

資料11. 自然条件調査結果

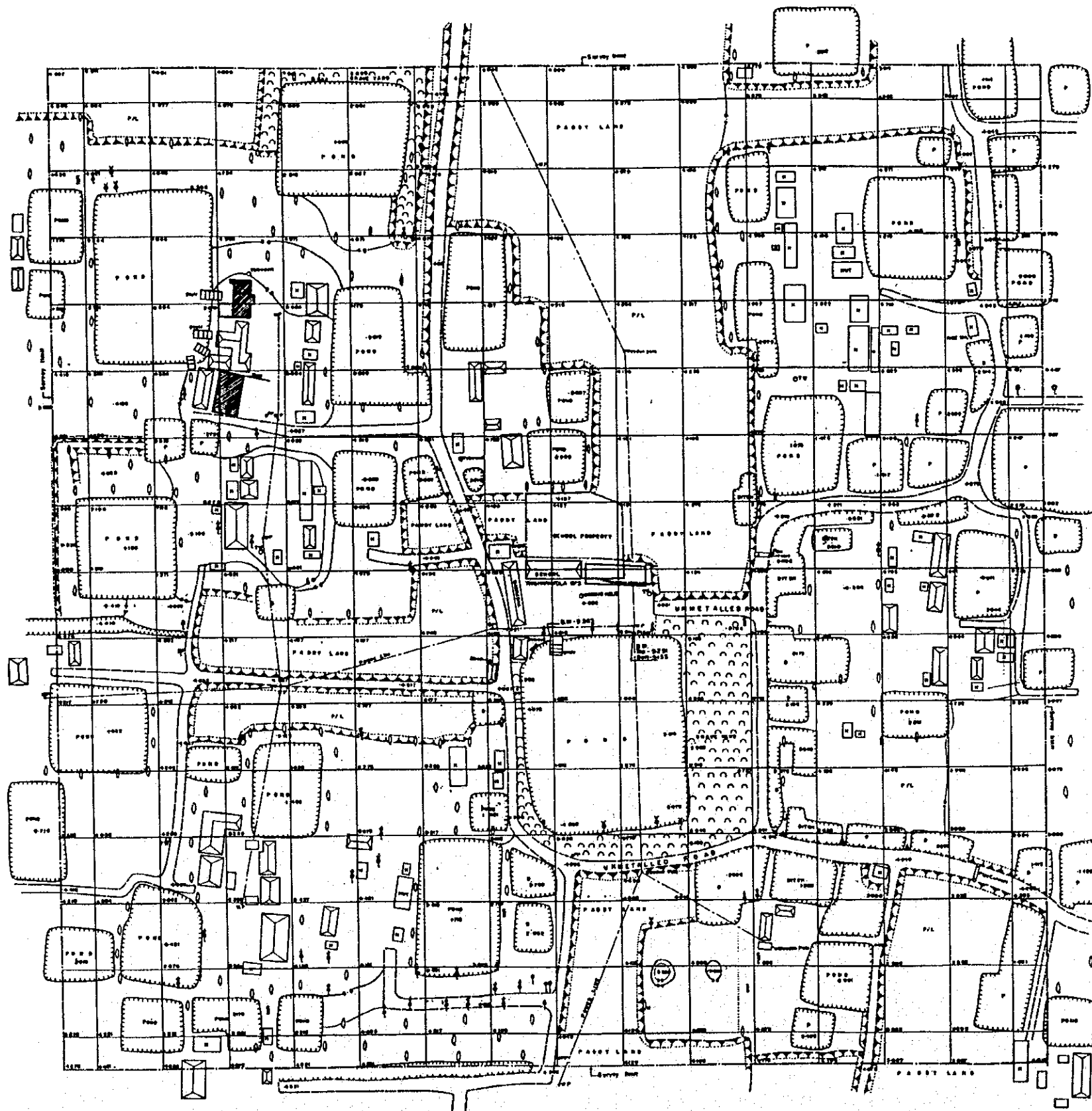
資料11. 自然条件調査結果

サイクロンシェルター建設サイトとして適地と判断された15サイトにおける地形、地質の状況を正確に把握し、シェルター建設に対する適切な位置、構造及び最適規模を決定するため、以下の内容で自然条件調査を実施した。

