japanese Project Grant

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Appendix 4-1. Minutes of Discussions (Signed on September 21, 2018)

Attachment 1 of Annex 4

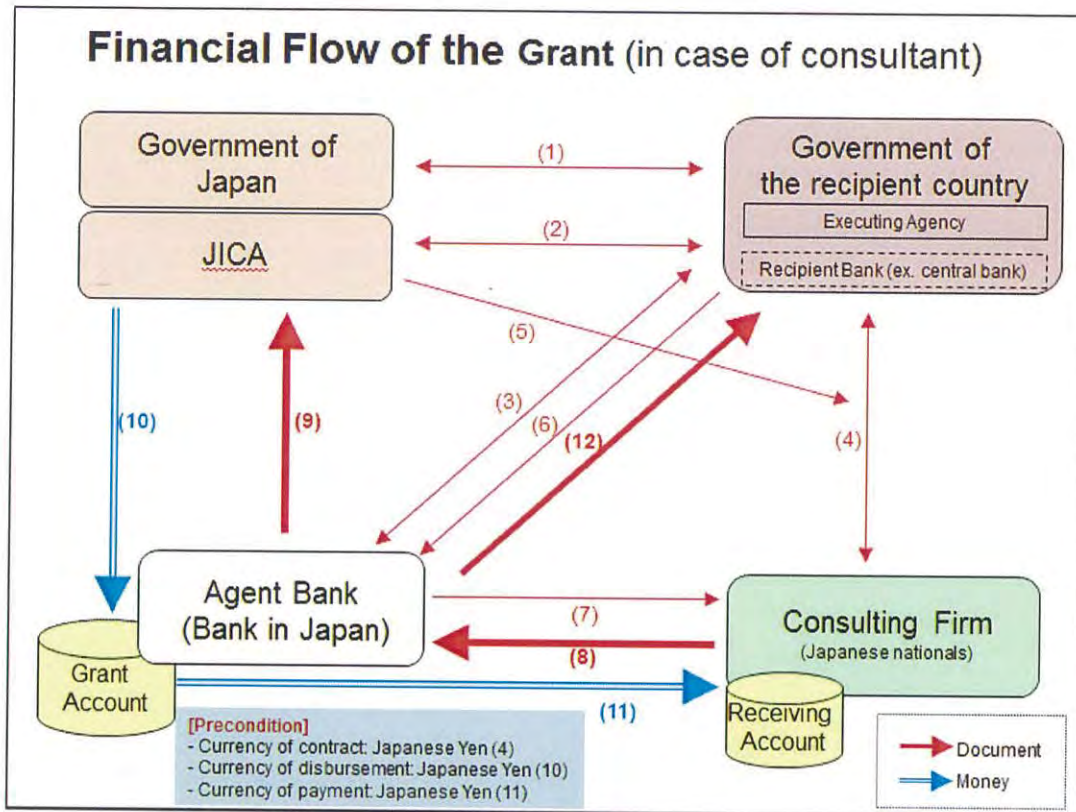
PROCEDURES OF JAPANESE GRANT

Stage	Procedures	Remarks	Recipient Government	Japanese Government	JICA	Consultants	Contractors	Agent Bank	
Official Request	Request for grants through diplomatic channel	Request shall be submitted before appraisal stage.	x	x					
1. Preparation	(1) Preparatory Survey Preparation of outline design and cost estimate		x		x	x			
2. Appraisal	(2) Preparatory Survey Explanation of draft outline design, including cost estimate, undertakings, etc.		x		x	x			
	(3) Agreement on conditions for implementation	Conditions will be explained with the draft notes (E/N) and Grant Agreement (G/A) which will be signed before approval by Japanese government.	x	x (E/N)	x (G/A)				
	(4) Approval by the Japanese cabinet			x					
3. Implementation	(5) Exchange of Notes (E/N)		x	x					
	(6) Signing of Grant Agreement (G/A)		x		x				
	(7) Banking Arrangement (B/A)	Need to be informed to JICA	x					x	
	(8) Contracting with consultant and issuance of Authorization to Pay (A/P)	Concurrence by JICA is required	x			x		x	
	(9) Detail design (D/D)		x			x			
	(10) Preparation of bidding documents	Concurrence by JICA is required	x			x			
	(11) Bidding	Concurrence by JICA is required	x			x	x		
	(12) Contracting with contractor/supplier	Concurrence by JICA is required Request for disbursement shall be made by the Recipient, in case of local contractor.	x		x			x	x
	(13) Construction works/procurement	Concurrence by JICA is required for major modification of design and amendment of contracts.	x			x	x		
	(14) Completion certificate		x			x	x		
4. Ex-post monitoring & evaluation	(15) Ex-post monitoring	To be implemented generally after 1, 3, 10 years of completion, subject to change	x		x				
	(16) Ex-post evaluation	To be implemented basically after 3 years of completion	x		x				

notes:

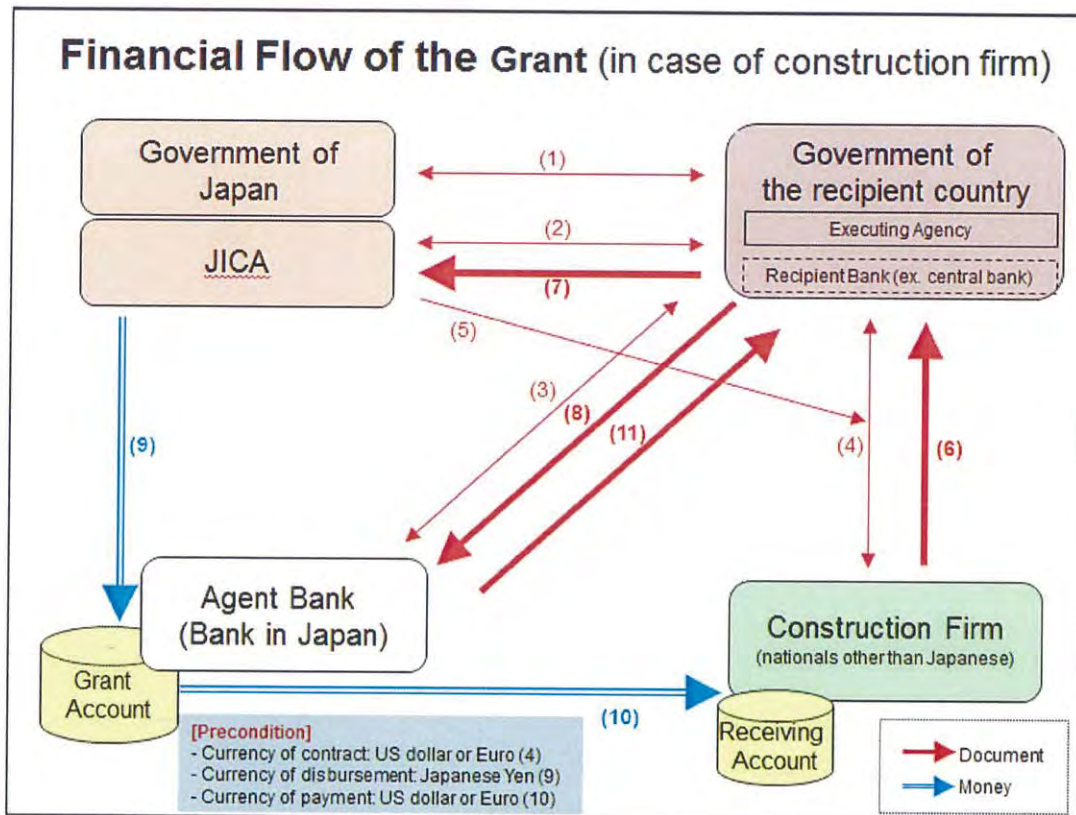
1. Project Monitoring Report and Report for Project Completion shall be submitted to JICA as agreed in the G/A.
2. Concurrence by JICA is required for allocation of grant for remaining amount and/or contingencies as agreed in the G/A.

**Financial Flow of Japanese Project Grant  
(contract with Japanese consultant and local contractors)**



- (1) E/N
- (2) G/A
- (3) Banking Arrangement/Opening an Grant Account
- (4) Contract
- (5) Concurrence and Verification of Contract
- (6) Issuing Authorization to Pay (A/P) upon contract
- (7) Notification of A/P
- (8) Request for Payment**
- (9) Request for the Disbursement**
- (10) Disbursement of the Grant**
- (11) Payment**
- (12) Statement of Account**





(1) E/N

(2) G/A

Submission of Evidence of Authority and Specimen Signatures from the Recipient to JICA (prerequisite for the process of no. (7))

(3) Banking Arrangement/Opening an Grant Account

(4) Contract

(5) Concurrence and Verification of Contract

**(6) Request for Payment**

**(7) Request for Disbursement**

**(8) Transfer Instruction**

**(9) Disbursement of the Grant \***

**(10) Payment**

**(11) Statement of Account**

\* The amount of disbursement in Japanese Yen ((9) in above chart) shall be calculated at the Telegraphic Transfer Selling (TTS) rate quoted by the Bank in Japan two business days before the date on which the disbursement is made.



## Major Undertakings to be taken by the Government of the Lao PDR

**1. Specific obligations of the Government of the Lao PDR which will not be funded with the Grant**

## (1) Before the Bidding

NO	Items	Deadline	In charge	Estimated Cost	Ref.
1	To open bank account (B/A)	within 1 month after the signing of the G/A	BOL		
2	To issue A/P to a bank in Japan (the Agent Bank) for the payment to the consultant	within 1 month after the signing of the contract	BOL		
3	To secure and clear the following lands 1) project area at the 8 TTCs 2) temporary construction yard and stock yard within/near the project area	before the commencement of the detailed design works	MOES		
4	To obtain the UXO clearance certificates for the designated TTC sites	before the commencement of the detailed design works			
5	To clear and level the following sites 1) removing obstacles such as trees 2) removing existing facilities, if necessary 3) levelling the project area where necessary	before the commencement of the detailed design works	MOES		
6	To obtain the building permits, if necessary	during preparation of the bidding documents	MOES		
7	To submit Project Monitoring Report (with the result of Detail Design)	during preparation of the bidding documents	MOES		
8	To secure alternative facilities to accommodate users of the existing buildings to be demolished for reconstruction	before the demolition works			
9	To move and store necessary furniture and equipment from the existing buildings to be demolished for reconstruction	before the demolition works			
10	To ensure smooth implementation of the bidding procedures and to bear necessary expenses relevant to the bidding procedures including, but not limited to, the following - printing and binding of bidding documents - bid notices on major newspapers - securing places for pre-bid meeting - securing places for bid opening - securing places for bid evaluation	before the bid notice	MOES		

(B/A: Banking Arrangement, A/P: Authorization to pay, N/A: Not Applicable)

Appendix 4-1. Minutes of Discussions (Signed on September 21, 2018)

(2) During the Project Implementation

NO	Items	Deadline	In charge	Estimated Cost	Ref.
1	To bear the following commissions to a bank in Japan for the banking services based upon the B/A				
2	1) Advising commission of A/P	within 1 month after the signing of the contract(s)	MOES		
	2) Payment commission for A/P	every payment for consultant	MOES		
	3) Remittance charge for local contractors and suppliers	every payment	MOES		
3	To conduct necessary procedures such as "Request for disbursement" to JICA (upon contract with construction firms and/or procurement firms (suppliers)), "Application of remittance" to Bank (upon contract with construction firms and/or procurement firms (suppliers))	during the Project	MOES		
4	to ensure prompt customs clearance and to assist the Supplier(s) with internal transportation in the country of the Recipient	during the Project	MOES MOF		
5	To accord Japanese physical persons and/or physical persons of third countries whose services may be required in connection with the supply of the products and the services such facilities as may be necessary for their entry into the country of the Recipient and stay therein for the performance of their work	during the Project	MOES		
6	To ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the country of the Recipient with respect to the purchase of the products and/or the services be exempted	during the Project	MOES MOF		
7	To bear all the expenses, other than those covered by the Grant, necessary for the implementation of the Project	during the Project	MOES		
8	To bear necessary expense, including, but not limited to, transportation, per-diem and accommodation, for MOES, PESS and/or DESB personnel who join the site visits and inspections	during the Project	MOES		
9	(In case that the demolition works are done by Japan side) To conduct UXO detection surveys and issuance of clearance certificates for the areas where the existing buildings are demolished, if necessary	immediately after demolition works done by Japan side	MOES		
10	To submit Project Monitoring Report	every month	MOES		
11	1) To submit Project Monitoring Report (final)	within one month after signing of Certificate of Completion for the works under the contract(s)	MOES		
	2) To submit a report concerning completion of the Project	within six months after completion of the Project	MOES		
12	To provide facilities for distribution of electricity, water supply and drainage and other incidental facilities necessary for the implementation of the Project outside the site(s)				
	1) Electricity The distributing line to the sites where necessary	before start of the construction	MOES		
	2) Water Supply The city water distribution main to the sites where necessary	6 months before completion of the construction	MOES		
	3) Drainage The city drainage main ( for storm, sewer and others ) to the sites where necessary	6 months before completion of the construction	MOES		
	4) Furniture and Equipment General furniture other than the ones procured by the Project	1 month before completion of the construction	MOES		



Appendix 4-1. Minutes of Discussions (Signed on September 21, 2018)

13	To take necessary measures for safety of construction - vehicle and pedestrian traffic control within the TTC sites - safety instructions to the TTC users	during the construction	MOES		
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(3) After the Project

NO	Items	Deadline	In charge	Estimated Cost	Ref.
1	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid 1) Allocation of maintenance cost 2) Operation and maintenance structure 3) Routine check/Periodic inspection	After completion of the construction			
2	To allocate teachers and staffs required for school operation and management	After completion of the construction			

2. Other obligations of the Government of the Lao PDR funded with the Grant

NO	Items	Deadline	Amount (Million Japanese Yen)*
1	1) To construct facilities with basic furniture 2) To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities within the project sites 3) To procure equipment and conduct internal transportation		/
2	To implement detailed design, bidding support and construction supervision (Consulting Service)		
3	Contingencies		
	Total		XXX

\*The Amount is provisional. This is subject to the approval of the Government of Japan.

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**4-2. Minutes of Discussions**  
**(Signed on February 13, 2020)**

**Minutes of Discussions  
on the Preparatory Survey on  
the Project for  
Improving of Teacher Training Colleges  
in the Lao People's Democratic Republic  
(Explanation on Draft Preparatory Survey Report)**

With reference to the minutes of discussions signed between the Ministry of Education and Sports and the Japan International Cooperation Agency (hereinafter referred to as "JICA") on 21 September, 2018 and in response to the request from the Government of Lao People's Democratic Republic (hereinafter referred to as "Lao PDR") dated 3 January, 2020, JICA dispatched the Preparatory Survey Team (hereinafter referred to as "the Team") for the explanation of Draft Preparatory Survey Report (hereinafter referred to as "the Draft Report") for the Project for Improving Teacher Training Colleges in the Lao People's Democratic Republic (hereinafter referred to as "the Project").

As a result of the discussions, both sides agreed on the main items described in the attached sheets.

Vientiane, 13 February, 2020

徳田 由美



Yumi TOKUDA  
Leader  
Preparatory Survey Team  
Japan International Cooperation Agency  
Japan



Daravone KITTIPHANH  
Acting Permanent Secretary  
Cabinet Office  
Ministry of Education and Sports  
Lao People's Democratic Republic

## ATTACHEMENT

### 1. Objective of the Project

The objective of the Project is to improve the quality of the teacher training environment for pre-primary, primary and secondary education in the Lao PDR, thereby contributing to improvement of the quality of basic education in the nation.

### 2. Title of the Preparatory Survey

Both sides confirmed the title of the Preparatory Survey as “the Preparatory Survey on the Project for Improvement of Teacher Training Colleges”.

### 3. Project site

Both sides confirmed that the sites of the Project are eight Teacher Training Colleges (hereinafter referred to as “TTCs”) including their demonstration schools, namely Luang Nam Tha TTC, Luang Prabang TTC, Khang Khay TTC, Ban Keun TTC, Dong Kham Xang TTC, Savannakhet TTC, Saravan TTC and Pakse TTC in the Lao PDR. which are shown in the Annex 1.

### 4. Responsible authority for the Project

Both sides confirmed the authorities responsible for the Project are as follows:

4-1. Ministry of Education and Sports (hereinafter referred to as the “MOES”) will be the executing agency for the Project (hereinafter referred to as the “Executing Agency”). The Executing Agency shall coordinate with all the relevant authorities to ensure smooth implementation of the Project and ensure that undertakings for the Project shall be taken care by the relevant authorities properly and on time.

4-2 MOES will establish the project management unit (hereinafter referred to as “PMU”) for the Project, and Department of Teacher Education (heinafter referred to as “DTE”) will be the responsible department of PMU, while Cabinet Office (hereinafter referred to as “CO”), Department of Finance (hereinafter referred to s “DOF”), Department of Planning (hereinafter referred to as “DP”) and Department of External Relations (hereinafter referred to as “DER”) will act as the key departments of PMU during the implementation of the Project. The other relevant departmnets of MOES<sup>1</sup>, 8 TTCs and PUCDAs concerned<sup>2</sup> will also be involved in PMU as committee members. MOES promised to establish PMU as a conclusion of ministerial

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<sup>1</sup> The relevant departmens of MOES as PMU committee membes are; Department of Early Childhood Educaion (DECE), Department of General Education (DGE), Department of Organization and Personnel (DOP) and Inclusive Education Center (IEC).

<sup>2</sup> PUCDA (Provincial Unit Construction Development Assistance) concerned with each TTC will be involved during the construction period for the activities at the site level, including site handing-over, monthly progress inspection, technical inspection, completion inspection and final taking over.



agreement, and it shall be reported to JICA by end of May 2020. The tentative version of organization charts is shown in Annex 2.

5. Contents of the Draft Report

After the explanation of the contents of the Draft Report by the Team, the Lao PDR side agreed to its contents.

6. Cost estimate

Both sides confirmed that the cost estimate explained by the Team is provisional and will be examined further by the Government of Japan for its approval.

Both sides confirmed that the cost estimate including the contingency explained by the Team is provisional and will be examined further by the Government of Japan for its approval. The contingency would cover the additional cost against natural disaster, unexpected natural conditions, fluctuation of exchange rate, etc.

7. Confidentiality of the cost estimate and technical specifications

Both sides confirmed that the cost estimate and technical specifications of the Project should never be disclosed to any third parties until all the contracts under the Project are concluded.

8. Procedures and Basic Principles of Japanese Grant

8-1 The Lao PDR side agreed that the procedures and basic principles of Japanese Grant (hereinafter referred to as "the Grant") as described in Annex 3 shall be applied to the Project. In addition, the Lao PDR side agreed to take necessary measures according to the procedures.

8-2 Eligible nationality

The eligible nationality of consultant shall be Japanese physical persons or Japanese juridical persons controlled by Japanese physical persons, in the case of the consultant that will contract directly with the Recipient for the implementation of the Project.

The eligible nationality of the other Supplier(s) shall be nationals of the Lao PDR or juridical persons incorporated and registered in the Lao PDR who have their appropriate facilities for producing or providing the products and/or services in the Lao PDR and actually conduct their business there, in the case of the other Supplier(s) that will contract directly with the Recipient for the implementation of the Project.

8-3 Flow of payment and currency of payment to prime contractor(s)

The Lao PDR side understood the flow of payment as shown in Annex 4 and confirmed to take necessary measures for the payment in a timely manner. The Lao PDR explained that it will



nominate “Bank of Lao PDR” as the “Recipient Bank” that conclude the banking arrangement (hereinafter referred to as “the Banking Arrangement”) with a bank in Japan (hereinafter referred to as “the Agent Bank”).

The Lao PDR side agreed that the currency for contract of prime construction and/or procurement firms is internationally traded foreign currency acceptable to JICA, that is US dollar, which will be stipulated in the Grant Agreement.

The Lao PDR side understood flow of approval during the execution of the contract and required documents for payments to prime contractor(s)/supplier(s) as Annex 4.

#### 8-4 Bidding procedure and procurement guidelines

The bidding/selection and conclusion of contracts of the products and services covered by Grant of the Project will be conducted at the Lao PDR. The Lao PDR side understands that the products and services covered by Grant of the Project will be procured in accordance with JICA’s Procurement Guidelines for the Japanese Grants (for Japanese consultant and local contractor).

#### 9. Timeline for the project implementation

The Team explained to the Lao PDR side that the expected timeline for the project implementation is as attached in Annex 5.

#### 10. Expected outcomes and indicators

Both sides agreed that key indicators for expected outcomes are as follows. The Lao PDR side will be responsible for the achievement of agreed key indicators targeted in year 2027 and shall monitor the progress by the Executing Agency based on those indicators.

##### [Quantitative indicators]

Indicators		Base value (Actual value in 2018)	Target value (Year 2027: 3 years after the completion)
The number of TTC demonstration schools located inside of TTC sites with proper environment for teacher training and research activities	Pre-primary education	1	8
	Primary education	2	8
	Secondary education	0	8

##### [Qualitative indicators]

- By constructing TTC demonstration schools, the environment for (1) research of teaching method and curriculum, (2) teacher training, and (3) continuous professional development

(CPD) of in-service teachers and pedagogical advisors (PA) will be improved and the quality of education in the Lao PDR will be improved.

- The positive spreading effect at surrounding areas is expected by practicing model education at demonstration schools.

#### 11. Ex-Post Evaluation

JICA will conduct ex-post evaluation after three (3) years from the project completion, in principle, with respect to five evaluation criteria (Relevance, Effectiveness, Efficiency, Impact, Sustainability). The result of the evaluation will be publicized. The Lao PDR side is required to provide necessary support for the data collection.

#### 12. Undertakings of the Project

Both sides confirmed the undertakings of the Project as described in Annex 6. With regard to exemption of customs duties, internal taxes and other fiscal levies as stipulated in 1.(2) 6 of Annex 6, both sides confirmed that such customs duties, internal taxes and other fiscal levies, which shall be clarified in the bid documents by MOES during the implementation stage of the Project.

The Lao PDR side assured to take the necessary measures and coordination including allocation of the necessary budget which are preconditions of implementation of the Project. It is further agreed that the costs are indicative, i.e. at Outline Design level. More accurate costs will be calculated at the Detailed Design stage.

Both sides also confirmed that the Annex 6 will be used as an attachment of G/A.

#### 13. Monitoring during the implementation

The Project will be monitored by the Executing Agency and reported to JICA by using the form of Project Monitoring Report (PMR) attached as Annex 7. The timing of submission of the PMR is described in Annex 6.

#### 14. Project completion

Both sides confirmed that the Project completes when all the facilities constructed and equipment procured by the Grant are in operation. The completion of the Project will be reported to JICA promptly, but in any event not later than six months after completion of the Project.

#### 15. Items and measures to be considered for the smooth implementation of the Project

- 15-1 The Lao PDR side confirmed that when problems such as delay of construction works or procurement of equipment by contractor(s)/supplier(s) arises during the implementation of the Project, the MOES will take necessary measures in accordance with technical opinion of the consultant in a timely manner.



15-2 The Lao PDR side agreed that in case the amount of the Grant, which includes the contingency, is not enough to cover the entire cost of components as planned by the outline design, the Lao PDR side will take necessary measures such as revising specifications, reducing the Project scope, or absorbing the cost exceeding the amount of the Grant, based on technical analysis and opinions of the consultant.

## 16. Schedule of the Study

JICA will finalize the Preparatory Survey Report based on the confirmed items. The report will be sent to the Lao PDR side around June 2020.

## 17. Environmental and Social Considerations

### 17-1 Environmental Guidelines and Environmental Category

The Team explained that 'JICA Guidelines for Environmental and Social Considerations (April 2010)' (hereinafter referred to as "the Guidelines") is applicable for the Project. The Project is categorized as C because the Project is likely to have minimal adverse impact on the environment under the Guidelines.

## 18. Other Relevant Issues

### 18-1 TTC secondary demonstration schools

MOES instructed that all 8 TTCs would have demonstration schools covering from N1 to M7 and confirmed that this policy will be mentioned in Education and Sports Sector Development Plan (2021-2025).

Regarding Dong Kham Xang TTC and Khang Khay TTC, MOES confirmed that secondary demonstration schools will operate from next school year (September 2020). Both sides agreed that these two secondary demonstration schools may be excluded from the Project component if they will not operate from next school year.

### 18-2 Assignment of appropriate teachers

The Lao PDR side committed to assign appropriate teachers and school staff to the TTC demonstration schools for their proper operation.

### 18-3 UXO clearance

The Team explained the areas where the UXO clearance have not been fully completed in the respective TTCs. The Lao PDR side promised to clear the areas by the end of July 2020. The current status of UXO clearance is described in Annex 8.

It is found that the proposed construction area for demonstration schools of KKY TTC shall be cut and leveled. The Lao PDR side promised that the following items shall be conducted by the

Lao PDR side, because the existing ground in wider areas needs to be cut and leveled, and because the previous UXO clearance was conducted 20 years ago.

- 1) Cutting and leveling of the proposed areas
- 2) Re-implementation of UXO clearance

#### 18-4 Eligible countries of origin for equipment

Both sides agreed that the Project will procure the equipment made in Thailand or OECD member countries. Besides, MOES agreed that educational posters in Lao, traditional Lao musical instrument, etc. which are exclusively manufactured by the Educational Equipment Production Factory Enterprise under MOES will be procured by the Lao PDR side.

#### 18-5 Implementation groups

The Team explained that the 8 TTCs are divided into two implementation groups as they are located nationwide. It is described in Annex 9.

#### 18-6 Demolition of the existing buildings

Assuming that the Project is approved by the Government of Japan in May 2020, the construction contracts for Group 1 between MOES and Contractors are likely to be signed around November 2021. It is no time for the Lao PDR side to secure budget to demolish the existing buildings. Therefore, for the sake of smooth implementation of the Project, the demolition of the existing buildings of Group 1 sites will be covered by the Japan side. In contrast, for Group 2 sites, because construction starts around November 2022, and the Lao PDR side may complete its undertakings before construction, the demolition of the existing buildings of Group 2 sites are undertaken by the Lao PDR side.

Annex 1 Project Site

Annex 2 Organization Chart

Annex 3 Japanese Grant

Annex 4 Tentative Approval flow and required documents

Annex 5 Project Implementation Schedule

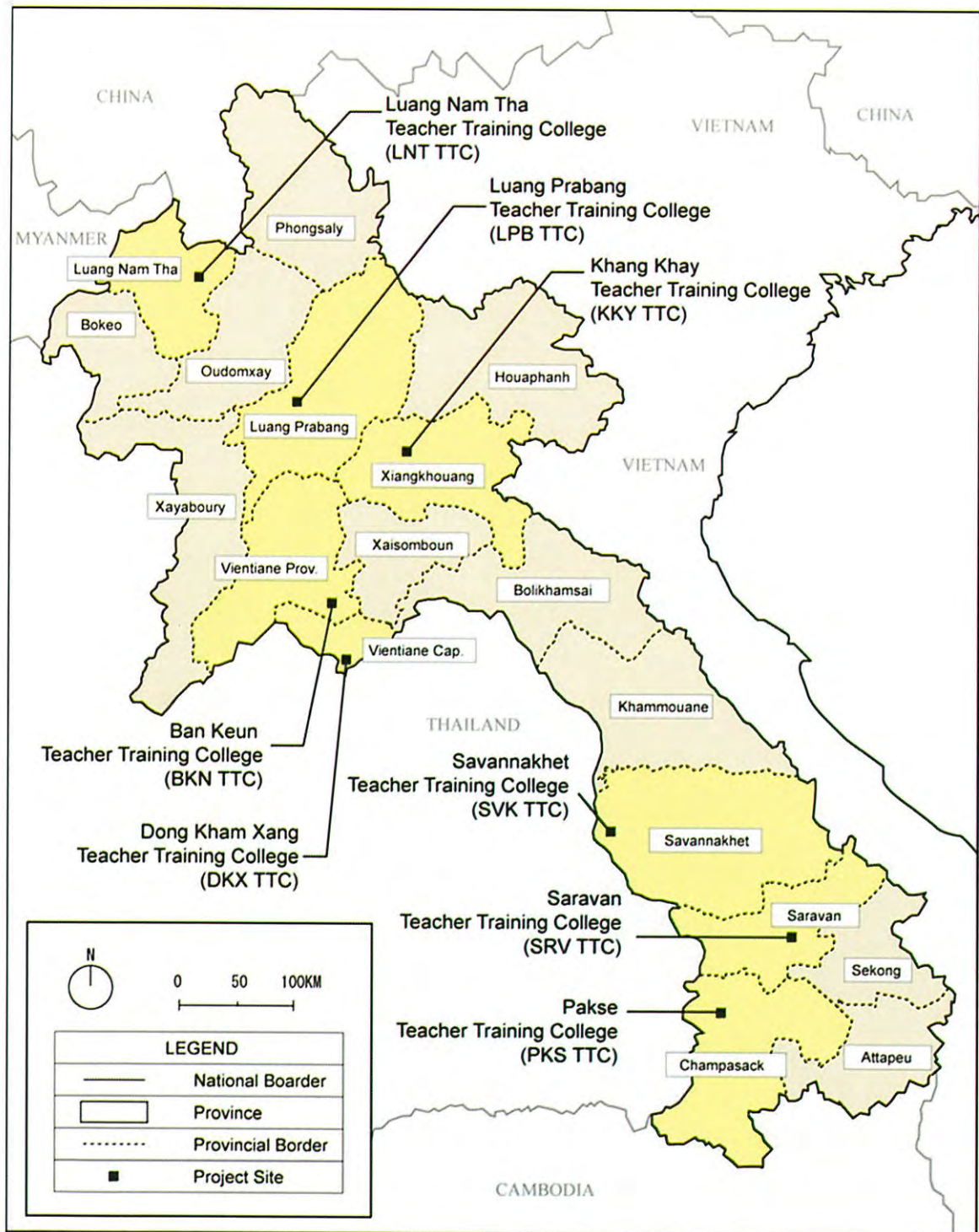
Annex 6 Major Undertakings to be taken by the Lao PDR

Annex 7 Project Monitoring Report (template)

Annex 8 Status of UXO Clearance (as of 13 February 2020)

Annex 9 Implementation groups and bidding/ contract lots

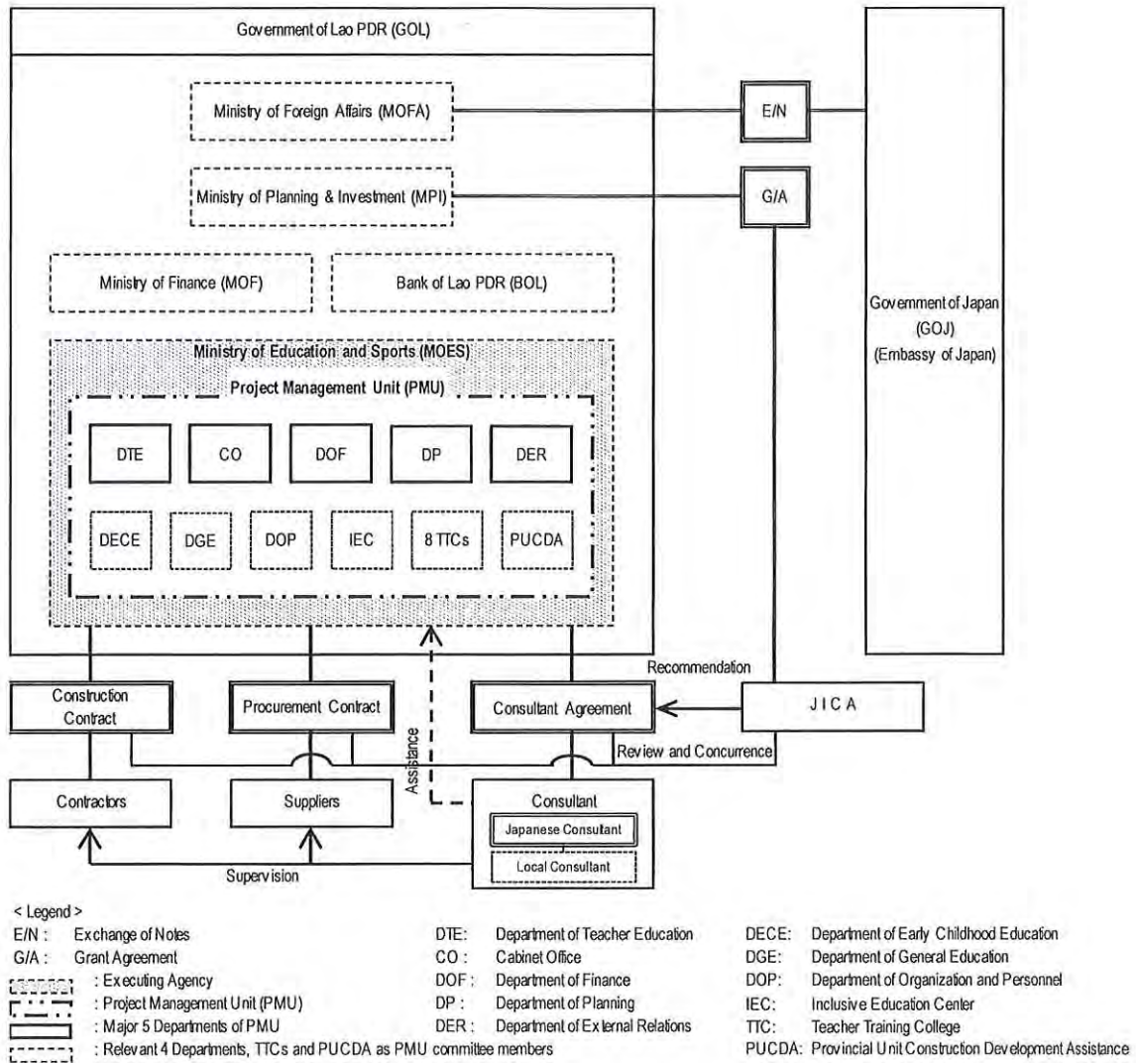




Project Site Map

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## ANNEX 2 Organization Chart



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## JAPANESE GRANT

The Japanese Grant is non-reimbursable fund provided to a recipient country (hereinafter referred to as “the Recipient”) to purchase the products and/or services (engineering services and transportation of the products, etc.) for its economic and social development in accordance with the relevant laws and regulations of Japan. Followings are the basic features of the project grants operated by JICA (hereinafter referred to as “Project Grants”).

### 1. Procedures of Project Grants

Project Grants are conducted through following procedures (See “PROCEDURES OF JAPANESE GRANT” for details):

(1) Preparation

- The Preparatory Survey (hereinafter referred to as “the Survey”) conducted by JICA

(2) Appraisal

-Appraisal by the government of Japan (hereinafter referred to as “GOJ”) and JICA, and Approval by the Japanese Cabinet

(3) Implementation

Exchange of Notes

-The Notes exchanged between the GOJ and the government of the Recipient

Grant Agreement (hereinafter referred to as “the G/A”)

-Agreement concluded between JICA and the Recipient

Banking Arrangement (hereinafter referred to as “the B/A”)

-Opening of bank account by the Recipient in a bank in Japan (hereinafter referred to as “the Bank”) to receive the grant

Construction works/procurement

-Implementation of the project (hereinafter referred to as “the Project”) on the basis of the G/A

(4) Ex-post Monitoring and Evaluation

-Monitoring and evaluation at post-implementation stage

### 2. Preparatory Survey

(1) Contents of the Survey

The aim of the Survey is to provide basic documents necessary for the appraisal of the the Project made by the GOJ and JICA. The contents of the Survey are as follows:

- Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of



relevant agencies of the Recipient necessary for the implementation of the Project.

- Evaluation of the feasibility of the Project to be implemented under the Japanese Grant from a technical, financial, social and economic point of view.
- Confirmation of items agreed between both parties concerning the basic concept of the Project.
- Preparation of an outline design of the Project.
- Estimation of costs of the Project.
- Confirmation of Environmental and Social Considerations

The contents of the original request by the Recipient are not necessarily approved in their initial form. The Outline Design of the Project is confirmed based on the guidelines of the Japanese Grant.

JICA requests the Recipient to take measures necessary to achieve 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 executing agency of the Project. Therefore, the contents of the Project are confirmed by all relevant organizations of the Recipient based on the Minutes of Discussions.

## (2) Selection of Consultants

For smooth implementation of the Survey, JICA contracts with (a) consulting firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms.

## (3) Result of the Survey

JICA reviews the report on the results of the Survey and recommends the GOJ to appraise the implementation of the Project after confirming the feasibility of the Project.

### **3. Basic Principles of Project Grants (contract with Japanese consultant and local contractors)**

#### (1) Implementation Stage

##### 1) The E/N and the G/A

After the Project is approved by the Cabinet of Japan, the Exchange of Notes (hereinafter referred to as "the E/N") will be signed between the GOJ and the Government of the Recipient to make a pledge for assistance, which is followed by the conclusion of the G/A between JICA and the Recipient to define the necessary articles, in accordance with the E/N, to implement the Project, such as conditions of disbursement, responsibilities of the Recipient, and procurement conditions. The terms and conditions generally applicable to the Japanese Grant are stipulated in the "General Terms and Conditions for Japanese Grant (January 2016)."



## 2) Banking Arrangements (B/A) (See "Financial Flow of Grant" for details)

- a) The Recipient shall open an account or shall cause its designated authority to open an account under the name of the Recipient in the Bank, in principle. JICA will disburse the Japanese Grant in Japanese yen for the Recipient to cover the obligations incurred by the Recipient under the verified contracts.
- b) In case of Japanese consultant, the Japanese Grant will be disbursed when payment requests are submitted by the Bank to JICA under an Authorization to Pay (A/P) issued by the Recipient.
- c) In case of local contractors, the Japanese Grant will be disbursed when requests for disbursement are submitted by the Recipient to JICA.

## 3) Procurement Procedure

The products and/or services necessary for the implementation of the Project shall be procured in accordance with JICA's procurement guidelines as stipulated in the G/A.

## 4) Selection of Consultants

In order to maintain technical consistency, the consulting firm(s) which conducted the Survey will be recommended by JICA to the Recipient to continue to work on the Project's implementation after the E/N and G/A.

## 5) Eligible source country

In using the Japanese Grant disbursed by JICA for the purchase of products and/or services, the eligible source countries of such products and/or services shall be Japan and/or the Recipient. The Japanese Grant may be used for the purchase of the products and/or services of a third country as eligible, if necessary, taking into account the quality, competitiveness and economic rationality of products and/or services necessary for achieving the objective of the Project. However, the prime consulting firm, which enter into contracts with the Recipient, are limited to "Japanese nationals", while the prime constructing firm(s), which enter into contracts with the Recipient, could be nationals of the recipient country or other country(ies) if deemed it necessary .

## 6) Contracts and Concurrence by JICA

The Recipient will conclude the consultant contract() denominated in Japanese yen with Japanese nationals and the construction/supplier contracts dominated in other internationally traded foreign currency acceptable to JICA with the local contractors. Those contracts shall be verified by JICA in order to be eligible for the Japanese Grant.

## 7) Monitoring

The Recipient is required to take their initiative to carefully monitor the progress of the Project in order to ensure its smooth implementation as part of their responsibility in the G/A, and to regularly report to JICA about its status by using the Project Monitoring Report (PMR).

## 8) Safety Measures

The Recipient must ensure that the safety is highly observed during the implementation of the Project.

### 9) Construction Quality Control Meeting

Construction Quality Control Meeting (hereinafter referred to as the “Meeting”) will be held for quality assurance and smooth implementation of the Works at each stage of the Works, if necessary. The member of the Meeting will be composed by the Recipient (or executing agency), the Consultant, the Contractor and JICA. The functions of the Meeting are as followings:

- a) Sharing information on the objective, concept and conditions of design from the Contractor, before start of construction.
- b) Discussing the issues affecting the Works such as modification of the design, test, inspection, safety control and the Client’s obligation, during of construction.

### (2) Ex-post Monitoring and Evaluation Stage

- 1) After the project completion, JICA will continue to keep in close contact with the Recipient in order to monitor that the outputs of the Project is used and maintained properly to attain its expected outcomes.
- 2) In principle, JICA will conduct ex-post evaluation of the Project after three years from the completion. It is required for the Recipient to furnish any necessary information as JICA may reasonably request.

### (3) Others

#### 1) Environmental and Social Considerations

The Recipient shall carefully consider environmental and social impacts by the Project and must comply with the environmental regulations of the Recipient and JICA Guidelines for Environmental and Social Considerations (April, 2010).

#### 2) Major undertakings to be taken by the Government of the Recipient

For the smooth and proper implementation of the Project, the Recipient is required to undertake necessary measures including land acquisition, and bear an advising commission of the A/P and payment commissions paid to the Bank as agreed with the GOJ and/or JICA. The Government of the Recipient shall ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the Recipient with respect to the purchase of the Products and/or the Services be exempted or be borne by its designated authority without using the Grant and its accrued interest, since the grant fund comes from the Japanese taxpayers.

#### 3) Proper Use

The Recipient is required to maintain and use properly and effectively the products and/or services under the Project (including the facilities constructed and the equipment purchased), to assign staff necessary for this operation and maintenance and to bear all the expenses other than those covered by the Japanese Grant.

4) Export and Re-export

The products purchased under the Japanese Grant should not be exported or re-exported from the Recipient.

## PROCEDURES OF JAPANESE GRANT

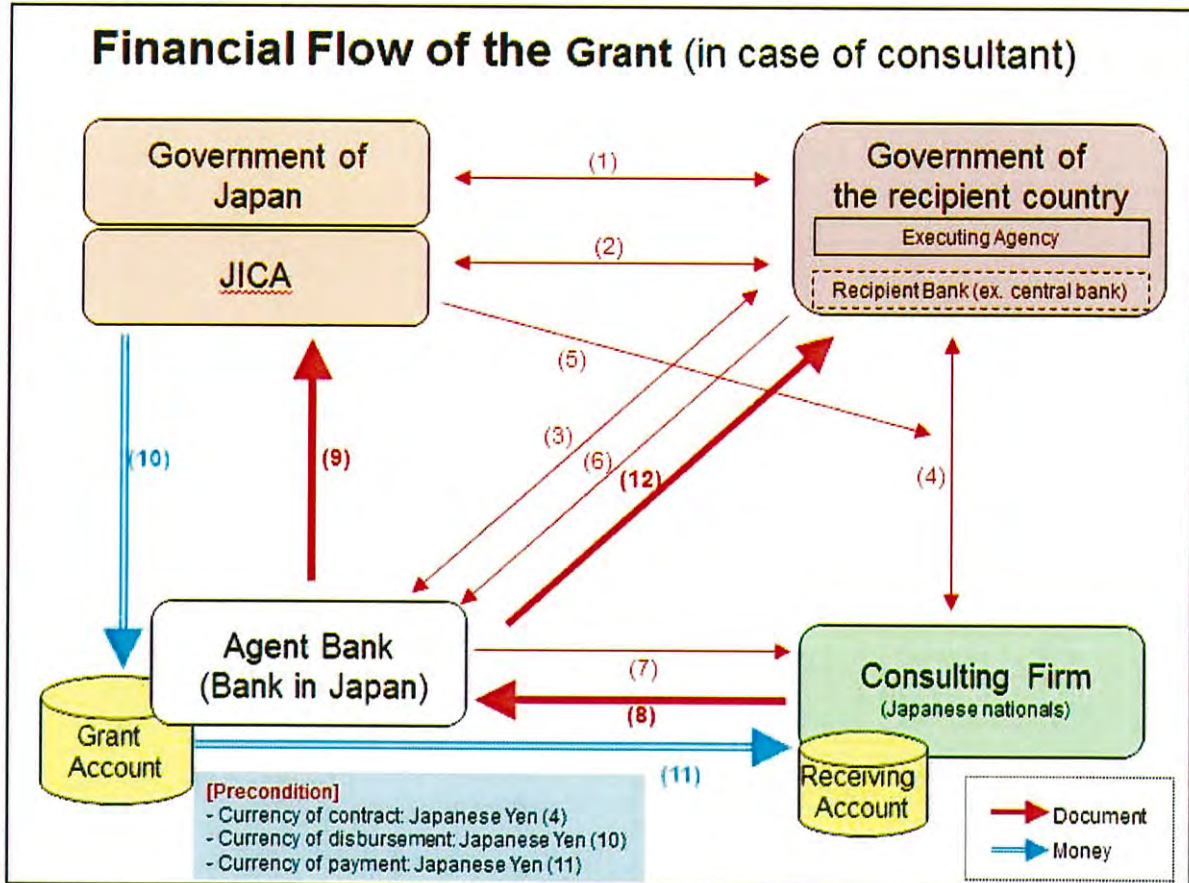
Stage	Procedures	Remarks	Recipient Government	Japanese Government	JICA	Consultants	Contractors	Agent Bank
Official Request	Request for grants through diplomatic channel	Request shall be submitted before appraisal stage.	x	x				
1. Preparation	(1) Preparatory Survey Preparation of outline design and cost estimate		x		x	x		
2. Appraisal	(2) Preparatory Survey Explanation of draft outline design, including cost estimate, undertakings, etc.		x		x	x		
	(3) Agreement on conditions for implementation	Conditions will be explained with the draft notes (E/N) and Grant Agreement (G/A) which will be signed before approval by Japanese government.	x	x (E/N)	x (G/A)			
	(4) Approval by the Japanese cabinet			x				
3. Implementation	(5) Exchange of Notes (E/N)		x	x				
	(6) Signing of Grant Agreement (G/A)		x		x			
	(7) Banking Arrangement (B/A)	Need to be informed to JICA	x					x
	(8) Contracting with consultant and issuance of Authorization to Pay (A/P)	Concurrence by JICA is required	x			x		x
	(9) Detail design (D/D)		x			x		
	(10) Preparation of bidding documents	Concurrence by JICA is required	x			x		
	(11) Bidding	Concurrence by JICA is required	x			x	x	
	(12) Contracting with contractor/supplier	Concurrence by JICA is required Request for disbursement shall be made by the Recipient, in case of local contractor.	x		x		x	x
	(13) Construction works/procurement	Concurrence by JICA is required for major modification of design and amendment of contracts.	x			x	x	
(14) Completion certificate		x			x	x		
4. Ex-post monitoring & evaluation	(15) Ex-post monitoring	To be implemented generally after 1, 3, 10 years of completion, subject to change	x		x			
	(16) Ex-post evaluation	To be implemented basically after 3 years of completion	x		x			

notes:

1. Project Monitoring Report and Report for Project Completion shall be submitted to JICA as agreed in the G/A.
2. Concurrence by JICA is required for allocation of grant for remaining amount and/or contingencies as agreed in the G/A.