11-1 地形測量

- (1) 測量範囲：シェルター建設予定地を中心として約 300m四方を目安とする。
- (2) 測量内容：平板測量

以上の地形測量により作成した各サイトの地形平面図は以下に示すとおりである。



- LEGEND:**
- 1. Structure, Permanent, Semi-permanent, To show, etc. [Symbol]
 - 2. Road, unpaved, Embankment. [Symbol]
 - 3. Pond, Dam, Water pit, etc. [Symbol]
 - 4. Survey line, Line of road, Field boundary. [Symbol]
 - 5. Rice field, Agricultural Land. [Symbol]
 - 6. Bench Mark (BM), Control Point (CP) [Symbol]
 - 7. Tree, Coconut, Other trees, etc. [Symbol]

NOTE:

Height reduced from BM 141, 5.80m to 5.70m at the S/E corner of any wall or building 1.81 m.

All heights are in terms of MSL Down.

Contour interval: 0.500m

High Flood Level: 5.70m above mean sea level

Normal Flood Level: 4.70m

High Tide Water level: Nil

Low Tide Water level: Nil

Area Surveyed: 9.000 hectares

Site No. III-1
Tingharia Tola
Abu Taher GPS

SCALE: 1:500

CONSTRUCTION OF MULTIPURPOSE CYCLONE SHELTER

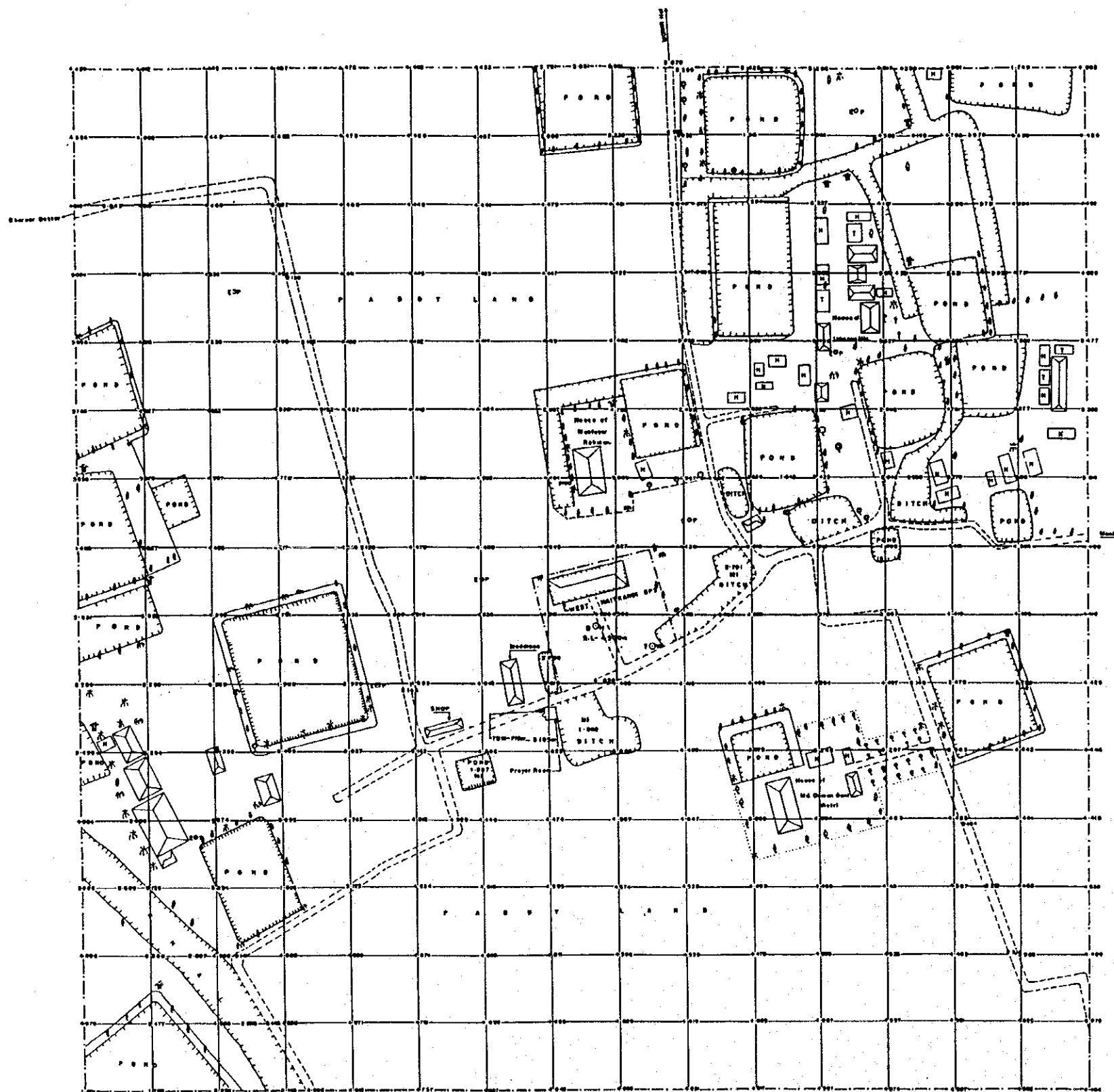
SITE SURVEY PLAN

AT TINGHARIA TOLA GPS, MOGHADIA, MIRSHARAI, CHITTAGONG
CYCLONE SHELTER NO. 8

Client: JICA BASIC DESIGN STUDY TEAM

Surveyed by: BANGLADESH SURVEY ORGANISATION LTD.
40, ROAD NO. 9, SHAMSHAD R/O, DHAKA-1209

APR - 1993 Surveyed by: M.A. Tahir
Drawn by: Rana Chandrajyoti



- LEGEND:**
- 1. Structure, Component, To Shed, Wall — [Symbol]
 - 2. Road, Unsurfaced, Embankment — [Symbol]
 - 3. Pond, Ditch, Barrage, Canal — [Symbol]
 - 4. Survey Point, Survey Boundary — [Symbol]
 - 5. Secondary Control Point, Control Point — [Symbol]
 - 6. Tree, Coconut, Mango, Banana, etc. — [Symbol]

NOTE:
 Height reduced from 800m to sea level (R.L. 100m) at rising water level W.D.
 Information collected from L.S.D. around Thana Office.
 Contour interval is 0.50 meter
 Highest Flood Level 7.25m in 1993 (assumed)
 Normal Flood Level 6.50m
 High Tide Water Level 6.11
 Low Tide Water Level 5.11
 Mean Seaport 6.000 meters
 TBM installed in front of Prayer Room by the South side of Road at a distance of 2m from the East West Corridor of pond building.
 BM (Benchmark Stone marker) West Haitkandi GPS TBM Pillar 4 558 Km.