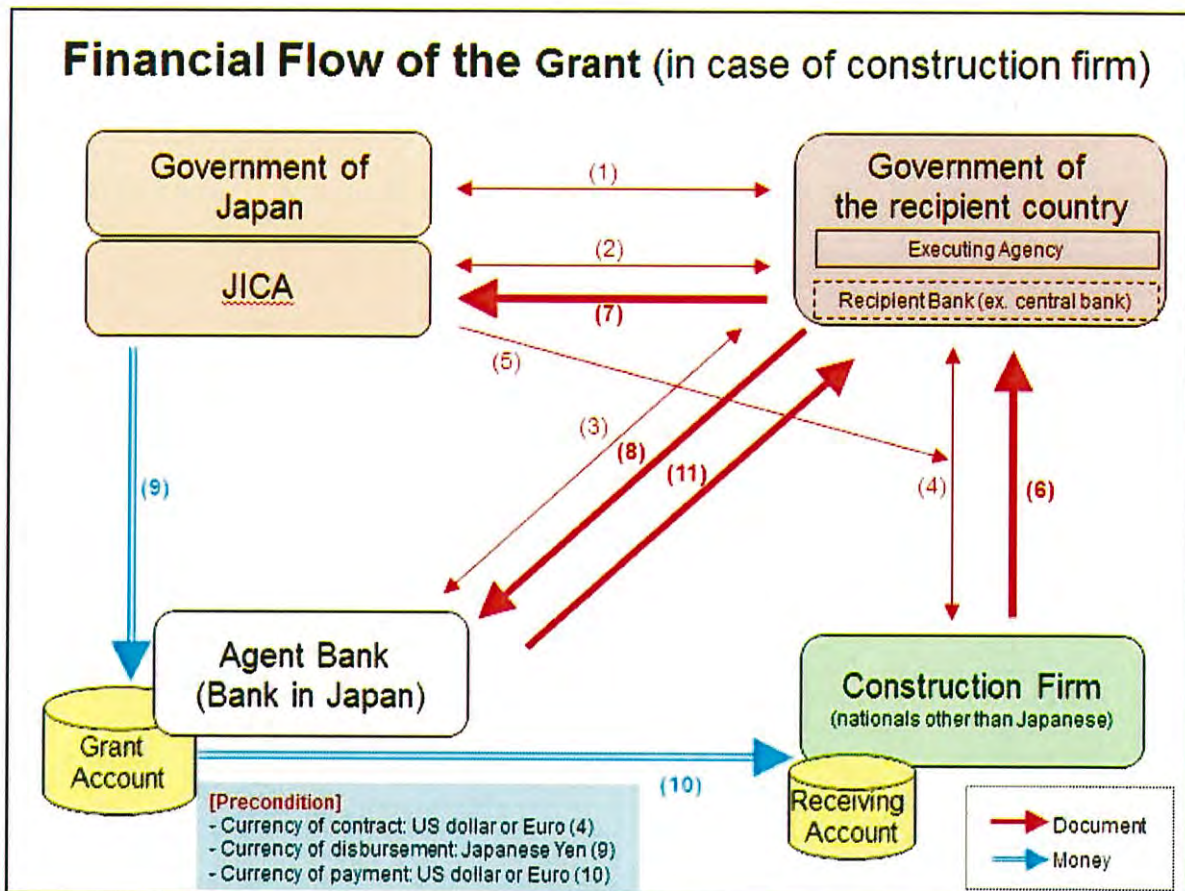
Financial Flow of Japanese Project Grant  
(contract with Japanese consultant and local contractors)



- (1) E/N
- (2) G/A
- (3) Banking Arrangement/Opening an Grant Account
- (4) Contract
- (5) Concurrence and Verification of Contract
- (6) Issuing Authorization to Pay (A/P) upon contract
- (7) Notification of A/P
- (8) Request for Payment**
- (9) Request for the Disbursement**
- (10) Disbursement of the Grant**
- (11) Payment**
- (12) Statement of Account**

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(1) E/N

(2) G/A

Submission of Evidence of Authority and Specimen Signatures from the Recipient to JICA (prerequisite for the process of no. (7))

(3) Banking Arrangement/Opening an Grant Account

(4) Contract

(5) Concurrence and Verification of Contract

**(6) Request for Payment**

**(7) Request for Disbursement**

**(8) Transfer Instruction**

**(9) Disbursement of the Grant \***

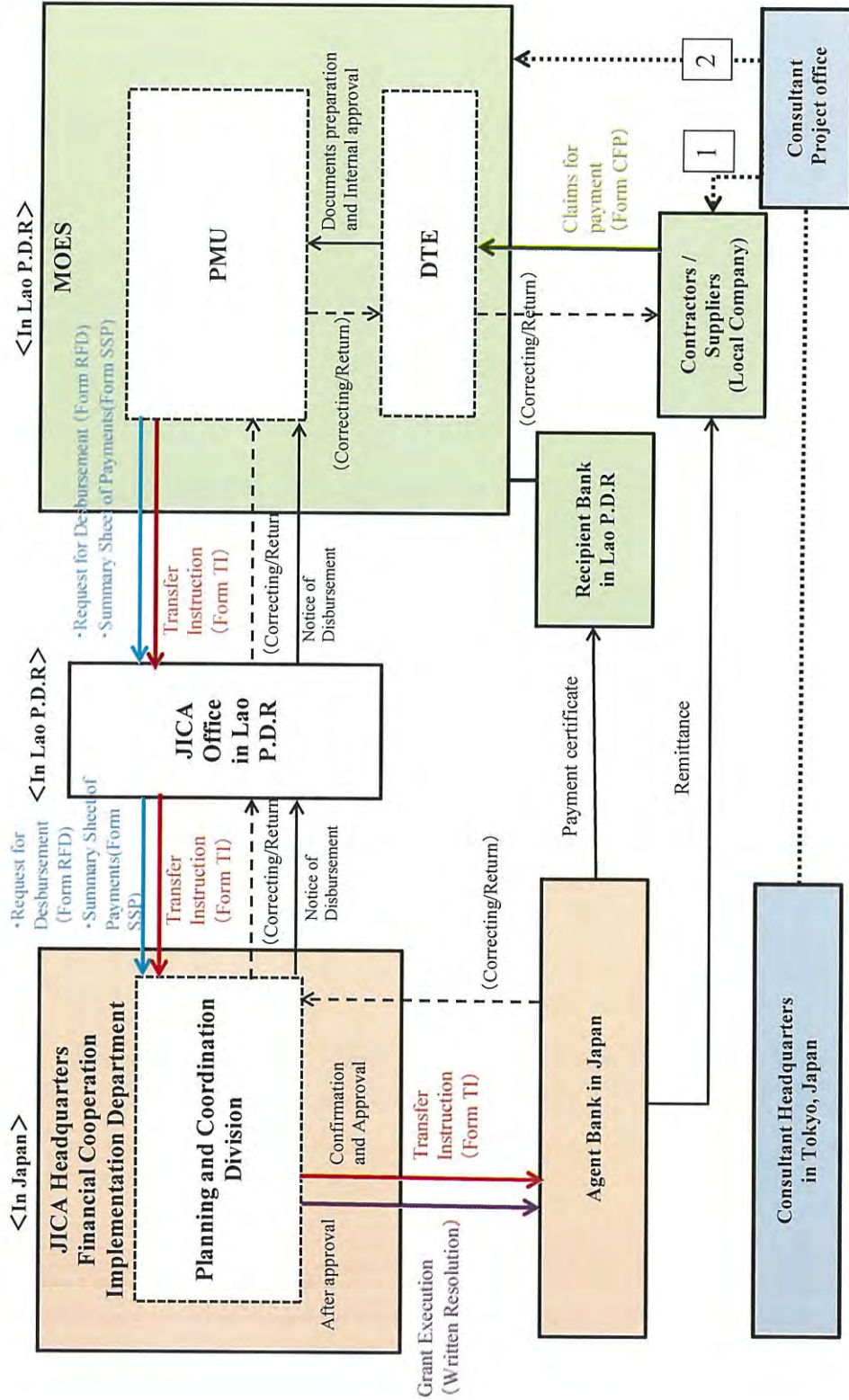
**(10) Payment**

**(11) Statement of Account**

\* The amount of disbursement in Japanese Yen ((9) in above chart) shall be calculated at the Telegraphic Transfer Selling (TTS) rate quoted by the Bank in Japan two business days before the date on which the disbursement is made.

3/2/17

Tentative Approval flow and required documents for payments to the contractors/suppliers (local company)



【Consultant's financial planning and payment support service】

- 1 Support for preparing invoice, pre-confirmation of documents, promotion of document preparation, support for revision documents etc.
- 2 Promotion of approval of the Ministry(MoET), support for Request for Disbursement / Transfer Instruction, pre-confirmation of documents, promotion of document preparation, support for revision documents, etc.





## Major Undertakings to be taken by the Lao P.D.R

### 1. Specific obligations of the Recipient which will not be funded with the Grant

#### (1) Before the Bidding

NO	Items	Deadline	In charge	Estimated Cost (USD)	Ref.
1	To open bank account (Banking Arrangement (B/A))	within 1 month after the signing of G/A	BOL	--	
2	To secure the lots of land necessary for the implementation of the Project		MOES	--	
3	To carry out UXO clearance (at LNT TTC, LPB TTC, KKY TTC, SRV TTC, and PKS TTC)	before the bid notice		--	
4	To clear the sites including demolition and/or relocation of any obstacles and land cutting/levelling for the implementation of the Project (including land cutting/levelling at KKY TTC and existing bldg. demolition at BKN, SVK and PKS TTC)	before the bid notice	MOES	128,000	
5	To obtain the building permits (for LPB TTC)	before the bid notice	MOES	--	
6	To secure temporary facilities for the construction period including classrooms for demonstration schools and a part of TTC facilities	before the bid notice	MOES	--	
7	To move necessary furniture and equipment out from the buildings to be demolished by the Japan side and store them. (for LPB TTC and DKX TTC)	before the bid notice	MOES	--	
8	To issue A/P (upon agreement between MOES and consulting firm)	within 1 month after the signing of the agreement	BOL	--	
9	To ensure smooth implementation of the bidding procedures and to bear necessary expenses relevant to the bidding procedures including, but not limited to, the following				
	1) Printing and binding of bidding documents	every bidding lot	MOES	2,500	
	2) Bid notices on major newspapers, governmental gazette and/or web site	every bidding lot	MOES	4,500	
	3) Securing places for pre-bid meetings	every bidding lot	MOES	--	



	4) Securing places for bid openings	every bidding lot	MOES	--	
10	To submit Project Monitoring Report (with the result of Detail Design)	before preparation of bidding documents	MOES	--	

(2) During the Project Implementation

NO	Items	Deadline	In charge	Estimated Cost (USD)	Ref.
1	To bear the following commissions to a bank in Japan for the banking services based upon the B/A				
	1) Advising commission of A/P	within 1 month after the signing of the agreement	MOES	50~60 USD	
	2) Payment commission for A/P	every payment for consultant	MOES	0.1% of amount of remittance (approx. 3,800USD in total)	
	3) Remittance charge	every payment for contractor	MOES	50~60 USD per remittance (approx. 5,300USD in total)	
2	To send a "Request for disbursement" to JICA (in case of contract with the Contractor(s)/the Supplier(s))	every request	MOES	--	
3	To send a "Transfer Instruction" to the Agent Bank (in case of contract with the Contractor(s)/the Supplier(s))	every request	MOES	--	
4	To ensure prompt customs clearance and to assist the Contractor(s)/the Supplier(s) with internal transportation in recipient country	during the Project	MOES MOF	--	
5	To accord Japanese nationals and/or physical persons of third countries 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 the recipient country and stay therein for the performance of their work	during the Project	MOES	--	
6	To ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the country of the Recipient with respect to the purchase of the Products and/or the Services be exempted	during the Project	MOES, MOF	--	



7	To bear all the expenses, other than those covered by the Grant Aid, necessary for the implementation of the Project	during the Project	MOES	--	
8	To bear necessary expense, including, but not limited to, transportation, per-diem and accommodation, for MOES, PESS and/or TTC personnel who join the site visits and inspections	during the construction	MOES	(to be estimated by MOES)	
9	To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities				
	1) Electricity New electrical power connection for the buildings constructed by the Project	3 months before completion of the construction	MOES	16,000	
	2) Water Supply New water supply connection for the buildings constructed by the Project	3 months before completion of the construction	MOES	16,000	
10	1) To submit Project Monitoring Report 2) To submit Project Monitoring Report (final)	every month within one month after signing of Certificate of Completion for the works under the contract(s)	MOES	--	

(3) After the Project

NO	Items	Deadline	In charge	Estimated Cost (USD)	Ref.
1	To maintain and use properly and effectively the facilities constructed and equipment provided under the Project				
	1) Facility maintenance costs	Every year after completion of the construction	MOES	32,000 (per year)	
	2) School operation costs	Every year after completion of the construction	MOES	342,000 (per year)	
	3) Establishment of maintenance structure for sustainable and proper use of the facilities	After completion of the construction	MOES	--	
2	To procure of equipment which is undertaken by the Recipient	After completion of the construction	MOES	5,000	

(A/P: Authorization to Pay,

B/A: Banking Arrangement,

the Recipient: the Government of Lao People's Democratic Republic

2. Other obligations of the Recipient funded with the Grant

This part is closed due to the confidentiality.

**Project Monitoring Report**  
**on**  
**Project Name**  
**Grant Agreement No. XXXXXXXX**  
 20XX, Month

**Organizational Information**

<b>Signer of the G/A (Recipient)</b>	_____ Person in Charge (Designation) _____ _____ Contacts                      Address: _____ Phone/FAX: _____ Email: _____
<b>Executing Agency</b>	_____ Person in Charge (Designation) _____ _____ Contacts                      Address: _____ Phone/FAX: _____ Email: _____
<b>Line Ministry</b>	_____ Person in Charge (Designation) _____ _____ Contacts                      Address: _____ Phone/FAX: _____ Email: _____

**General Information:**

<b>Project Title</b>	
<b>E/N</b>	Signed date: Duration:
<b>G/A</b>	Signed date: Duration:
<b>Source of Finance</b>	Government of Japan: Not exceeding JPY _____ mil. Government of (_____): _____

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<b>1: Project Description</b>	
-------------------------------	--

**1-1 Project Objective**

--

**1-2 Project Rationale**

- Higher-level objectives to which the project contributes (national/regional/sectoral policies and strategies)
- Situation of the target groups to which the project addresses

--

**1-3 Indicators for measurement of "Effectiveness"**

Quantitative indicators to measure the attainment of project objectives		
Indicators	Original (Yr      )	Target (Yr      )
Qualitative indicators to measure the attainment of project objectives		

<b>2: Details of the Project</b>
----------------------------------

**2-1 Location**

Components	Original <i>(proposed in the outline design)</i>	Actual
1.		

**2-2 Scope of the work**

Components	Original* <i>(proposed in the outline design)</i>	Actual*
1.		

Reasons for modification of scope (if any).

(PMR)
-------

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**2-3 Implementation Schedule**

Items	Original		Actual
	<i>(proposed in the outline design)</i>	<i>(at the time of signing the Grant Agreement)</i>	

Reasons for any changes of the schedule, and their effects on the project (if any)

--

**2-4 Obligations by the Recipient**

**2-4-1 Progress of Specific Obligations**

See Attachment 2.

**2-4-2 Activities**

See Attachment 3.

**2-4-3 Report on RD**

See Attachment 11.

**2-5 Project Cost**

**2-5-1 Cost borne by the Grant(Confidential until the Bidding)**

Components			Cost (Million Yen)	
	Original <i>(proposed in the outline design)</i>	Actual <i>(in case of any modification)</i>	Original <sup>1),2)</sup> <i>(proposed in the outline design)</i>	Actual
	1.			
Total				

Note: 1) Date of estimation:

2) Exchange rate: 1 US Dollar = Yen

**2-5-2 Cost borne by the Recipient**

Components			Cost (1,000 Taka)	
	Original <i>(proposed in the outline design)</i>	Actual <i>(in case of any modification)</i>	Original <sup>1),2)</sup> <i>(proposed in the outline design)</i>	Actual
	1.			
Total				

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- Note: 1) Date of estimation:  
2) Exchange rate: 1 US Dollar =

Reasons for the remarkable gaps between the original and actual cost, and the countermeasures (if any)

(PMR)

### 2-6 Executing Agency

- Organization's role, financial position, capacity, cost recovery etc,
- Organization Chart including the unit in charge of the implementation and number of employees.

**Original** (at the time of outline design)

name:

role:

financial situation:

institutional and organizational arrangement (organogram):

human resources (number and ability of staff):

**Actual** (PMR)

### 2-7 Environmental and Social Impacts

- The results of environmental monitoring based on Attachment 5 (in accordance with Schedule 4 of the Grant Agreement).
- The results of social monitoring based on in Attachment 5 (in accordance with Schedule 4 of the Grant Agreement).
- Disclosed information related to results of environmental and social monitoring to local stakeholders (whenever applicable).

## 3: Operation and Maintenance (O&M)

### 3-1 Physical Arrangement

- Plan for O&M (number and skills of the staff in the responsible division or section, availability of manuals and guidelines, availability of spareparts, etc.)

**Original** (at the time of outline design)

**Actual** (PMR)

### 3-2 Budgetary Arrangement

- Required O&M cost and actual budget allocation for O&M

**Original** (at the time of outline design)

Actual (PMR)

**4: Potential Risks and Mitigation Measures**

- Potential risks which may affect the project implementation, attainment of objectives, sustainability
- Mitigation measures corresponding to the potential risks

**Assessment of Potential Risks (at the time of outline design)**

Potential Risks	Assessment
1. (Description of Risk)	Probability: High/Moderate/Low
	Impact: High/Moderate/Low
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action required during the implementation stage:
	Contingency Plan (if applicable):
2. (Description of Risk)	Probability: High/Moderate/Low
	Impact: High/Moderate/Low
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action required during the implementation stage:
	Contingency Plan (if applicable):
3. (Description of Risk)	Probability: High/Moderate/Low
	Impact: High/Moderate/Low
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action required during the implementation stage:

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	Contingency Plan (if applicable):
<b>Actual Situation and Countermeasures</b>	
(PMR)	

**5: Evaluation and Monitoring Plan (after the work completion)**

**5-1 Overall evaluation**

Please describe your overall evaluation on the project.

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**5-2 Lessons Learnt and Recommendations**

Please raise any lessons learned from the project experience, which might be valuable for the future assistance or similar type of projects, as well as any recommendations, which might be beneficial for better realization of the project effect, impact and assurance of sustainability.

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**5-3 Monitoring Plan of the Indicators for Post-Evaluation**

Please describe monitoring methods, section(s)/department(s) in charge of monitoring, frequency, the term to monitor the indicators stipulated in 1-3.

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Attachment

1. Project Location Map
  2. Specific obligations of the Recipient which will not be funded with the Grant
  3. Monthly Report submitted by the Consultant
- Appendix - Photocopy of Contractor's Progress Report (if any)
- Consultant Member List
  - Contractor's Main Staff List
4. Check list for the Contract (including Record of Amendment of the Contract/Agreement and Schedule of Payment)
  5. Environmental Monitoring Form / Social Monitoring Form
  6. Monitoring sheet on price of specified materials (Quarterly)
  7. Report on Proportion of Procurement (Recipient Country, Japan and Third Countries) (PMR (final) only)
  8. Pictures (by JPEG style by CD-R) (PMR (final) only)
  9. Equipment List (PMR (final) only)
  10. Drawing (PMR (final) only)
  11. Report on RD (After project)



Monitoring sheet on price of specified materials

1. Initial Conditions (Confirmed)

Items of Specified Materials	Initial Volume A	Initial Unit Price (¥) B	Initial total Price C=A×B	1% of Contract Price D	Condition of payment	
					Price (Decreased) E=C-D	Price (Increased) F=C+D
Item 1	●●t	●	●	●	●	●
Item 2	●●t	●	●	●		
Item 3						
Item 4						
Item 5						

2. Monitoring of the Unit Price of Specified Materials

(1) Method of Monitoring : ●●

(2) Result of the Monitoring Survey on Unit Price for each specified materials

Items of Specified Materials	1st month, 2015	2nd month, 2015	3rd month, 2015	4th	5th	6th
Item 1	●	●	●			
Item 2						
Item 3						
Item 4						
Item 5						

(3) Summary of Discussion with Contractor (if necessary)

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Report on Proportion of Procurement (Recipient Country, Japan and Third Countries)  
 (Actual Expenditure by Construction and Equipment each)

	Domestic Procurement (Recipient Country) A	Foreign Procurement (Japan) B	Foreign Procurement (Third Countries) C	Total D
Construction Cost	(A/D%)	(B/D%)	(C/D%)	
Direct Construction Cost	(A/D%)	(B/D%)	(C/D%)	
others	(A/D%)	(B/D%)	(C/D%)	
Equipment Cost	(A/D%)	(B/D%)	(C/D%)	
Design and Supervision Cost	(A/D%)	(B/D%)	(C/D%)	
Total	(A/D%)	(B/D%)	(C/D%)	

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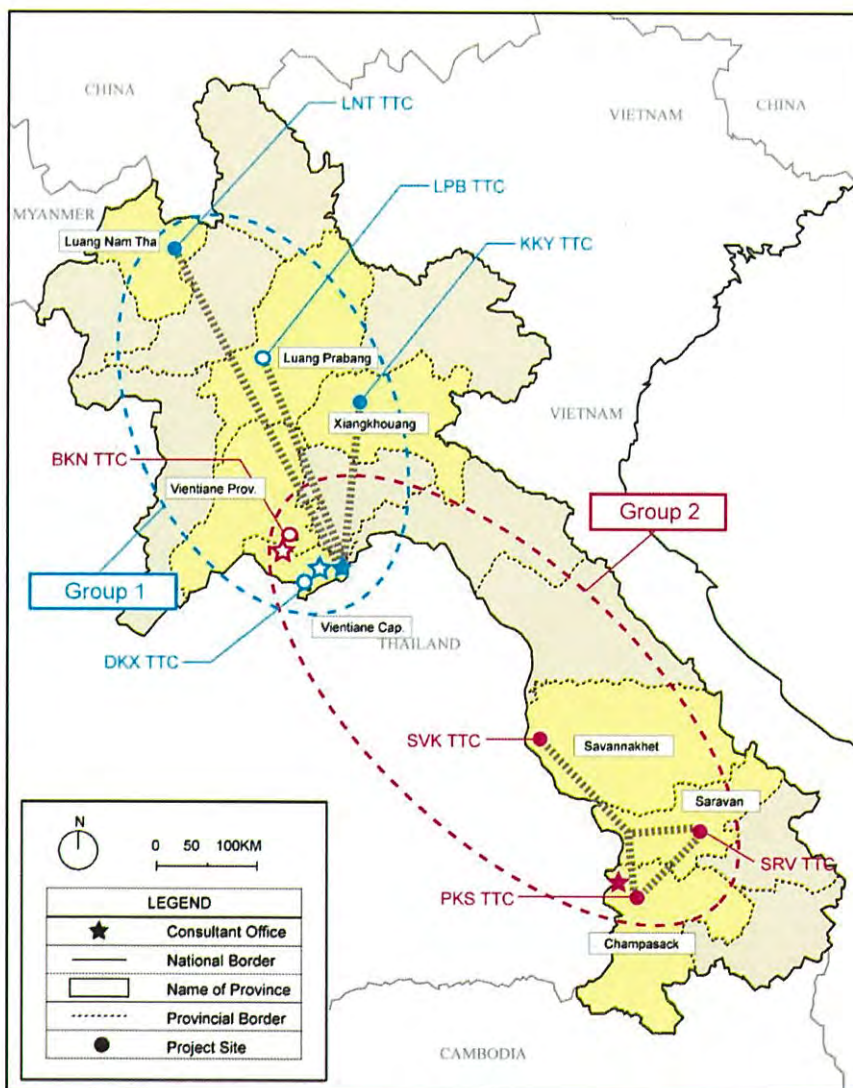


## Status of UXO Clearance (as of 13 February 2020)

TTC	Documents submitted by the Lao PDR side	Discovered and Cleared UXOs (if any)	Remarks
1. LNT TTC	Certificate issued by NRA Vientiane (November 28, 2019)	14 pcs of UXO including 4 pcs of the Mortars/60 mm	<ul style="list-style-type: none"> <li>A northern half part of the proposed area in the demonstration school site has been cleared.</li> <li><u>Clearance of the southern part of the proposed area is requested.</u></li> <li><u>The clearance completion report is requested.</u></li> </ul>
2. LPB TTC	UXO clearance certificate issued by UXO Lao (July 22, 2017)	No UXO	<ul style="list-style-type: none"> <li>A western half part of the proposed area in the demonstration school site has been cleared.</li> <li><u>Clearance of the eastern part of the proposed area is requested.</u></li> </ul>
3. KKY TTC	UXO clearance completion report issued by UXO Lao (1999, 2000, 2001, 2005, 2011) and UXO clearance certificate issued by UXO Lao (July 31, 2019)	(mentioned only the report in 2001)  42 pcs of UXO including 9 pcs of submunition of cluster bombs and 3 pcs of mortar/60 mm.	<ul style="list-style-type: none"> <li>During the Field Survey, it was explained to the survey team that clearance of the proposed area had not been carried out. However, later, it turned out that clearance was done in 2001.</li> <li><u>It is found that the proposed areas shall be cut and levelled as the result of topographic survey conducted after confirmation of UXO clearance. Because the existing ground in wider areas needs to be cut and levelled, and because the previous UXO clearance was conducted 20 years ago, the following items shall be conducted by the Lao PDR side.</u> 1) <u>Cutting and leveling of the proposed areas</u> 2) <u>Re-implementation of UXO clearance</u></li> </ul>
4. BKN TTC	Certificate issued by NRA Vientiane (November 6, 2019)	No UXO	<ul style="list-style-type: none"> <li>All proposed areas including the ones in the demonstration school site have been cleared.</li> <li><u>The clearance completion report is requested.</u></li> </ul>
5. DKX TTC	Certificate issued by NRA Vientiane (October 28, 2019)	No UXO	<ul style="list-style-type: none"> <li>All proposed areas including the ones in the demonstration school site have been cleared.</li> <li><u>The clearance completion report is requested.</u></li> </ul>
6. SVK TTC	Certificate issued by UXO Lao (September 17, 2019)	No UXO	<ul style="list-style-type: none"> <li>No search clearance was done, as the site has never been bombed.</li> <li>UXO Lao issued a certificate which states that no search clearance is necessary.</li> </ul>
7. SRV TTC	A clearance completion report issued by UXO Lao (2018, 2019)	1 pc of motor/60mm and 2pcs of bullets/20mm	<ul style="list-style-type: none"> <li>Most of the proposed areas of the demonstration school site have been cleared, but a small part of areas including temporary work area were not covered.</li> <li><u>Clearance of the remaining part of the proposed area is requested.</u></li> </ul>
8. PKS TTC	A clearance completion report issued by UXO Lao (2019)	No UXO	<ul style="list-style-type: none"> <li>Most of the proposed areas of the demonstration school site have been cleared.</li> <li><u>Clearance of the proposed dormitory area is requested.</u></li> </ul>

**Implementation groups and bidding/contract lots**

Group	Site (Province)	Lot No.	
		Building Construction	Equipment Procurement
1	LNT TTC (Luang Nam Tha Province)	Construction-1	Equipment-1
	LPB TTC (Luang Prabang Province)	Construction-2	
	KKY TTC (Xiangkhouang Province)	Construction-3	
	DKX TTC (Vientiane Capital)	Construction-4	
2	BKN TTC (Vientiane Province)	Construction-5	Equipment-2
	SVK TTC (Savannakhet Province)	Construction-6	
	SRV TTC (Saravan Province)	Construction-7	
	PKS TTC (Champasack Province)	Construction-8	



**Map of Construction Groups and Lots (Provisional)**

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**4-3. Technical Notes**  
**(Signed on October 9, 2018)**

**TECHNICAL NOTES**  
**ON**  
**THE PREPARATORY SURVEY**  
**ON**  
**THE PROJECT FOR IMPROVEMENT OF TEACHER TRAINING COLLEGES**  
**IN**  
**THE LAO PEOPLE'S DEMOCRATIC REPUBLIC**

In August 2018, Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Preparatory Survey Team (hereinafter referred to as "the Team") for the Preparatory Survey on the Project for Improvement of Teacher Training Colleges (hereinafter referred to as "the Project") to the Lao People's Democratic Republic (hereinafter referred to as "the Lao PDR").

After signing of the Minutes of Discussions dated on September 21, 2018 (hereinafter referred to as "the M/D") by and between JICA and the Ministry of Education and Sports of the Lao PDR (hereinafter referred to as "MOES"), the consultant team (hereinafter referred to as "the Consultant") of the Team is scheduled to stay in the country until October 13, 2018.

In the course of meetings and field survey, MOES and the Consultant have confirmed the main items described in the attached sheets.

Vientiane, October 9, 2018



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**Daravone KITTIPHANH**  
Deputy Permanent Secretary  
Cabinet Office  
Ministry of Education and Sports  
Lao People's Democratic Republic

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**Tamiko ARAMATA**  
Architectural Design 1/Service Utility Planning  
The Preparatory Survey Team  
Mohri, Architect & Associates, Inc.,  
PADECO Co. Ltd., and  
INTEM consulting, Inc.

## ATTACHMENT

### 1. Future Plan and Ministerial Documents to be Provided

The Consultant reminded and MOES promised that the following documents shall be provided as agreed on the M/D.

Ref. No. <sup>1</sup>	Document to be Provided	Agreed Deadline
9-1.	Future Plan of the Number of Teacher Training College (hereinafter referred to as "TTC") Students	Within November, 2018
9-2.	Ministerial Document regarding Function of Demonstration School	By the end of October, 2018
9-3.	Ministerial Document of the Establishment of Secondary Demonstration Schools	By the end of December, 2018

### 2. Further Schedule of the Site Surveys and Analysis in Japan

#### 2-1. Topographic Surveys and Soil Investigations

The Consultant explained and MOES understood that the Consultant will conduct the topographic surveys and soil investigations, by employing local consultants, at the seven TTC sites, excluding Khang Khay TTC, in order to obtain technical data necessary for the outline design works. Such surveys and investigations are scheduled to conduct in October and November, 2018. The Consultant promised to inform the actual survey/investigation schedule to MOES in writing at the earliest convenience. MOES agreed to coordinate with each TTC for smooth implementation of such surveys and investigations.

As for Khang Khay TTC, the Consultant explained and MOES agreed that the topographical survey and soil investigation for the TTC will be conducted after issuance of UXO clearance certificates due to higher possibility of UXO/landmines therein. Taking into account the required time period for UXO detection survey, it is decided that the topographical survey and soil investigation at the TTC may be conducted at the detailed design stage, but not at the Preparatory Survey stage.

#### 2-2. Further Analysis on the Results of Site Surveys

The Consultant explained and MOES understood that the results of the site surveys shall be further studied and analyzed in Japan based on the contents of M/D signed and agreed on September 21, 2018 by and between JICA and MOES, in principle.

<sup>1</sup> Sub-clause No. of the M/D ATTACHEMENT



### 3. Basic Design Principles of Demonstration Schools

MOES requested and the Consultant agreed that the demonstration schools shall be designed taking into account students-friendliness as well as easy-access to class observation, action research, lesson study, etc. for TTC students and visitors. Through the several discussions, both sides understood about the basic design principles for demonstration schools as shown in Appendix-1. In addition to the principles, the following considerations shall be paid for scale setting, architectural planning and building design of the demonstration schools.

#### 3-1. General

- Number of staircase per building shall be determined in accordance with the applicable standards in Lao PDR and in reference to the ones in Japan.
- Expansion joint shall be provided when the building length is more than 45m.

#### 3-2. Pre-primary Demonstration School

- Maximum capacity of each classroom for pre-primary demonstration school, requested by MOES, are as shown in the following table.

Grade <sup>2</sup>	Pupils' Age of	No. of Pupils per Teacher	Max. Capacity of a Classroom	Required No. of Teachers per Classroom
N1	3 months – 1 year	3	10	4 <sup>3</sup>
N2	1 year – 2 years	5	10	2
N3	2 years- 3 years	8	10	2
K1	3 years – 4 years	15	30	2
K2	4 years – 5 years	20	30	2
K3	5 years – 6 years	25	30	2

- The size of classroom shall be determined as a result of further analysis in Japan, taking into account number of pupils to be accommodated.
- In principle, a pre-primary school shall have single story building for pupils' safety.
- Installation of air conditioners in addition to ceiling fans shall be discussed, especially for nursery classrooms, depending on the regional climate conditions of each TTC.
- Provision of a kitchen or food preparation corner may be considered through further study and analysis in Japan.
- Playground equipment shall not be provided by Japan side. The Lao PDR side

<sup>2</sup> The grade for pre-primary demonstration school are Nursery 1 to 3 (N1 to N3) and Kindergarten 1 to 3 (K1 to K3).

<sup>3</sup> MOES explained that two proper teachers and two assistant teachers (volunteer teachers) are to be allocated for N1.

shall be responsible for provision of appropriate size playground equipped with the playground equipment for each pre-primary school.

### 3-3. Primary Demonstration School

- Number of classrooms per grade shall be determined as a result of further analysis in Japan based on the statistics data and the findings obtained through the site surveys.
- Number of story will be determined depending on available construction area of each TTC.
- In principle, a first-aid room will be located in a primary school building for all students of demonstration schools at all levels. However, the location of first-aid room may be rearranged depending on the building layout plan of each TTC.

### 3-4. Secondary Demonstration School

- Number of classrooms per grade shall be determined as a result of further analysis in Japan based on the statistics data and the findings obtained through the site surveys.
- Number of story will be determined depending on available construction area of each TTC.

The provisional room layout plans for demonstration schools, prepared based on the basic design principles, are as shown in Appendix-2. Room layout and number of story may be rearranged through further study and analysis in Japan, together with technical considerations to site conditions at each TTC.

## 4. Unexploded Ordnance Clearance Certificates

The Consultant reported to MOES about the situation of unexploded ordnance (hereinafter referred to as "UXO") clearance of each TTC and the results of interviews from the relevant authorities and/or organizations, such as the National Regulatory Authority for the UXO/Mine Action Sector in the Lao PDR (hereinafter referred to as "NRA") and the UXO Lao. Through the discussions, both sides agreed that the UXO clearance certificates for the Project areas at all the eight TTCs shall be obtained as per the following schedule.

- The Consultant will provide information of the areas to be cleared from UXO and landmines by the end of December, 2018 to MOES.
- Immediately after information given by the Consultant, MOES will instruct each TTC to coordinate with the relevant authorities at provincial level, for implementation of UXO detection surveys in a timely manner. In case of any difficulties, MOES will support TTCs for the process, in consultation with NRA or



any other relevant authorities at central level.

- MOES will submit the copies of UXO clearance certificates obtained for the designated areas to Japan side, prior to the mission dispatched for explanation of a draft Preparatory Survey Report, which is scheduled in April, 2019.

#### **5. Land Use Right Certificates**

The Consultant reported to MOES that the land use right certificates have been submitted by TTCs, except for the demonstration school areas of Luang Prabang TTC and Ban Keun TTC. The Consultant requested and MOES promised to submit the missing certificates, prior to the mission dispatched for explanation of a draft Preparatory Survey Report, which is scheduled in April, 2019.

#### **6. Building Permits**

Both sides confirmed that building permits are not required for educational facilities, if the design drawings are approved by the Division of Education Construction, Design and Management, Department of Finance, MOES (hereinafter referred to as "ECDM") in accordance with the Ministerial Decision No. 1063/MOES issued on November 26, 2008, in general.

However, the Consultant reported and MOES understood that a building permit only for Luang Prabang TTC may be obtained from the Department of Public Works and Transportation at provincial level, in compliance with their own regulations.

#### **7. Environmental and Social Considerations**

The Consultant reported and MOES understood that Environmental and Social Impact Assessment (ESIA) and Initial Environmental Examination (IEE) will not be required for the Project, in accordance with the relevant laws, decrees, rules and regulations as well as the results of consultation with the Ministry of Natural Resources and Environment (MONRE).

#### **8. Tax Exemption**

MOES, JICA Laos Office and the Consultant had meetings with Tax Department and Customs Department of Ministry of Finance (hereinafter referred to as "MOF") to confirm the latest procedure for tax and customs duty exemption. MOF explained that the laws and regulations on tax exemption for ODA projects have not been changed at least within a year, and they provided information regarding the tax exemption procedure including the approval process of Master List. The information given by MOF will be examined in Japan, and it may be updated when the mission for explanation of a draft Preparatory Survey Report is dispatched in April, 2019.



### **9. Major Undertakings to be taken by the Recipient**

As agreed in the M/D, MOES understood that the contents of “Major Undertakings to be taken by the Recipient” (Annex 5 of the M/D) will be elaborated and refined during the survey and be agreed in the mission dispatched for explanation of the Draft Preparatory Survey Report.

### **10. Inclusive Education**

The Consultant explained and MOES agreed that, as essential facilities in terms of inclusive education, slopes to the 1<sup>st</sup> floors will be provided at each building covered by the Project, and that each toilet building under the Project shall have a universally designed toilet booth per gender, for physically handicapped persons including wheelchair users.

In addition, installation of Pict signs for such slopes, toilets and any others relevant to inclusive education will be considered in order to enhance awareness of not only TTC users, including demonstration school students and parents, but also neighboring communities.

### **11. Project Management Unit**

The Consultant explained and MOES understood about importance of establishment of the Project Management Unit (hereinafter referred to as “PMU”) towards smooth implementation of the Project, from the experience of on-going Japanese Grant Aid “the Project for Improving Secondary School Environment in the Central and Southern Provinces”. Through the discussions, MOES explained about the concept of PMU organizational arrangements as follows.

- Project Manager: Director General of Department of Teacher Education (DTE)
- Deputy Project Managers:
  - Deputy Permanent Secretary of Cabinet Office (CO)
  - Deputy Director General of Department of Finance (DOF)
  - Deputy Director General of Department of Planning (DP)
  - Deputy Director General of Department of External Relations (DER)
- Committee Members:

In addition to the five key departments, namely DTE, CO, DOF, DP and DER, the following four departments will be involved as committee members.

- Department of Early Childhood Education (DECE)
- Department of General Education (DGE)



- Department of Organization and Personnel (DOP)
- Inclusive Education Center (IEC)
- Directors of TTCs

MOES promised to proceed ministerial arrangements and to assign personnel who are involved in the on-going Japanese Grant Aid project, as many as practical, in order for smooth implementation and for efficient management of the Project. MOES will issue a decree for establishment and activation of PMU, prior to the mission dispatched for explanation of a draft Preparatory Survey Report, which is scheduled in April, 2019.

END



**Appendix 1 Basic Design Principles for Demonstration Schools**

Item	Pre-primary School	Primary School	Secondary School
Size of classroom	7m x 8m = 56m <sup>2</sup> <sup>4</sup>	Regular classroom: 7m x 8m = 56m <sup>2</sup> <sup>5</sup> Large classroom: 9m x 8m = 72m <sup>2</sup>	Same as primary school
Grades to be accommodated	6 grades (N1 to N3 and K1 to K3)	5 grades (P1 to P5)	7 grades (M1 to M7)
Capacity of classroom	N1 to N3: 10 pupils K1 to K3: 30 pupils <sup>6</sup>	35 students <sup>7</sup>	Same as primary school
Movable partition walls	N/A	Between two classrooms <sup>8</sup>	Same as primary school
No. of doors for a classroom	4 <sup>9</sup>	2 <sup>10</sup>	Same as primary school
Type of windows	Aluminum sash sliding window <sup>11</sup>	Same as pre-primary school	Same as pre-primary school
No. of students per toilet booths	To be determined in reference to MOES conceptual drawings	45 students <sup>12</sup>	Same as primary school
Rooms other than classrooms	Multi-purpose room x 1 Teachers' office x 1 Toilet and shower <sup>13</sup> Space of pupils dining (Kitchen or food preparation corner <sup>14</sup> )	Multi-purpose room with preparation room x 1 Reading room x 1 First aid room x 1 <sup>15</sup> Teachers' office x 1 Teaching materials room x 1	Laboratory with preparation room x 1 Reading room x 1 Teachers' office x 1 Teaching materials room x 1
Blackboards	Only for kindergarten classrooms	Two blackboards for a classroom (at one side wall)	Same as primary school
School furniture for pupils / students	To be determined in reference to recommendation from DECE	A set of single desk and chair (separate type) made of timber	Same as primary school

<sup>4</sup> Standard size stipulated in the Ministerial Decision No.1374/MOES dated on March 30, 2015. The size of a classroom shall be determined as a result of further analysis in Japan, taking into account number of pupils to be accommodated.

<sup>5</sup> Standard size stipulated in MOES School Construction Guidelines (hereinafter referred to as "the Guidelines").

<sup>6</sup> Requested by MOES.

<sup>7</sup> The Guideline stipulates as "Maximum 36 pupils for single grade teaching are recommended."

<sup>8</sup> To have a large space occasionally needed for lesson study and post-lesson evaluation, etc.

<sup>9</sup> 2 doors along the front corridor and another 2 along the rear corridor, for easy class observation, action research and lesson study, etc.

<sup>10</sup> For easy class observation, action research and lesson study, etc.

<sup>11</sup> For easy class observation, action research and lesson study, etc.

<sup>12</sup> The Guideline stipulate as "Each toilet/latrine should serve from 45 to a maximum 75 pupils."

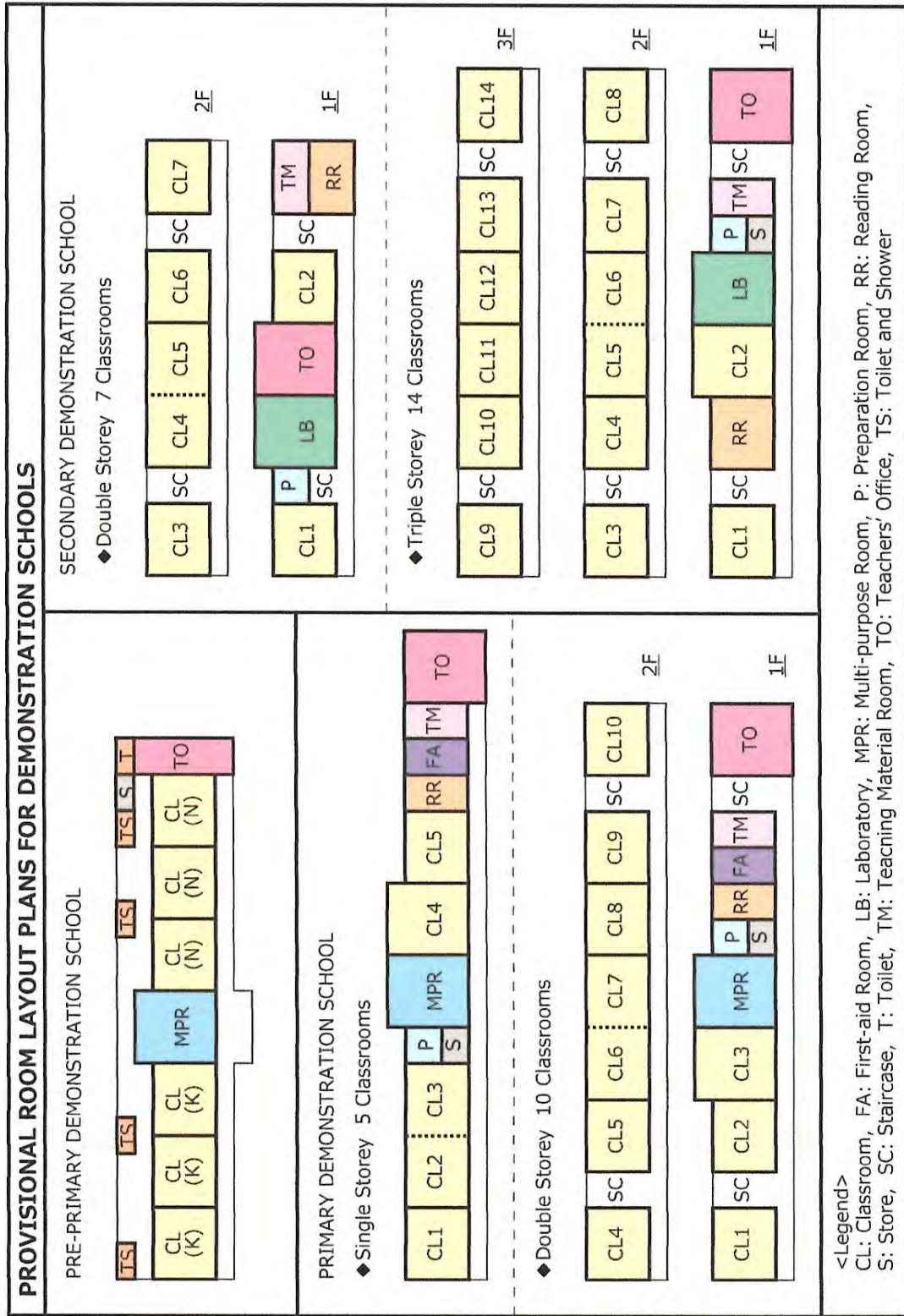
<sup>13</sup> To be separately provided for nursery and kindergarten due to operational reasons.

<sup>14</sup> Requested by MOES but further discussion shall be made.

<sup>15</sup> A first-aid room is to be provided for a complete demonstration schools, possibly at a primary school, and it shall be shared by students at all levels.



Appendix 2



## **5. References**





## **5-1. Outline of Current Site Conditions and Proposed Site Layout Plan**

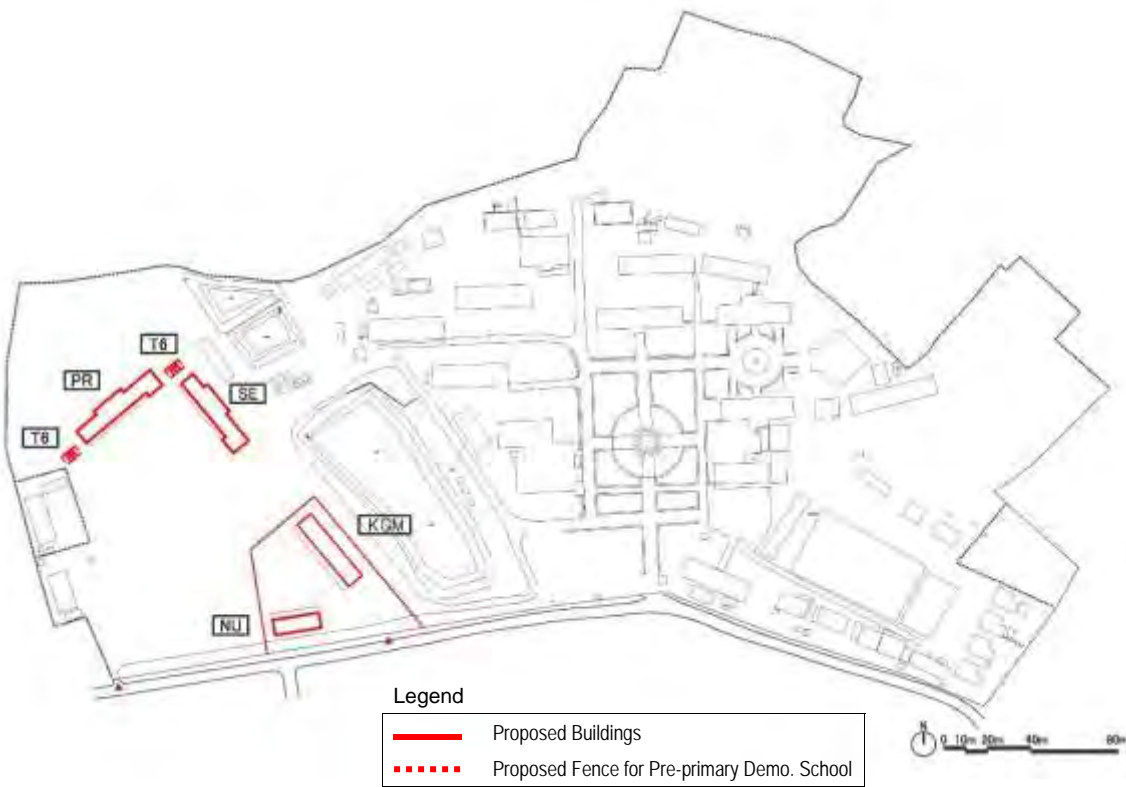
## 1. Luang Nam Tha TTC

Outline (as of Sept.-Oct. 2018)																		
Location	Luang Nam Tha, Namtha District, Luang Nam Tha Province																	
Courses	Pre-primary, Primary and Secondary education (Chem, Math, Eng, ICT)																	
TTC Students	1,010 students (2016/17FY)																	
TTC Demonstration Schools	Item	Pre-primary Demo. School					Primary Demo. School					Secondary Demo. School						
		N1	N2	N3	K1	K2	K3	P1	P2	P3	P4	P5	M1	M2	M3	M4	M5	M6
	No. of Class	1			1	1	1	1		1	1		1					
No. of Student	18			32	24	23	12	16	14	10	11	15						
Current Status and Issues																		
Site	<ul style="list-style-type: none"> <li>TTC classroom Bldgs., Lab Bldg., Admin Bldgs., Students' Dormitories, etc. are located at the central zone of almost flat site (approx. 13 ha). Demonstration School Bldgs. and big sports ground are located at the west zone, while teachers' dormitories and small sports ground are at east zone.</li> </ul>																	
TTC	<ul style="list-style-type: none"> <li>All of Classroom, Lab, Admin and Students' Dormitory buildings are still usable.</li> <li>A new 10-classroom building is under construction by the government budget.</li> <li>Needs of additional students' dormitory and rehabilitation of library are identified, they deem less urgent.</li> </ul>																	
Demo School	<ul style="list-style-type: none"> <li>All the Demo. School Bldgs. are not usable due to structural failure and less sized classroom. In addition, the number of classrooms is insufficient at every education level.</li> <li>Pre-primary Demo School has 4 classrooms, and thus N class has only one room for 3 grades.</li> <li>Primary Demo School is an old wooden building with 3 rooms. Multi-grade teaching is conducted.</li> <li>Secondary Demo School, established in Sep. 2018, is operated at a classroom of the old wooden bldg. belonging to the Primary Demo School.</li> </ul>																	
List of Existing Buildings																		
No.	Name of Building.		Const. Year		Fund		Structure		Story									
1	Classroom Bldg.		2008		Gov./ADB		RC		2									
2	Classroom Bldg.		1996		Gov./ADB		RC		2									
3	Classroom Bldg.		1996		Gov./ADB		RC		1									
4	Classroom Bldg. (Lab. Bldg.)		1996		Gov./ADB		RC		2									
5	Admin Bldg.		1995		Gov./ADB		RC		2									
6	Admin Bldg.		2011		Gov./ADB		RC		1									
7~8	Students' Dorm (Male)		1996		Gov./ADB		RC		2									
9	Students' Dorm (Female)		1996		Gov./ADB		RC		2									
10	Students' Dorm (Female)		1996		Gov./ADB		RC		1									
11	Students' Dorm (Female)		2011		JAIF		RC		2									
12~15	Teachers' Dorm (for foreign experts)		2004		Gov./ADB		RC		2									
16	Hall		1996		Gov./ADB		RC		1									
17	Library		1996		Gov./ADB		RC		2									
18	Computer Room		2010		Gov.		RC		1									
19	Pre-primary Demo School		2009		Unknown		RC		1									
20	Primary Demo School		2002		Gov./ADB		Wooden		1									
21	Primary and Secondary Demo School		Unknown		Unknown		Wooden		1									
22	Teachers' Dorm		Unknown		Unknown		Wooden		1									
23	New Classroom Bldg. (under construction)		2018		Gov.		RC		2									
(Other facilities)																		
24. Car Parking, 25. Bike Parking, 26~30. Toilet for Students' Dorm, 31~33. Kitchen for Students' Dorm, 34. Generator Room, 35. Water Tower, 36. Play Area for Pre-primary School, 37. Toilet for Pre-primary school, 38. Toilet for Primary School, 39. Kitchen for Primary School																		

### Current Site Map



### Proposed Site Layout Plan





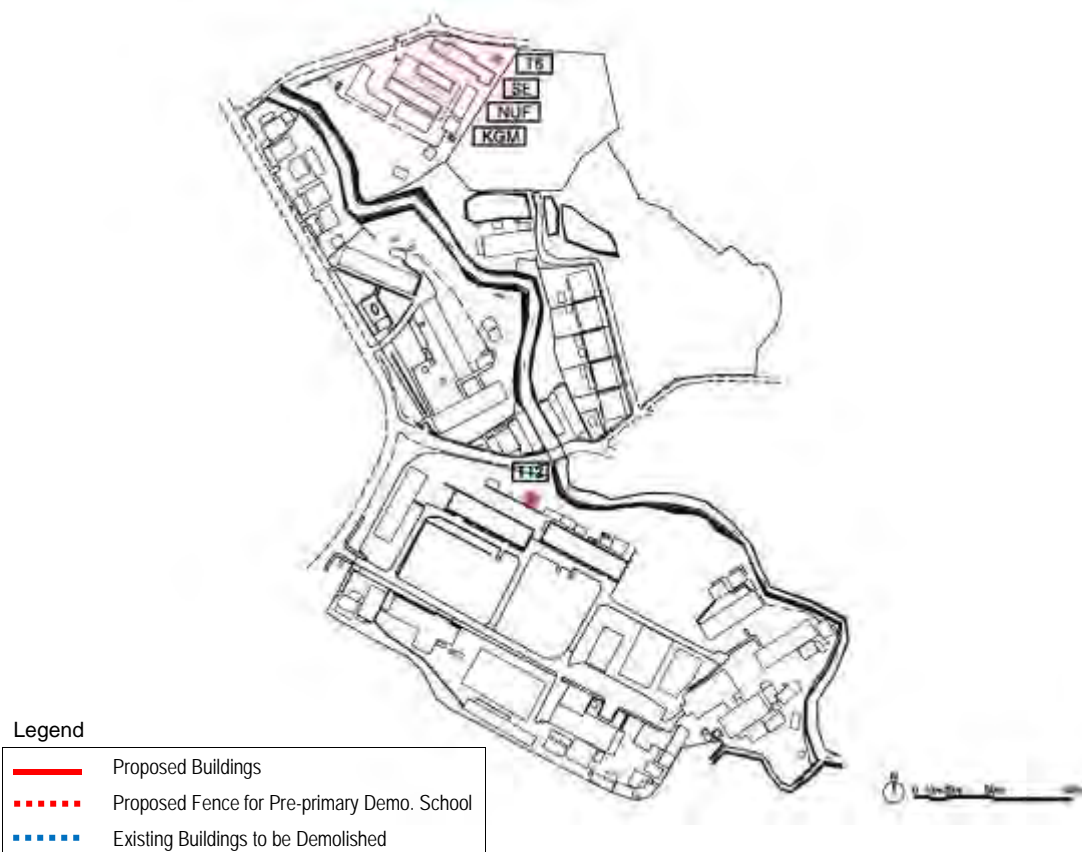
## 2. Luang Prabang TTC

Outline (as of Sept.-Oct. 2018)																		
Location	Luang Prabang, Luang Prabang District, Luang Prabang Province																	
Courses	Pre-primary, Primary and Secondary education (Bio, Chem, Phys, Hist, Eng, ICT, Fre)																	
TTC Students	1,387 Students (2016/17FY)																	
TTC Demonstration Schools	Item	Pre-primary Demo. School					Primary Demo. School					Secondary Demo. School						
		N1	N2	N3	K1	K2	K3	P1	P2	P3	P4	P5	M1	M2	M3	M4	M5	M6
	No. of Class	1		1	0	1	1	2	2	2	2	2	2					
No. of Student	10		12	0	22	23	39	69	67	66	53	58						
Current Status and Issues																		
Site	<ul style="list-style-type: none"> <li>TTC site (approx. 8.5 ha) consist of 3 zones divided by the road and river. The site is sloped across the river.</li> <li>There are constraints of space for new construction due to the physical conditions and existing building layout of the site.</li> <li>Admin. Bldgs., TTC Classroom Bldgs., Library and Students' Dormitory are located in the south zone.</li> <li>TTC Classroom Bldgs., Secondary Demo. School temporarily operated at a TTC classroom bldg. Teachers' Dormitories are located in the north-west zone of the site. Another blocks of Teachers' Dormitories and Education Material Workshop are located across the river, in the north-east zone.</li> <li>Pre-primary and Primary Demo. Schools are at the north corner of the site.</li> </ul>																	
TTC Bldg.	<ul style="list-style-type: none"> <li>TTC Classroom and Lab Bldgs. have 1-4 storeys, and such bldgs. have a variety of sizes.</li> <li>While there are some bldgs. aged over 50 years, they are generally maintained and deem still usable.</li> <li>One of TTC Toilet Bldgs. is not usable and need to be reconstructed.</li> <li>A need of additional students' dormitory is identified, but it deems less urgent.</li> </ul>																	
Demo school	<ul style="list-style-type: none"> <li>Single storey bldgs. are located in the narrow and slanted zone for Demo. Schools. Some of the existing bldgs. shall be demolished before new building construction.</li> <li>K classes are operated in Pre-primary Demo. School Bldgs. while N class temporarily runs at a room in one of the TTC Classroom Bldgs.</li> <li>Primary Demo. School has 11 classrooms, and each grade has two classes.</li> <li>Secondary Demo. School which established in Sep. 2018 is operated temporarily at one of the existing TTC Classroom Bldg.</li> </ul>																	
List of Existing Buildings																		
No.	Name of Building.						Const. Year	Fund	Structure	Story								
1	Classroom Bldg. (Lab. Bldg.)						1961	Gov.	RC	3								
2	Secondary Demo School (Ex. TTC classroom Bldg.)						1961	Gov.	RC	1								
3~4	Classroom Bldg.						1965	Gov.	RC	2								
5	Classroom Bldg. (Partially pre-primary Demo school)						1961	Gov.	RC	2								
6	Classroom Bldg.						2005	Gov.	RC	1								
7	Admin Bldg.						1972	Gov.	RC	2								
8	Students' Dorm (Male)						1993	ADB/SIDA	RC	4								
9	Students' Dorm (Female)						1993	ADB/SIDA	RC	4								
10	Hall						Unknown	Unknown	RC	2								
11	Library						1965	Unknown	RC	1								
12	Canteen						Unknown	Unknown	RC	1								
13	Education Material Workshop						Unknown	Unknown	RC	1								
14~15	Teachers' Dorm						Unknown	Unknown	RC	1								
16-1,2	Pre-primary Demo School						Unknown	Unknown	RC	1								
16-3,4	Primary Demo School						Unknown	Unknown	RC	1								
16-5							2017	SVA	RC	1								
(Other facilities)																		
16-6. Storage for Demo School, 16-7,8,8. Toilet for Demo School, 17-19. Toilet for Classroom Bldg., 20. Toilet for Students' Dorm, 21, 22. Bike Parking																		

### Current Site Map



### Proposed Site Layout Plan



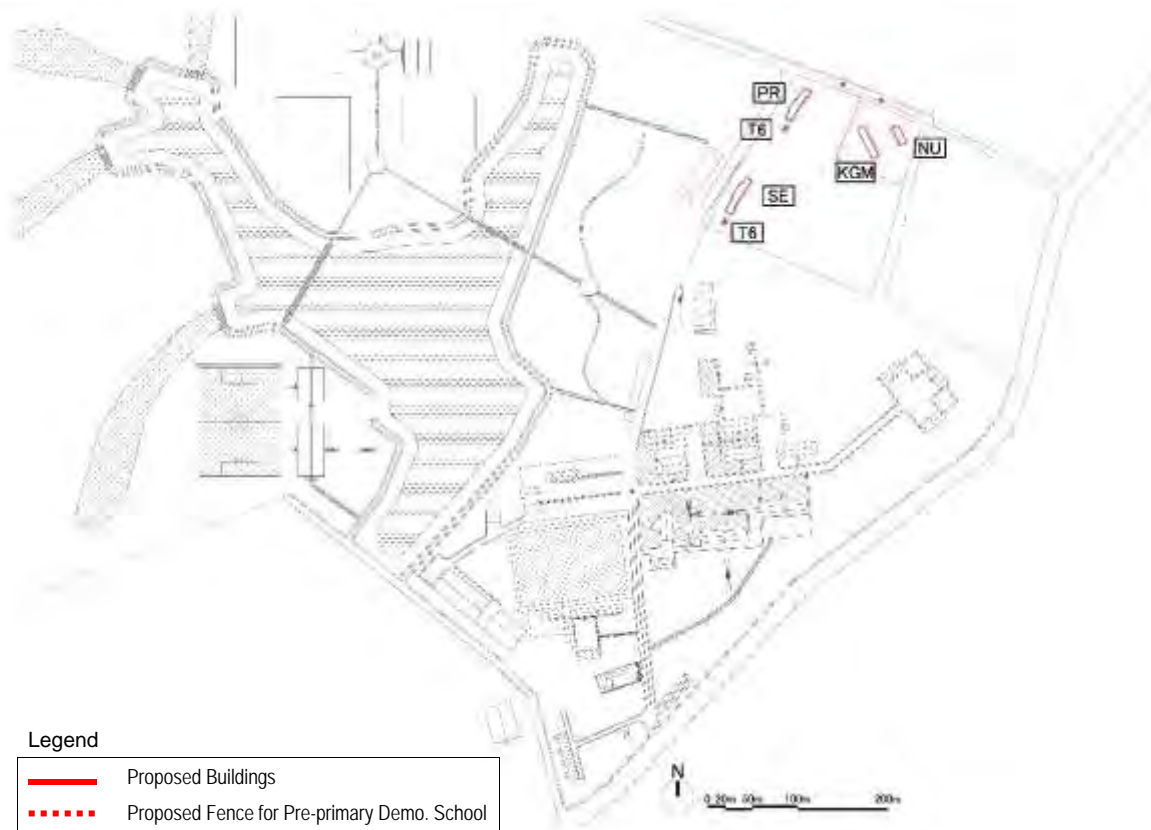
### 3. Khang Khay TTC

Outline (as of Sept.-Oct. 2018)																			
Location	Phonsavan, Pek District, Xiang Khouang Province																		
Courses	Pre-primary, Primary and Secondary education (Bio, Chem, Phys, Geo, Math, Lao, Hist, Eng, ICT)																		
TTC Students	1,180 Students (2016/17FY)																		
TTC Demonstration Schools	Item	Pre-primary Demo. School					Primary Demo. School					Secondary Demo. School							
		N1	N2	N3	K1	K2	K3	P1	P2	P3	P4	P5	M1	M2	M3	M4	M5	M6	M7
	No. of Class	1			1	1	1	2	2	2	2	2							
	No. of Student	17			19	17	42	49	56	56	54	56							
Current Status and Issues																			
Site	<ul style="list-style-type: none"> <li>TTC site (approx. 112 ha) is huge and has a big pond in the center. The site has hilly landscape.</li> <li>All the TTC facilities are located in the east zone of the site, and Pre-primary and Primary Demo. Schools are located both in two sites; TTC site and the separated site.</li> <li>The site has a high potential of UXO risks. The proposed construction area for the new Demo. Schools was surveyed and cleared by UXO Lao in 2001.</li> </ul>																		
TTC Bldg.	<ul style="list-style-type: none"> <li>TTC Classroom and Lab Bldgs. with RC structure have no problem in structure, thus they are still usable.</li> <li>6 single-storey wooden TTC Classroom Bldgs. are used with repeated maintenances.</li> <li>A need of additional students' dormitory is identified, but it deems less urgent. New dormitory for foreign students is under construction as a Vietnamese government project.</li> </ul>																		
Demo School	<ul style="list-style-type: none"> <li>Pre-primary and Primary Demo. Schools, each located in the two separate sites, are operated as one school, respectively. Primary School within TTC site provides multi-grade education.</li> <li>All existing bldgs. for Pre-primary and Primary Demo. Schools are not usable and need to be reconstructed.</li> <li>Primary Demo. School has two classes per grade.</li> <li>TTC intended to establish Secondary Demo. School in Sep 2019, but it is postponed.</li> <li>TTC is willing to have Demo. Schools at all education level within TTC site, in order to solve the issues resulting from the separately-located Demo. Schools. TTC explained that the bldgs. in the separate site may be utilized as a in-service training center, if new Demo. School facilities are constructed in TTC site.</li> </ul>																		
List of Existing Buildings																			
No.	Name of Building.	Const. Year	Fund	Structure	Story														
1	Classroom Bldg.	1998	Gov./ADB	RC	2														
2	Classroom Bldg. (Lab. Bldg.)	1998	Gov./ADB	RC	2														
3~5	Teachers' Dorm (Ex. CL Bldg.)	1988	Gov./ADB	Wooden	1														
6~8	Classroom Bldg.	1998	Gov./ADB	Wooden	1														
9	Hall	1997	Gov./ADB	RC	1														
10-1	Pre-primary Demo School	Unknown	Unknown	RC	1														
10-2		Unknown	Unknown	Wooden	1														
10-3	Primary Demo School	2002	Gov./ADB	Wooden	1														
11	Admin Bldg.	2008	Gov.	RC	1														
12	Admin Bldg.	1996	Gov./ADB	RC	2														
13~15	Students' Dorm (Female)	1996	Gov./ADB	RC	2														
16	Students' Dorm (Male)	2015	JAIF	RC	2														
17~19	Canteen & Kitchen	2015	Gov.	RC	1														
20	Library	1998	Gov./ADB	RC	2														
21	Computer Room	2010	Vietnam	RC	1														
22~23	Gymnasium	2013	Gov.	RC	1														
24	Teachers' Dorm	Unknown	Unknown	RC	1														
25-1,2,3	Classroom Bldg.	1995	Gov.	Wooden	1														
26-1	Pre-primary Demo School	Unknown	Unknown	RC	1														
26-2	Primary Demo School	Unknown	Unknown	RC	1														
26-3		Unknown	UNICEF/AEON	RC	1														
27	Dance Room	Unknown	Unknown	RC	1														
28	Dorm for Foreign Stus (under const.)	2018	Vietnam	RC	2														
29	Teaching Museum (under const.)	2018	Gov.	RC	1														
(Other facilities) Toilet, Car Parking, Bike Parking etc.																			

Current Site Map



Proposed Site Layout Plan

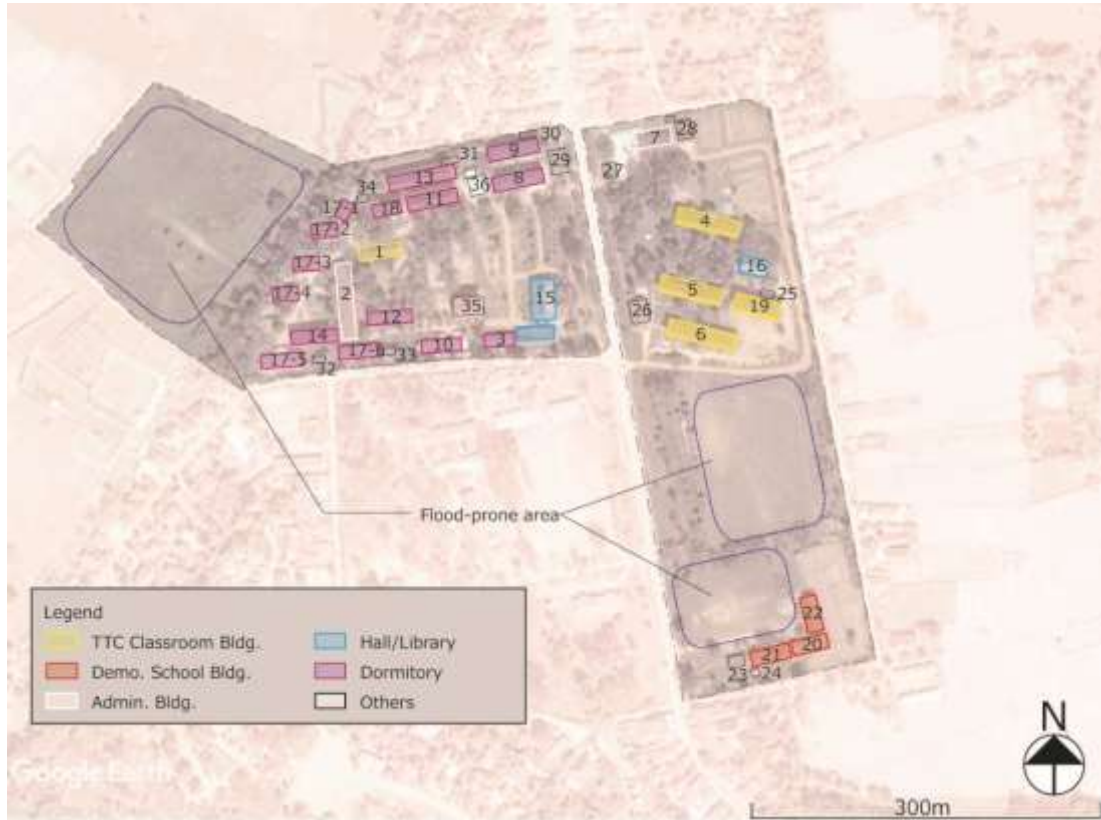




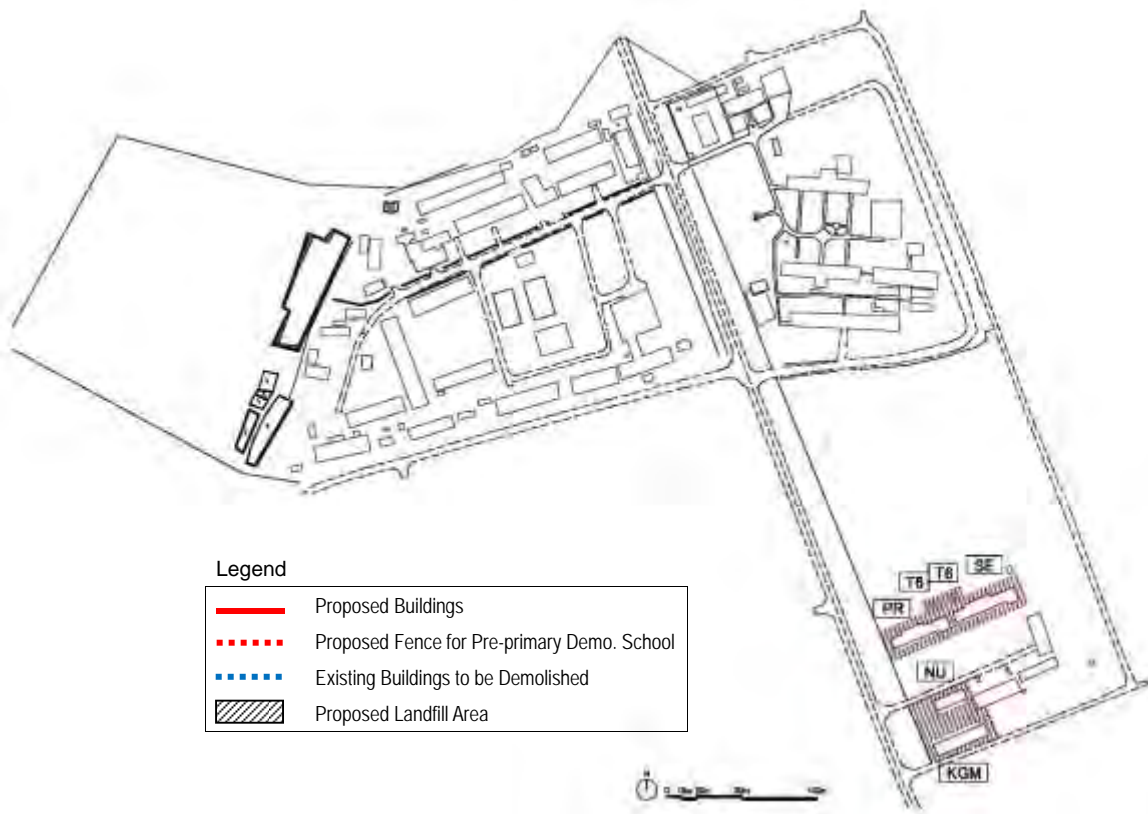
#### 4. Ban Keun TTC

Outline (as of Sept.-Oct. 2018)																		
Location	Ban Keun, Thoulakhom District, Vientiane Province																	
Courses	Pre-primary, Primary and Secondary education (Bio, Chem, Math, Lao, Eng)																	
TTC Students	1,643 Students (2016/17FY)																	
TTC Demonstration Schools	Item	Pre-primary Demo. School					Primary Demo. School					Secondary Demo. School						
		N1	N2	N3	K1	K2	K3	P1	P2	P3	P4	P5	M1	M2	M3	M4	M5	M6
	No. of Class	--			1	1	1	1	1	1	1	1						
No. of Student	--			10	15	22	24	30	21	25	19	24						
Current Status and Issues																		
Site	<ul style="list-style-type: none"> <li>TTC site (approx. 14 ha) composes of two (east and west) zones divided by the road.</li> <li>The west zone has Students' Dormitories and Teachers' Dormitories, while TTC Classroom Bldgs., Lab Bldg., Demo. Schools are located in the east zone.</li> <li>River Nam Ngum is located approx. 300m away from the site, and thus the site tends to be affected by flooding resulting from heavy rain fall and/or discharge from Nam Ngum dam. The area for Demo. Schools is flooded almost every year, and Primary Demo. School bldg., whose floor level is low, in particular, experienced inundation above floor level three times; in 1990, 1995 and 2018.</li> </ul>																	
TTC Bldg.	<ul style="list-style-type: none"> <li>All the TTC Classroom Bldgs., Lab Bldg., Admin. Bldgs. and Dormitories are still usable.</li> <li>Though TTC is willing to have an additional Classroom Bldg., needs of classroom have to be carefully analyzed.</li> <li>Needs of additional students' dormitory and rehabilitation of library are identified, but they deem less urgent.</li> </ul>																	
Demo School	<ul style="list-style-type: none"> <li>The existing Pre-primary Demo. School Bldg. has only 3 classrooms. High-quality education of Pre-primary Demo. School become respected, and number of applicants for admission increases in these years.</li> <li>The existing Primary Demo. School Bldg. is a double storey building aged more than 40 years. The ground floor level is low, and the building experienced inundation above floor level several times in the past.</li> <li>Secondary Demo. School established in Sep 2018 temporarily utilize a TTC Classroom Bldg., but the size of classroom does not meet with the standards, number of classrooms is insufficient.</li> </ul>																	
List of Existing Buildings																		
No.	Name of Building.	Const. Year	Fund	Structure	Story													
1	Classroom Bldg.	1994	Gov.	Wooden	1													
2	Storage (Ex. CL Bldg.)	1994	Gov.	RC	1													
3	Classroom Bldg. (Ex. CL Bldg.)	Unknown	Gov.	Wooden	1													
4	Classroom Bldg. (Lab. Bldg.)	1996	Gov./ADB	RC	2													
5	Classroom Bldg.	1996	Gov./ADB	RC	2													
6	Classroom Bldg.	2010	Gov./ADB	RC	2													
7	Admin Bldg.	2000	Gov./ADB	RC	2													
8~9	Students' Dorm (Male)	1996	Gov./ADB	RC	2													
10	Teachers' Dorm (Ex. CL Bldg.)	1994	Gov.	Wooden	1													
11	Students' Dorm (Female)	2008	Gov./ADB	RC	2													
12	Students' Dorm (Female)	1996	Gov./ADB	RC	2													
13	Students' Dorm (Female)	2013	Gov./ADB	RC	3													
14	Students' Dorm (Female)	2015	Gov.	RC	2													
15	Hall	Unknown	Unknown	RC	1													
16	Library	1998	Thailand	RC	2													
17	Teachers' Dorm	Unknown	Unknown	RC	1													
18	Vietnamese Students' Dorm	2014	PESS	RC	2													
19	Classroom Bldg.	2016	Gov.	RC	3													
20	Pre-primary Demo School	1998	Unknown	RC	1													
21	Primary Demo School	1973	Unknown	RC	2													
22	Secondary Demo School	2008	Unknown	RC	1													
23	Ex. Primary School (not in use)	Unknown	Unknown	RC	1													
(Other facilities)																		
Toilet, Canteen, Supermarket, Valley Ball Court, Car Parking, Bike Parking etc.)																		

### Current Site Map



### Proposed Site Layout Plan



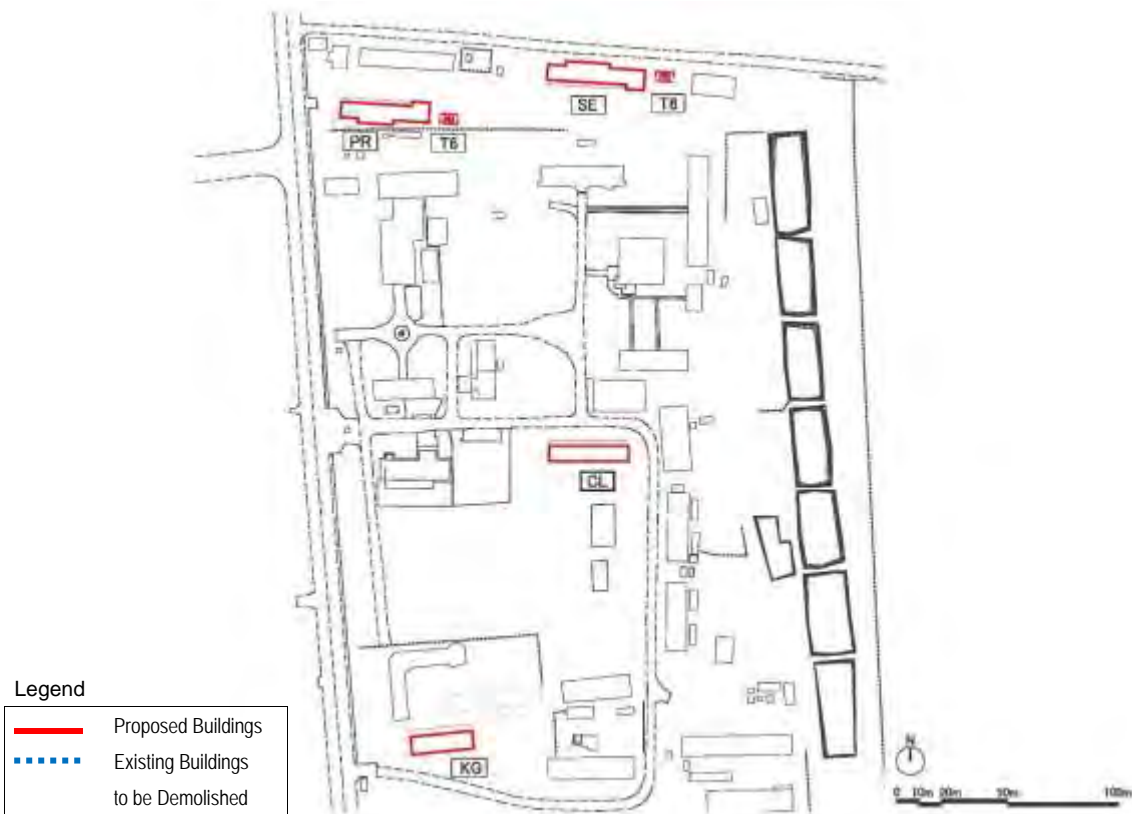
## 5. Dong Kham Xang TTC

Outline (as of Sept.-Oct. 2018)																			
Location	Vientiane Capital																		
Courses	Pre-primary, Primary and Secondary education (Bio, Hist, Eng)																		
TTC Students	1,877 Students (2016/17FY)																		
TTC Demonstration Schools	Item	Pre-primary Demo. School						Primary Demo. School					Secondary Demo. School						
		N1	N2	N3	K1	K2	K3	P1	P2	P3	P4	P5	M1	M2	M3	M4	M5	M6	M7
	No. of Class	1	1	1	1	2	1	1	1	2	2	1							
No. of Student	4	17	20	22	50	30	43	31	62	42	32								
Current Status and Issues																			
Site	<ul style="list-style-type: none"> <li>TTC site (approx. 15 ha) is almost flat and located about 30 min. drive away from Vientiane city center.</li> <li>The east zone of site is used as paddy field.</li> <li>TTC Classroom Bldgs., Lab Bldgs., Admin. Bldgs., Dormitories and Demo. Schools are located in the west zone of site.</li> </ul>																		
TTC Bldg.	<ul style="list-style-type: none"> <li>TTC facilities, including TTC Classroom Bldgs., Lab Bldgs., Dormitories and Admin. Bldgs. are still usable.</li> <li>Though TTC is willing to have an additional Classroom Bldg., needs of classroom have to be carefully analyzed.</li> <li>Needs of additional students' dormitory and rehabilitation of library are identified, but they deem less urgent.</li> </ul>																		
Demo School	<ul style="list-style-type: none"> <li>Primary Demo. School is located at the north-west corner, while Pre-primary Demo. School is at the south-west corner of the site.</li> <li>The main bldg. for Pre-primary Demo. School was constructed by a Japanese NGO. The condition of bldg. is good but number of classrooms are insufficient. Thus, Pre-primary Demo. School temporarily occupies two rooms of the adjacent TTC Classroom Bldg.</li> <li>The existing bldg. for Primary Demo. School is insufficient in terms of size and number of classrooms. They also need to use a very old wooden building as classrooms under the current situation.</li> <li>Secondary Demo. School has not been established yet as of Sep 2019.</li> </ul>																		
List of Existing Buildings																			
No.	Name of Building.						Const. Year	Fund	Structure	Story									
1	Classroom Bldg.						1996	Gov./ADB	RC	2									
2	Classroom Bldg.						2012	Gov.	RC	2									
3-1,2	Classroom Bldg.						1992	Gov.	RC	1									
4	Classroom Bldg. (Lab. Bldg.)						1996	Gov./ADB	RC	2									
5	Classroom Bldg.						1997	Gov.	RC	1									
6	Classroom Bldg. (Partially Pre-primary Demo School)						1993	Gov.	RC	1									
7	Admin Bldg.						1998	Gov.	RC	2									
8	Admin Bldg.						2014	Gov.	RC	2									
9	Students' Dorm (Male)						1997	Gov.	RC	2									
10~11	Students' Dorm (Female)						1997	Gov.	RC	2									
12	Students' Dorm (Female)						2014	Gov.	RC	2									
13	Hall						Unknown	Unknown	RC	1									
14	Library						1996	Gov./ADB	RC	2									
15	Teachers' Dorm						Unknown	Unknown	Unknown	1									
16	Teaching Practicum Room						Unknown	Unknown	RC	1									
17	Teaching Museum						Unknown	Unknown	RC	1									
18	Pre-primary Demo School						Unknown	SVA	RC	1									
19-1	Primary Demo School						Unknown	Unknown	RC	1									
19-2	Primary Demo School						Unknown	Unknown	Wooden	1									
20	Classroom Bldg. (Lab. Bldg.)						Unknown	Norway-UNHABITAT	RC	1									
(Other facilities)																			
21. Canteen, 22. Bike Parking, 23,24. Toilet for Classroom, 25,26. Toilet for Dorm, 27. Kitchen for Dorm																			

### Current Site Map



### Proposed Site Layout Plan





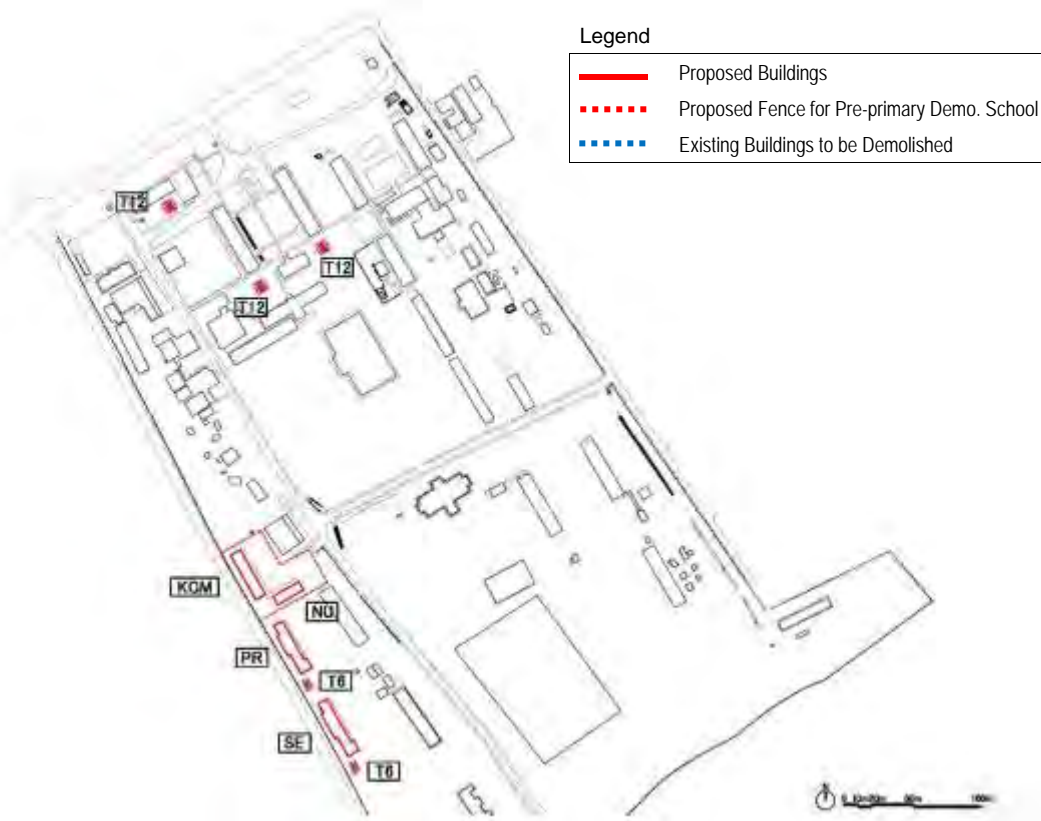
## 6. Savannakhet TTC

Outline (as of Sept.-Oct. 2018)																		
Location	Savannakhet, Kaysone Phomvihane Diestric, Savannakhet Province																	
Courses	Pre-primary, Primary and Secondary education (Chem, Phys, Bio, Math, Lao, Eng, ICT)																	
TTC Students	2,642 Students (2016/17FY)																	
TTC Demonstration Schools	Item	Pre-primary Demo. School					Primary Demo. School					Secondary Demo. School						
		N1	N2	N3	K1	K2	K3	P1	P2	P3	P4	P5	M1	M2	M3	M4	M5	M6
	No. of Class	1	1	1	1	1	1	1	1	1	1	2						
No. of Student	12	8	20	18	26	37	40	37	32	35	72							
Current Status and Issues																		
Site	<ul style="list-style-type: none"> <li>TTC site is located along the national road No.9, 3 km away from the 2<sup>nd</sup> Thai-Lao Friendship Bridge.</li> <li>The site is generally flat land with approx. 41 ha.</li> <li>The site used to be forest. Some portions of the land are seepy especially during rain. The site does not have significant record of natural disaster.</li> </ul>																	
TTC Bldg.	<ul style="list-style-type: none"> <li>The existing TTC Classroom, Lab, Dormitory and Admin. Bldgs. include aged bldgs., but they are still usable.</li> <li>Some of the toilet bldgs., still used but very aged and deteriorated, will not be usable in the near future.</li> <li>A need of additional students' dormitory is identified, but it deems less urgent.</li> </ul>																	
Demo School	<ul style="list-style-type: none"> <li>The existing Pre-primary Demo. School Bldg. used to be a teachers' accommodation. The bldg. has serious structural cracks on wall caused by uneven settlement of the ground.</li> <li>The existing bldg. for Primary Demo. School is the renovated but very old classroom building. (They used the other building temporarily because the bldg. was under renovation during the field survey in 2018.)</li> <li>A general secondary school used to be operated within the site. However, it was closed because of school consolidation of the area. The bldg. is currently used as Students' Dormitory after renovation. Secondary Demo. School newly established in Sep 2018 is operated as temporarily using the TTC Classroom Bldg. (No. 5), but TTC plans to move the school to the original bldg. of the secondary school (No. 14).</li> </ul>																	
List of Existing Buildings																		
No.	Name of Building.	Const. Year	Fund	Structure	Story													
1	Classroom Bldg. (Music) (Ex. Kitchen)	2002	Gov./ADB	RC	1													
2~4	Classroom Bldg.	1992	Gov.	Wooden	1													
5	Secondary Demo School (Ex. CL Bldg.)	1992	Gov.	Wooden	1													
6	Classroom Bldg.	1969	Gov.	RC	1													
7~8	Classroom Bldg.	1969	Gov.	RC	2													
9	Classroom Bldg. (Lab. Bldg.)	2002	Gov./ADB	RC	2													
10	Classroom Bldg.	2012	Gov.	RC	2													
11-1	Computer Room	1969	Gov.	RC	1													
11-2	Computer Room	Unknown	Unknown	RC	1													
12	Admin Bldg.	2002	Gov.	RC	2													
13	Students' Dorm (Male)	2005	Gov.	RC	2													
14	Students' & Teachers' Dorm (Male) (Ex. Secondary School)	Unknown	Unknown	Wooden	1													
15	Classroom Bldg. (Teaching Practicum Bldg.) (Ex. Dorm)	1969	Gov.	RC	2													
16~17	Students' Dorm (Female)	1969	Gov.	RC	2													
18	Students' Dorm (Female)	2014	JAIF	RC	2													
19	Hall	2007	Unknown	RC	1													
20	Hall	2002	Gov./ADB	RC	1													
21	Library	2002	Gov./ADB	RC	2													
22	Primary Demo School	Unknown	Unknown	RC	1													
23	Pre-primary Demo School (Ex. Dorm)	Unknown	Unknown	RC	1													
24~25	Teachers' Dorm	Unknown	Unknown	RC+Wooden	1													
26	Admin Bldg. (New Construction)	2018	Gov.	RC	2													
27	Admin Bldg. (Ex. Teachers' Dorm)	Unknown	Unknown	RC+Wooden	1													
28	Admin Bldg. (Language Teachers)	Unknown	Unknown	RC	1													
29	Students' Activity Bldg. (Cooking/Sewing)	Unknown	Unknown	RC	1													
30	Students' Activity Bldg. (Haircut)	Unknown	Unknown	RC	1													
31~32	Teachers' Dorm	Unknown	Unknown	RC+Wooden	1													
33	Toilet for Classrooms	Unknown	Unknown	RC	1													
34	Teachers' Dorm	Unknown	Unknown	Wooden	1													
35	Admin Bldg. (Conference Room)	Unknown	Unknown	RC	1													
(Other facilities) Toilet, Canteen, Supermarket, Playground, Car Parking, Bike Parking etc.																		