Site No. III-2
 West Haitkandi GPS

SCALE: 1:500

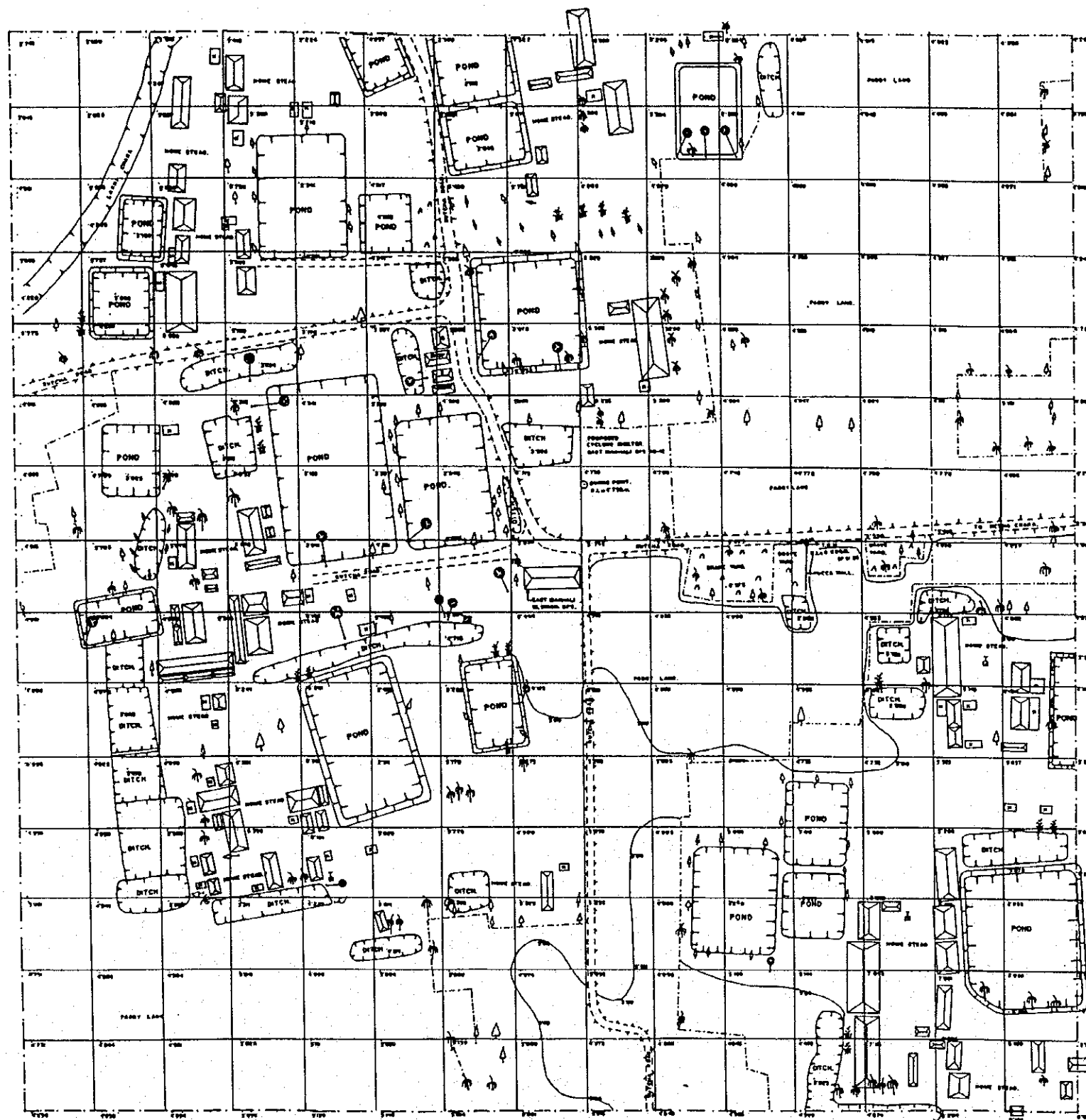
CONSTRUCTION OF MULTIPURPOSE CYCLONE SHELTERS

SITE SURVEY PLAN
 AT WEST HAITKANDI GPS, UP HAITKANDI
 THANA-NRSHARI, DIST-CHITTAGONG.

Client: JICA BASIC DESIGN STUDY TEAM

Surveyed by: BANGLADESH SURVEY ORGANISATION LTD.
 46, ROAD NO. 5, BANLAKHONDA R/O, DHAKA-1209

April-95



- LEGEND
- 1. STRUCTURE: PERMANENT, TO AREA, etc. [Symbol]
 - 2. ROAD, UNPAVED [Symbol]
 - 3. POND, DITCH, BRIDGE, etc. [Symbol]
 - 4. SHOWER, LIGHT [Symbol]
 - 5. TELEPHONE, BENCH, CHAIR, etc. [Symbol]
 - 6. TREE: CHERRY, DATE PALM, etc. [Symbol]

NOTE

HEIGHT RECEIVED FROM S.M. TO 1:50000 IS SHOWN ON MAPS. HEIGHTS AT ALL TANGENT POINTS IN CONTOUR LINE AT 1:50000, 1:25000, 1:12500.

ALL HEIGHTS ARE IN TERMS OF P.M.S. DATUM.

CONTOUR INTERVAL IS 2 METERS.

HIGHEST FLOOD LEVEL: 1:50000 IS 1:5000 LOCAL INFORMATION.

NORMAL FLOOD LEVEL: 1:5000.