### Current Site Map



### Proposed Site Layout Plan



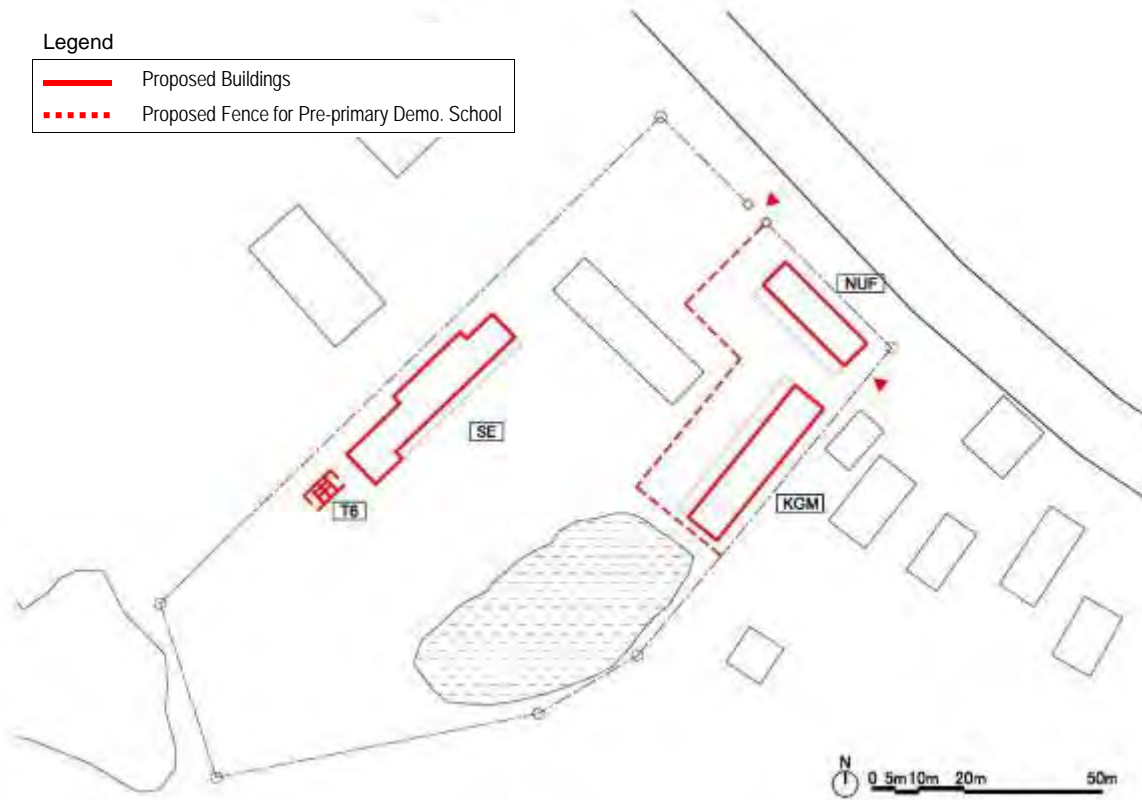
## 7. Saravan TTC

Outline (as of Sept.-Oct. 2018)																		
Location	Saravan, Saravan District, Saravan Province																	
Courses	Pre-primary, Primary and Secondary education (Chem, Phys, Geo, Lao)																	
TTC Students	1,431 Students (2016/17FY)																	
TTC Demonstration Schools	Item	Pre-primary Demo. School					Primary Demo. School					Secondary Demo. School						
		N1	N2	N3	K1	K2	K3	P1	P2	P3	P4	P5	M1	M2	M3	M4	M5	M6
	No. of Class	1	1	1	1	1	1	1	1	1	1	1	1	1				
No. of Student	5	10	20	15	21	38	30	30	21	24	50	17	15					
Current Status and Issues																		
Site	<ul style="list-style-type: none"> <li>TTC site (approx. 7.5 ha) has Sports Ground and Teachers' Dormitories at the west side, and TTC Classroom Bldgs., Lab Bldg., Admin Bldgs., and Pre-primary Demo. School at the east side of site.</li> <li>Demo. School site (approx. 1.1 ha) is located about 700m away from TTC site. There are Primary Demo. School and two ponds in the site.</li> <li>Both sites are almost flat ground.</li> </ul>																	
TTC Bldg.	<ul style="list-style-type: none"> <li>The existing TTC Classroom, Lab, Dormitory and Admin. Bldgs. include aged bldgs., but they are still usable.</li> <li>One of TTC Classroom Bldg. was originally constructed as a students' dormitory, thus the size of classroom of the bldg. is small. While TTC is willing to have an additional Classroom Bldg., needs of classroom have to be carefully analyzed.</li> </ul>																	
Demo School	<ul style="list-style-type: none"> <li>Pre-primary Demo. School is currently operated by using two bldgs. at the west side of TTC site. One of the bldgs. is very old wooden two-classroom bldg. originally constructed for Primary Demo. School. Because TTC Primary Demo. School is established in the separated site, the wooden bldg. in TTC site transferred to Pre-primary Demo. School. Another bldg. is also insufficient in terms of size and number for Pre-primary Demo. School.</li> <li>Primary Demo. School is located in the separated site. The condition of bldg. is generally in good conditions, while the size of classroom is a bit smaller than the standards.</li> <li>Secondary Demo. School established in Sep 2018 is operated by temporarily using TTC Classrooms.</li> <li>TTC site is limited and no space is available for construction of Demo. School Bldgs. Thus, Demo. School Bldgs. will be constructed in the separated site.</li> </ul>																	
List of Existing Buildings																		
No.	Name of Building.	Const. Year	Fund	Structure	Story													
1	Classroom Bldg.	2009	Gov.	RC	2													
2	Classroom Bldg. (Lab. Bldg.)	1997	Gov./ADB	RC	2													
3	Classroom Bldg. (Partially, Secondary Demo School)	1997	Gov./ADB	RC	2													
4	Dorm (Male/Female)	1997	Gov./ADB	RC	2													
5	Students' Dorm (Male)	1997	Gov./ADB	RC	2													
6	Students' Dorm (Female)	2014	JAIF	RC	2													
7	Students' Dorm (Female)	1997	Gov./ADB	RC	2													
8	Pre-primary Demo School (Ex. Primary Demo School)	2005	Gov./ADB	木造	1													
9	Pre-primary Demo School	1997	Room to Read	RC	1													
10	Admin Bldg.	1997	Gov./ADB	RC	2													
11	--	--	--	--	--													
12	Hall	1997	Gov./ADB	RC	1													
13	Library	1997	Gov./ADB	RC	2													
14	Classroom Bldg.	2016	Gov.	RC	3													
15	Teachers' Dorm	Unknown	Gov./ADB	RC	2													
101	Primary Demo School	2006	Unknown	RC	1													
102	Toilet for Primary Demo School	Unknown	Unknown	RC	1													
(Other facilities)																		
16. Students' Activity Bldg. (Kitchen), 17,18. Kitchen for Dorm, 18,19. Shower for Dorm, 21-24. Toilet for Dorm, 25. Ex. Music Room, 26. Storage, 27. Playground, 28,29. Bike Parking, 30. Car Parking																		

### Current Site Map



### Proposed Site Layout Plan





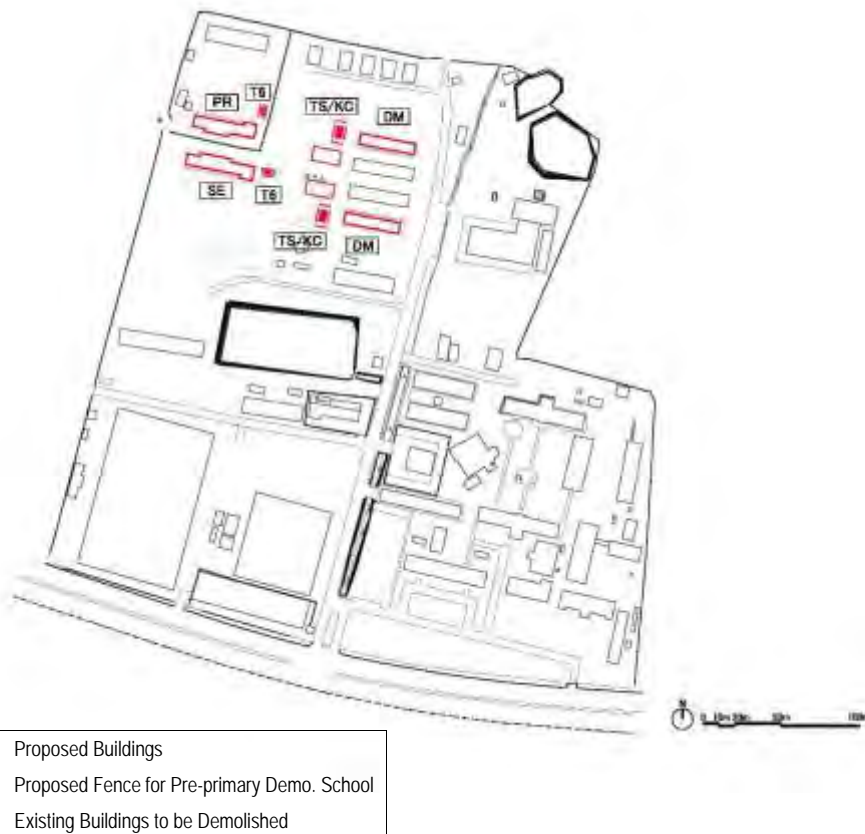
## 8. Pakse TTC

Outline (as of Sept.-Oct. 2018)																		
Location	Pakse, Pakse District, Champasak Province																	
Courses	Pre-primary, Primary and Secondary education (Phys, Geo, Math, Lao, Fre, Physical ed.)																	
TTC Students	1,391 Students (2016/17FY)																	
TTC Demonstration Schools	Item	Pre-primary Demo. School					Primary Demo. School					Secondary Demo. School						
		N1	N2	N3	K1	K2	K3	P1	P2	P3	P4	P5	M1	M2	M3	M4	M5	M6
	No. of Class	1			1	1	1	1	1	1	1	1	1					
No. of Student	--			20	35	38	37	29	26	30	34	34	7					
Current Status and Issues																		
Site	<ul style="list-style-type: none"> <li>TTC site (approx. 13 ha) has TTC Classroom Bldgs., Lab Bldg. and Admin Bldgs. at the east side, and Students' Dormitories, Sport Ground and Demo. Schools are located at the west side of the site.</li> <li>TTC site is almost flat, however, available land for construction is limited because of the existing bldgs., a pond and many trees. Demolition of some existing building is needed for new construction.</li> <li>There was an information that TTC site used to be a pond, and thus soil investigation test was carefully conducted. However, as the result of test, it is determined that no need to adopt pile foundation.</li> </ul>																	
TTC Bldg.	<ul style="list-style-type: none"> <li>The existing TTC Classroom, Lab and Admin. Bldgs. include aged bldgs., but they are still usable.</li> <li>Some of the wooden TTC Classroom Bldgs. seriously damaged by termite are not in use.</li> <li>Male Dormitories (wooden structure) and Female Dormitories (RC structure) are damaged by age and/or termite and not in good sanitary conditions. Some of the damaged Dormitory Bldgs. are not in use.</li> <li>While TTC is willing to have an additional Classroom Bldg., needs of classroom have to be carefully analyzed.</li> </ul>																	
Demo School	<ul style="list-style-type: none"> <li>Pre-primary, Primary and Secondary Demo. Schools are located within TTC site but separated each other.</li> <li>Pre-primary Demo. School Bldgs. are still usable but the size of classroom is a bit smaller than the standards.</li> <li>Primary Demo. School is the very old wooden bldg. aged over 40 years.</li> <li>Secondary Demo. School established in Sep 2018 is operated by using the very old classroom bldg. The bldg. was renovated but number of classrooms is insufficient and no laboratory is available.</li> </ul>																	
List of Existing Buildings																		
No.	Name of Building.						Const. Year	Fund	Structure	Story								
1	Classroom Bldg. (Ex. Canteen)						1962	Gov.	Wooden	1								
2	Classroom Bldg. (Not in use)						1962	Gov.	Wooden	1								
3	Classroom Bldg. (Not in use)						1986	UNICEF	Wooden	1								
4	Classroom Bldg.						2000	Gov./ADB	RC	2								
5~6	Classroom Bldg.						1986	Gov./ADB	Wooden	1								
7	Secondary Demo School						1962	Gov.	RC	1								
8	Classroom Bldg.						1962	Gov.	RC	1								
9	Classroom Bldg. (Lab. Bldg.)						2000	Gov./ADB	RC	2								
10	Students' Dorm (Female)						1962	Gov.	RC	2								
11	Students' Dorm (Female) (Not in use)						1962	Gov.	RC	2								
12	Students' Dorm (Female)						1962	Gov.	RC	2								
13~15	Students' Dorm (Male)						1986	Gov.	Wooden	1								
16	Students' Dorm (Male) (Not in use)						1986	Gov.	Wooden	1								
17	Primary Demo School						1962	Gov.	Wooden	1								
18	Pre-primary Demo School						2000	Unknown	RC	1								
19	Admin Bldg.						2014	Gov.	RC	2								
20	Admin Bldg.						1964	Gov.	RC	2								
21	Hall						2015	Unknown	RC	1								
22	Hall						1986	Gov.	RC	1								
23	Library						2000	Gov./ADB	RC	2								
24~26	TDC Bldg.s						1997/2000	Vatican/France	RC	1~2								
27	Teachers' Dorm						Unknown	Unknown	RC	1								
(Other facilities)																		
Toilet, Car Parking, Bike Parking etc.																		

### Current Site Map



### Proposed Site Layout Plan





## **5-2. Outcome of Soil Investigation (8TTC)**



**LOCATION PLAN OF BORE HOLE**  
**THE PROJECT FOR IMPROVEMENT OF TEACHER TRAINING COLLEGES**  
**Location : Luang Nam Tha TTC, Vientiane Province**

No.	Coordinate	
	N	E
BH01	2316655.417	0749844.163
BH02	2316660.428	0749751.593

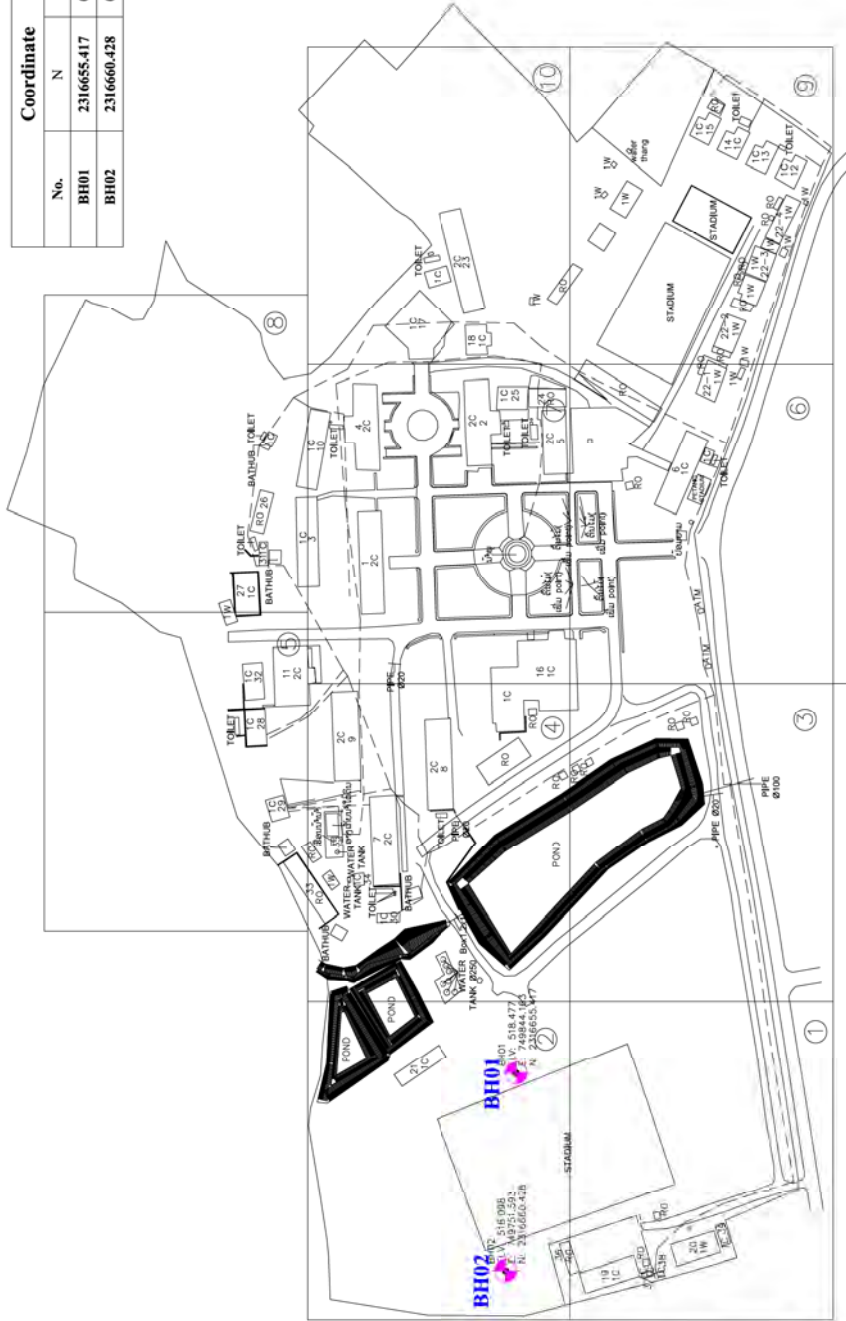
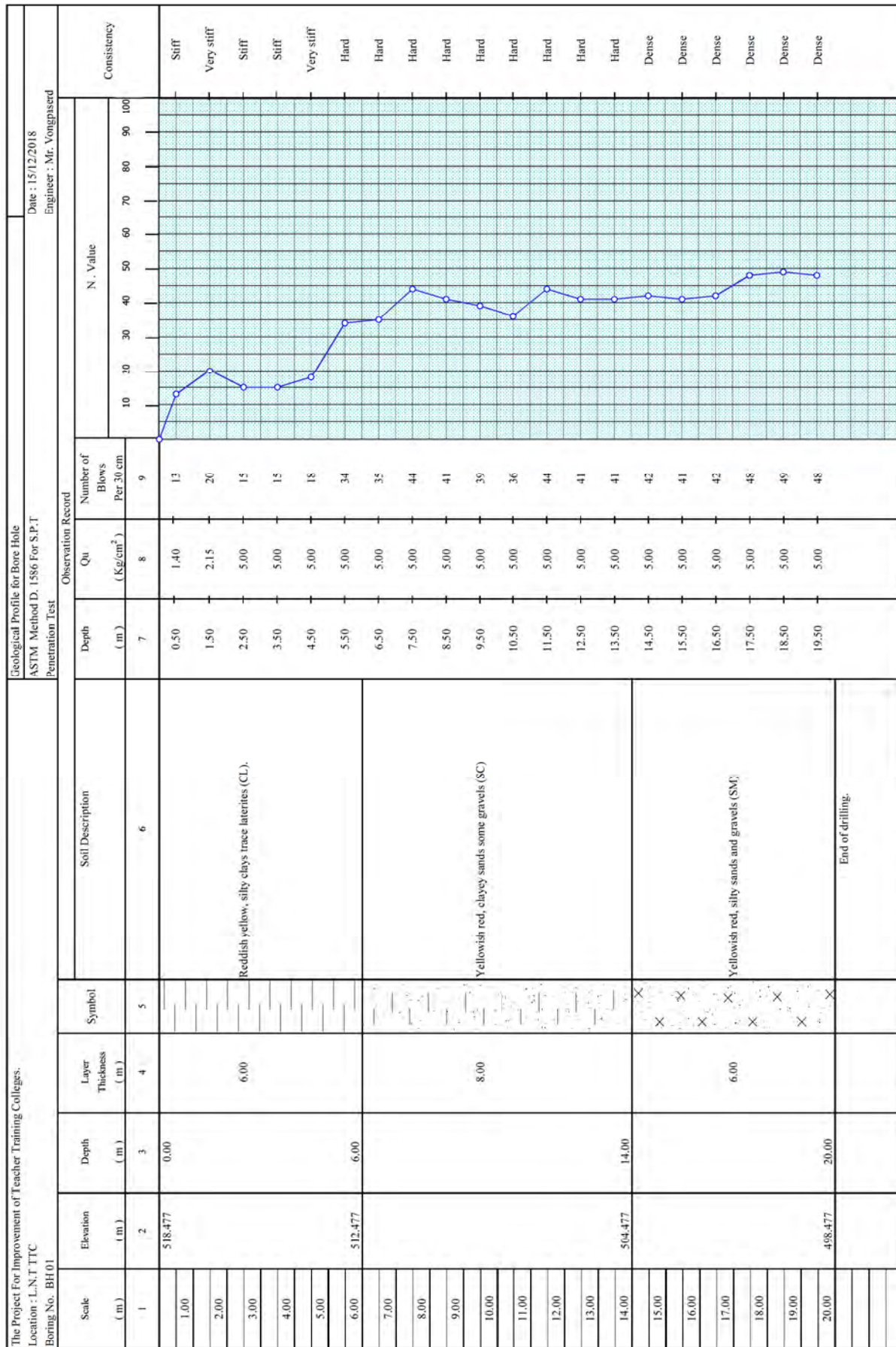
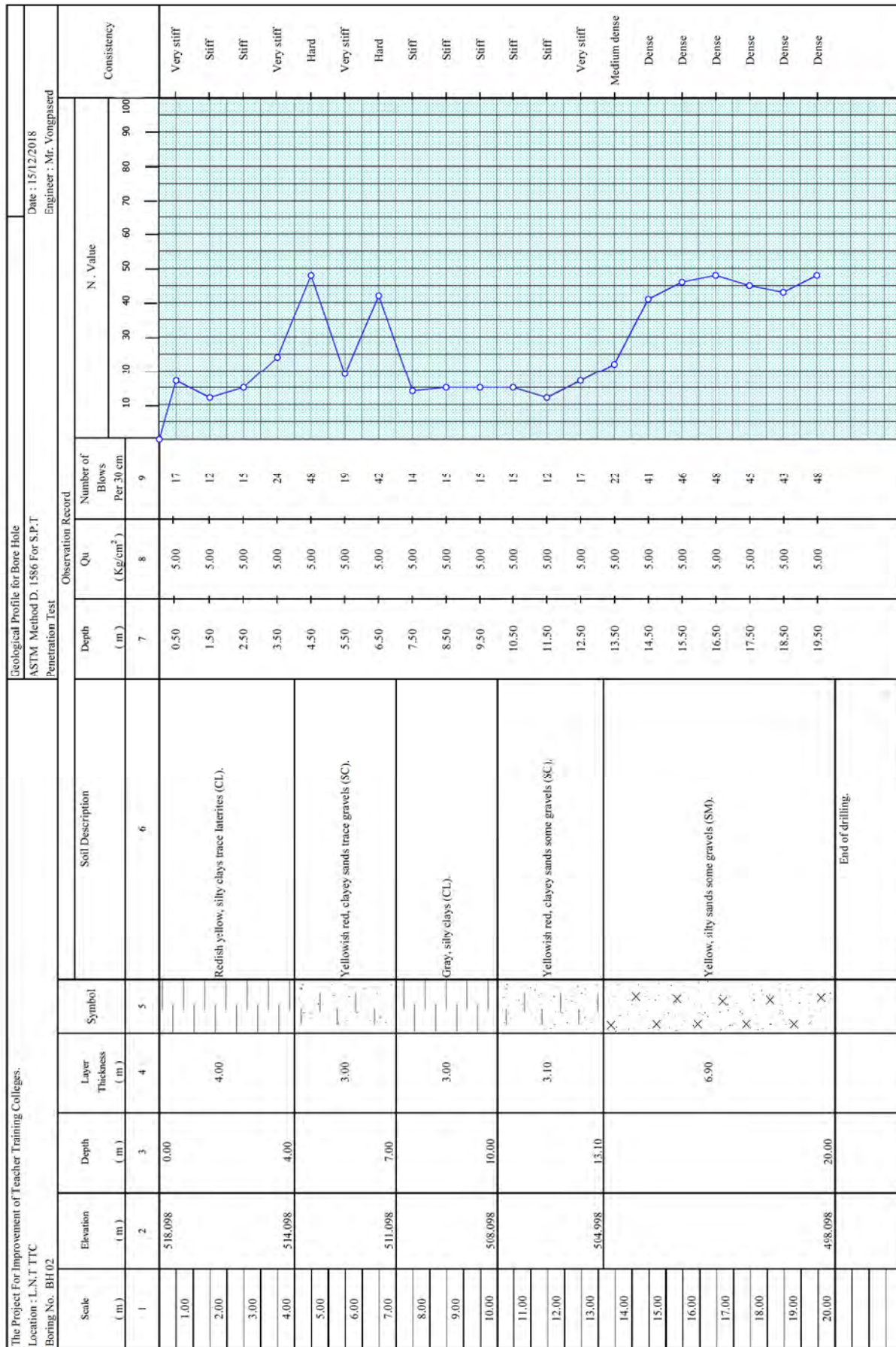


Figure 2 Location Plan of Bore Hole



Remark :  
N : Blows Per 30 cm ( 63.5 Kg Hammer, 76 cm Drop, 5 cm Sampler )  
Qu : Unconfined Compressive Strength ( Kg/cm<sup>2</sup> )

Figure A-1 Geological Profile for Bore Hole BH01

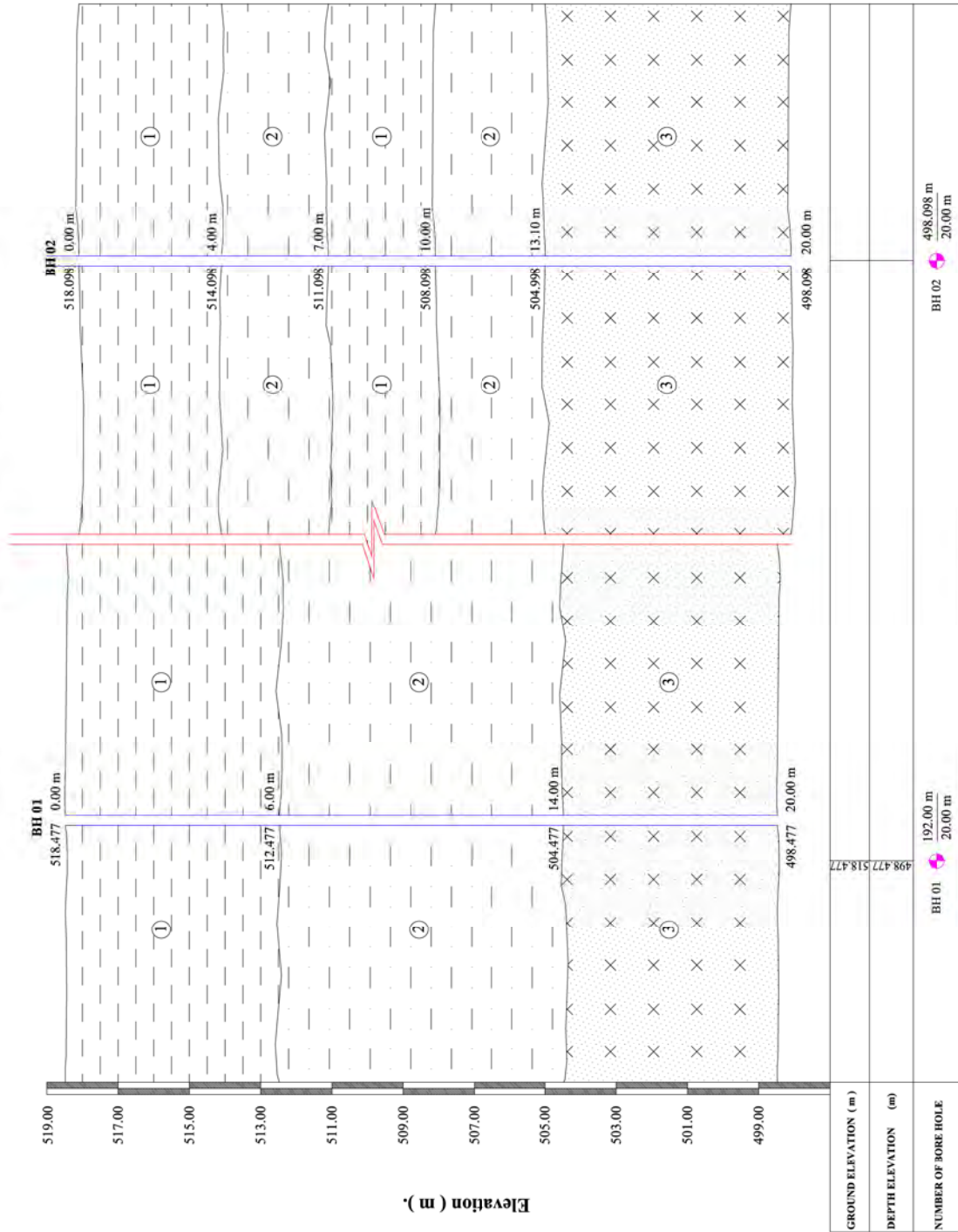


Remark :  
 N : Blows Per 30 cm ( 63.5 Kg Hammer, 76 cm Drop, 5 cm Sampler )  
 Qu : Unconfined Compressive Strength ( Kg/cm<sup>2</sup> )

Figure A-2 Geological Profile for Bore Hole BH02



**GEOLOGICAL LITHOLOGICAL PROFILE OF BORE HOLE**  
**THE PROJECT FOR IMPROVEMENT OF TEACHER TRAINING COLLEGES**  
**Location : Luang Nam Tha TTC, Luang Nam Tha Province**



**Figure A-3 Geological Lithological Profile of Bore Hole**

NO SCALE



**LOCATION PLAN OF BORE HOLE**  
**THE PROJECT FOR IMPROVEMENT OF TEACHER TRAINING COLLEGES**  
**Location : Luang Prabang TTC, Vientiane Province**

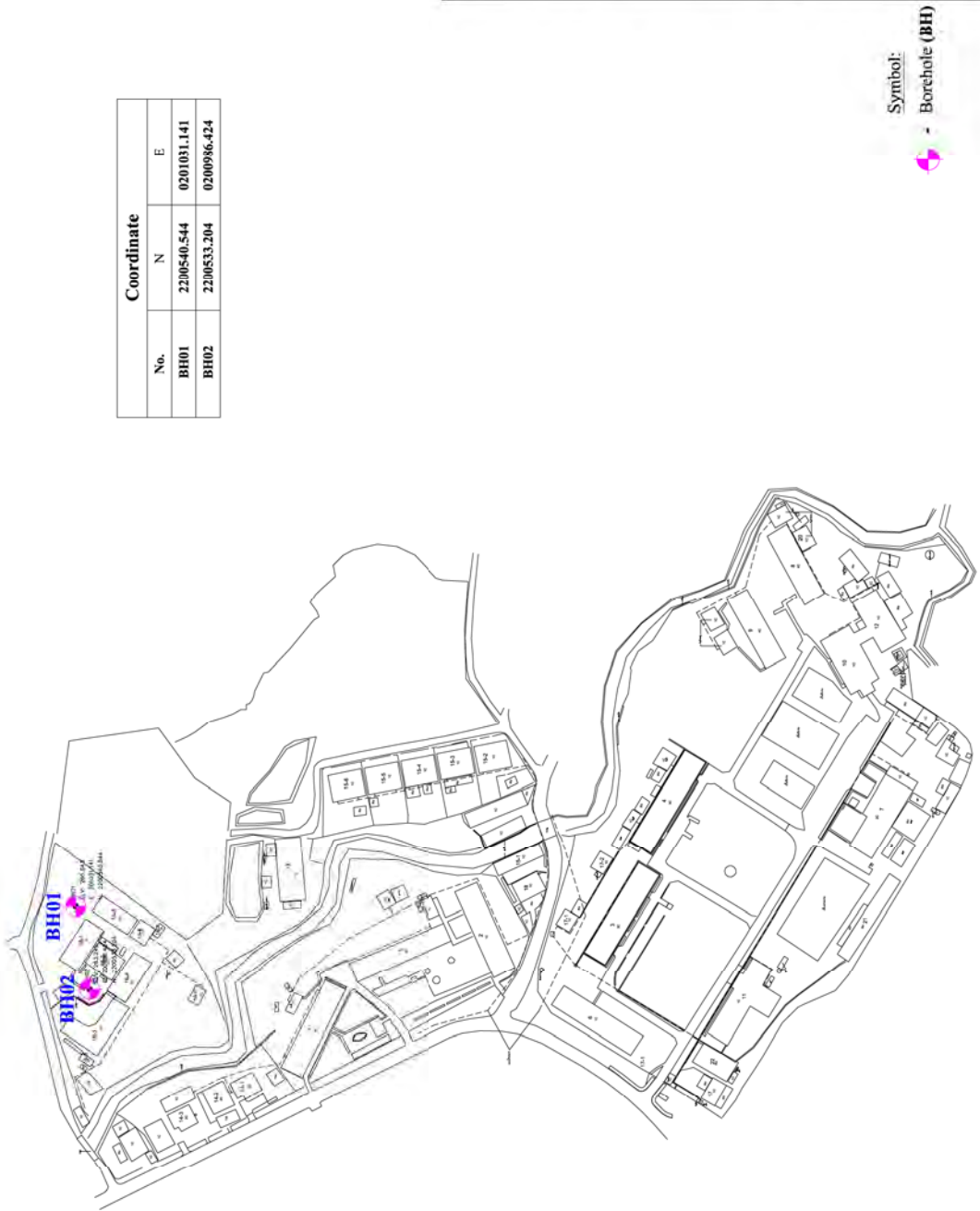
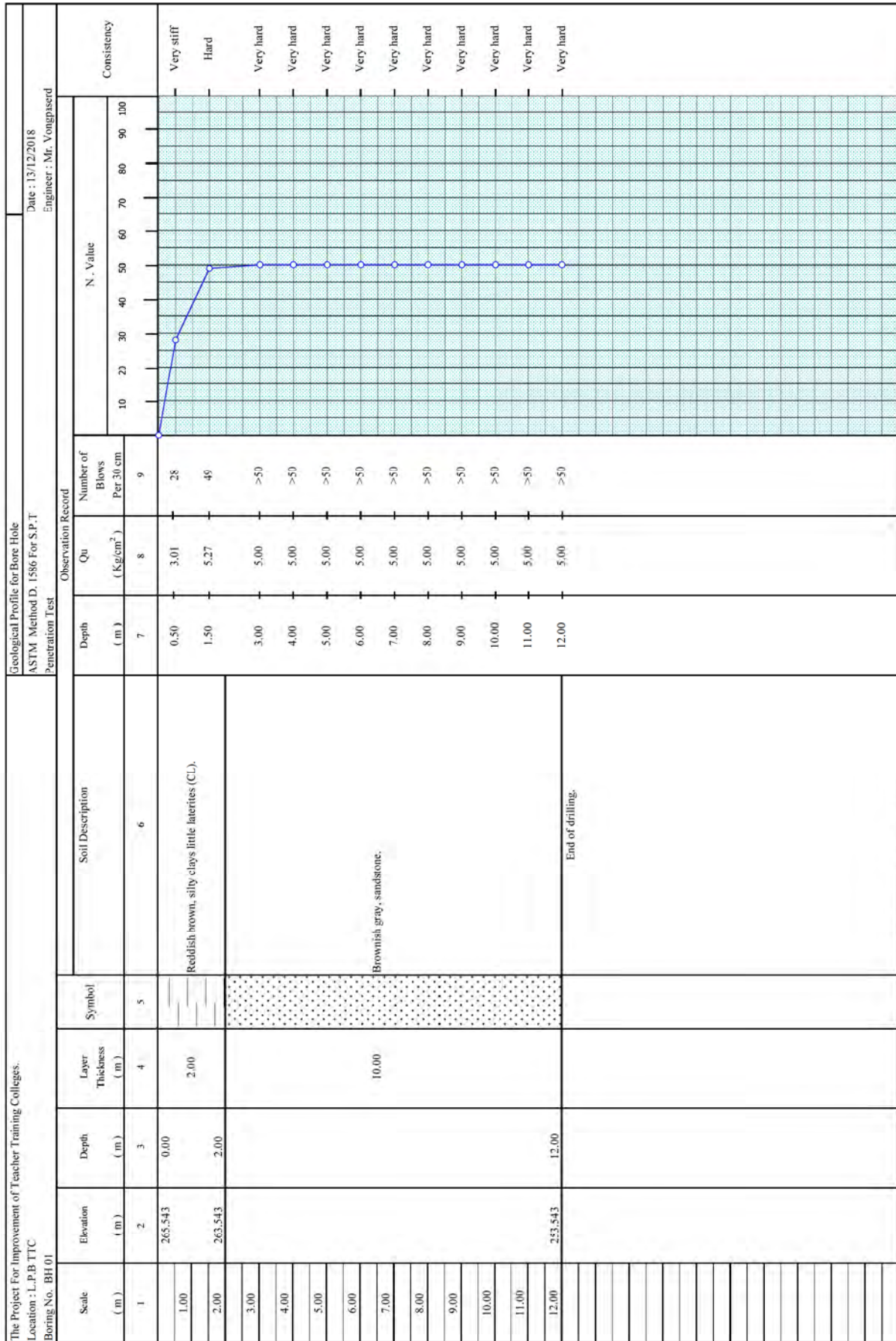
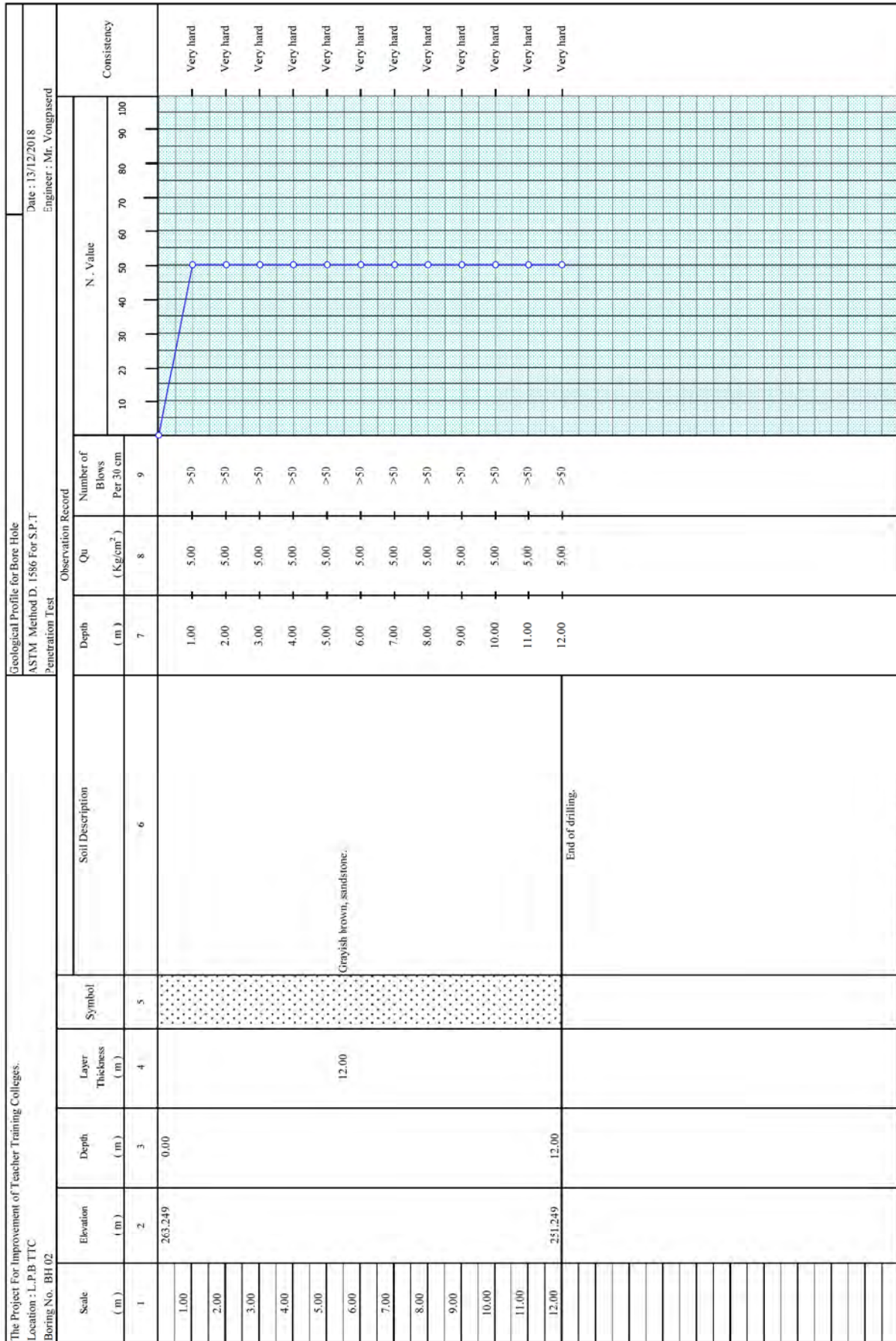


Figure 2 Location Plan of Bore Hole



Remarks :  
 N : Blows Per 30 cm ( 63.5 Kg Hammer, 76 cm Drop, 5 cm Sampler )  
 Qu : Unconfined Compressive Strength ( Kg/cm<sup>2</sup> )

Figure A-1 Geological Profile for Bore Hole BH01

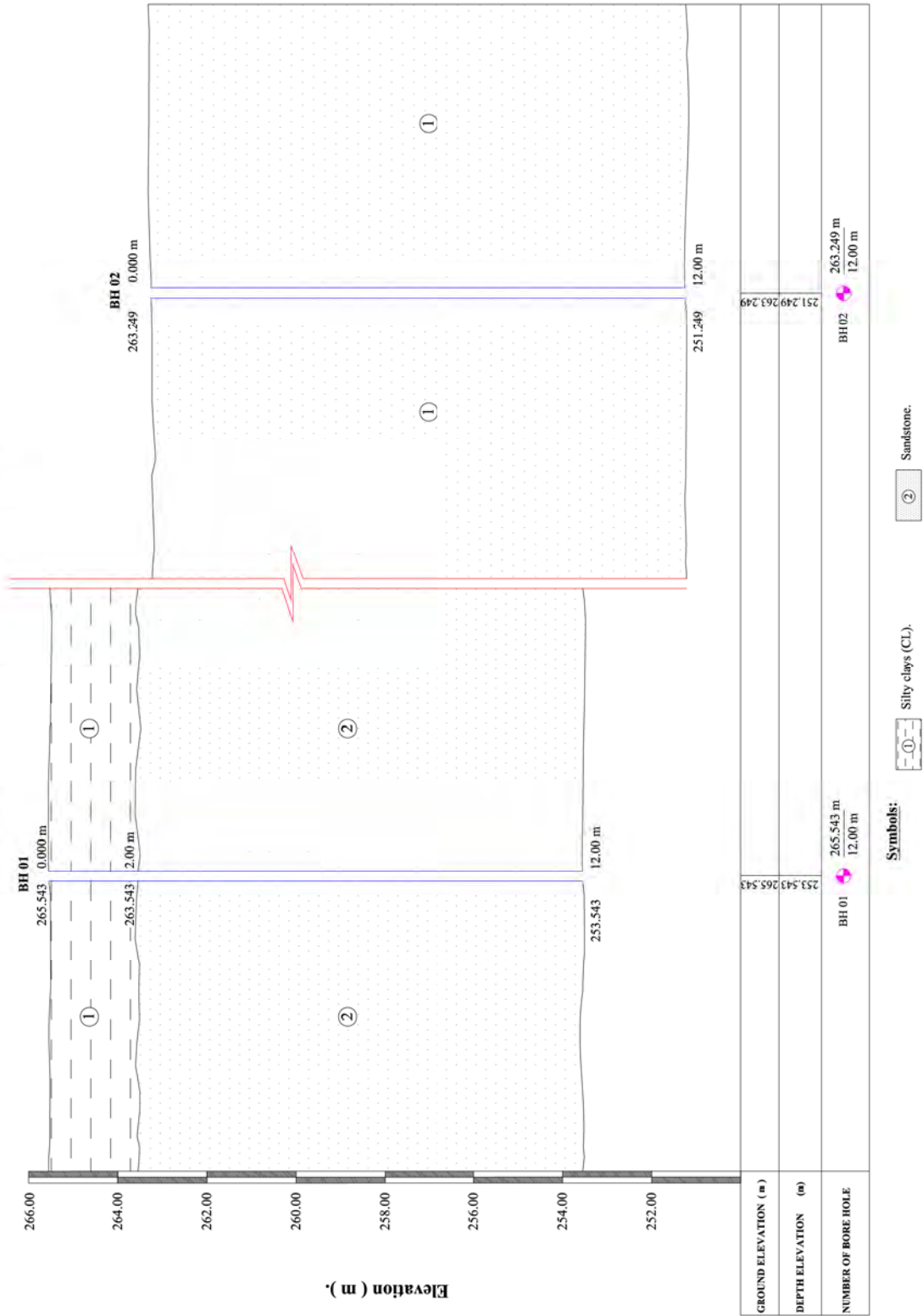


Remark :  
 N : Blows Per 30 cm ( 63.5 Kg Hammer, 76 cm Drop, 5 cm Sampler )  
 Qu : Unconfined Compressive Strength ( Kg/cm<sup>2</sup> )

Figure A-2 Geological Profile for Bore Hole BH02



**GEOLOGICAL LITHOLOGICAL PROFILE OF BORE HOLE**  
**THE PROJECT FOR IMPROVEMENT OF TEACHER TRAINING COLLEGES**  
**Location : Luang Prabang TTC, Luang Prabang Province**



**Figure A-3 Geological Lithological Profile of Bore Hole**

NO SCALE



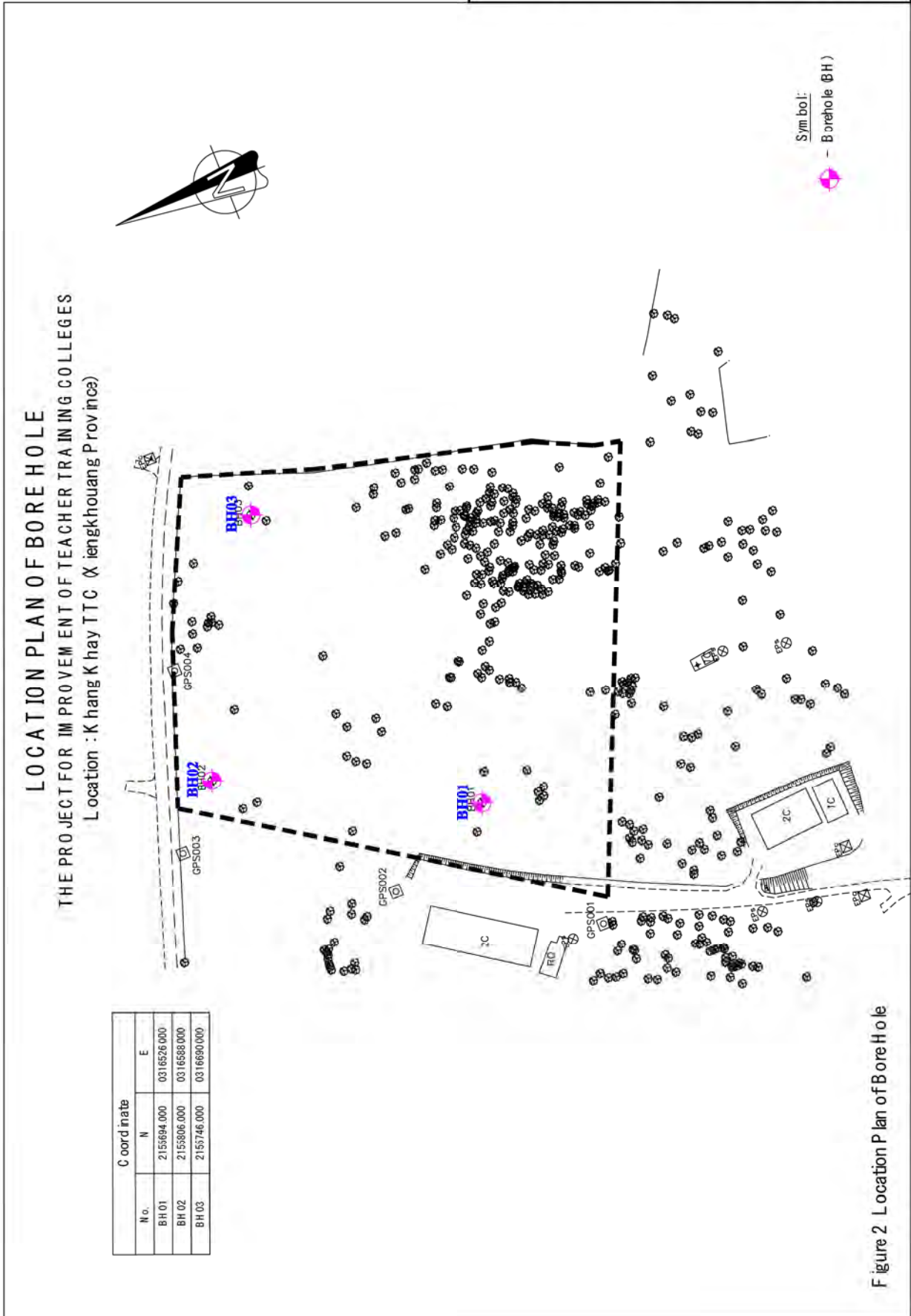
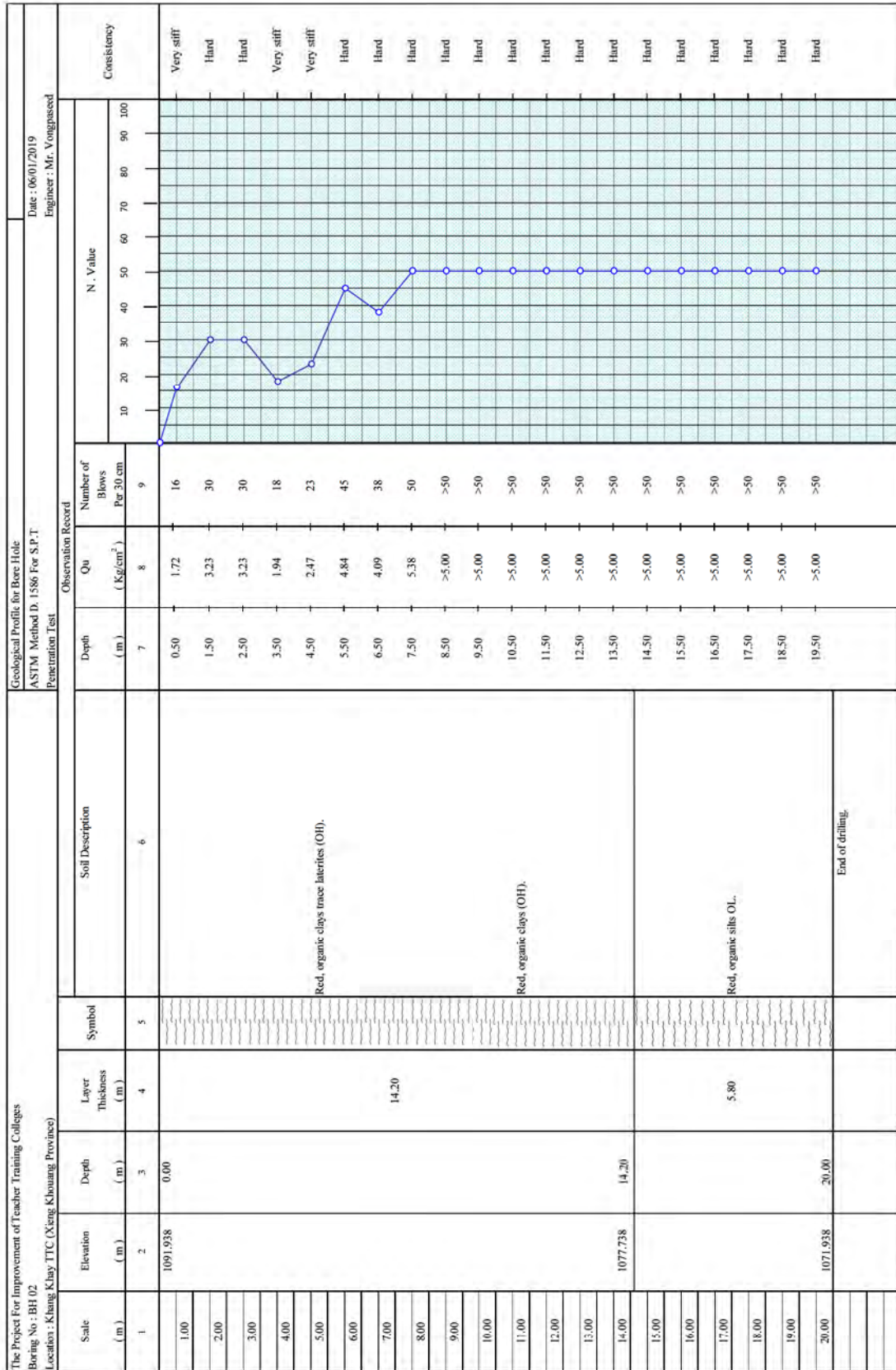


Figure 2 Location Plan of Bore Hole

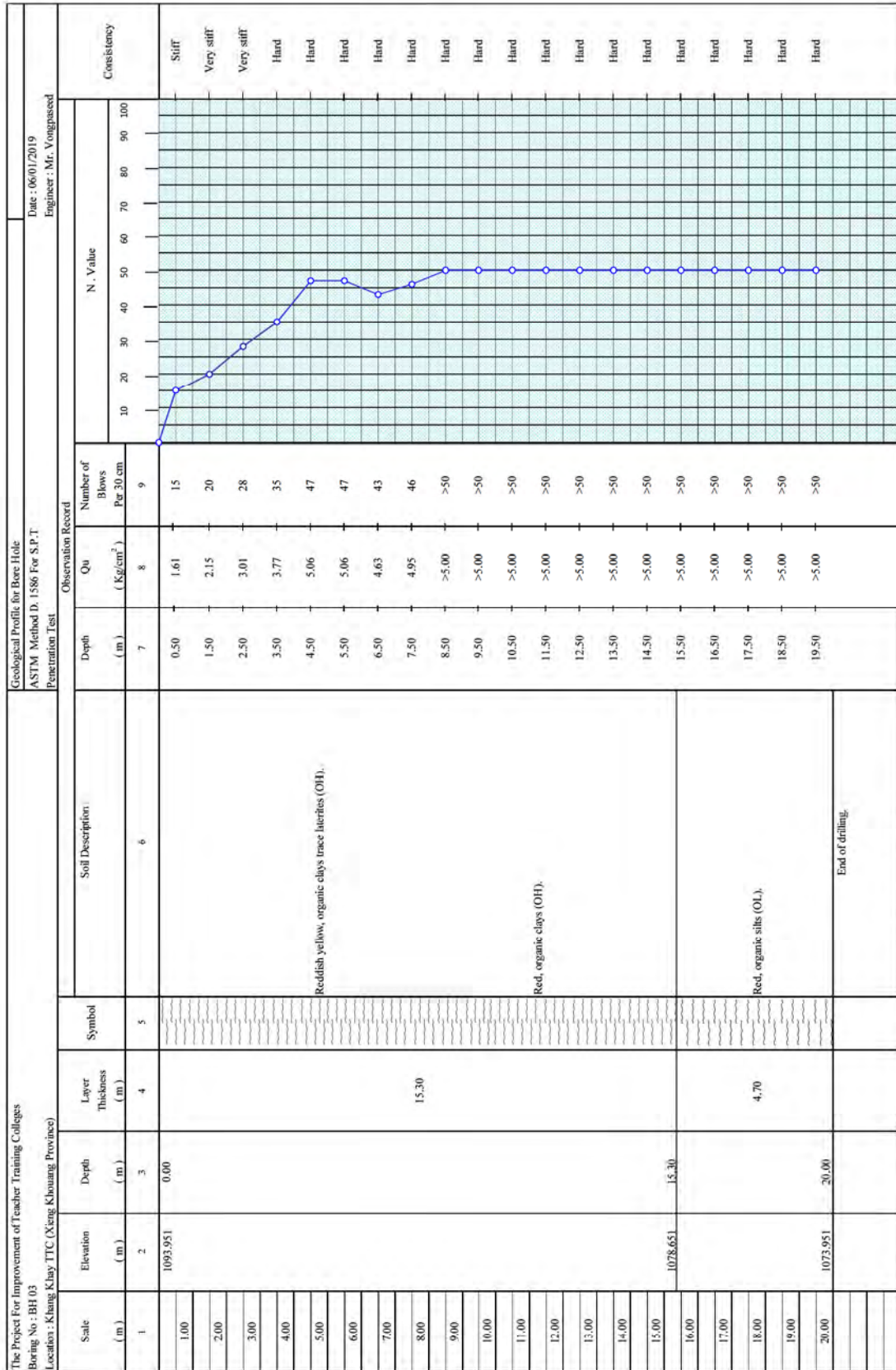




Remark :  
 N : Blows Per 30 cm ( 63.5 Kg Hammer, 76 cm Drop, 5 cm Sampler )  
 Qu : Unconfined Compressive Strength ( Kg/cm<sup>2</sup> )

Figure A-2 Geological Profile for Bore Hole BH02





Remark : N : Blows Per 30 cm ( 63.5 Kg Hammer, 76 cm Drop, 5 cm Sampler )  
Qu : Unconfined Compressive Strength ( Kg/cm<sup>2</sup> )

Figure A-3 Geological Profile for Bore Hole BH03



**GEOLOGICAL LITHOLOGICAL PROFILE OF BORE HOLE**  
**THE PROJECT FOR IMPROVEMENT OF TEACHER TRAINING COLLEGES**  
 Location Khang Khay TTC (Xiangkhong Province)

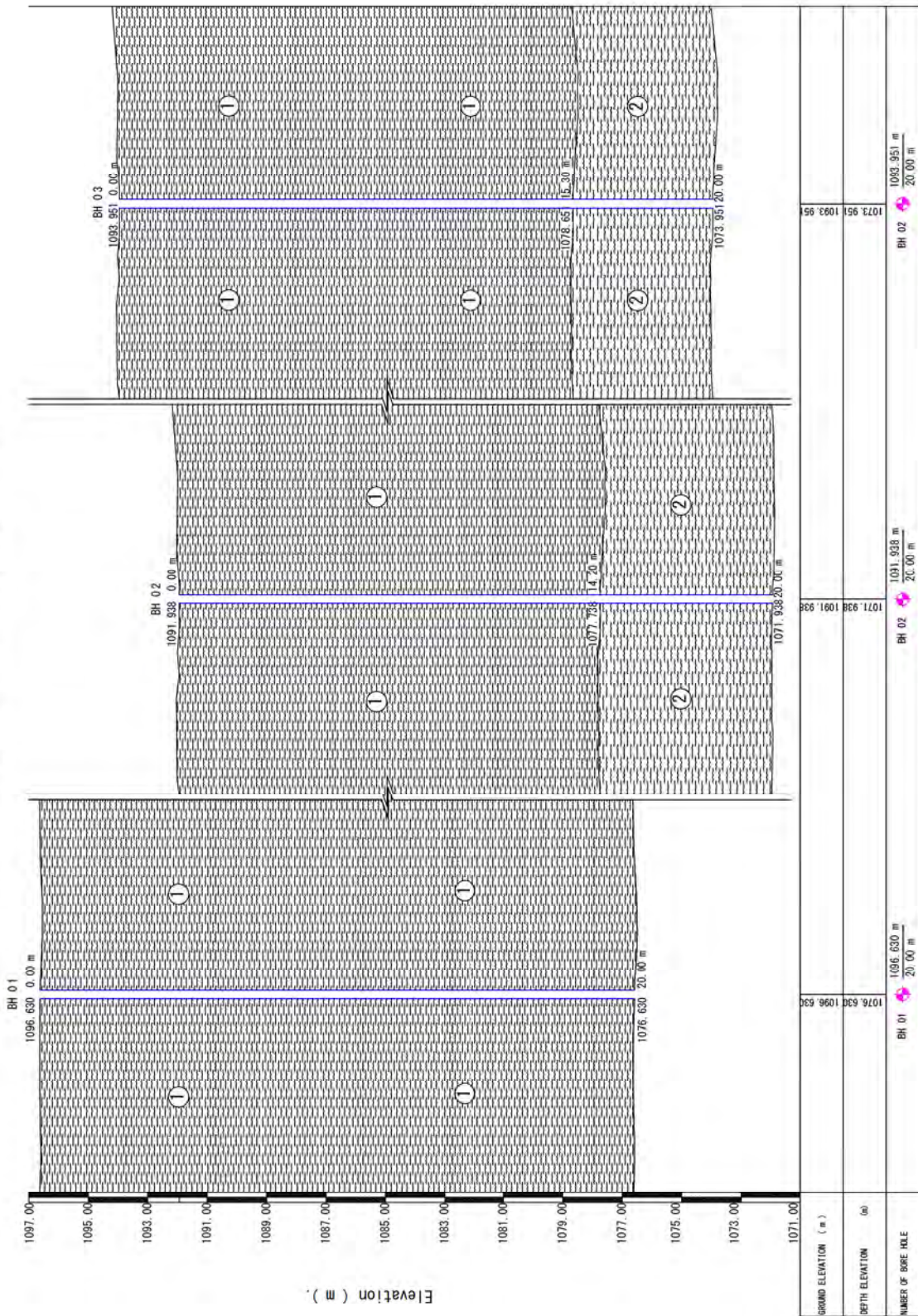


Figure A-4 Geological Lithological Profile of Bore Hole

NO SCALE

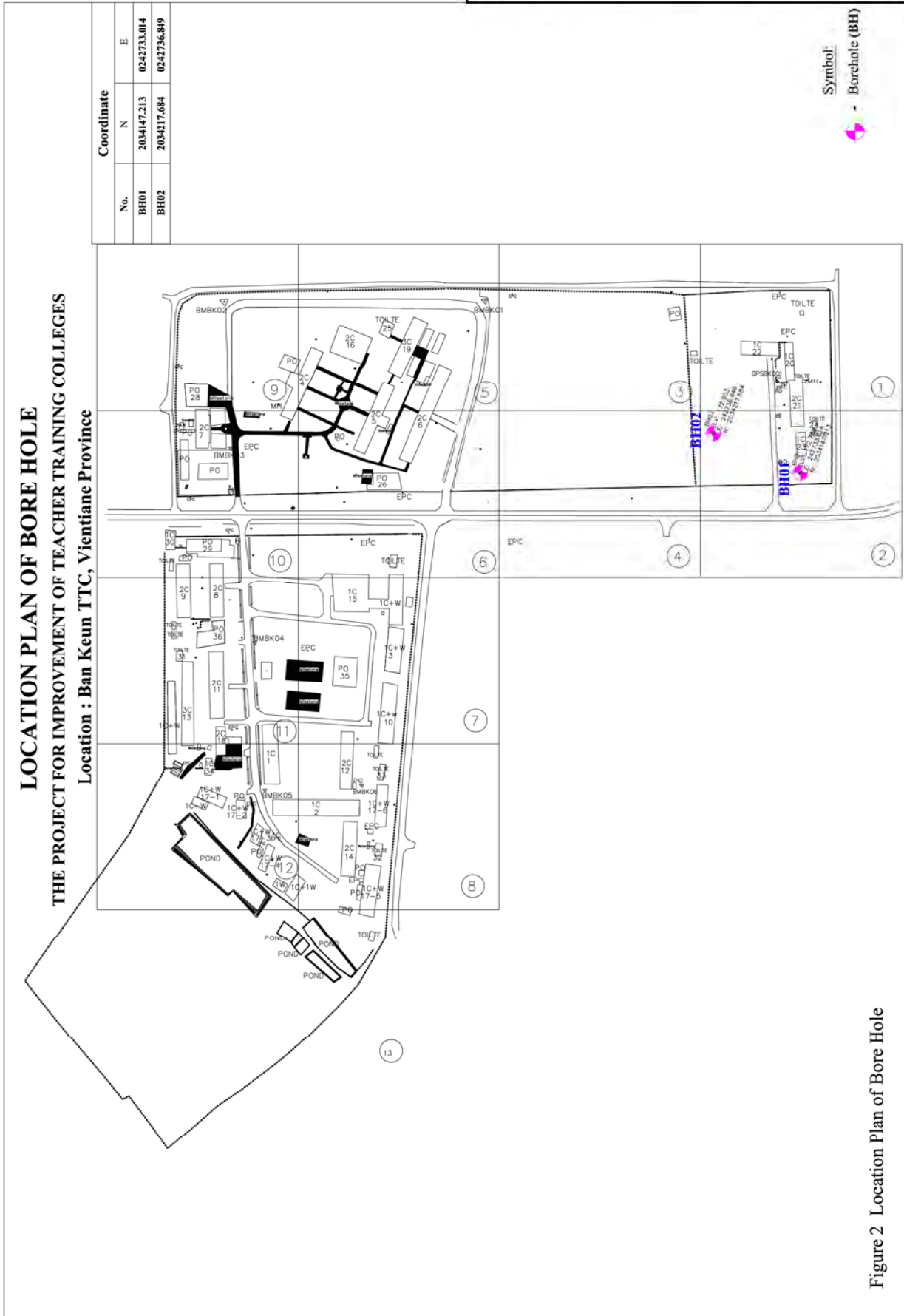
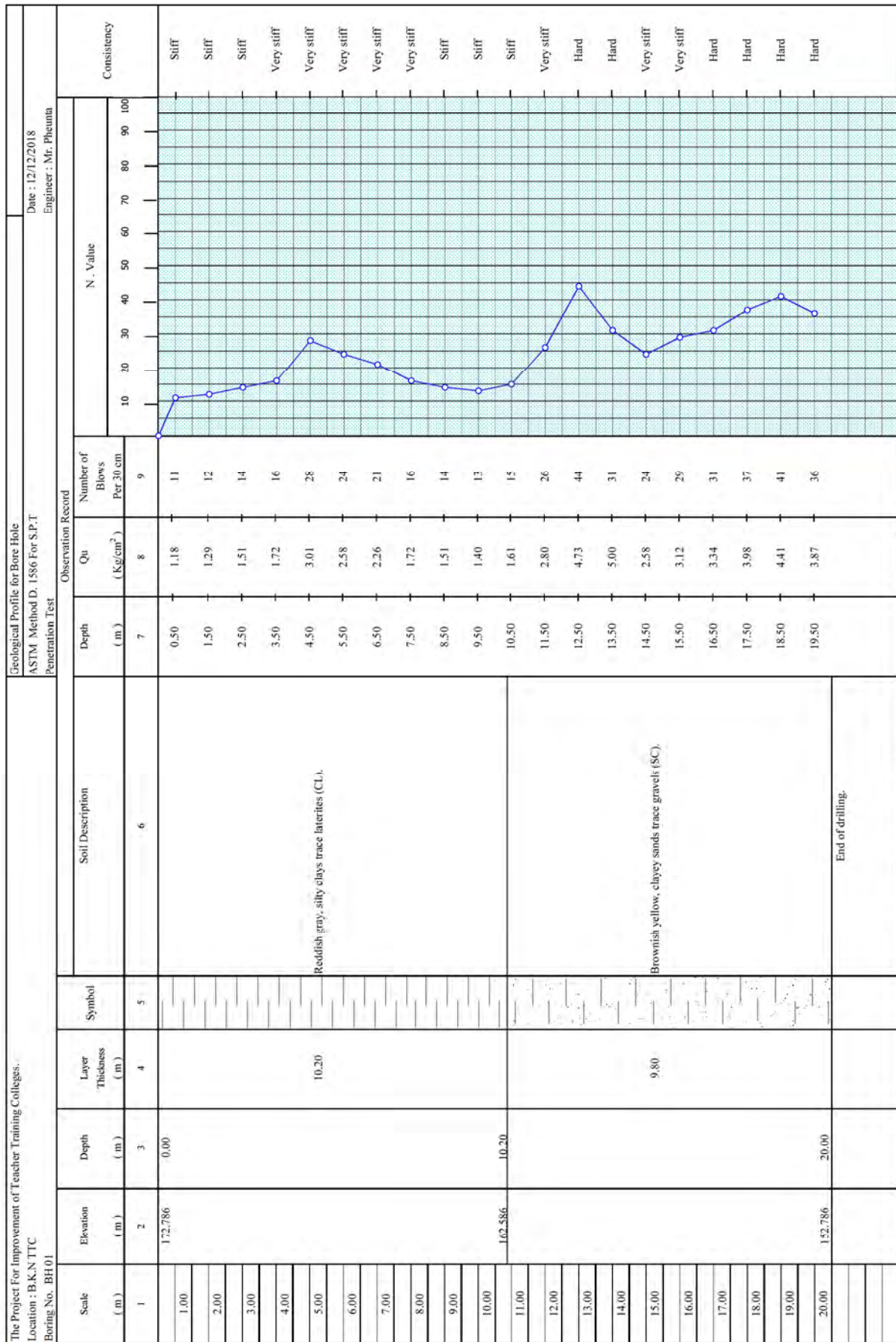


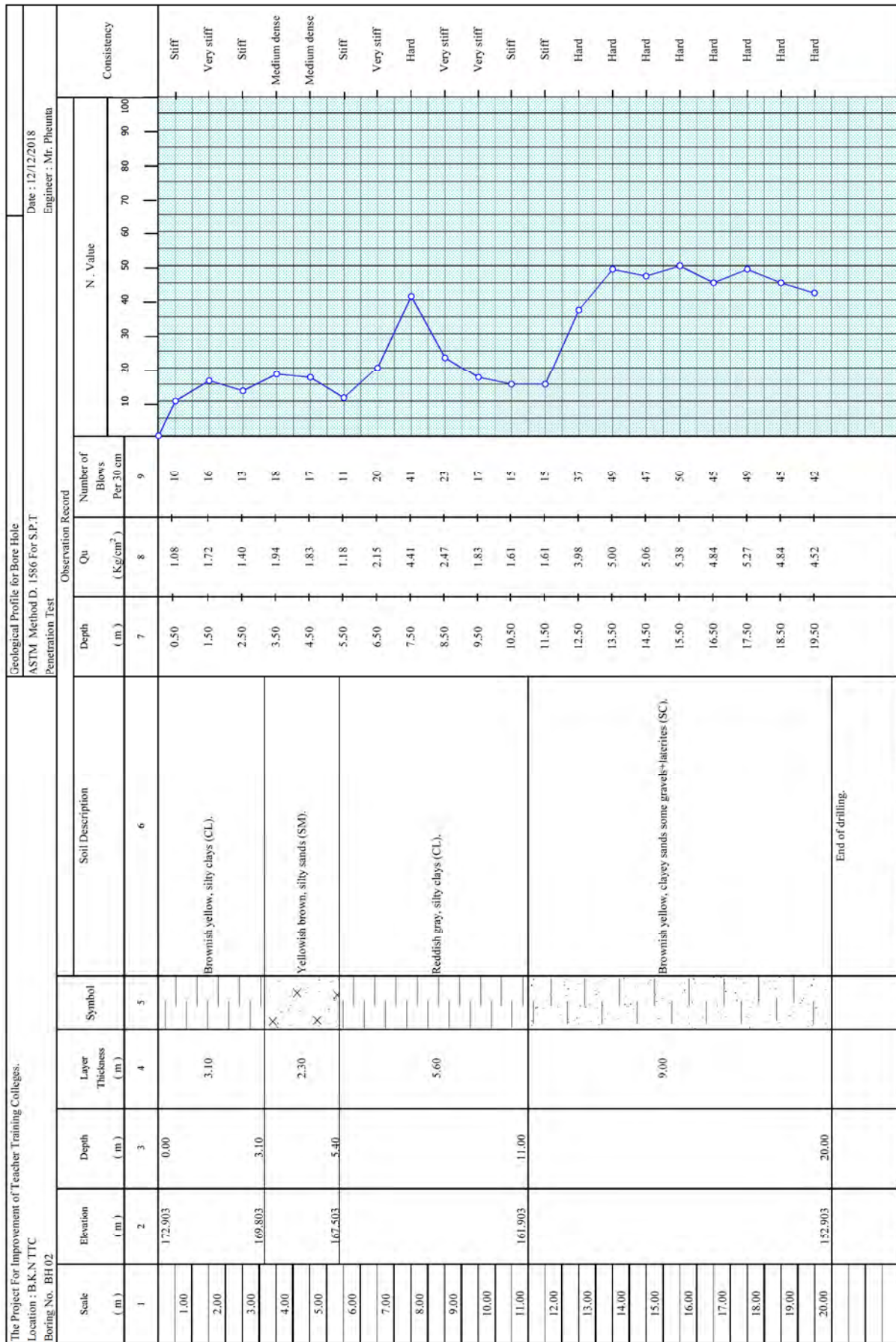
Figure 2 Location Plan of Bore Hole





Remark :  
 N : Blows Per 30 cm ( 63.5 Kg Hammer, 76 cm Drop, 5 cm Sampler )  
 Qu : Unconfined Compressive Strength ( Kg/cm<sup>2</sup> )

Figure A-1 Geological Profile for Bore Hole BH01

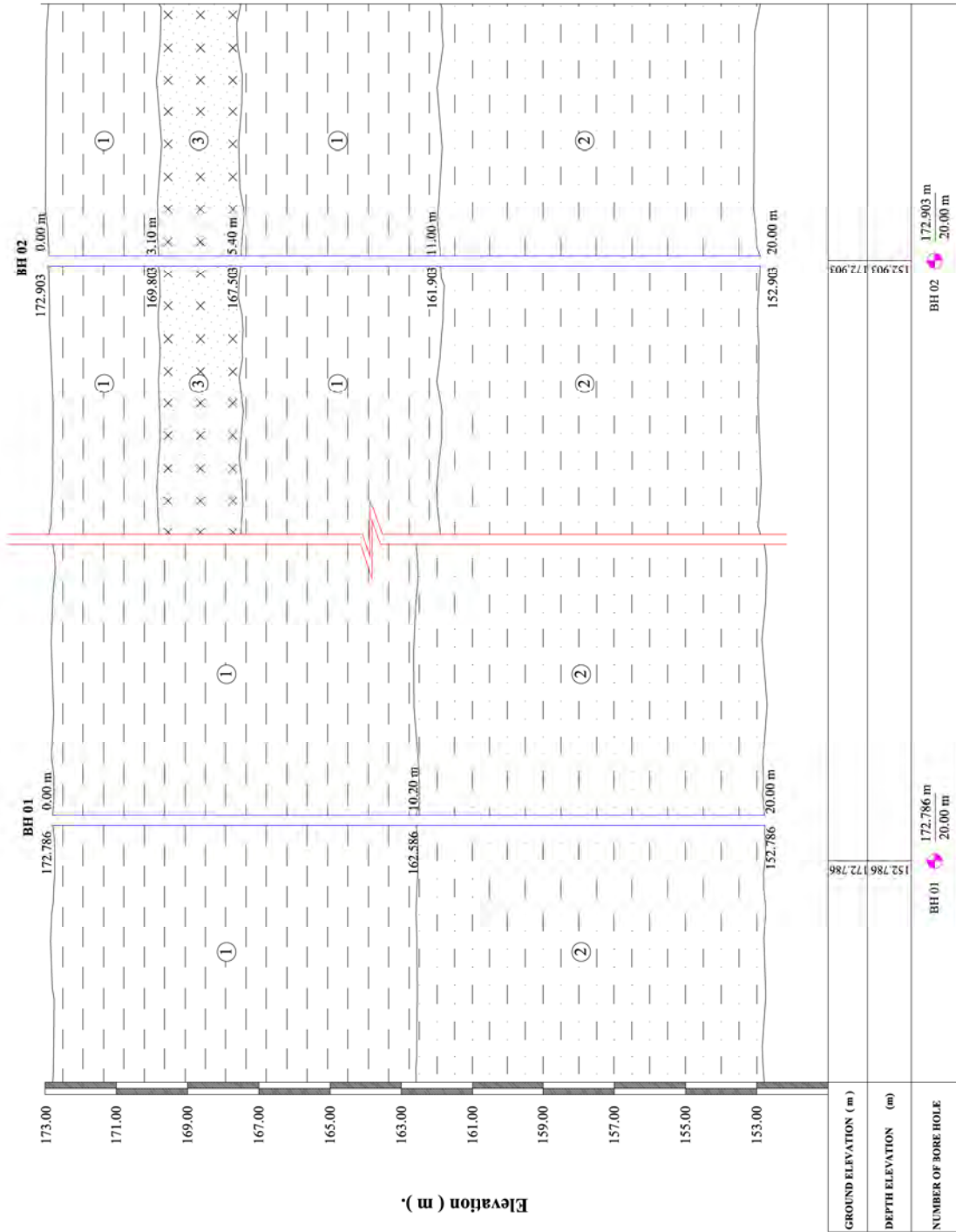


Remark :  
 N : Blows Per 30 cm ( 63.5 Kg Hammer, 76 cm Drop, 5 cm Sampler )  
 Qu : Unconfined Compressive Strength ( Kg/cm<sup>2</sup> )

Figure A-2 Geological Profile for Bore Hole BH02



**GEOLOGICAL LITHOLOGICAL PROFILE OF BORE HOLE**  
**THE PROJECT FOR IMPROVEMENT OF TEACHER TRAINING COLLEGES**  
**Location : Ban Keun TTC, Vientiane Province**



**Figure A-3 Geological Lithological Profile of Bore Hole**

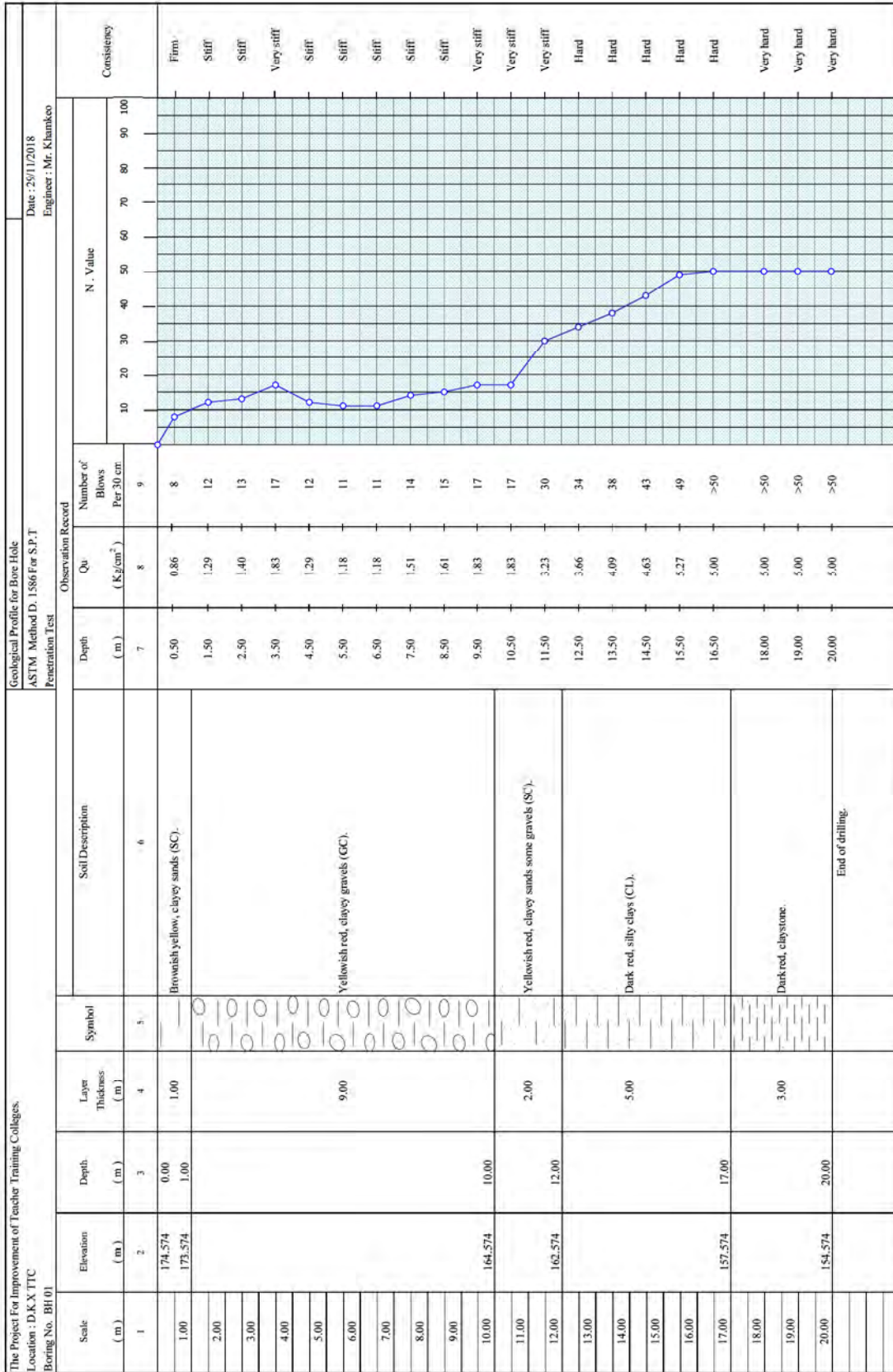
NO SCALE

**LOCATION PLAN OF BORE HOLE**  
**THE PROJECT FOR IMPROVEMENT OF TEACHER TRAINING COLLEGES**  
**Location : Dong Kham Xang TTC, Vientiane Capital**

No.	Coordinate		
	N	E	
BH01	1980837.556	0252566.142	
BH02	1980986.128	0252627.703	
BH03	1981144.900	0252631.101	

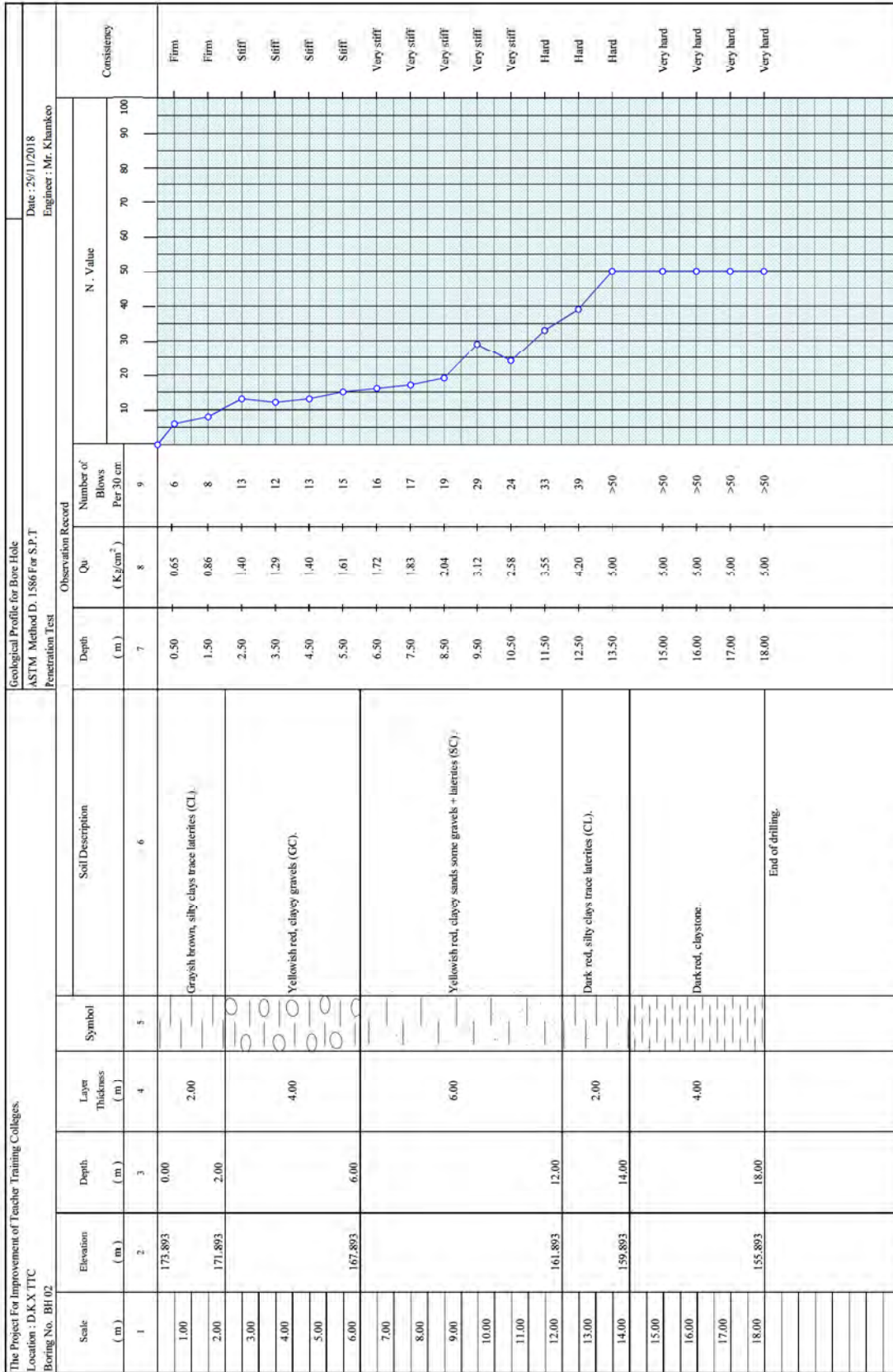


Figure 2 Location Plan of Bore Hole



Remarks :  
 N : Blows Per 30 cm (63.5 Kg Hammer, 76 cm Drop, 5 cm Sampler)  
 Qu: Unconfined Compressive Strength (Kg/cm<sup>2</sup>)