AREA SURVEYED: 1:5000.

T.P. IS MARKED BY RED POINT TOP OF PILE. SOUTH EAST CORNER OF DRIVE TANGENT EAST SIDE OF EAST BANGALAI BANGALAI OFF.

T.P. IS MARKED BY RED POINT TOP OF PILE. SOUTH EAST CORNER OF DRIVE TANGENT EAST SIDE OF EAST BANGALAI BANGALAI OFF.

BANGALAI BANGALAI TO EAST BANGALAI BANGALAI OFF.

Site No. III-3
 Alia Pathan GPS
 (East Isakhali Oli Khan)

SCALE: 1:2500

CONSTRUCTION OF MULTIPURPOSE CYCLONE SHELTER/PHASE-III

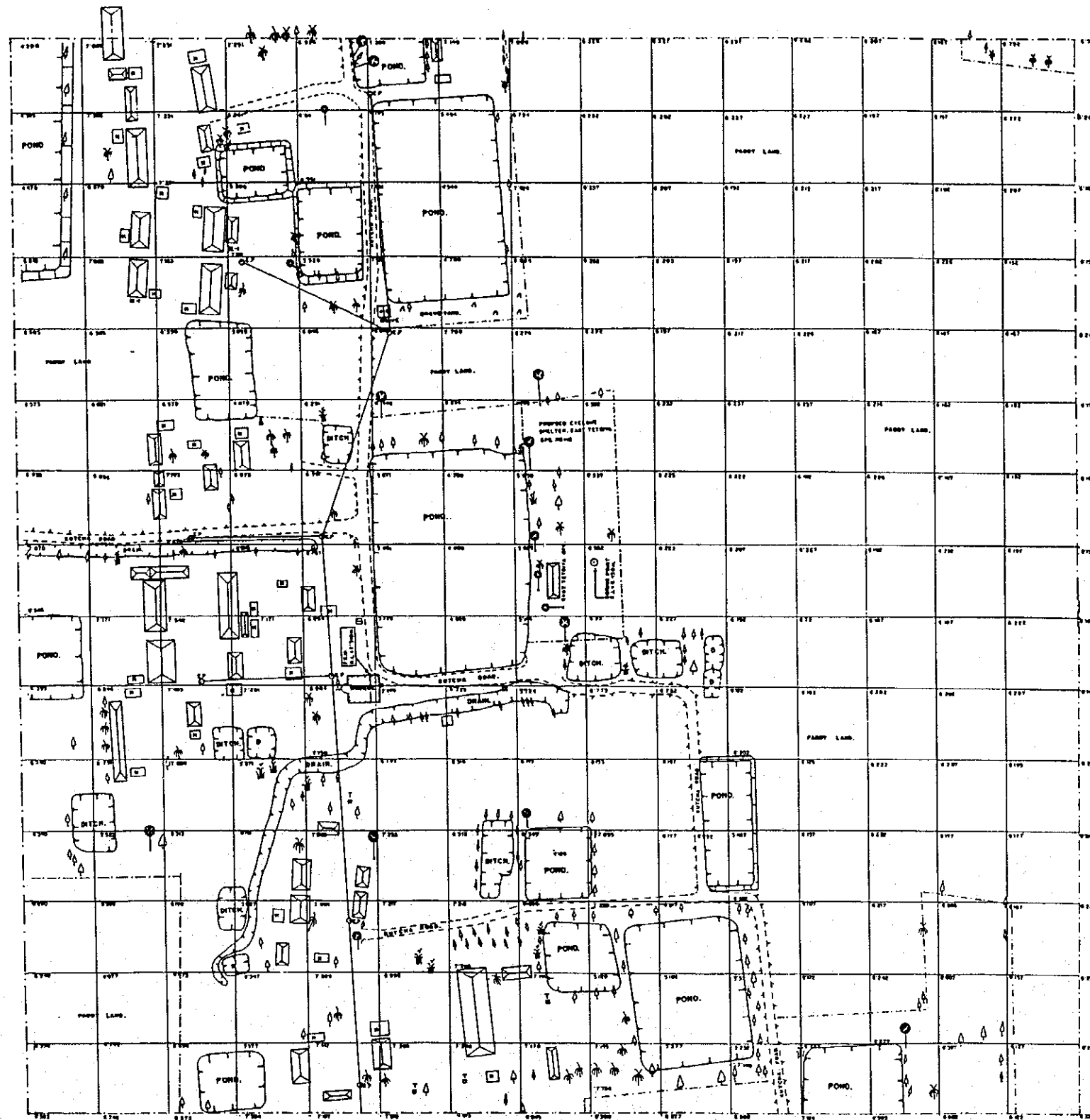
SITE SURVEY PLAN

EAST BANGALAI OLIKHAR GPS NO-12,
 MURSHARAI, CHITTAGONG.

CLIENT: JICA BASIC DESIGN STUDY TEAM.

Surveyed by: BANGLADESH SURVEY ORGANISATION LTD.,
 42, ROAD NO. 3, SHARADHATI R/A, DHAKA-1203

APPROVED BY: [Signature] DATE: [Date]



- LEGEND:
- 1. STRUCTURE, WITH FOUNDATION, 1/4" DIM. PUT