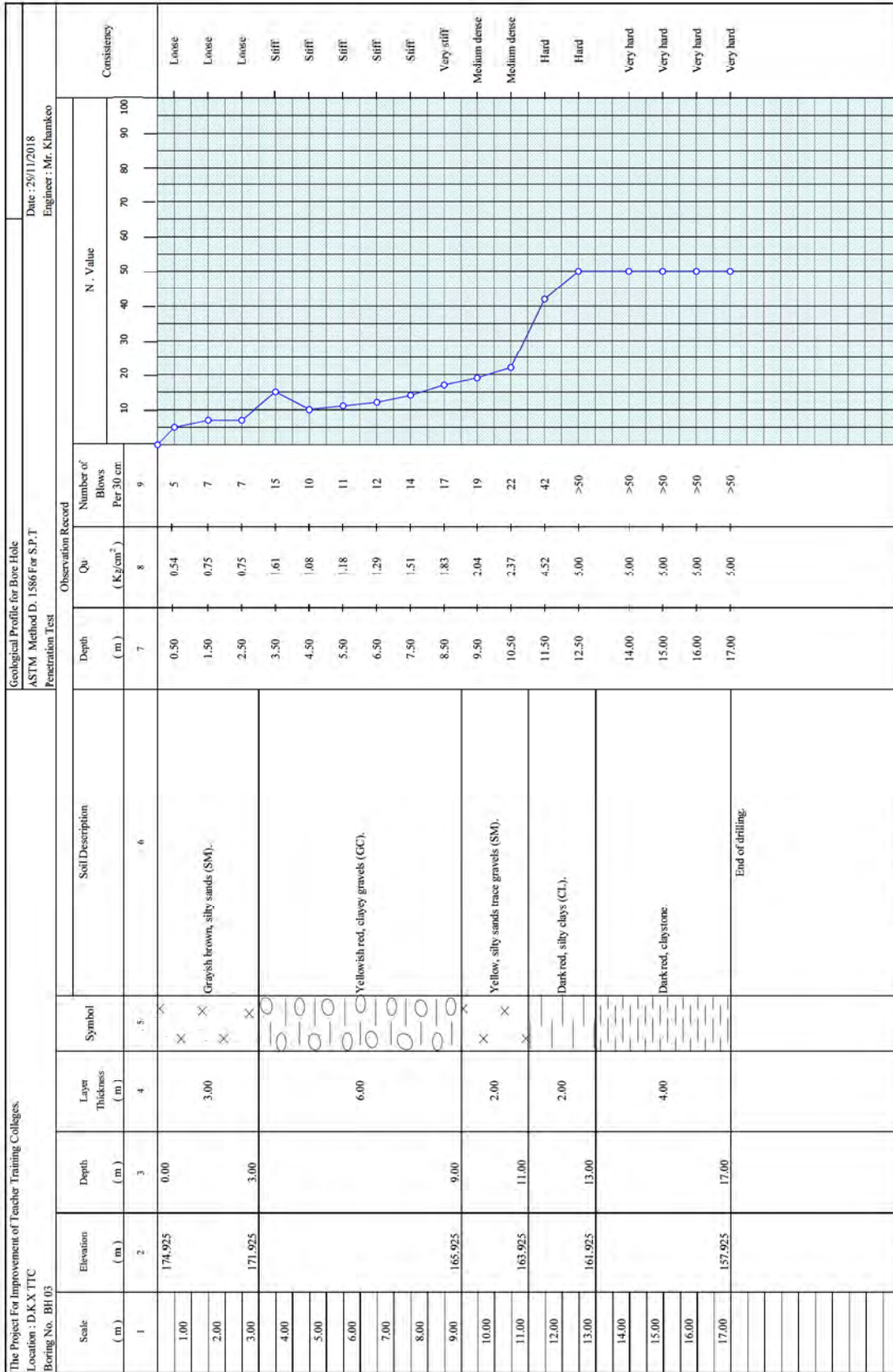
Figure A-1 Geological Profile for Bore Hole BH01



Remarks :  
 N : Blows Per 30 cm (63.5 Kg Hammer, 76 cm Drop, 5 cm Sampler)  
 Qu: Unconfined Compressive Strength (Kg/cm<sup>2</sup>)

Figure A-2 Geological Profile for Bore Hole BH02



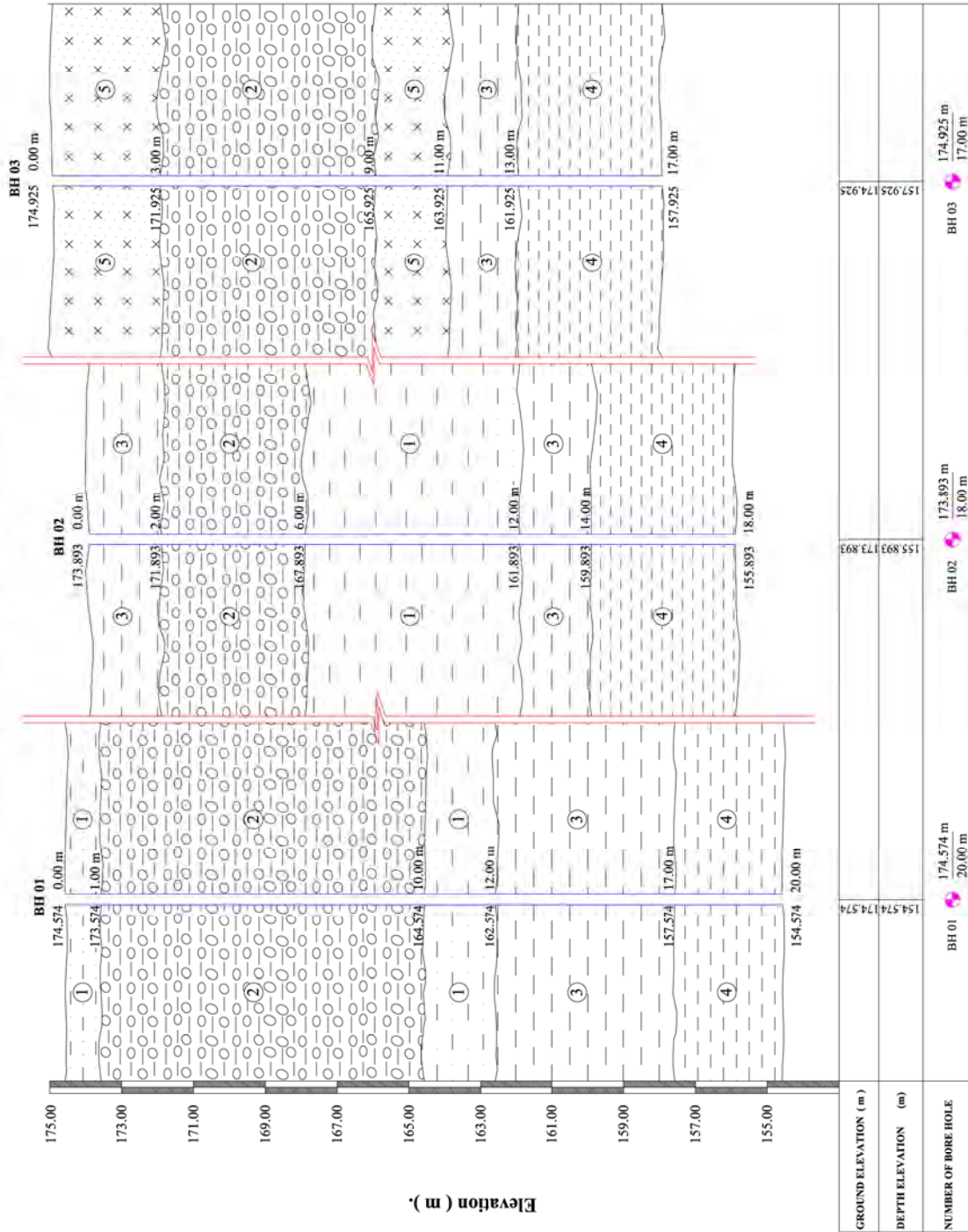


Remarks :  
 N : Blows Per 30 cm (63.5 Kg Hammer, 76 cm Drop, 5 cm Sampler)  
 Qu : Unconfined Compressive Strength (Kg/cm<sup>2</sup>)

Figure A-3 Geological Profile for Bore Hole BH03

**GEOLOGICAL LITHOLOGICAL PROFILE OF BORE HOLE  
THE PROJECT FOR IMPROVEMENT OF TEACHER TRAINING COLLEGES**

Location : Dong Kham Xang TTC, Vientiane Capital



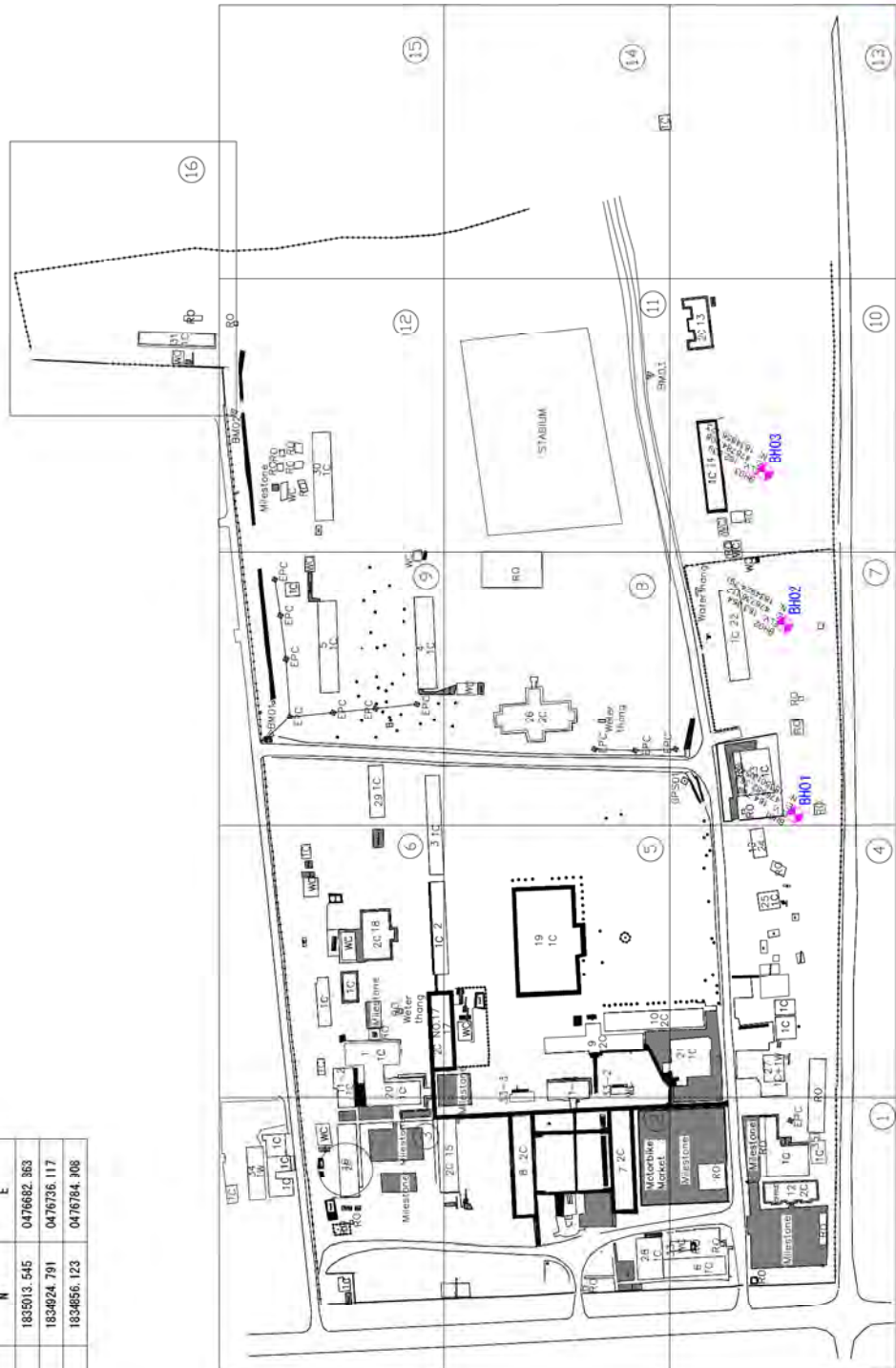
**Symbols:**  
 (1) Clayey sands (SC)  
 (2) Clayey gravels (GC)  
 (3) Silty clays (CL)  
 (4) Claystone  
 (5) Silty sands (SM)

**Figure A-4 Geological Lithological Profile of Bore Hole**

NO SCALE

**LOCATION PLAN OF BORE HOLE**  
**THE PROJECT FOR IMPROVEMENT OF TEACHER TRAINING COLLEGES**  
 Location :Savannahet TTC, Savannahket Province

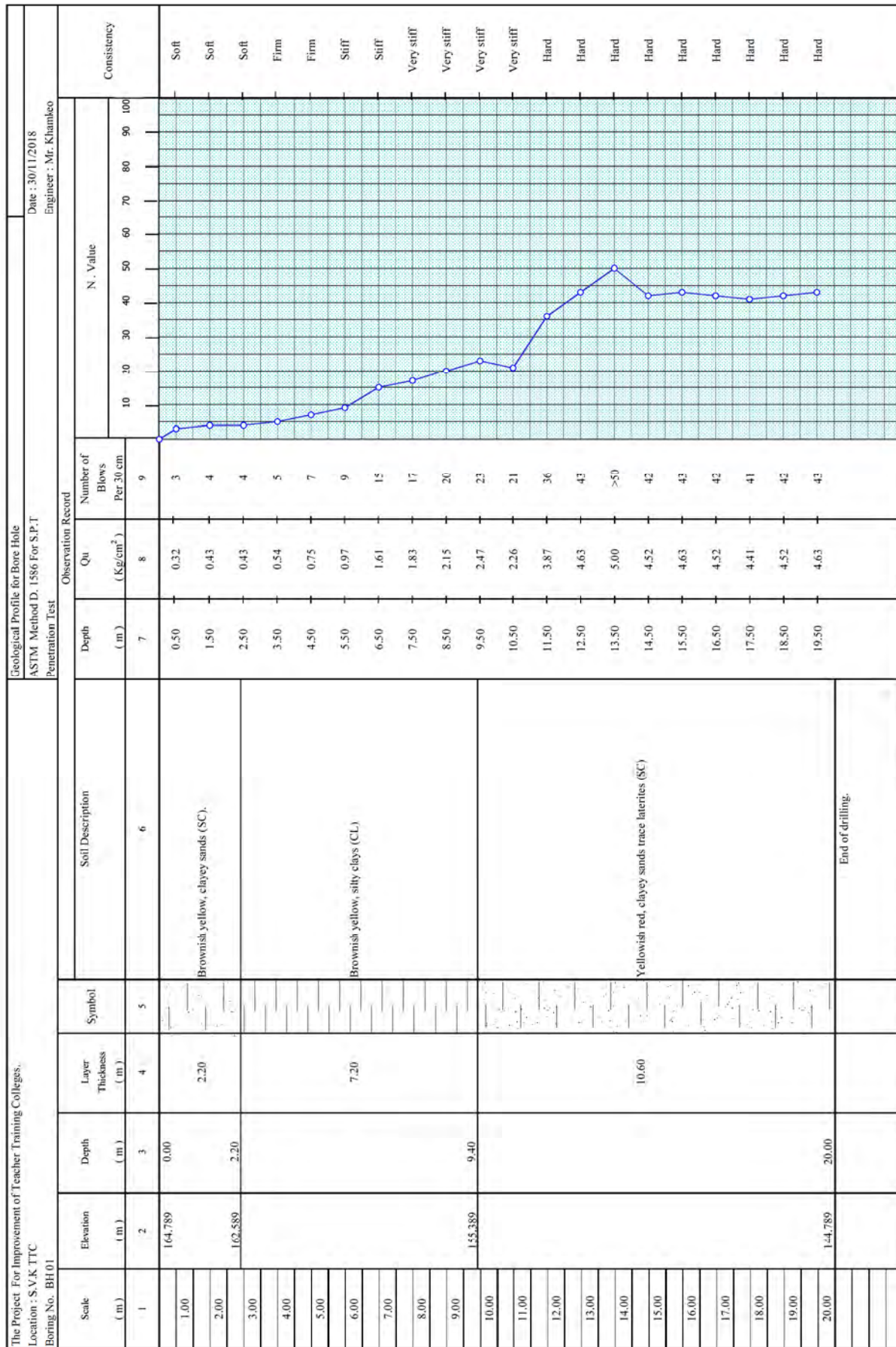
No.	Coordinate	
	N	E
BH01	1835013.545	0476682.363
BH02	1834924.791	0476736.117
BH03	1834856.123	0476784.308



Symbol :  
 - Borehole (BH)

Figure2 Location Plan of Bore Hole

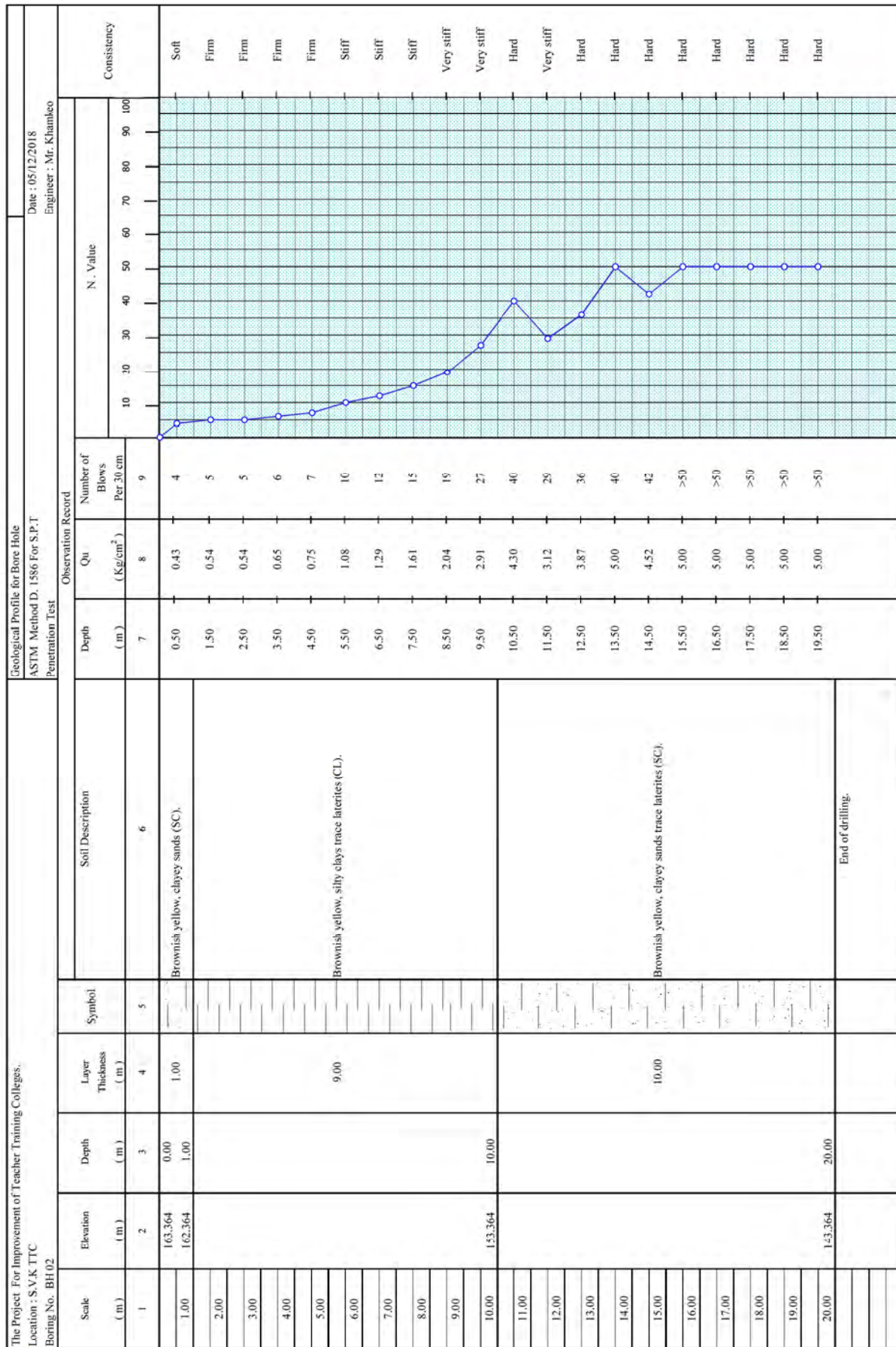




Remark :  
 N : Blows Per 30 cm ( 63.5 Kg Hammer, 76 cm Drop, 5 cm Sampler )  
 Qu : Unconfined Compressive Strength ( Kg/cm<sup>2</sup> )

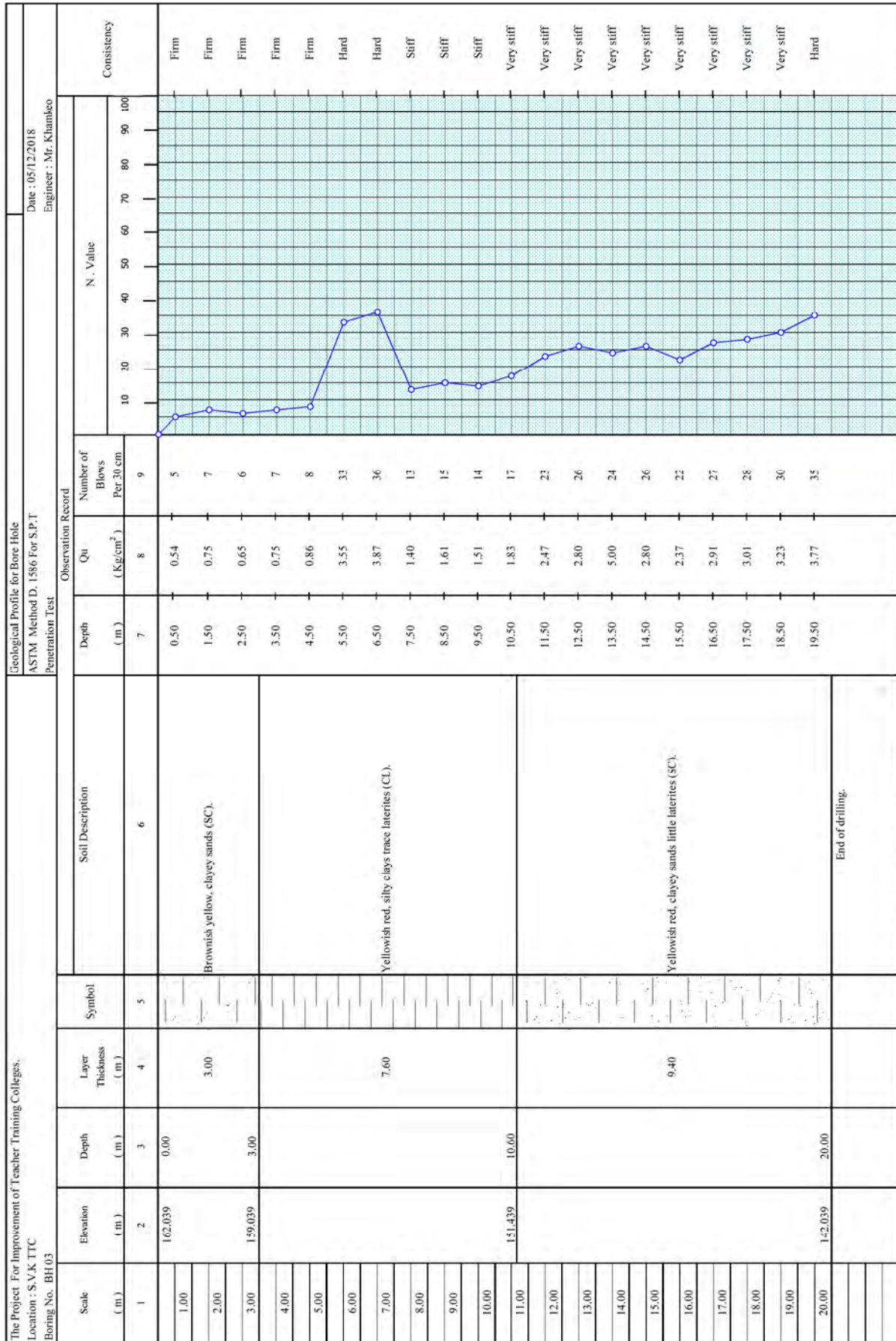
Figure A-1 Geological Profile for Bore Hole BH01





Remark :  
 N : Blows Per 30 cm ( 63.5 Kg Hammer, 76 cm Drop, 5 cm Sampler )  
 Qu : Unconfined Compressive Strength ( Kg/cm<sup>2</sup> )

Figure A-2 Geological Profile for Bore Hole BH02



Remark: N : Blows Per 30 cm ( 63.5 Kg Hammer, 76 cm Drop, 5 cm Sampler )  
 Qu : Unconfined Compressive Strength ( Kg/cm<sup>2</sup> )

Figure A-3 Geological Profile for Bore Hole BH03



**GEOLOGICAL LITHOLOGICAL PROFILE OF BORE HOLE**  
**THE PROJECT FOR IMPROVEMENT OF TEACHER TRAINING COLLEGES**  
 Location :Savannakhet TTC, Savannakhet Province

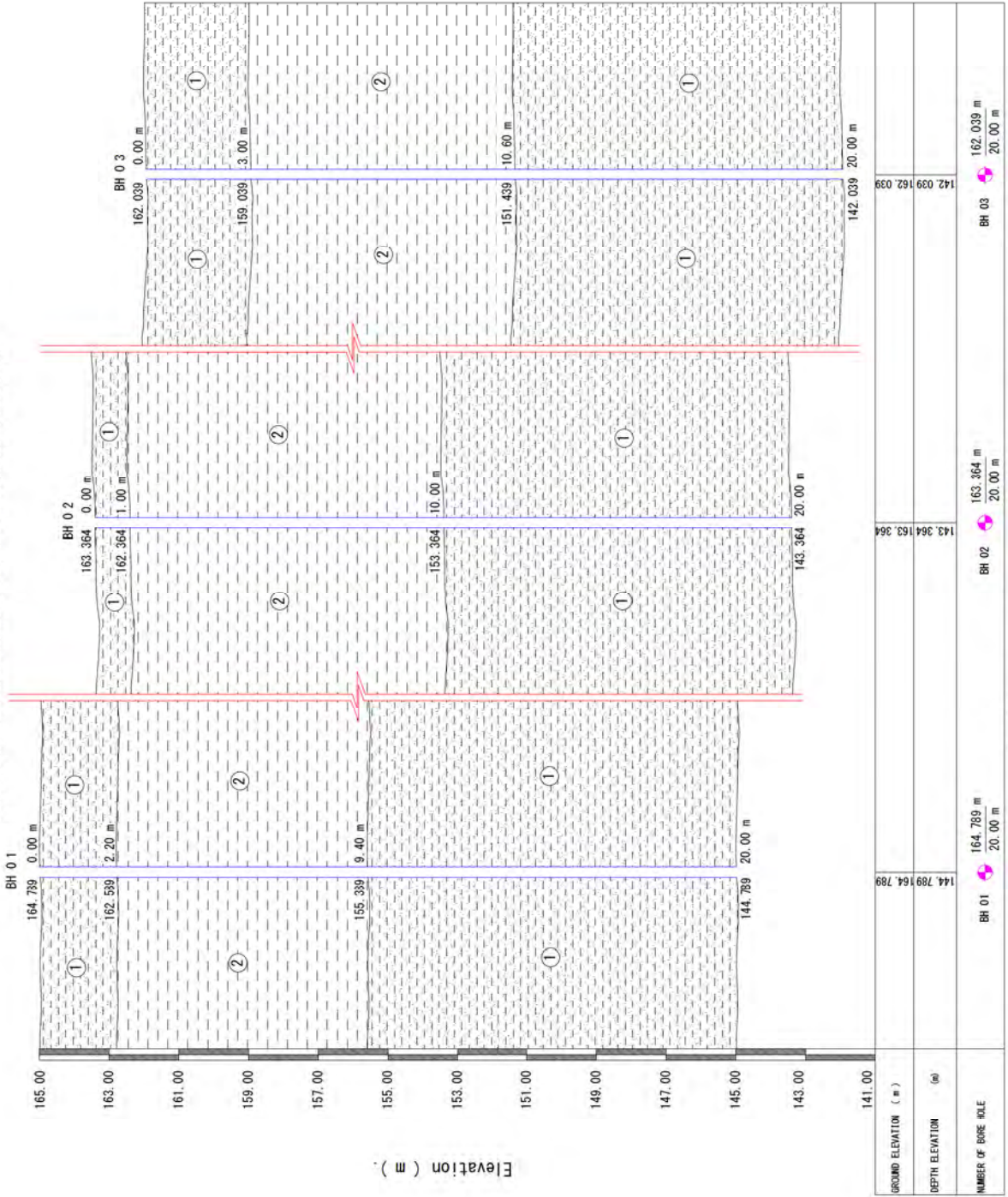
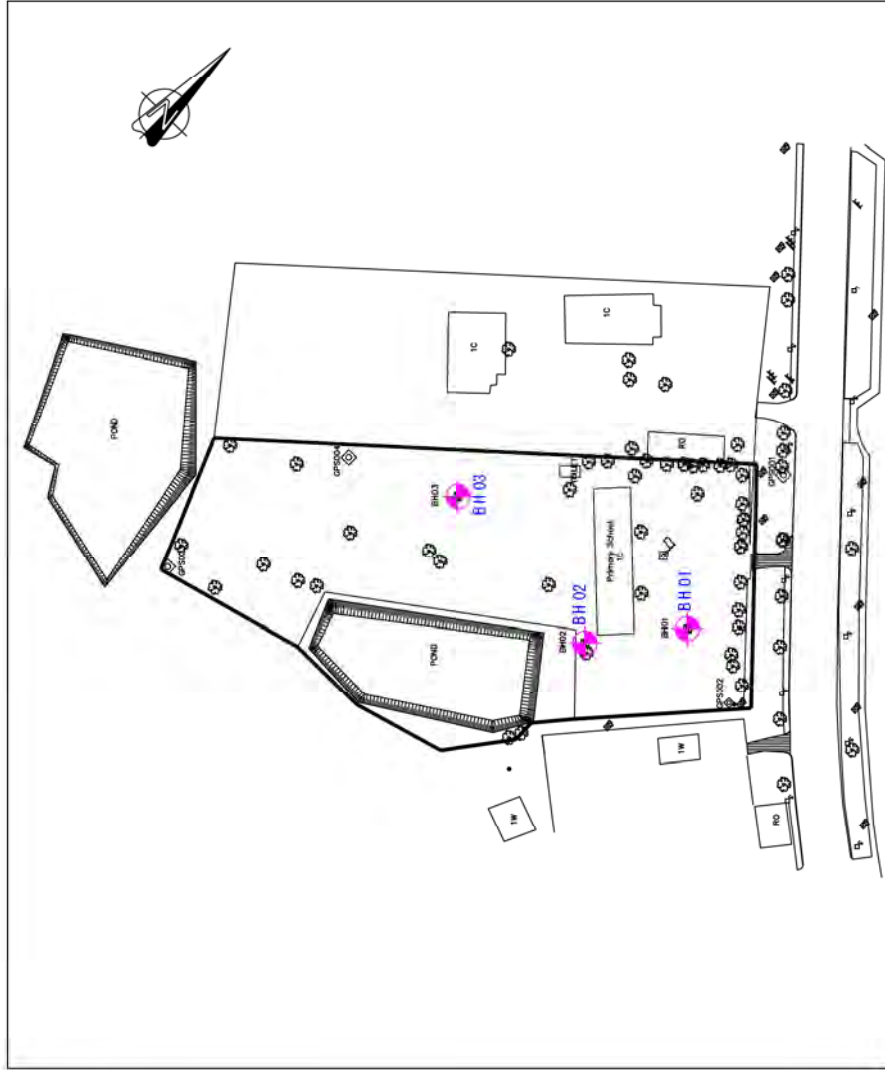


Figure A-4 Geological Lithological Profile of Bore Hole

NO SCALE

**LOCATION PLAN OF BORE HOLE**  
**THE PROJECT FOR IMPROVEMENT OF TEACHER TRAINING COLLEGES**  
 Location Saravan TTC, Saravan Province

No.	Coordinate	
	N	E
BH01	1737829.00	0648817.00
BH02	1737806.00	0648898.00
BH03	1737810.00	0648844.00




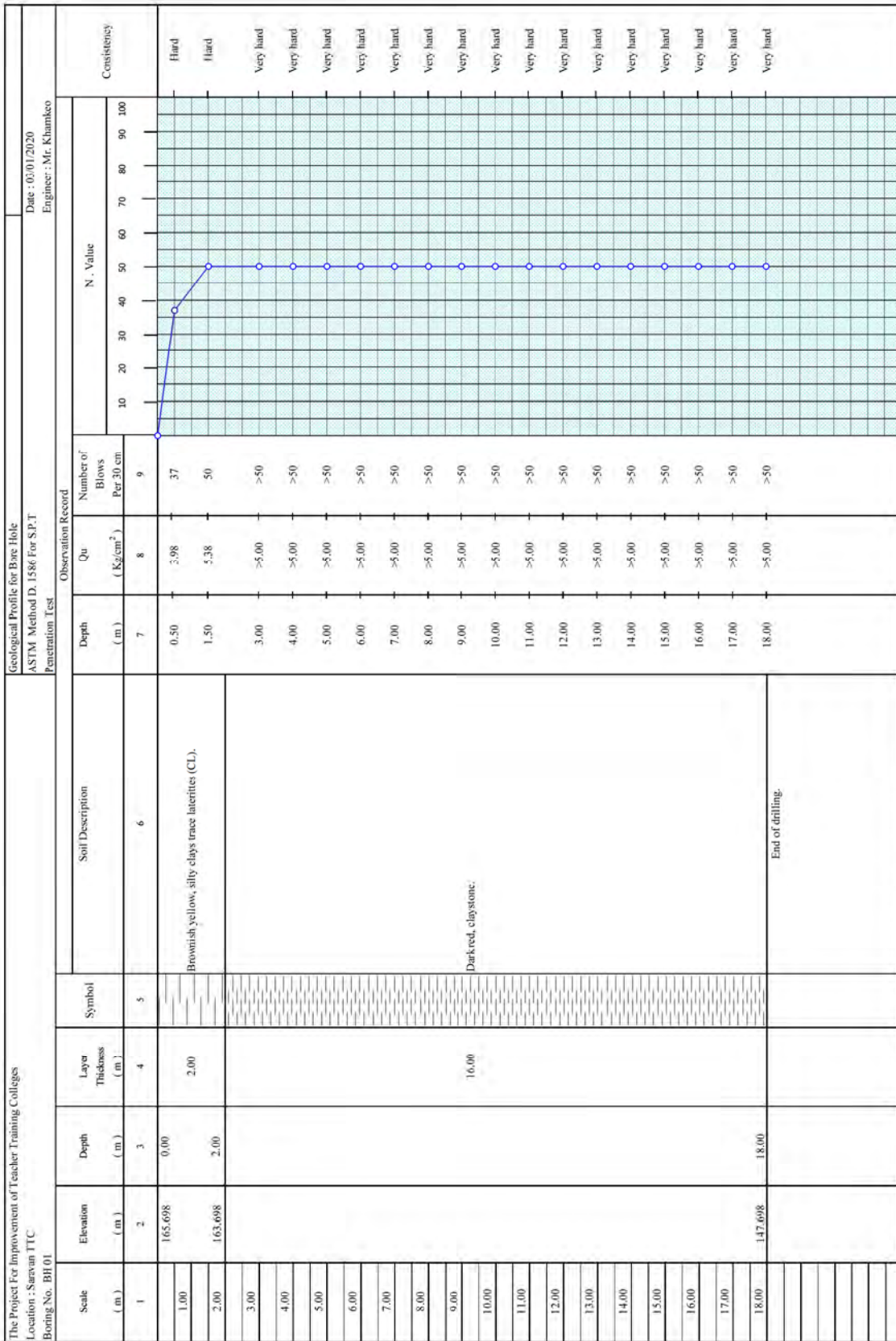
Symbol :  
 Boreho BH

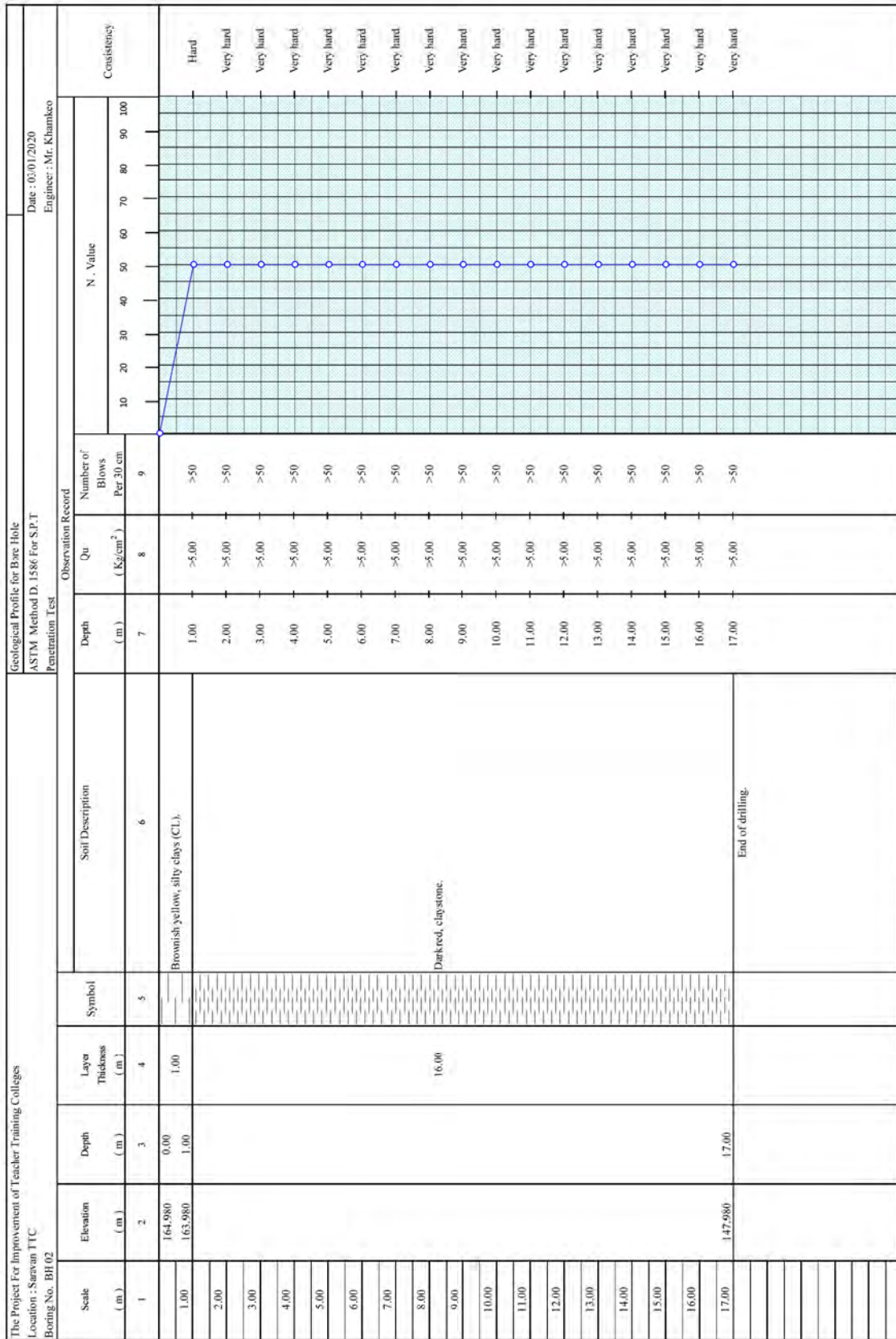
Figure2 Location Plan of Bore Hole





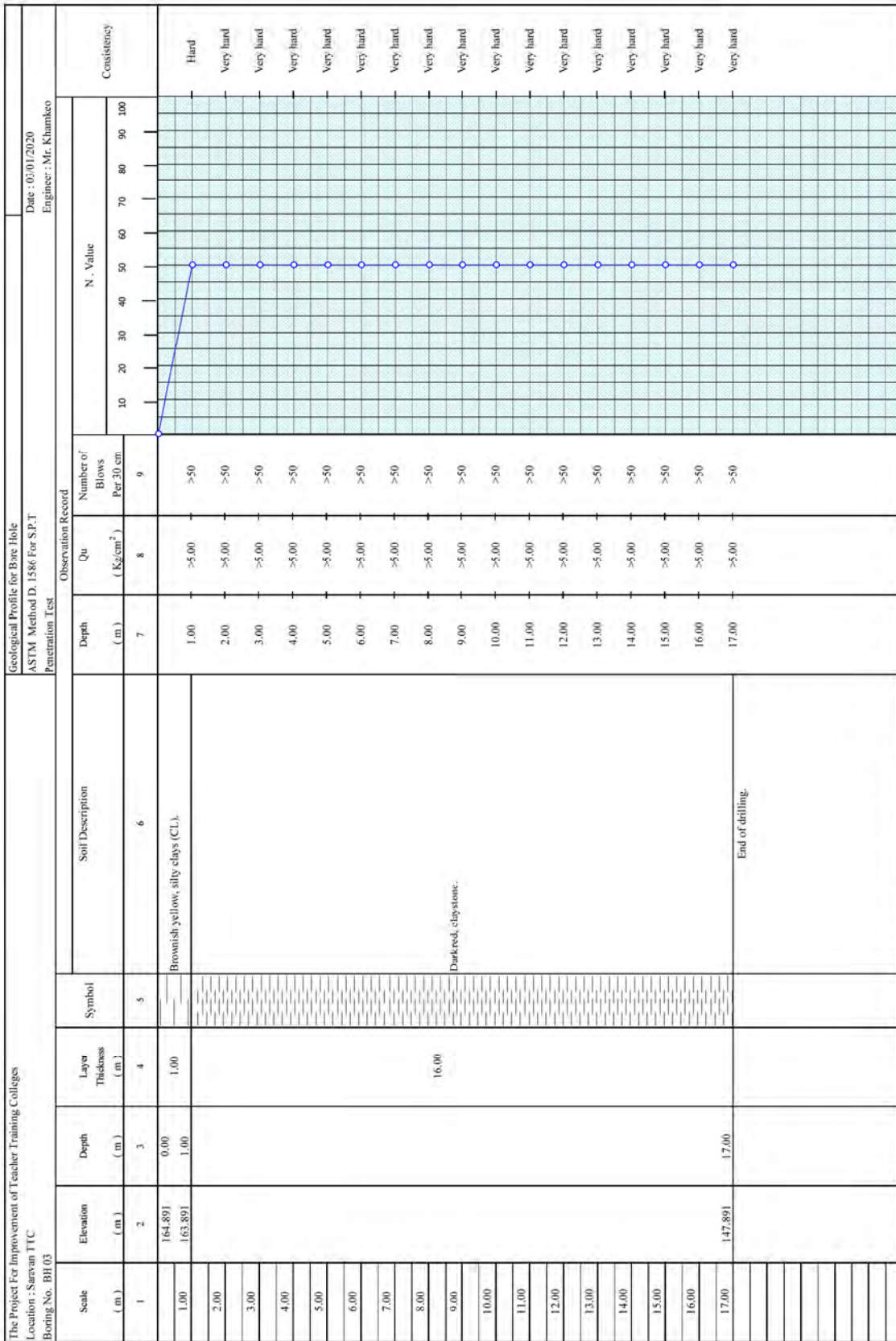
Remark :  
 N : Blows Per 30 cm ( 63.5 Kg Hammer, 76 cm Drop, 5 cm Sampler )  
 Qu : Unconfined Compressive Strength ( Kg/cm<sup>2</sup> )

Figure A-1 Geological Profile for Bore Hole BH01



Remark :  
 N : Blows Per 30 cm (63.5 Kg Hammer, 76 cm Drop, 5 cm Sampler)  
 Qu : Unconfined Compressive Strength ( Kg/cm<sup>2</sup> )

Figure A-2 Geological Profile for Bore Hole BH02

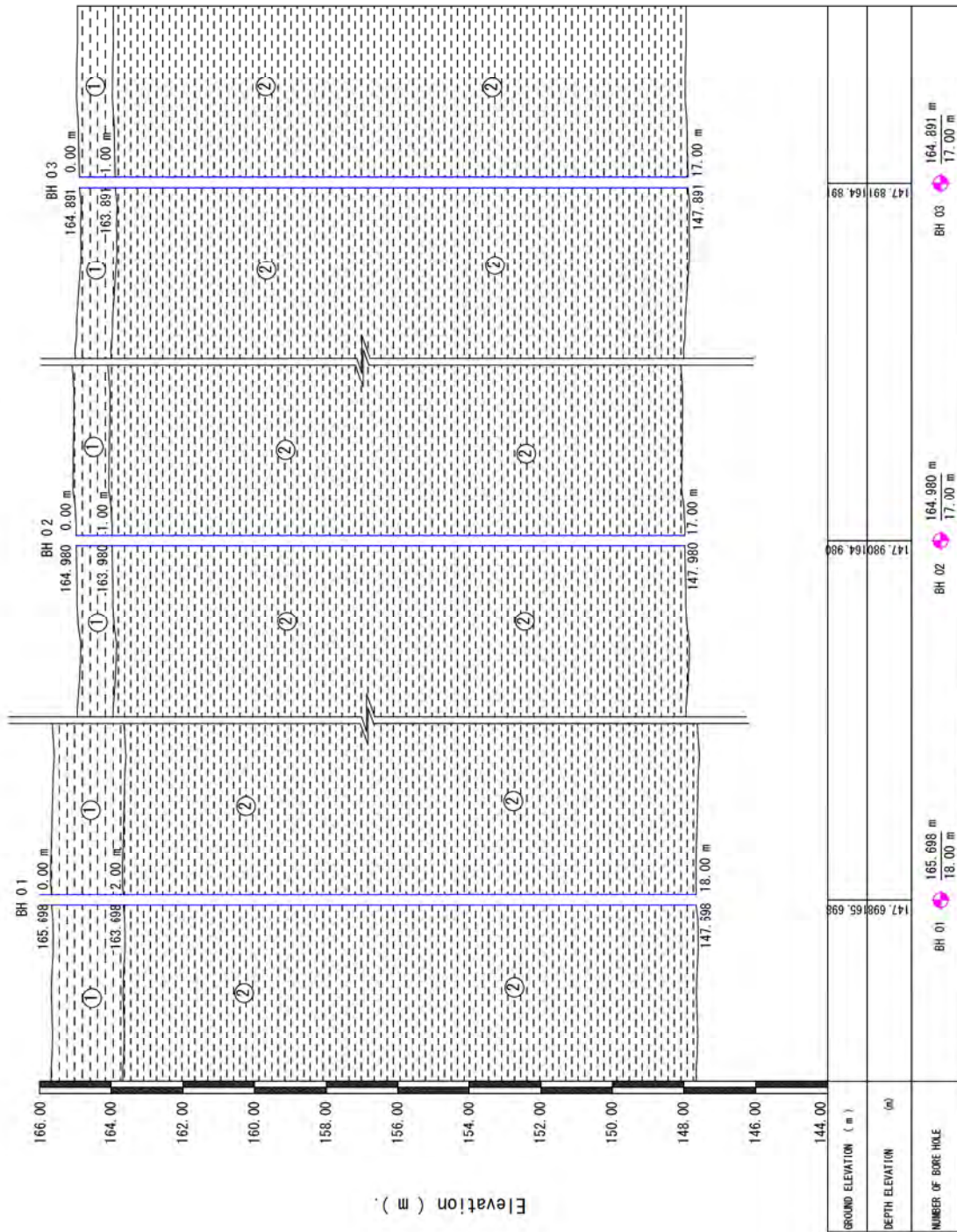


Remark :  
 N : Blows Per 30 cm ( 63.5 Kg Hammer, 76 cm Drop, 5 cm Sampler )  
 Qu : Unconfined Compressive Strength ( Kg/cm<sup>2</sup> )

Figure A-3 Geological Profile for Bore Hole BH03



**GEOLOGICAL LITHOLOGICAL PROFILE OF BORE HOLE**  
**THE PROJECT FOR IMPROVEMENT OF TEACHER TRAINING COLLEGES**  
 Location Saravan TTC, Saravan Province



Symbols : silty clays (CL) Claystone

Figure A-4 Geological Lithological Profile of Bore Hole

NO SCALE

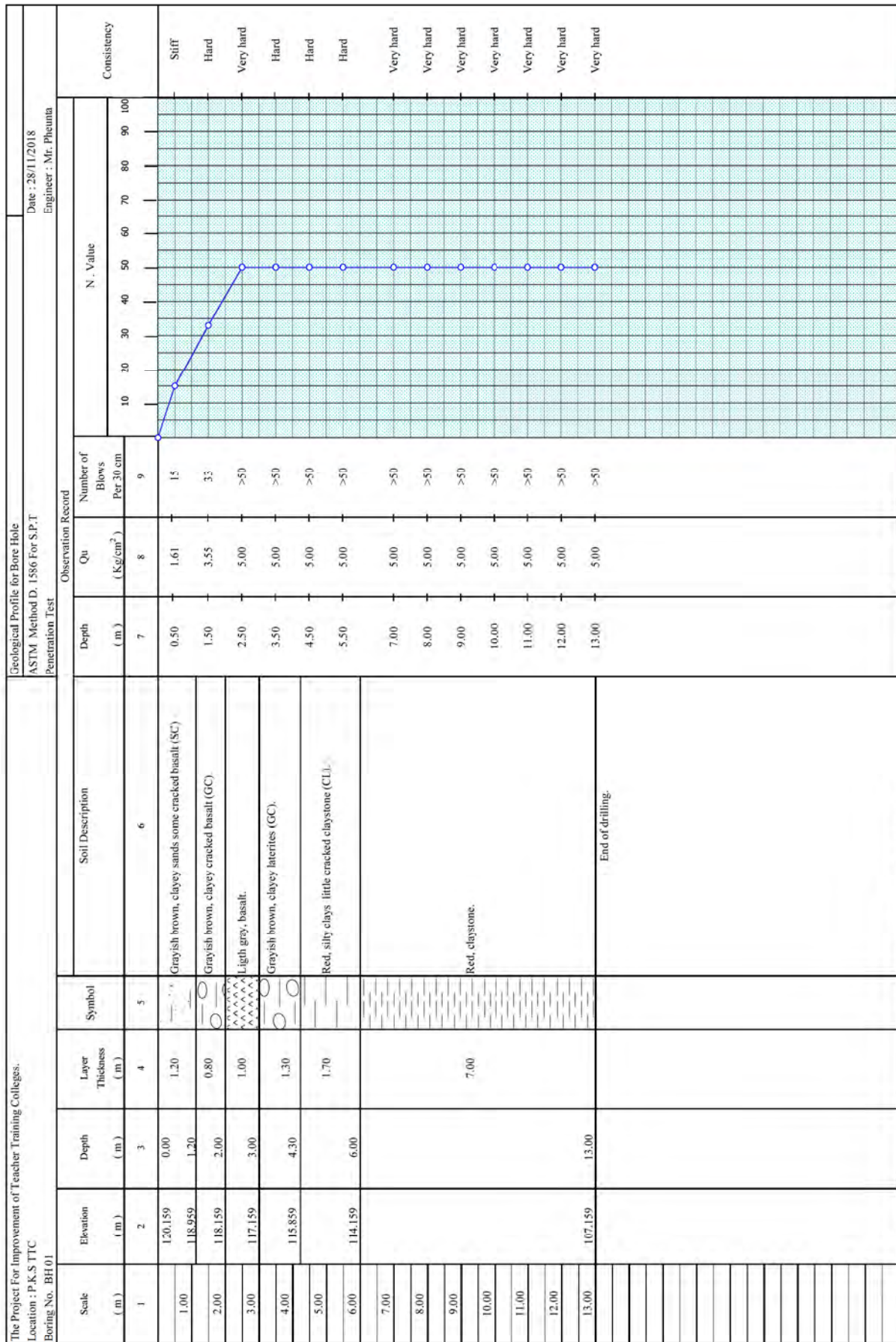


**LOCATION PLAN OF BORE HOLE**  
**THE PROJECT FOR IMPROVEMENT OF TEACHER TRAINING COLLEGES**  
 Location :Pakse TTC, Champasack Province

No.	Coordinate		
	N	E	
BH01	1671644.720	0588681.157	
BH02	1671753.210	0588711.815	
BH03	1671822.075	0588756.538	
BH04	1671681.388	0588823.510	



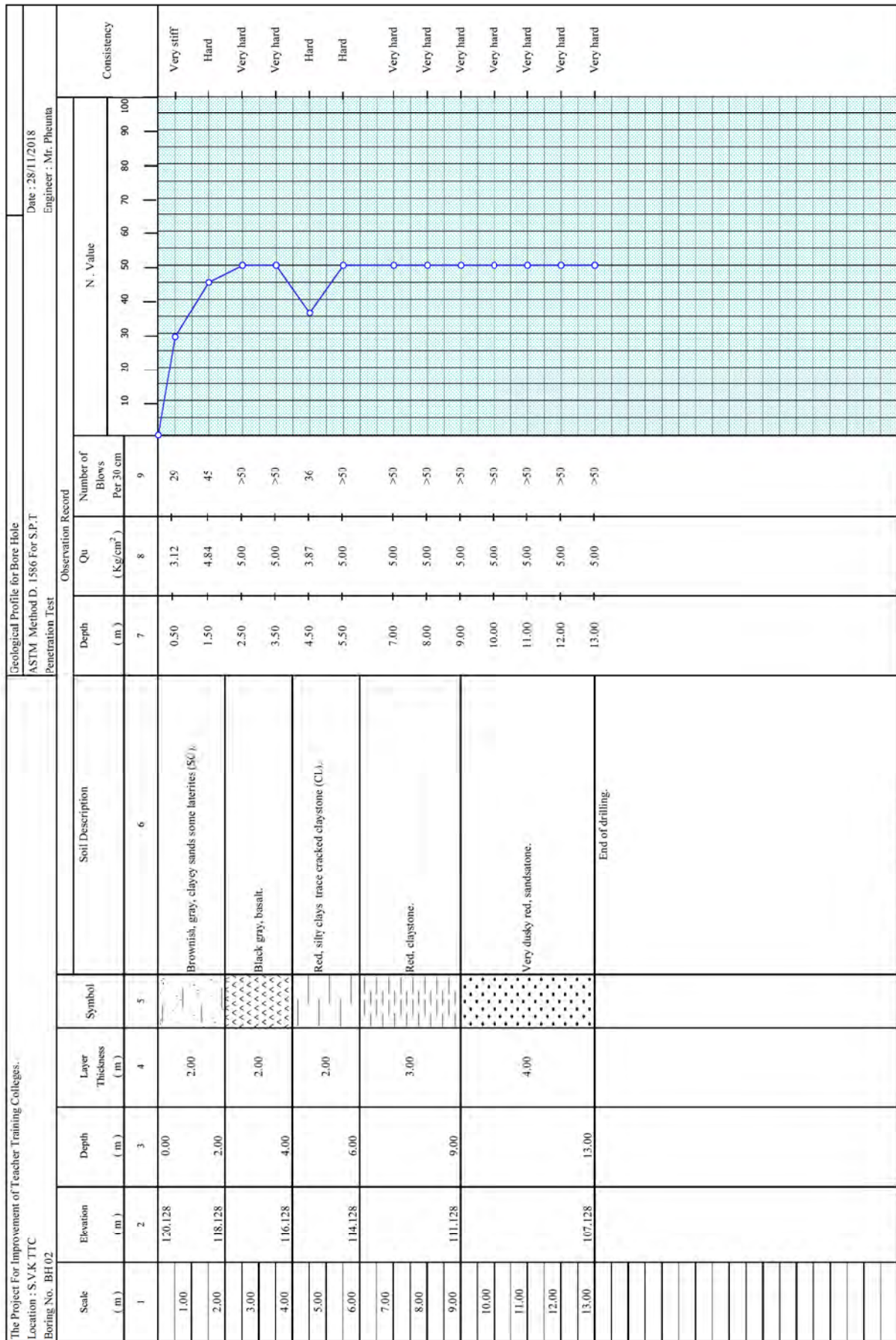
Figure2 Location Plan of Bore Hole



Remarks :  
 N : Blows Per 30 cm ( 63.5 Kg Hammer, 76 cm Drop, 5 cm Sampler )  
 Qu : Unconfined Compressive Strength ( Kg/cm<sup>2</sup> )

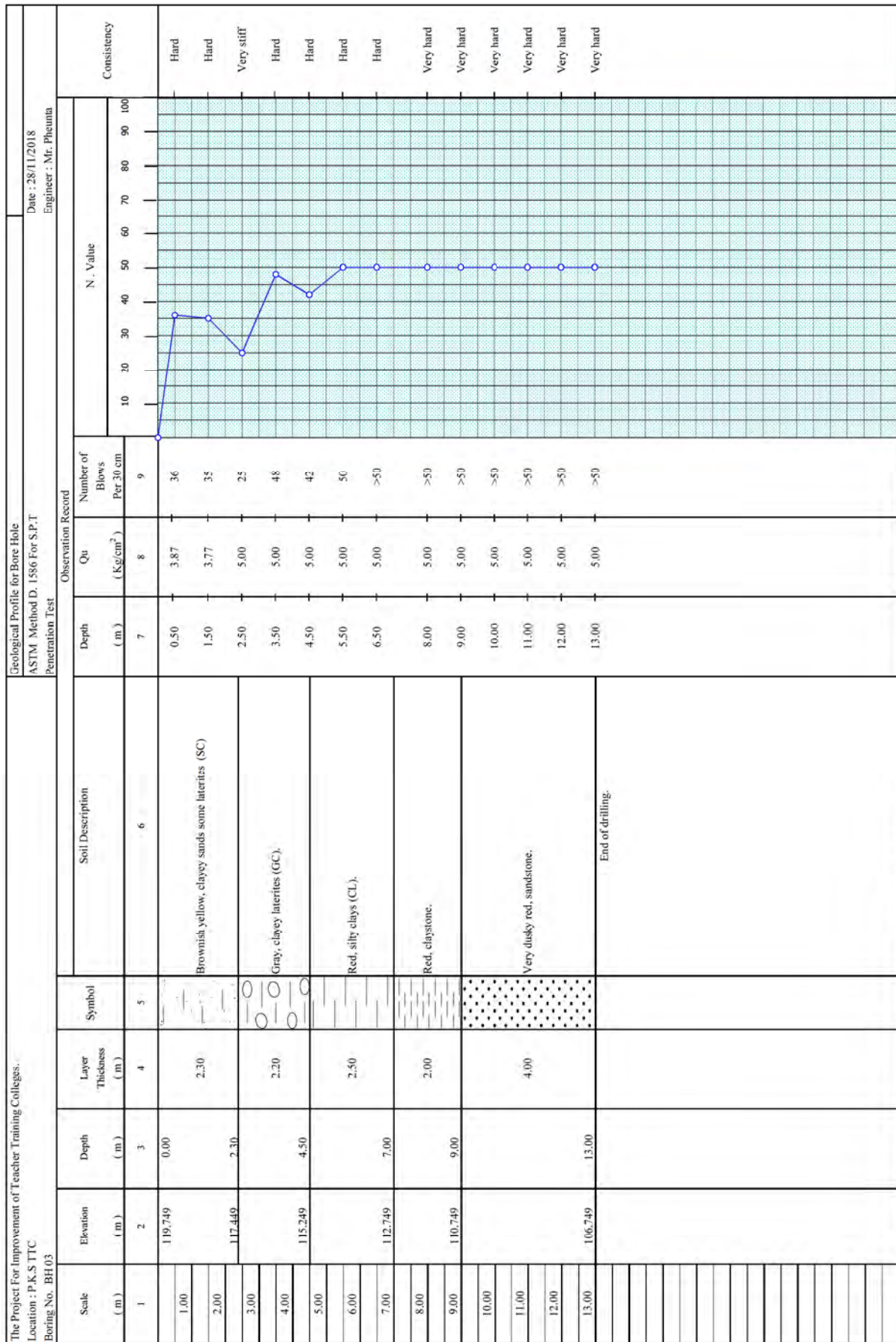
Figure A-1 Geological Profile for Bore Hole BH01





Remarks :  
 N : Blows Per 30 cm ( 63.5 Kg Hammer, 76 cm Drop, 5 cm Sampler )  
 Qu : Unconfined Compressive Strength ( Kg/cm<sup>2</sup> )

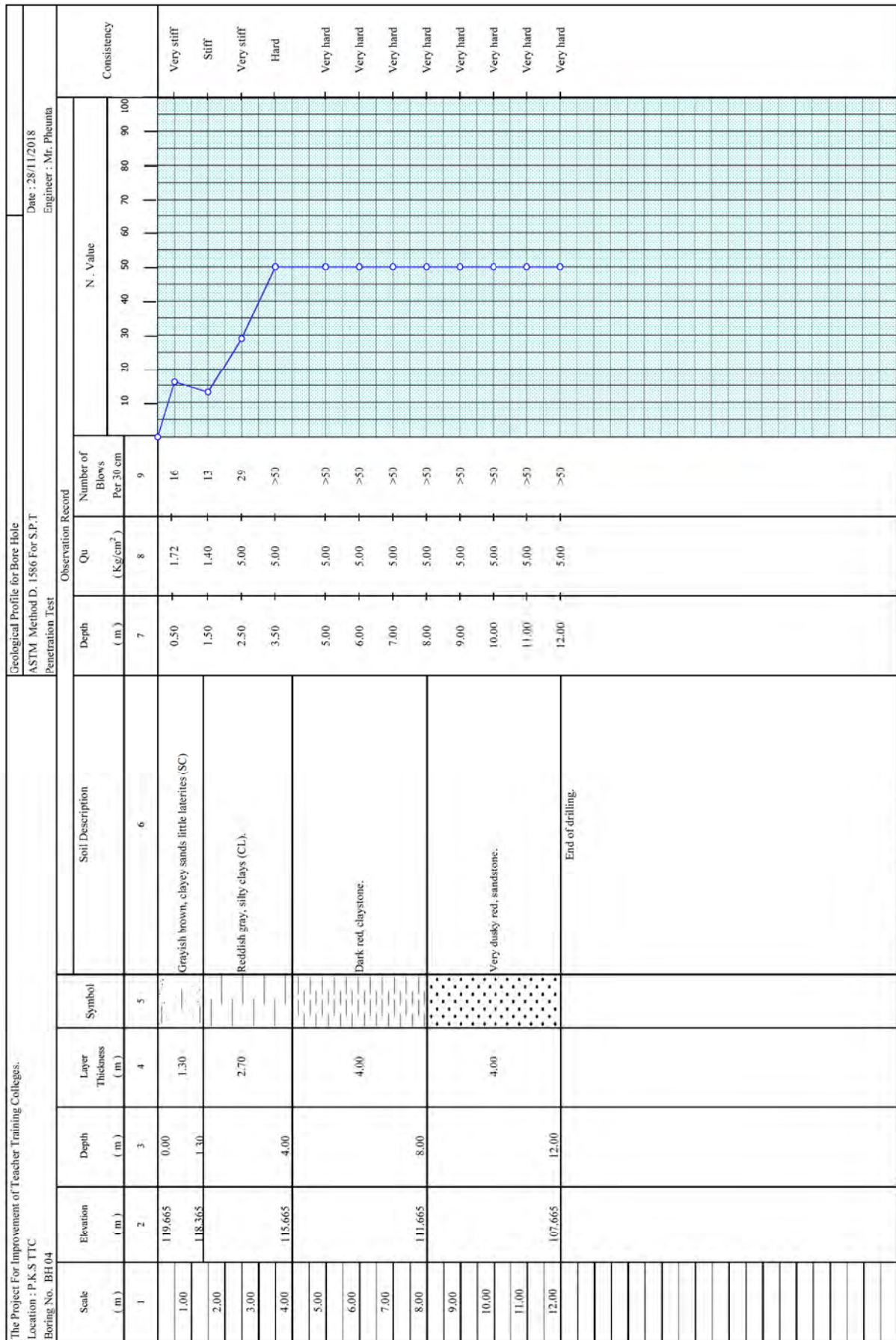
Figure A-2 Geological Profile for Bore Hole BH02



Remarks :  
 N : Blows Per 30 cm ( 63.5 Kg Hammer, 76 cm Drop, 5 cm Sampler )  
 Qu : Unconfined Compressive Strength ( Kg/cm<sup>2</sup> )

Figure A-3 Geological Profile for Bore Hole BH03





Remarks :  
 N : Blows Per 30 cm ( 63.5 Kg Hammer, 76 cm Drop, 5 cm Sampler )  
 Qu : Unconfined Compressive Strength ( Kg/cm<sup>2</sup> )

Figure A-4 Geological Profile for Bore Hole BH04

**GEOLOGICAL LITHOLOGICAL PROFILE OF BORE HOLE**  
**THE PROJECT FOR IMPROVEMENT OF TEACHER TRAINING COLLEGES**  
 Location : Pakse TTC, Champasack Province

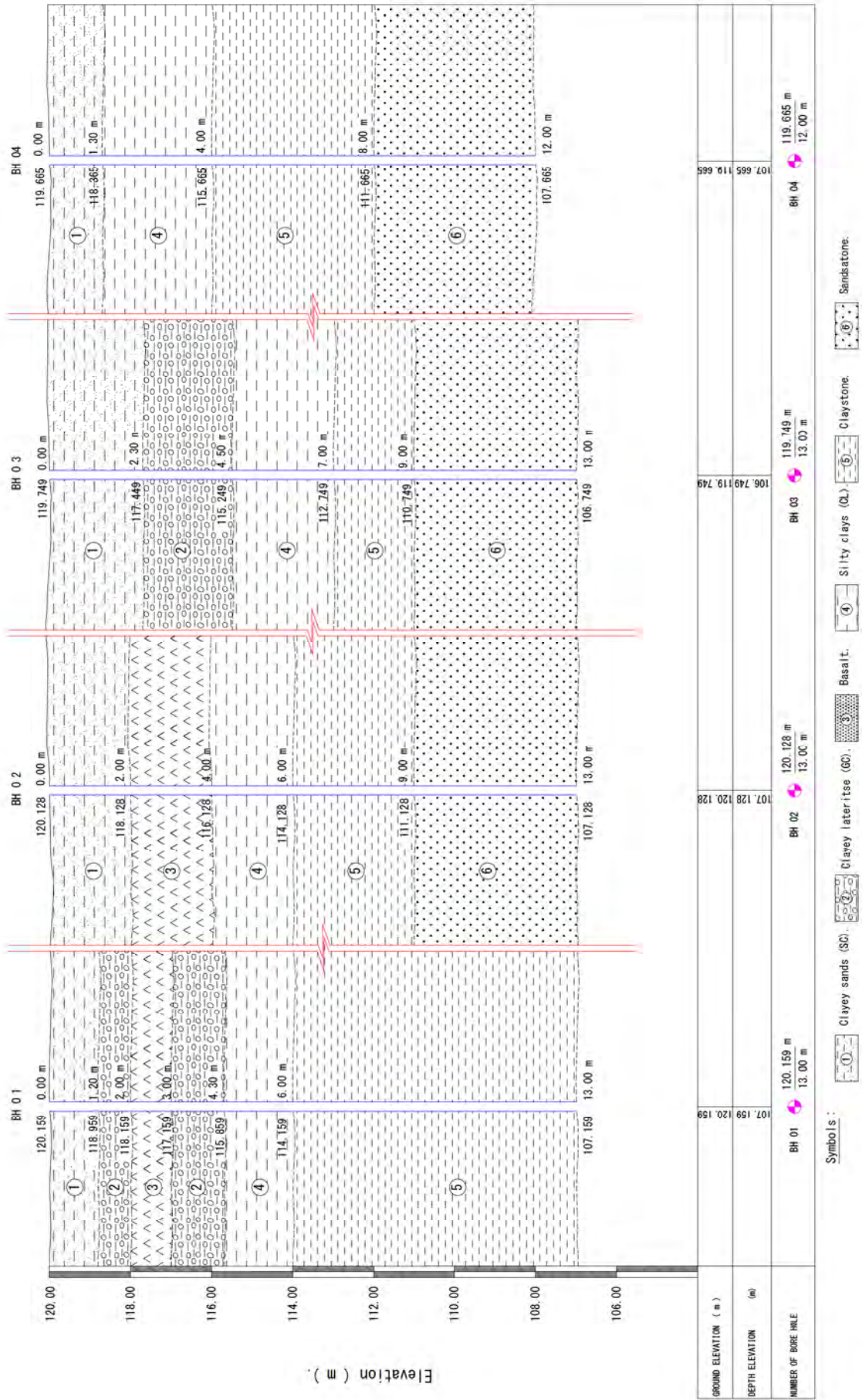


Figure A-5 Geological Lithological Profile of Bore Hole



**5-3. Demonstration School Equipment  
Selection Table**



## 1. Equipment for Pre-primary Demonstration School

No.	MOES Standard Equipment	Unit	Selection Criteria									Evaluation	Selected Item	Item No.
			①	②	③	④	⑤	⑥	⑦	⑧	⑨			
<b>Photo of Former/Current H.E Presidents and Prime Minister</b>														
1	H.E President Khaisone Phomvihane	sheet	×	○	○	○	×	○	×	○	○	D		
2	H.E President Souphanouvong	sheet	×	○	○	○	×	○	×	○	○	D		
3	H.E President Choummaly Xayyasone	sheet	×	○	○	○	×	○	×	○	○	D		
4	H.E Mr. Thongsing Thammavong, Prime Minister	sheet	×	○	○	○	×	○	×	○	○	D		
5	others		×	×	×	×	×	×	×	×	×	D		
<b>Lao Language</b>														
1	Word Cards	Set	○	○	○	○	○	○	○	○	○	E		
2	Consonant Cards	Set	○	○	○	○	○	○	○	○	○	E		
3	Vowel Cards	Set	○	○	○	○	○	○	○	○	○	E		
4	Alphabet Chart	Set	○	○	○	○	○	○	○	○	○	E		
5	Board Word Cards	Set	○	○	○	○	○	○	○	○	○	E		
6	Consonant Photo Cards	Set	○	○	○	○	○	○	○	○	○	E		
7	Watch Model	Watch	○	○	○	○	○	○	○	○	○	A	○	Pre-24
8	Others		×	×	×	×	×	×	×	×	×	D		
<b>Activity Creativities Equipment</b>														
1	Crayon (Big) 12 Colors	Box	○	○	○	○	○	○	○	×	○	D		
2	Watercolor	Box	○	○	○	○	○	○	○	×	○	D		
3	Clay	Dozen	○	○	○	○	○	○	○	×	○	D		
4	White board (Small)	Board	○	○	○	○	○	○	×	○	○	D		
5	Operating Scissor	Scissor	○	○	○	○	○	○	×	○	○	D		
6	Ropes	KG	○	○	○	○	○	○	×	○	○	D		
7	Flip Chart Paper (15 Sheets)	Rolls	○	○	○	○	○	○	×	○	○	D		
8	Paper Glue 250g	Can	○	○	○	○	○	○	×	○	○	D		
9	Color Paper	sheet	○	○	○	○	○	○	×	○	○	D		
10	Taps	Roll	○	○	○	○	○	○	×	○	○	B		
11	Black Pencil	Pencil	○	○	○	○	○	○	×	○	○	B		
12	Strings	Roll	○	○	○	○	○	○	×	○	○	B		
13	Others		×	×	×	×	×	×	×	×	×	D		
<b>Music Instruments</b>														
1	Xylophone No. 8	Set	○	○	○	○	×	○	○	×	○	C		
2	Lao Traditional Drum No. 5	Pcs	○	○	○	○	○	○	○	○	○	E		
3	Dual Sides Drum (wood)	Pcs	○	×	○	○	×	○	○	○	○	C		
4	Maracas/Tambourine	set	○	○	○	○	×	○	○	○	○	B	○	Pre-17
5	Wooden rhythm clappers → Castanets	set	○	○	○	○	×	○	○	○	○	B	○	Pre-17
6	Lao Cymbal (Small)	set	○	×	○	○	×	○	○	○	○	E		
7	Guitar (Plastic)	pcs	○	×	○	○	×	○	○	○	○	C		
8	Cymbal (Small)	set	○	○	○	○	×	○	○	○	○	B	○	Pre-17
9	Khane Lao (Small)	Pcs	○	×	○	○	×	○	○	○	○	E		
10	others (Piano)	Unit	○	○	○	○	○	○	○	○	○	A	○	Pre-16
<b>Block Toys and Construction Toys</b>														
1	Set of Block Model (Wood)	set	○	○	○	○	○	○	○	○	○	A	○	Pre-12
2	Set of Construction (Plastic or equivalent)	set	○	○	○	○	○	○	○	○	○	A	○	Pre-11
3	Toy Set	set	○	○	○	○	○	○	○	○	○	A	○	Pre-20
4	Trucks blocks (wood)	set	○	○	○	○	○	○	○	○	○	A	○	Pre-9
5	Trucks blocks decorate by National flags (wood)	set	○	○	○	○	○	○	○	○	○	E		
6	watch models (wood)	set	○	○	○	○	○	○	○	○	○	A	○	Pre-24
7	Trucks models or equivalent educational toys (wood or safety material made)	set	○	○	○	○	○	○	○	○	○	A	combine to 1	Pre-4
8	others	set	×	×	×	×	×	×	×	×	×	D		
<b>Science Learning Equipment</b>														
1	Magnifying Glass (Small)	pcs	○	○	○	○	○	○	○	○	○	A	○	Pre-23
2	Compass	Pcs	×	○	○	○	×	○	○	○	○	C		
3	Weight Scales 2 Arms	set	×	○	○	○	×	○	○	○	○	C		
4	Cup (Big, Plastic)	set	×	○	○	○	○	○	○	×	×	D		
5	Water Equipment-Sand	set	×	○	○	○	○	○	×	×	×	D		
6	Aquarium (Size: 20x 40 cm, Glass)	pcs	×	○	○	○	○	○	×	×	×	D		
7	Bucket (Plastic)	Pcs	×	○	○	○	○	○	×	×	×	D		
8	basin (Plastic)	Pcs	×	○	○	○	○	○	×	×	×	D		
9	others		×	×	×	×	×	×	×	×	×	D		
<b>Classroom Equipment (Health)</b>														
1	Wall Height Measure Meters for Student	Pcs	○	○	○	○	○	○	○	○	○	A	○	Pre-25
2	Weight Scale (Based)	Pcs	○	○	○	○	○	○	○	○	○	A	○	Pre-26
3	Bucket (Plastic)	Pcs	×	○	○	○	○	○	×	×	×	D		
4	Soap	Pcs	×	○	○	○	○	○	×	×	×	D		
5	Towel	Pcs	×	○	○	○	○	○	×	×	×	D		
6	Glass and Food Tray (Plastic)	Pcs	×	○	○	○	○	○	×	×	×	D		
7	Jug of water 1 Litre	Pcs	×	○	○	○	○	○	×	×	×	D		
8	Plastic glass	Pcs	×	○	○	○	○	○	×	×	×	D		
9	Others		×	○	○	○	○	○	×	×	×	D		
<b>Roleplay Equipment</b>														
1	Kitchen Implements	set	×	○	○	○	○	○	○	○	○	B	○	Pre-10
2	Telephone or building blocks (Model)	set	×	○	○	○	○	○	○	○	○	B	○	Pre-7
3	Medical Equipment (Model)	set	×	○	○	○	○	×	○	○	○	C		
4	Dolls, Glasses, Comb (Model)	set	×	○	○	○	○	○	○	○	○	B	○	Pre-13,14
5	Tea Set (Model)	set	×	○	○	○	○	○	○	○	○	B	can be combined with 1: kitchen implements	Pre-10
6	Fruits (Model) or stuffed toys model	set	×	○	○	○	○	○	○	○	○	B	○	Pre-11
7	Bowling Big (Model)	set	×	×	○	×	○	○	○	○	○	D		
8	Hand Puppets 6 Types (For Teacher): Can be converted to the similar	set	×	○	○	○	○	○	○	○	○	B	○	Pre-11
9	Hand Puppets 6 Types (For Student) or balls	set	×	○	○	○	○	○	○	○	○	B	○	Pre-11
10	Others		×	×	×	×	×	×	×	×	×	D		
<b>Games and Puzzles</b>														
1	The first 4 years of Child's Growth Games/Chart (Laminate Paper)	set	○	○	○	○	×	○	○	×	○	C		

No.	MOES Standard Equipment	Unit	Selection Criteria									Evaluation	Selected Item	Item No.	
			①	②	③	④	⑤	⑥	⑦	⑧	⑨				
2	Lao Domino Game (Paper)	set	○	○	○	○	×	○	○	×	○	E			
3	Jigsaw Consonants Lao (Foam)	set	○	○	○	○	○	○	○	○	○	E			
4	Jigsaw Vowel (Form)	set	○	○	○	○	○	○	○	○	○	A	○	Pre-18	
5	Jigsaw World Wide and Lao Number	set	○	○	○	○	○	○	○	○	○	E			
6	Animals Jigsaw (Foam)	set	○	○	○	○	○	○	○	○	○	A	○	Pre-12	
7	English Alphabet Jigsaw (Foam)	set	×	○	○	○	×	○	○	○	○	C			
8	Foot Fingers Jigsaw (Plywood)	set	×	○	○	○	×	○	○	○	○	C			
9	Hand Fingers Jigsaw (Plywood)	set	×	○	○	○	×	○	○	○	○	C			
10	Lao Flag Jigsaw (Plywood)	set	×	○	○	○	×	○	○	○	○	E			
11	Lao Map Jigsaw (Plywood)	set	×	○	○	○	×	○	○	○	○	E			
12	others	set	×	×	×	×	×	×	×	×	×	D			
<b>Toys - Touch</b>															
1	Beading colorfull strings	set	×	○	○	○	○	○	○	○	×	○	C		
2	Embroidery board (Needle)	sheet	×	○	○	○	○	○	○	○	×	○	C		
3	Abacus 4 Colors	set	○	○	○	○	○	○	○	○	○	A	○	Pre-19	
4	Basket for Toys (Big)	pcs	○	○	○	○	○	○	○	○	×	×	C		
5	Plastic Balls for Pre-Primary Students Grade 1	pcs	○	○	○	○	○	○	○	○	○	A	○	Pre-5	
6	Plastic Balls for Pre-Primary Students Grade 2 -3	pcs	○	○	○	○	○	○	○	○	○	A			
7	Double Sides whiteboard with stands Magnet Pin	set	×	○	○	○	○	○	○	○	×	C			
8	Colorfull Cushion Seat Games	pcs	○	×	○	○	○	○	○	○	×	C			
9	others		×	×	×	×	×	×	×	×	×	D			
<b>Classroom Equipment</b>															
1	Tray for Student Belonging	Tray	○	○	○	○	○	○	○	○	×	B			
2	Tray for Student Shoes	Tray	○	○	○	○	○	○	○	○	×	B			
3	6 Students Table & Chairs (Wood)	Set	○	○	○	○	○	○	○	○	×	B			
4	FD Black/White Board	Sheet	○	○	○	○	○	○	○	○	×	B			
5	International Standard Green/White Board	Sheet	○	○	○	○	○	○	○	○	×	B			
6	Teacher Table & Chairs (Wood)	Set	○	○	○	○	○	○	○	○	×	B			
7	Tray for Equipment	Set	○	○	○	○	○	○	○	○	×	D			
8	Others		×	×	×	×	×	×	×	×	×	D			
<b>Playground Toys</b>															
1	Sliders + house (Fiber)	Set	○	○	○	○	○	○	○	○	○	A	○	Pre-3	
2	Tunnel	Set	○	○	○	○	○	○	○	○	○	A	○	Pre-2	
3	Stainless Steel Slider	Set	○	×	○	○	○	○	○	○	×	C			
4	Stainless Steel Slider	Set	○	×	○	○	○	○	○	○	×	C			
5	Stainless Steel Slider + Swing	Set	○	×	○	○	○	○	○	○	×	C			
6	Fiber Slider + Swing	Set	○	○	○	○	○	○	○	○	×	B	○	Pre-3	
7	Fiber Slider + Bar (Fish)	Set	○	○	○	○	○	○	○	○	×	B	○	Pre-3	
8	Ball Tanks + Plastic 5,000 Balls	Set	○	×	○	○	○	○	○	○	×	C			
9	Fiber Rocking Horse	Set	○	×	○	○	○	○	○	○	×	C			
10	Metal Swing A Big	Set	○	×	○	○	○	○	○	○	×	C			
11	Metal Swing A Small	Set	○	×	○	○	○	○	○	○	×	C			
12	Metal Big Round Swing	Set	○	×	○	○	○	○	○	○	×	C			
13	Metal Small Round Swing	Set	○	×	○	○	○	○	○	○	×	C			
14	Metal Single Seesaw	Set	○	×	○	○	○	○	○	○	×	C			
15	Metal Double Seesaw	Set	○	×	○	○	○	○	○	○	×	C			
16	Metal Single Bar	Set	○	×	○	○	○	○	○	○	×	C			
17	Metal Double Bar	Set	○	×	○	○	○	○	○	○	×	C			
18	Metal Horse Seesaw	Set	○	×	○	○	○	○	○	○	×	C			
19	Metal Hoop	Set	○	○	○	○	○	○	○	○	○	A	○	Pre-6	
20	Metal Train Swing	Set	○	×	○	○	○	○	○	○	×	C			
21	Metal Bus Swing	Set	○	×	○	○	○	○	○	○	×	C			
22	Metal Carousel Roundabout 3 Seats	Set	○	×	○	○	○	○	○	○	×	C			
23	Metal Carousel Roundabout 4 Seats	Set	○	×	○	○	○	○	○	○	×	C			
24	Metal Carousel Roundabout 6 Seats	Set	○	×	○	○	○	○	○	○	×	C			
25	Sliders + house (Fiber) & Swing Big Set	Set	○	○	○	○	○	○	○	○	×	B	○	Pre-3	
26	Double Stainless Steel Sliders + Swing	Set	○	×	○	○	○	○	○	○	×	C			
27	Cages for kids	Set	○	○	○	○	○	○	○	○	×	B	○	Pre-8	
28	Others	Set	×	×	×	×	×	×	×	×	×	D			
<b>Speakers</b>															
1	Speaker 500W, 1,000W	pcs	○	○	○	○	○	○	○	○	○	A	○	Pre-21	
2	Mixture 500W, 1,000W	pcs	○	○	○	○	○	○	○	○	○	A	○	Pre-21	
3	Wireless Microphone, Microphone	set	○	○	○	○	○	○	○	○	○	A	○	Pre-21	
4	CD, VCD & DVD Players	pcs	○	○	○	○	○	○	○	○	○	A	○	Pre-15	
5	Television	pcs	×	○	○	○	○	○	×	○	○	C			
6	Computer	set	×	○	○	○	×	○	○	○	○	C			
7	Projector	set	×	○	○	○	×	○	○	○	○	C			
8	Radio/Cassette Tap/MP3 Players	pcs	○	○	○	○	○	○	○	○	○	A	○	Pre-15	
9	Other		×	×	×	×	×	×	×	×	×	D			
<b>English</b>															
1	English Alphabet Posters	sheet	○	○	○	○	○	○	○	○	○	A	○	Pre-22	
2	Poster of Vocabulary about House (or Kitchen implement)	sheet	○	○	○	○	○	○	○	○	○	A	○	Pre-22	
3	Poster of Vocabulary about Fruits	sheet	○	○	○	○	○	○	○	○	○	A	○	Pre-22	
4	Poster of Vocabulary about Body	sheet	○	○	○	○	○	○	○	○	○	A	○	Pre-22	
5	Poster of Vocabulary about Tree	sheet	○	○	○	○	○	○	○	○	○	A	○	Pre-22	
6	Poster of Vocabulary about Animals	sheet	○	○	○	○	○	○	○	○	○	A	○	Pre-22	
7	Games & Puzzle about English Learning	Set	×	○	○	○	×	○	○	○	○	C			
8	Other		×	×	×	×	×	×	×	×	×	D			
<b>Items other than MOES Standard Equipment</b>															
1	Gymnastic mat	Sheet	○	○	○	○	×	○	○	○	○	A	○	Pre-1	
Total 147 Items												Total 42 Items	Total 26 Items		

## &lt; Legend &gt;

## Selection Criteria

- ① Necessary for curriculum
- ② Available space for usage, installation and/or storage
- ③ Easy maintenance (Unavailable consumables are not required)
- ④ Easy handling (Special skill is not required)
- ⑤ High frequency of use
- ⑥ Easy procurement
- ⑦ No substitutability by other equipment
- ⑧ Not consumables
- ⑨ Not furniture nor facility

## Evaluation

- A 1st Priority
- B 2nd Priority
- C 3rd Priority
- D Not adopted for the Project
- E Procured by the Lao PDR

2. Equipment for Primary Demonstration School

No.	MOES Standard Equipment	Unit	Selection Criteria									Evaluation	Selected Item	Item No.
			①	②	③	④	⑤	⑥	⑦	⑧	⑨			
<b>Photo of Former/Current H.E Presidents and Prime Minister</b>														
1	H.E President Khaisone Phomvihanh	sheet	×	○	○	○	×	○	×	○	○	E		
2	H.E President Souphanouvong	sheet	×	○	○	○	×	○	×	○	○	E		
3	H.E President Choummaly Xayyasone	sheet	×	○	○	○	×	○	×	○	○	E		
4	H.E Mr. Thongsing Thammavong, Prime Minister	sheet	×	○	○	○	×	○	×	○	○	E		
5	H.E Ho Chi Minh	sheet	×	○	○	○	×	○	×	○	○	E		
6	others													
<b>Lao Language</b>														
1	Word Cards	Set	○	○	○	○	○	○	○	○	○	E		
2	Initial Consonant Cards	Set	○	○	○	○	○	○	○	○	○	E		
3	Combined Consonant Cards	Set	○	○	○	○	○	○	○	○	○	E		
4	Diphthong Consonant Cards	Set	×	○	○	○	×	○	○	○	○	E		
5	Vowel Cards	Set	○	○	○	○	○	○	○	○	○	E		
6	Combined Vowel Cards 1	Set	×	○	○	○	×	○	○	○	○	E		
7	Combined Vowel Cards 2	Set	×	○	○	○	○	×	○	○	○	E		
8	Combined Vowel Cards 3	Set	×	○	○	○	○	×	○	○	○	E		
9	Tonal Marks/Tonal Accent in Lao Writing (4 Marks)	Set	×	○	○	○	○	×	○	○	○	E		
10	Alphabet Chart	Set	○	○	○	○	○	○	○	○	○	E		
11	Board Word Cards	Set	○	○	○	○	○	○	○	○	○	E		
12	Consonant Photo Cards	Set	×	○	○	○	○	×	○	○	○	E		
13	Photo Cards under Textbooks	Set	×	○	○	○	○	×	○	○	○	E		
14	Hexagon Paper Box	Set	×	○	○	○	○	×	○	○	○	E		
15	Others	Set	×	×	×	×	×	×	×	×	×	E		
<b>Mathematic</b>														
1	Finger Count 1-10	Set	×						×			C		
1	Card Count 0-9 (10 Cards)	set	×	○	○	○	×	○	○	×	○	D		
2	TickMark/Symbol Cards (8 Cards)	set	×	○	○	○	×	○	○	×	○	D		
3	Card Count 1-10 (10 Cards)	set	×	○	○	○	×	○	○	×	○	D		
4	Dice	pcs	○	○	○	○	○	○	○	○	○	A	○	PriMat-7
5	Laminate Paper of Circle demonstrate fractional number	set	×	○	○	○	×	○	○	×	○	D		
6	Wood Ruler length 1 meter, 60 cm use with Black Board	pcs	○	○	○	○	○	○	○	○	○	A	○	PriMat-5
7	Triangle ruler 45 Degree	pcs	○	○	○	○	○	○	○	○	○	A	○	PriMat-2
8	Triangle ruler 60 Degree	pcs	○	○	○	○	○	○	○	○	○	A	○	PriMat-1
9	Wood compass	pcs	○	○	○	○	○	○	○	○	○	A	○	PriMat-4
10	Geoboard+Plastic band Big + Small	pcs	×	○	○	○	×	○	○	○	○	C		
11	Weight Scale 2 arms	pcs	○	○	○	○	○	○	○	○	○	A	○	PriSSS-9
12	Descriptive Geometry Forms Model	pcs	×	○	○	○	○	○	○	○	○	B		
13	Poster of Descriptive Geometry Forms	sheet	×	○	○	○	×	○	○	○	○	C		
14	Projective Geometry Models	pcs	×	○	○	○	×	○	○	○	○	C		
15	Poster of Projective Geometry Forms	sheet	×	○	○	○	×	○	○	○	○	C		
16	Plus/Add "+" Table	sheet	×	○	○	○	○	×	○	○	○	C		
17	Multiply "x" Table	sheet	×	○	○	○	×	○	○	×	○	D		
18	Mass Table	sheet	×	○	○	○	×	○	○	×	○	D		
19	Volume Table	sheet	×	○	○	○	×	○	○	×	○	D		
20	Area Table	sheet	×	○	○	○	×	○	○	×	○	D		
21	Length Table	sheet	×	○	○	○	×	○	○	×	○	D		
22	Horizontal Abacus	pcs	○	○	○	○	○	○	○	○	○	A	○	PriMat-9
23	Vertical Abacus	pcs	○	○	○	○	×	○	×	○	○	C		
24	Pin Board/Softboard	set	○	○	○	○	○	×	○	×	○	C		
25	Watch Model	watch	○	○	○	○	○	○	○	○	○	A	○	PriMat-8
26	Corner Demonstration Equipment	pcs	○	○	○	○	×	○	×	○	○	D		
27	Volume Cube Demonstration Equipment	pcs	○	○	○	○	○	○	○	○	○	A	○	PriMat-10
28	Sticks	set	○	○	○	○	×	○	×	○	×	D		
29	Volume Demonstration Equipment	pcs	○	○	○	○	○	○	○	○	○	A		
30	Volume and Cylinder Demonstration Equipment	pcs	○	○	○	○	○	○	○	○	○	A	○	PriMat-11 PriMat-12
31	Cone Demonstration Equipment	pcs	○	○	○	○	○	○	○	○	○	A		
32	Relationtive surface and perimeter of Rectangle	pcs	×	○	○	○	×	○	○	○	○	D		
33	Area of Circle and diameter	pcs	×	○	○	○	×	○	○	○	○	C		
34	others		×	×	×	×	×	×	×	×	×	D		
<b>Environment</b>														
1	Body Model	sheet	○	○	○	○	○	○	○	○	○	A	○	PriSSS-13
2	Heart Model	Set	○	○	○	○	○	○	○	○	○	A	○	PriSSS-14
3	Kidney Model	set	○	○	○	○	○	○	○	○	○	A	○	PriSSS-13
4	Bonne Model	set	○	○	○	○	○	○	○	○	○	A	○	PriSSS-15
5	Muscle Model	set	○	○	○	○	○	○	○	○	○	A	○	PriSSS-16
6	Human Evolution	sheet	○	○	○	○	×	○	×	○	○	C		
7	Lane Xang Kingdom Map	sheet	○	○	○	○	×	○	×	○	○	D		
8	Geography and Economics Map of Lao PDR	sheet	○	○	○	○	×	○	×	○	○	E		
9	Govern Map of Lao PDR	sheet	○	○	○	○	×	○	×	○	○	E		
10	Natural Map of Lao PDR	sheet	○	○	○	○	×	○	×	○	○	E		
11	World Map	pcs	○	○	○	○	○	○	○	○	○	A	○	PriSSS-21
12	Magnifying Glass	pcs	○	○	○	○	○	○	○	○	○	A	○	PriSSS-1.7.10
13	Compass	pcs	○	○	○	○	×	○	○	○	○	B	○	PriSSS-11
14	Temperature Meter	pcs	○	○	○	○	○	○	○	○	○	A	○	PriAux-5
15	Agricultural Poster	sheet	×	○	○	○	×	○	○	○	○	C		
16	Animal Dictionary Poster	sheet	○	○	○	○	○	○	○	○	○	A	○	PriSSS-5
17	Flora Dictionary Poster	sheet	○	○	○	○	○	○	○	○	○	A	○	PriSSS-4
18	Agricultural Area Map	sheet	×	○	○	○	×	○	○	○	○	C		
19	Production Agriculture/Farm Poster	sheet	×	○	○	○	×	○	○	○	○	C		
20	Pattern of Shirts/Trousers/Skirts (Men & Lady)	set	×	○	○	○	×	○	○	○	○	C		
21	Poster of Shirts/Trousers/Skirts (Men & Lady)	sheet	×	○	○	○	×	○	○	○	○	C		
22	Yarn (Black, White)	Roll	×	○	○	○	×	○	○	×	○	C		
23	Scissors	pcs	×	○	○	○	○	○	○	×	○	C		
24	Needle	set	×	○	○	○	○	○	×	○	○	C		
25	Pin	box	×	○	○	○	○	○	×	○	○	C		
26	Ruler	pcs	×	○	○	○	○	○	×	○	○	C		