 - 2. ROAD, UNPAVED
 - 3. POND, DITCH, BARROW PIT, CANAL
 - 4. SHELTER LAID
 - 5. TEMPORARY BENCH MARK, CONTROL & BENCH POINT, ELEVATION
 - 6. TREES, COCONUT, DATE PALM, TRO. PALM & OTHERS

NOTE:

HEIGHT RECEIVED FROM S.L. IS 1.53 FROM 1.50 BY BANGAL REGULATED AT STANDING WALL. 1.50 IN COURSE SIDE OF TETOIYA, MURSHARAJ, CHITTAGANG.

ALL HEIGHT ARE IN TERMS OF P.O.S. BANGAL.

CURVE INTERNAL IS STRAIGHT.

HIGHEST FLOOR LEVEL 7.900 M. (FROM LOCAL ORIENTATION).

NORMAL FLOOR LEVEL 7.750 M.

AREA QUANTIFIED 0.10 HECTARES.

E.S.D. MARKED ON RED POINT TOP OF PILECA PLUMB SOUTH EAST CORNER OF BARROW.

T.O.M. 8.000 M. (FROM 1.50)

BANGAL REGULATED TO EAST TETOIYA S.P. MURSHARAJ.

Site No.III-4
East Tetoia GPS

SCALE: 1:1000

CONSTRUCTION OF MULTIPURPOSE CYCLONE SHELTER (PHASE-III)

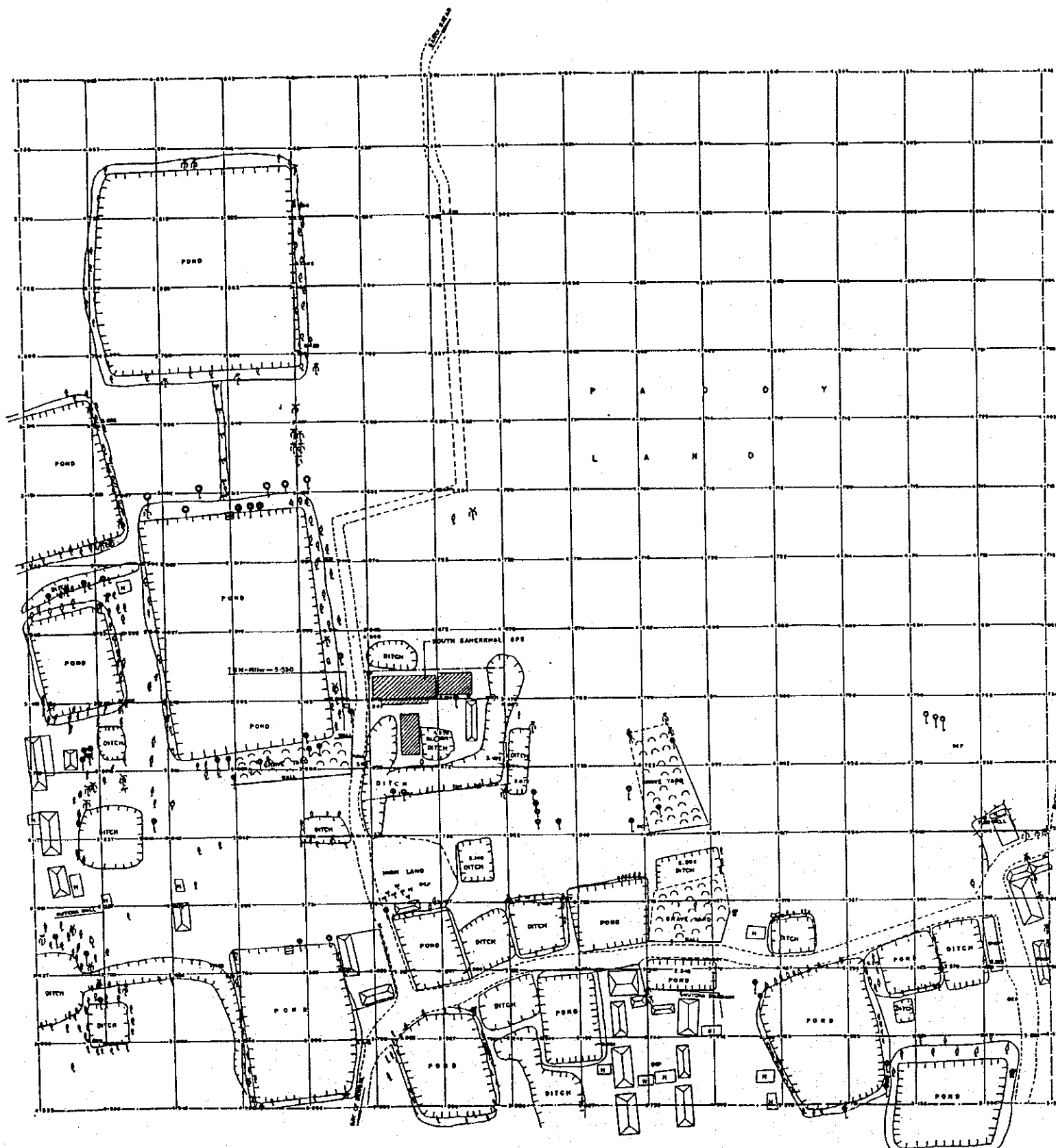
SITE SURVEY PLAN.

EAST - TETOIYA, GPS-NO-13
MURSHARAJ, CHITTAGANG.

CLIENT: JICA BASIC DESIGN STUDY TEAM.

Prepared by: BANGLADESH SURVEY ORGANISATION LTD.
44, ROAD NO.3, SHARADHARI S/A, DHAKA-1202

APRIL, 1993. SURVEYED BY: RAJIBUL HOSAIN. DRAWN BY: S. BAKAR. CHECKED BY: S. BAKAR.



LEGEND:

- 1. Structure, Superstructure, To Shed, etc.
- 2. Road, Unimproved, Embankment
- 3. Pond, Dam, Barrage, Canal
- 4. Survey Line
- 5. Temporary Survey Mark, Contour @ 1m Interval
- 6. Tree, Coconut, Date-palm, Teak-palm @ Others

NOTE:

Height reduced from Datum Khul New Sheet zone
 (RL = 3.96 m. at Subst. W.R.) of W.D.S.
 Information Collected from L.E.O. Mirsharai Thana office
 Contour interval = 0.50 meter
 Highest Flood Level = 7.953 m. 1983 (from local information)
 Lowest Flood Level = 3.845 m.
 High Tide Water Level: No Tide effect
 Low Tide Water Level: No Tide effect
 Area Surveyed = 2.000 hectares
 TBM Installed in West Side of Road at a distance of 75m West from the
 South West Corner of School Building.
 S/N (Dashed) Same zone as South Saherkhali GPS T94 P20-5-0734.