No.	MOES Standard Equipment	Unit	Selection Criteria									Evaluation	Selected Item	Item No.
			①	②	③	④	⑤	⑥	⑦	⑧	⑨			
27	Curve Ruler	pcs	×	○	○	○	○	○	○	×	○	C		
28	Chalk Writing Clothes	box	×	○	○	○	○	○	○	×	○	C		
29	Picture of Basketworks: Baskets, Fishing Tools, etc.	sheet	×	○	○	○	○	○	○	×	○	C		
30	Kitchen Implement	sheet	×	○	○	○	○	○	○	×	○	C		
31	Picture of Dishes, spoons, etc. Necessary use for Meals	sheet	×	○	○	○	○	○	○	×	○	C		
32	Picture of Cleaning Tools	sheet	×	○	○	○	○	○	○	×	○	C		
33	Roll Gauze bandage	roll	×	○	○	○	○	○	○	×	○	C		
34	Tourniquet	bag	×	○	○	○	○	○	○	×	○	C		
35	Battery	pairs	×	○	○	○	○	○	○	×	○	C		
36	Adapter Plug	pcs	×	○	○	○	○	○	○	×	○	C		
37	Tap	Roll	×	○	○	○	○	○	○	×	○	C		
38	Twin Electric Wire	Pe	×	○	○	○	○	○	○	×	○	C		
39	Electrode 20A 600 W	Pc	×	○	○	○	○	○	○	×	○	C		
40	Fuse 3A	Pe	×	○	○	○	○	○	○	×	○	C		
41	Switch on/off	Pe	×	○	○	○	○	○	○	×	○	C		
42	Extension cord	Pe	×	○	○	○	○	×	○	○	○	C		
43	Light (Spark plug) 2.5 V	Pe	×	○	○	○	○	○	○	×	○	C		
44	screw	Pe	×	○	○	○	○	○	○	×	○	C		
45	Screwdriver	Pe	×	○	○	○	○	○	×	○	○	C		
46	Lao Kip Notes Model	Pe	×	○	○	○	○	○	×	○	○	E		
47	Picture of Sanitary ware	Pe	○	○	○	○	○	○	○	○	○	A	○	PriSSS-5
48	Poster of Sanitary ware	Pe	×	○	○	○	×	○	×	○	○	D		
49	Traffic Sign and Transportation	Pe	○	○	○	○	○	○	○	○	○	A	○	PriAux-1
50	Others	Pc	×	×	×	×	×	×	×	×	×	D		
<b>Arts</b>														
1	Crayon (Big) 12 Colors	Set	○	○	○	○	○	○	○	×	○	D		
2	Watercolor	Set	○	○	○	○	○	○	○	×	○	D		
3	Clay	Pe	○	○	○	○	○	○	○	×	○	D		
4	White board (Small)	Pe	○	○	○	○	○	○	○	×	○	D		
5	Operating Scissor	Pe	○	○	○	○	○	○	○	×	○	D		
6	Ropes	Pe	○	○	○	○	○	○	○	×	○	D		
7	Flip Chart Paper(15 Sheets)	sheet	○	○	○	○	○	○	○	×	○	D		
8	Paper Glue 250g	sheet	○	○	○	○	○	○	○	×	○	D		
9	Paper Color	sheet	○	○	○	○	○	○	○	×	○	D		
10	Taps	Pe	○	○	○	○	○	○	○	×	○	D		
11	Black Pencils	Pe	○	○	○	○	○	○	○	×	○	D		
12	Others		○	○	○	○	○	○	○	×	○	D		
<b>Arts &amp; Music</b>														
1	Xylophones No. 17(Lao)	Unit	○	○	○	○	○	○	○	○	○	E	×	
2	Drum (Lao Traditional Drum) No. 7	Unit	○	○	○	○	○	○	○	○	○	A	○	PriMus-4
3	Dual Sides Drum (wood)	Unit	○	○	○	○	○	○	○	○	○	A	○	PriMus-4
4	Maracas/Tambourine	Unit	○	○	○	○	○	○	○	○	○	A	○	PriMus-2
5	Wooden rhythm clappers	Unit	○	○	○	○	○	○	×	○	○	B	○	PriMus-2
6	Lao Cymbal (Small)	Unit	○	○	○	○	○	○	○	○	○	A	○	PriMus-3
7	Guitar (Wood)	Unit	○	○	○	○	×	○	○	○	○	B	×	
8	Cymbal (Small)	Unit	○	○	○	○	○	○	○	○	○	A	Combined to 5	PriMus-2
9	Khane Lao (Medium)	Unit	○	○	○	○	○	○	○	○	○	E		
10	others		×	×	×	×	×	×	×	×	×	D		
<b>Sports</b>														
1	Medium Size Football Ball	Ball	○	○	○	○	○	○	○	○	○	A	○	PriSpo-1
2	Net of Football	Pairs	○	○	○	○	○	○	○	○	○	A	○	PriSpo-1
3	Small Size Volleyball Ball	Ball	○	○	○	○	○	○	○	○	○	A	○	PriSpo-1
4	Net of Volleyball	Net	○	○	○	○	○	○	○	○	○	A	○	PriSpo-1
5	Rope (Pull or Skipping Jumping Rope)	KG	○	○	○	○	○	○	○	○	○	A	○	PriSpo-1
6	Skipping Jumping Rope	Rope	×	○	○	○	○	○	×	○	○	B	○	PriSpo-1
7	Big Plastic Band	Bag	×	○	○	○	○	○	×	○	○	B	○	PriSpo-1
8	Small Plastic Band	Bag	×	○	○	○	○	○	×	○	○	B	○	PriSpo-1
9	Table Tennis with Net	Set	×	×	○	○	○	○	×	○	○	C		
10	Racket 1 Pair with 1 Dozen of Balls	Set	×	×	○	○	○	○	×	○	○	C		
11	Net of Badminton with 1 box of Shuttlecock	Net	○	○	○	○	○	○	○	○	○	A	○	PriSpo-2
12	Racket 1 Pair with 1 Box of Shuttlecock	Set	○	○	○	○	○	○	○	○	○	A	○	PriSpo-2
13	Whistle	PCS	○	○	○	○	○	○	○	○	○	A	○	PriSpo-2
14	Air Hand Pump for Balls	Set	○	○	○	○	○	○	○	○	○	A	○	PriSpo-3
15	Stopwatch	PC	○	○	○	○	○	○	○	○	○	A	○	PriAux-5
16	Others		×	×	×	×	×	×	×	×	×	D		
<b>Audio Visual</b>														
1	Speaker 500W, 1,000W	PCS	×	○	○	○	○	○	○	○	○	B	○	Pre-21
2	Mixture 500W, 1,000W	PCS	×	○	○	○	○	○	○	○	○	B	○	Pre-21
3	Wireless Microphone, Microphone	PCS	×	○	○	○	○	○	○	○	○	B	○	Pre-21
4	CD, VCD & DVD Players	PCS	×	○	○	○	○	○	○	○	○	B	○	PriLao-3
5	Television	PCS	×	○	○	○	○	○	×	○	○	C		
6	Computer	Set	×	○	○	○	○	○	○	○	○	B	○	PriAux-3,4
7	Projector	PCS	×	○	○	○	○	○	○	○	○	B	○	PriAux-2
8	Radio + MP 3	PCS	×	○	○	○	○	○	×	○	○	C		
9	Others		×	×	×	×	×	×	×	×	×	D		
<b>English</b>														
1	English Consonants Poster	Sheet	○	○	○	○	○	○	○	○	○	A	○	PriLao-5
2	Animal Dictionary Poster	Sheet	○	○	○	○	○	○	○	○	○	A	○	PriLao-6
3	Kitchen Implements Poster	Sheet	○	○	○	○	○	○	○	○	○	A	○	PriLao-7
4	Fruit Dictionary Poster	Sheet	○	○	○	○	○	○	○	○	○	A	○	PriLao-8
5	Body Dictionary Poster	Sheet	○	○	○	○	○	○	○	○	○	A	○	PriLao-9
6	Tree Dictionary Poster	Sheet	○	○	○	○	○	○	○	○	○	A	○	PriLao-10
7	Animal Dictionary Poster	Sheet	○	○	○	○	○	○	○	○	○	A	○	PriLao-6
8	Games & Puzzle English	Set	○	○	○	○	○	○	○	○	○	A	○	PriLao-3
9	Others													

No.	MOES Standard Equipment	Unit	Selection Criteria									Evaluation	Selected Item	Item No.	
			①	②	③	④	⑤	⑥	⑦	⑧	⑨				
<b>Classroom Furniture</b>															
1	Activities Chart 2 Sides with Stand	Set	×	○	○	○	○	○	○	○	○	×	C		
2	Student Chairs and Table (Metal or Wood structure)	Set	×	○	○	○	○	○	○	○	○	×	C		
3	FD Black/White Board	sheet	×	○	○	○	○	○	○	○	○	×	C		
4	International Standard Green/White Board	sheet	×	○	○	○	○	○	○	○	○	×	C		
5	Teacher Chair & Table	Set	×	○	○	○	○	○	○	○	○	×	C		
6	Cupboard	pcs	×	○	○	○	○	○	○	○	○	×	C		
7	Others		×	×	×	×	×	×	×	×	×	×	D		
<b>Items other than MOES Standard Equipment</b>															
1	English Alphabet card	Set											A	○	PriLao-1
2	English Alphabet Poster	Set											A	○	PriLao-4
3	Teacher's magnetic protractor with a handle, more than 30cm	pcs											A	○	PriMat-3
4	Solid model (Cube, Cylindrical shape, Rectangular shape, Triangular prism, Sphere)	pcs											A	○	PriMat-6
5	Volume Demonstration Equipment	pcs											A	○	PriMat-11
6	Volume and Cylinder Demonstration Equipment	pcs											A	○	PriMat-12
7	Volume learning set	pcs											A	○	PriSSS-2
8	The solar system planet model	pcs											A	○	PriSSS-3
9	Insect card/poster	pcs											A	○	PriSSS-6
10	Projector with Screen	pcs											A	○	PriSSS-8
11	Human body poster	pcs											A	○	PriSSS-12
12	Globe	pcs											A	○	PriSSS-20
13	World Flag poster	pcs											A	○	PriSSS-22
14	Electric piano	pcs											A	○	PriMus-1
15	CD player/recorder, movable, max output 2.5Wx2 or more	pcs											A	○	PriMus-5
16	Cabinet for storage	Units											A	○	PriMus-6
Total 185 Items												Total 71 Items	Total 54 Items		

< Legend >

Selection Criteria

- ① Necessary for curriculum
- ② Available space for usage, installation and/or storage
- ③ Easy maintenance (Unavailable consumables are not required)
- ④ Easy handling (Special skill is not required)
- ⑤ High frequency of use
- ⑥ Easy procurement
- ⑦ No substitutability by other equipment
- ⑧ Not consumables
- ⑨ Not furniture nor facility

Evaluation

- A 1st Priority
- B 2nd Priority
- C 3rd Priority
- D Not adopted for the Project
- E Procured by the Lao PDR

## 3. Equipment for Secondary Demonstration School

No.	MOES Standard Equipment	Unit	Selection Criteria									Evaluation	Selected Item	Item No.	
			①	②	③	④	⑤	⑥	⑦	⑧	⑨				
<b>Chemistry</b>															
<b>Lecturing (L)</b>															
1	Chart on laboratory safety	Sheet	○	○	○	○	○	○	○	○	○	A	○	SecCh-1	
2	Chart on laboratory Techniques	Sheet	○	○	○	○	○	○	○	○	○	A	○	SecCh-2	
3	Diffusion of Gas with Stand	Unit	○	×	○	○	○	○	○	×	○	C			
4	Water still 4 liters/hr.	Unit	○	○	○	○	○	○	○	○	○	A	○	SecCh-4	
5	Desiccator Vacuum	Unit	×	○	○	×	×	○	○	○	○	D			
6	ph Digital Display	Unit	○	○	○	○	○	○	○	○	○	A	○	SecCh-6	
7	Molecular Models	Unit	○	○	○	○	○	○	○	○	○	A	○	SecCh-7	
8	Periodic table of the elements	Unit	○	○	○	○	○	○	○	○	○	A	○	SecCh-8	
9	Electrolysis	Unit	○	○	○	○	○	○	○	○	○	A	○	SecCh-9	
10	Electric conductivity apparatus	Unit	○	○	○	○	○	○	○	○	○	A	○	SecCh-10	
11	Spectroscope	Unit	○	○	○	×	×	○	○	○	○	C			
12	Micro-voltmeter	Unit	○	○	○	○	○	○	○	○	○	A	○	SecCh-12	
13	Kipp apparatus	Unit	○	○	○	○	○	○	○	○	○	A	○	SecCh-13	
14	pH Checker 1 (Hanna Checker pH meter )	○	○	○	○	○	○	○	○	○	○	A	○	SecCh-6	
15	pH Scan	Unit	○	○	○	○	×	○	×	○	○	C			
16	CYSCAN pH 500	Unit	○	○	○	○	×	○	×	○	○	C			
17	pH TOYO 0 - 14 (pH testing paper)	Set	○	○	○	○	×	○	×	○	○	D			
18	HI-9142, Dissolved Oxygen Meter	Unit	○	○	○	○	×	○	×	○	○	C			
19	Hardness tester	Unit	×	○	○	○	×	○	×	○	○	D			
20	Hydro-check	Unit	○	○	○	○	○	○	○	○	○	A	○	SecCh-14	
21	Conductivity ID 1010	Unit	×	○	○	○	×	○	○	○	○	C			
22	pH-7 Monitor	Unit	×	○	○	○	×	○	○	○	○	C			
23	pH-10 Monitor	Unit	○	○	○	○	×	○	×	○	○	C			
24	pH 7 - 9	Unit	○	○	○	○	×	○	×	○	○	C			
25	Digital thermometer, CHECK TEMP	Unit	○	○	○	○	○	○	○	○	○	A	○	SecCh-15	
26	TDS ID 1020 (Total Dissolved Solid)	Unit	×	○	○	○	×	○	×	○	○	D			
27	Lab freezer/ Lab refrigerator	Unit	○	○	○	○	○	○	○	○	○	A	○	SecCh-16	
28	Laboratory Safety Gloves	Unit	○	○	○	○	○	○	○	○	○	A	○	SecCh-17	
29	Fractional Distillation Set	Unit	×	○	○	○	×	○	○	○	○	C			
30	Diffusion of Gas with Stand	Unit	×	○	○	○	×	○	○	○	○	C			
31	Chromatography Tank	Unit	×	○	○	○	○	○	○	○	○	C			
32	HP (core i5, 500G)	Unit	×	○	○	○	○	○	○	○	○	B	○	SecCh-18	
33	LCD with screen	Unit	×	○	○	○	○	○	○	○	○	B	○	SecCh-19	
<b>Group experiment (GE)</b>															
1	Spoons	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-22	
2	Gown	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-23	
3	Safety Goggles	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-24	
4	Electrolysis process	Unit	○	○	○	○	○	○	○	○	○	A	○	SecCh-25	
5	Test Tube Brush	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
6	Filter Flasks	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-26	
7	Funnels 90 mm	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
8	Funnels 110 mm	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
9	Solvent Dispenser	Pc	×	○	○	○	×	○	○	○	○	C			
10	Insulation (other than Asbestos)	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-26	
11	Spatula	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-22	
12	Spatula 18cm	Pc	×	○	○	○	○	×	○	○	○	C			
13	Spatula 15cm	Pc	×	○	○	○	○	×	○	○	○	C			
14	Volumetric Flasks 1000ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
15	Volumetric Flasks 500ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
16	Volumetric Flasks 250ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
17	Volumetric Flasks 100ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
18	Dropper 10cm	Pc	×	○	○	○	○	×	○	○	○	C			
19	Dropper 20cm	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
20	Beaker PYREX, 50 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
21	Beaker PYREX, 100 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
22	Beaker PYREX, 250 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
23	Beaker PYREX, 600 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
24	Beaker PYREX, 1000 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
25	Beaker DURAN, 50 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
26	Beaker DURAN, 100 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
27	Beaker DURAN, 250 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
28	Beaker DURAN, 600 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
29	Beaker DURAN, 1000 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
30	PP Beaker, plastic, 50 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
31	PP Beaker, plastic, 100 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
32	PP Beaker, plastic, 250 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
33	PP Beaker, plastic, 500 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
34	PP Beaker, plastic, 1000 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
35	WITEG Measuring Cylinders 50 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
36	WITEG Measuring Cylinders 100 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
37	WITEG Measuring Cylinders 250 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
38	WITEG Measuring Cylinders 500 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
39	PP Measuring Cylinders, 250ml	Pc	○	○	○	○	×	○	×	○	○	C			
40	PP Measuring Cylinders, 500ml	Pc	○	○	○	○	×	○	×	○	○	C			
41	PP Measuring Cylinders, 1000.l	Pc	○	○	○	○	×	○	×	○	○	C			
42	Erlenmeyer Flasks PYREX 50 ml	Pc	○	○	○	○	×	○	×	○	○	C			
43	Erlenmeyer Flasks PYREX 125 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
44	Erlenmeyer Flasks PYREX 250 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
45	Erlenmeyer Flasks PYREX 500 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
46	Erlenmeyer Flasks PYREX 1000 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
47	Erlenmeyer Flasks DURAN 50 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20	
48	Erlenmeyer Flasks DURAN 100 ml	Pc	○	○	○	○	×	○	×	○	○	C			
49	Erlenmeyer Flasks DURAN 250 ml	Pc	○	○	○	○	×	○	×	○	○	C			
50	Erlenmeyer Flasks DURAN 500 ml	Pc	○	○	○	○	×	○	×	○	○	C			
51	Erlenmeyer Flasks DURAN 1000 ml	Pc	○	○	○	○	×	○	×	○	○	C			
52	Round bottomed Flask PYREX 250 ml	Pc	○	○	○	○	×	○	×	○	○	C			

No.	MOES Standard Equipment	Unit	Selection Criteria									Evaluation	Selected Item	Item No.
			①	②	③	④	⑤	⑥	⑦	⑧	⑨			
53	Round bottomed Flask PYREX 500 ml	Pc	○	○	○	○	×	○	×	○	○	C		
54	Round bottomed Flask PYREX 1000 ml	Pc	○	○	○	○	×	○	×	○	○	C		
55	Flat bottomed Flask PYREX 250 ml	Pc	○	○	○	○	×	○	×	○	○	C		
56	Flat bottomed Flask PYREX 500 ml	Pc	○	○	○	○	×	○	×	○	○	C		
57	Flat bottomed Flask PYREX 1000 ml	Pc	○	○	○	○	×	○	×	○	○	C		
58	Round bottomed Flask CHINA 500 ml	Pc	○	○	○	○	×	○	×	○	○	C		
59	Round bottomed Flask CHINA 1000 ml	Pc	○	○	○	○	×	○	×	○	○	C		
60	Volumetric flask WITEG 10 ml	Pc	○	○	○	○	×	○	×	○	○	C		
61	Volumetric flask WITEG 25 ml	Pc	○	○	○	○	×	○	×	○	○	C		
62	Volumetric flask WITEG 50 ml	Pc	○	○	○	○	×	○	×	○	○	C		
63	Volumetric flask WITEG 100 ml	Pc	○	○	○	○	×	○	×	○	○	C		
64	Volumetric flask WITEG 250 ml	Pc	○	○	○	○	×	○	×	○	○	C		
65	Volumetric flask CHINA 50 ml	Pc	○	○	○	○	×	○	×	○	○	C		
66	Volumetric flask CHINA 100 ml	Pc	○	○	○	○	×	○	×	○	○	C		
67	Volumetric flask CHINA 250 ml	Pc	○	○	○	○	×	○	×	○	○	C		
68	Volumetric flask CHINA 1000 ml	Pc	○	○	○	○	×	○	×	○	○	C		
69	Pipette HBG 5 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20
70	Pipette HBG 10 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20
71	Pipette HBG 25 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20
72	Pipette HBG 50 ml	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20
73	Burette WITEG 10 ml	Pc	○	○	○	○	×	○	×	○	○	C		
74	Burette WITEG 25 ml	Pc	○	○	○	○	×	○	×	○	○	C		
75	Burette WITEG 50 ml	Pc	○	○	○	○	×	○	×	○	○	C		
76	Test tube DURAN, 10 x 100mm	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20
77	Test tube DURAN, 16 x 150mm	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20
78	Test tube DURAN, 25 x 150mm	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20
79	Test tube PYREX 12 x 100 mm	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20
80	Test tube PYREX 16 x 150 mm	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20
81	Test tube PYREX 25 x 150 mm	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20
82	Test tube CHINA 12 x 100 mm	Pc	○	○	○	○	×	○	×	○	○	C		
83	Test tube CHINA 16 x 150 mm	Pc	○	○	○	○	×	○	×	○	○	C		
84	Test tube CHINA 25 x 150 mm	Pc	○	○	○	○	×	○	×	○	○	C		
85	Filter Funnel Glass, 75mm	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-26
86	Filter Funnel Glass, 100 mm	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-26
87	PP Filter Funnel Plastic 80 mm	Pc	○	○	○	○	×	○	×	○	○	A	○	SecCh-26
88	PP Filter Funnel Plastic 120 mm	Pc	○	○	○	○	×	○	×	○	○	C		
89	PP Filter Funnel Plastic 150 mm	Pc	○	○	○	○	×	○	×	○	○	C		
90	Separating Funnel WITEG, 250 mm	Pc	○	○	○	○	×	○	×	○	○	C		
91	Separating Funnel, 250 mm	Pc	○	○	○	○	×	○	×	○	○	C		
92	Separating Funnel, 500 mm	Pc	○	○	○	○	×	○	×	○	○	C		
93	Evaporating porcelain, 75 mm	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-27
94	Evaporating porcelain, 100 mm	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-28
95	Glass Dropping Bottle, 15 cc	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-20
96	Desiccator CHINA, 300 mm	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-5
97	Triple beam CHINA	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-29
98	Hand Centrifuge	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-30
99	Condenser, CHINA, 300 mm	Pc	○	○	○	○	×	○	×	○	○	C		
100	Burner	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-21
101	Wire gauze	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-21
102	Stand	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-31
103	Burette clamp	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-32
104	Pipette bulbs	Pc	○	○	○	○	×	○	×	○	○	C		
105	Stopper-rubber #3	Pc	○	○	○	○	×	○	×	○	○	C		
106	Stopper-rubber #4	Pc	○	○	○	○	×	○	×	○	○	C		
107	Stopper-rubber #7	Pc	○	○	○	○	×	○	×	○	○	C		
108	Stopper-rubber #10	Pc	○	○	○	○	×	○	×	○	○	C		
109	Stopper-rubber #12	Pc	○	○	○	○	×	○	×	○	○	C		
110	Mortar and pestle, 130 mm	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-33
111	Chromatography paper 45 x 75 cm	Pc	○	○	○	○	○	○	○	×	○	C		
112	WHATMAN Paper φ9 cm	Pc	○	○	○	○	×	○	×	○	○	C		
113	TOYO Paper, φ15 cm	Pc	○	○	○	○	×	○	×	○	○	C		
114	Dispensing bottle, 250 ml	Pc	○	○	○	○	×	○	×	○	○	C		
115	White bottle narrow neck, 125 ml	Pc	○	○	○	○	×	○	×	○	○	C		
116	White bottle narrow neck 500 ml	Pc	○	○	○	○	×	○	×	○	○	C		
117	White bottle wide neck, 125 mm	Pc	○	○	○	○	×	○	×	○	○	C		
118	White bottle wide neck, 500 ml	Pc	○	○	○	○	×	○	×	○	○	C		
119	Test Tube Rack Stainless	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-34
120	Test Tube Rack Plastic	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-35
121	Test Tube Rack Plastic	Pc	○	○	○	○	×	○	×	○	○	C		
122	Test Tube Stand 55*65	Pc	○	○	○	○	×	○	×	○	○	C		
123	Wind Shield	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-36
124	Thermometer Mercury 0-100°C	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-37
125	Test Tube Holder	Pc	○	○	○	○	○	○	○	○	○	A	○	SecCh-36
126	PH meter beaker Glass	Pc	○	○	○	○	×	○	×	○	○	C		
<b>Physics</b>														
<b>Lecturing, Basic (LB)</b>														
1	Whims Hurst	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-1
2	AC/DC voltage transformer	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-2
3	Boy's Law	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-3
4	Electroscope	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-4
5	DC amplifier	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-5
6	electromagnet	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-6
7	Bulb holder 2.2 & 6.2 V	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-7
8	Electric field demonstration	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-8
9	Electromagnetic kit	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-9
10	Light Box	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-10
11	Force moment disc	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-11
12	Kinetics model apparatus	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-12
13	Tangential escape apparatus	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-13



No.	MOES Standard Equipment	Unit	Selection Criteria									Evaluation	Selected Item	Item No.
			①	②	③	④	⑤	⑥	⑦	⑧	⑨			
14	Motor with blower	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-14
15	Spectroscope	Unit	○	○	○	○	×	×	○	○	○	C		
16	Standing wave of sand	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-16
17	Surface tension measurement	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-17
18	Newton meter	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-18
19	Solar system model	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-19
20	Photo resistance and coupler unit	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-20
21	Sky system model	Unit	○	○	○	○	×	×	○	○	○	C		
22	Star movement model	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-22
23	Moon movement model	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-23
24	HP (core i5, 500G)	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-24
25	LCD with screen	Unit	×	○	○	○	○	×	○	○	○	C		
26	Demonstration Dynamo Model/set	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-25
27	Laser Light Box	Unit	×	○	○	×	○	×	○	○	○	D		
28	Lab coat (white)	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-23
29	Triangular Prism 25cm	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-15,26
30	Work and Energy	Unit	○	○	○	×	○	×	○	○	○	C		
31	Galvanometer Demonstration	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-27
32	Optical Bench Demonstration, 1 meter Length, 6-8V	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-28
<b>Lecturing , advance (LA)</b>														
1	Projectile Apparatus	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-29
2	Regulated Power Supply AC/DC	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-30
3	Elastic Potential Energy	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-31
4	Power Cable and Plug on/off switch	Unit	×	○	○	×	×	○	○	○	○	D		
5	Dynamo Demonstration Set	Set	○	○	○	○	○	○	○	○	○	A	○	SecPhy-32
6	High Voltage Power Supply	Unit	×	○	○	×	×	○	○	○	○	C		
7	Demonstration of Ohm's Law	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-33
8	Electric Bell Kit	Set	○	○	○	×	×	○	×	○	○	D		
9	Rectifier Circuit	Unit	○	○	○	×	×	○	○	○	○	C		
10	Magnetic Field Demonstration	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-34
11	Short Circuit Demonstration	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-35
12	Electric Field Demonstration	Unit	○	○	○	×	×	○	×	○	○	C		
13	Vacuum Pump 1/4 HP	Unit	×	○	○	○	×	○	×	○	○	D		
14	High Voltage Electric Generator	Unit	×	○	○	×	×	○	×	○	○	D		
15	Spectrum Thermometer	Unit	×	○	○	○	×	○	×	○	○	D		
16	Digital Weight Scale	Unit	×	○	○	○	×	○	×	○	○	D		
17	Diesel Engine 4 stroke	Unit	×	○	○	×	×	○	×	○	○	D		
18	Benzine Engine 4 stroke	Unit	×	○	○	×	×	○	×	○	○	D		
19	Digital Engine 2 stroke	Unit	×	○	○	×	×	○	×	○	○	D		
20	Benzine Engine 2 stroke	Unit	×	○	○	×	×	○	×	○	○	D		
21	Plasma Ball	Unit	×	○	○	×	×	○	×	○	○	D		
22	Elastic Potential Energy	Unit	×	○	○	×	×	○	×	○	○	D		
23	Variance between anode cathode	Unit	×	○	○	×	×	○	×	○	○	D		
24	Sample of Capacitors	Unit	×	○	○	×	×	○	×	○	○	D		
25	Principal of Transformer	Unit	×	○	○	×	×	○	×	○	○	D		
26	Set Optical Dist.	Unit	×	○	○	×	×	○	×	○	○	D		
27	Power cable 45 meter length	Unit	×	○	○	×	×	○	×	○	○	D		
<b>Group experiment(GE)</b>														
1	Voltmeter	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-36
2	Ampere meter	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-37
3	Multimeter	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-38
4	Thermometer	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-39
5	Burner Alcohol	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-40
6	Concave Lens Magnifying Glass	PC	○	○	○	○	○	○	○	○	○	A	○	SecPhy-41
7	Convex Lens Magnifying Glass	Pc	○	○	○	○	○	○	○	○	○	A	○	SecPhy-42
8	Lens set (6pcs/set)	Set	○	○	○	○	○	○	○	○	○	A	○	SecPhy-43
9	Solar Cells Kit	Set	○	○	○	○	○	○	○	○	○	A	○	SecPhy-44
10	Solar cell	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-45
11	Runway	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-46
12	Weight	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-47
13	Battery holder	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-48
14	One way switch	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-49
15	Two way switch	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-50
16	Ammeter	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-48
17	Voltmeter	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-36
18	Resistance	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-51
19	Manometer	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-52
20	Dynamic Cart	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-53
21	Laser Diodes	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-54
22	Force Table	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-55
23	Calorimeter	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-56
24	Transistor 337/715	Unit	×	○	○	×	○	○	○	○	○	C		
25	Transistor 252458 (5pcs/set)	Unit	×	○	○	×	○	○	○	○	○	C		
26	Low Voltage Generator	Unit	○	○	○	○	○	○	○	○	○	A	○	SecPhy-57
<b>Biology</b>														
<b>Lecturing, Basic (LB)</b>														
1	Microscope SME-F	Unit	○	○	○	○	○	○	○	○	○	A	○	SecBio-1,3,4,5,6
2	Human Skelton	Unit	○	○	○	○	○	○	○	○	○	A	○	SecBio-14
3	Skull, Human S	Unit	○	○	○	○	○	○	○	○	○	A	○	SecBio-15
4	1/10 Head model	Unit	○	○	○	○	○	○	○	○	○	A	○	SecBio-16
5	C.15 Model of brain	Unit	○	○	○	○	○	○	○	○	○	A	○	SecBio-17
6	E.10 ear model	Unit	○	○	○	○	○	○	○	○	○	A	○	SecBio-18
7	F.10 Eye model	Unit	○	○	○	○	○	○	○	○	○	A	○	SecBio-19
8	Heart model	Unit	○	○	○	○	○	○	○	○	○	A	○	SecBio-20
9	Kidney model	Unit	○	○	○	○	○	○	○	○	○	A	○	SecBio-21
10	Digital Alcohol tester	Unit	×	○	○	×	○	○	○	○	○	C		
11	100-Pro rotary evaporator	Unit	×	○	○	×	○	○	○	○	○	C		
12	Spectrophotometer	Unit	×	○	○	×	○	○	○	○	○	C		
13	Anatomical Root tip model	Unit	×	○	○	×	○	○	○	○	○	C		

No.	MOES Standard Equipment	Unit	Selection Criteria									Evaluation	Selected Item	Item No.
			①	②	③	④	⑤	⑥	⑦	⑧	⑨			
14	Spinal Cord Model	Unit	×	○	○	○	×	○	○	○	○	C		
15	Blastulation of flog	Unit	○	○	○	○	○	○	○	○	○	A	○	SecBio-22
16	Hydrilla (黑藻)	Unit	○	○	○	○	×	○	×	○	○	C		
17	Plastic lung	Unit	○	○	○	○	×	○	×	○	○	C		
18	Photosynthesis apparatus	Unit	○	○	○	○	○	○	○	○	○	A	○	SecBio-23
19	Venus Flytrap	Unit	○	○	○	○	×	○	×	○	○	C		
20	Thallus Lichen	Unit	○	○	○	○	×	○	×	○	○	C		
21	Porifera re-production cell	Unit	○	○	○	○	×	○	×	○	○	C		
22	Cell Budding of Gene	Unit	○	○	○	○	×	○	×	○	○	C		
23	Lab Coats (white)	Set	○	○	○	○	○	○	○	○	○	A	○	SecCh-23
24	Tripod	PC	○	○	○	○	○	○	○	○	○	A	○	SecBio-24
25	Poster for human digestive system SP 0301	Sheet	×	○	○	○	○	○	×	○	○	C		
26	Poster of carbon dioxide cycle SP 0151	Sheet	×	○	○	○	○	○	×	○	○	C		
27	Poster of human respiratory system SP 0302	Sheet	×	○	○	○	○	○	×	○	○	C		
28	Poster of human blood circulation SP 0306	Sheet	×	○	○	○	○	○	×	○	○	C		
29	Poster of plant anatomy rocks, bote, leave, flowers, truite, bud, photo	Sheet	×	○	○	○	○	○	×	○	○	C		
30	Poster of food chain	Sheet	○	○	○	○	○	○	○	○	○	A	○	SecBio-25
31	Human Torso with interchangeable sex organ	Unit	○	○	○	○	○	○	○	○	○	A	○	SecBio-26
32	DNA structure simulation kit Code: BM0103	Set	×	○	○	×	○	○	×	○	○	D		
33	Typical plant cell	Pc	○	○	○	○	○	○	○	○	○	A	○	SecBio-27
34	Animal Cell, Code: BM206	Pc	○	○	○	○	○	○	○	○	○	A	○	SecBio-28
35	Cell of plant slide	Pc	○	○	○	○	○	○	○	○	○	A	○	SecBio-29
36	Plant tissue slide, Code: BL1011	Pc	○	○	○	○	○	○	○	○	○	A	○	SecBio-30
37	Respiration apparatus BO 0462	Set	○	○	○	○	○	○	○	○	○	A	○	SecBio-31,36
<b>Group experiment(GE)</b>														
1	Storage Bottle 75cc	Pc	○	○	○	○	○	○	×	○	○	B	○	SecBio-32
2	Storage Bottle 750cc	Pc	○	○	○	○	○	○	×	○	○	B	○	SecBio-33
3	Tissue Culture Bottle	Pc	○	○	○	○	○	○	×	○	○	B	○	SecBio-34
4	Tissue Culture Bottle	Pc	○	○	○	○	○	○	×	○	○	B	○	SecBio-35
5	Leaves collection Plate	Pc	×	○	○	○	○	×	○	○	○	C		
6	Measuring Tape 50 meters	Pc	×	○	○	○	○	○	○	○	○	B	○	SecBio-37
7	Color Chart	Sheet	○	○	○	○	○	○	○	○	○	A	○	SecBio-38
8	pH paper 0-14 pH range MERCK Brand	Set	○	○	○	○	○	○	×	×	○	C		
9	Life Surveyor set	Set	○	○	○	×	○	○	×	○	○	C		
10	Set of Balance scales with weight 2000g	Set	○	○	○	○	○	○	○	○	○	A	○	SecBio-39
11	Insect net Aluminum Handle	Pc	○	○	○	○	○	○	○	○	○	A	○	SecBio-40
12	Aquarium Net	Pc	○	○	○	○	○	○	○	○	○	A	○	SecBio-41
13	Microscopes with accessories (rechargeable) motic BI 030	Unit	○	○	○	○	○	○	○	○	○	A	○	SecBio-42
14	Binoculars with accessories 10 x 15 EP 0415	Unit	○	○	○	○	○	○	○	○	○	A	○	SecBio-43
<b>General equipment (GN)</b>														
1	Steel cabinet for Microscope storage	Unit	×	○	○	○	○	○	○	○	○	B	○	SecMis-36
2	Basket for test tube	Pc	○	○	○	○	○	○	○	○	○	A	○	SecBio-44
3	Stand for test tube	Unit	○	○	○	○	○	○	○	○	○	A	○	SecBio-45
<b>Music and Sports</b>														
<b>Music</b>														
1	Electronic piano	Unit	○	○	○	○	○	○	○	○	○	A	○	SecMis-9
2	Metronome	Unit	○	○	○	○	○	○	○	○	○	A	○	SecMis-10
3	CD player	Unit	○	○	○	○	○	○	○	○	○	A	○	SecMis-11
4	Drum	Unit	○	○	○	○	×	○	○	○	○	B	○	SecMis-12
5	Guitar	Unit	○	○	○	○	○	○	○	○	○	A	○	SecMis-13
6	Xylophones No. 17		×	○	○	○	○	○	×	○	○	C		
7	Lao Traditional Drum No. 7		○	○	○	○	○	○	○	○	○	A	○	SecMis-15
8	Dual Side Drum (wood)	Unit	○	○	○	○	○	○	○	○	○	A	○	SecMis-15
9	Maracas/Tambourine	Unit	○	○	○	○	○	○	○	○	○	A	○	SecMis-16
10	Wooden rhythm clappers		○	○	○	○	×	○	×	○	○	C		
11	Lao Cymbal (Small)		○	○	○	○	○	○	○	○	○	A	combined to 7	SecMis-12
12	Cymbal (Small)		○	○	○	○	×	○	×	○	○	C		
13	Khane Lao (Big)		○	○	○	○	×	○	×	○	○	C		
14	Guitar (Wood)		○	○	○	○	×	○	×	○	○	C		
15	others (Piano)	Unit	○	○	○	○	○	○	○	○	○	A	○	SecMis-10
<b>Sports</b>														
1	Balls of Volley Ball	PC	○	○	○	○	○	○	○	○	○	A	○	SecMis-18
2	Balls for football game	PC	○	○	○	○	○	○	○	○	○	A	○	SecMis-19
3	Standard Net of Football	PC	○	○	○	○	○	○	○	○	○	A	○	SecMis-20
4	Standard Net of Volley Ball	PC	○	○	○	○	○	○	○	○	○	A	○	SecMis-21
5	Skipping Jumping Rope	PC	○	○	○	○	○	○	○	○	○	A	○	SecMis-22
6	Big Plastic Band		○	○	○	○	○	○	○	×	○	D		
7	Small Plastic Band		○	○	○	○	○	○	○	×	○	D		
8	Table Tennis Table with Net		×	×	○	○	○	○	○	○	○	C		
9	Racket 1 Pair with 1 Dozen of Balls		×	×	○	○	○	○	○	○	○	C		
10	Stopwatch	PC	○	○	○	○	○	○	○	○	○	A	○	SecMis-23
11	Badminton Racket 1 Pair with 1 Dozen of shuttle	Set	○	○	○	○	○	○	○	○	○	A	○	SecMis-24
12	Net of Badminton	Pc	○	○	○	○	○	○	○	○	○	A	○	SecMis-25
13	Whistle	Pc	○	○	○	○	○	○	○	○	○	A	○	SecMis-26
<b>Lecturing (L)</b>														
1	Poster of Human Body	Sheet	○	○	○	○	○	○	○	○	○	A	○	SecMis-27
<b>Measurement tools (MT)</b>														
1	Height measurement instrument	Unit	×	○	○	○	○	○	○	○	○	B	○	SecMis-28
2	Weight measurement instrument	Unit	×	○	○	○	○	○	○	○	○	B	○	SecMis-29
3	Grip force meter	Pc	×	○	○	○	○	○	○	○	○	B	○	SecMis-30
4	Measuring tape	Pc	×	○	○	○	○	○	○	○	○	B	○	SecMis-31
<b>Classroom Furniture</b>														
1	Black-white printing, copying and scanning machine	Unit	×	○	○	○	○	○	○	○	○	B	○	SecMis-34
2	HP (core i5, 500G)	Unit	×	○	○	○	○	○	○	○	○	B	○	SecMis-33
3	Activities Chart 2 Sides with Stand		○	○	○	○	○	○	○	○	×	D		
4	Student Chairs and Table (Metal or Wood structure)		○	○	○	○	○	○	○	○	×	D		
5	Wood Chairs		○	○	○	○	○	○	○	○	×	D		
6	FD Black/White Board		○	○	○	○	○	○	○	○	×	D		
7	International Standard Green/White Board		○	○	○	○	○	○	○	○	×	D		

No.	MOES Standard Equipment	Unit	Selection Criteria									Evaluation	Selected Item	Item No.		
			①	②	③	④	⑤	⑥	⑦	⑧	⑨					
8	White & Softboard		○	○	○	○	○	○	○	○	○	○	×	D		
9	Teacher Chair & Table		○	○	○	○	○	○	○	○	○	○	×	D		
10	Cupboard		○	○	○	○	○	○	○	○	○	○	×	D		
11	Others		×	×	×	×	×	×	×	×	×	×	×	D		
<b>Audio Visual</b>																
1	Speaker 500W, 1,000W		×	○	○	○	×	○	○	○	○	○	○	C		
2	Mixture 500W, 1,000W		×	○	○	○	×	○	○	○	○	○	○	C		
3	Wireless Microphone, Microphone		×	○	○	○	×	○	○	○	○	○	○	C		
4	CD, VCD & DVD Players		×	○	○	○	×	○	○	○	○	○	○	C		
5	Television		×	○	○	○	×	○	○	○	○	○	○	C		
6	Computer	Unit	×	○	○	○	○	○	○	○	○	○	○	B	○	SecMis-33
7	Projector	Unit	×	○	○	○	○	○	○	○	○	○	○	B	○	SecMis-35
8	Others		×	×	×	×	×	×	×	×	×	×	×	D		
<b>Items other than MOES Standard Equipment</b>																
1	Desiccator, approx. 8 inch diameter	Unit												A	○	SecCh-3
2	Triangular prism	pcs												A	○	SecCh-11
3	Binocular Microscope (100pcs/box)	Set												A	○	SecBio-2
4	Dental model	pcs												A	○	SecBio-7
5	Skin model	pcs												A	○	SecBio-8
6	Urinary system (male and female)	pcs												A	○	SecBio-9
7	Dicotyledon model	pcs												A	○	SecBio-10
8	Mitosis cell division	pcs												A	○	SecBio-11
9	Meiosis Cell Division	pcs												A	○	SecBio-12
10	Monocoyledon/Liliopsida Model	pcs												A	○	SecBio-13
11	Lao Number, Roman Number and Arabic Number Poster	sheet												A	○	SecMis-2
12	English Consonants Poster	sheet												A	○	SecMis-3
13	Animal Dictionary Poster	sheet												A	○	SecMis-4
14	Kitchen Implements Poster	sheet												A	○	SecMis-5
15	Fruit Dictionary Poster	sheet												A	○	SecMis-6
16	Body Dictionary Poster	sheet												A	○	SecMis-7
17	Tree Dictionary Poster	sheet												A	○	SecMis-8
18	School first aid kit													A	○	SecMis-32
Total 368 Items														Total 222 Items	Total 171 Items	

< Legend >

Selection Criteria

- ① Necessary for curriculum
- ② Available space for usage, installation and/or storage
- ③ Easy maintenance (Unavailable consumables are not required)
- ④ Easy handling (Special skill is not required)
- ⑤ High frequency of use
- ⑥ Easy procurement
- ⑦ No substitutability by other equipment
- ⑧ Not consumables
- ⑨ Not furniture nor facility

Evaluation

- A 1st Priority
- B 2nd Priority
- C 3rd Priority
- D Not adopted for the Project
- E Procured by the Lao PDR

Notes:

Sizes and capacities of glass products vary by manufacturer. Thus, the actual sizes and capacities of glass products may be determined based on availability.