Site No.III-5
 South Saherkhali GPS

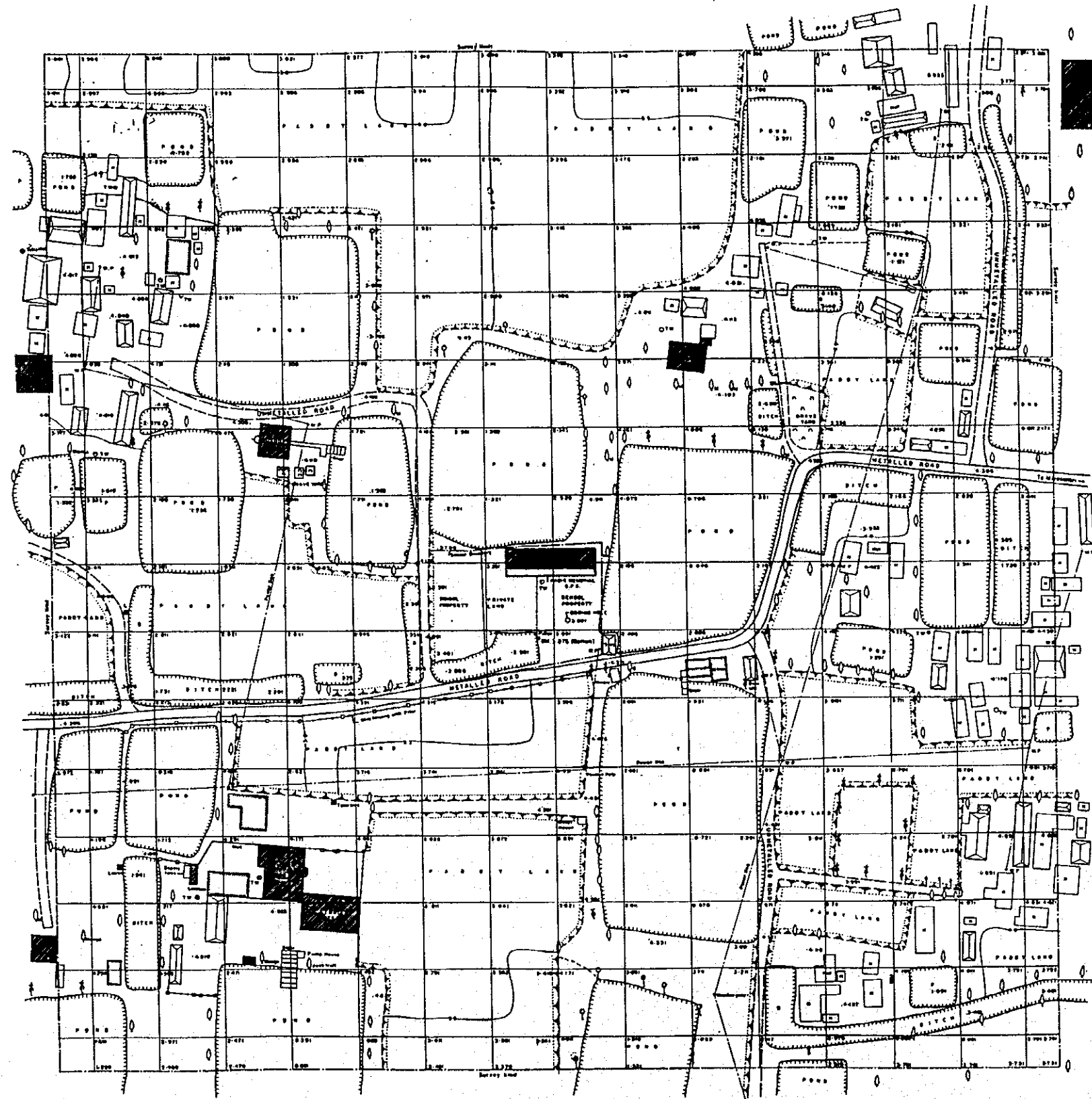
SCALE: 1:500

CONSTRUCTION OF MULTIPURPOSE CYCLONE SHELTER III

SITE SURVEY PLAN
 AT SOUTH SAHER KHALI GPS. UP- SAHERKHALI,
 THANA: MIRSHARAI, DIST. CHITTAGONG.

Client: JICA BASIC DESIGN STUDY TEAM
 Surveyed by: BANGLADESH SURVEY ORGANISATION LTD.
 44, ROAD NO.3, BANARMONI S/A, DHAKA-1102

APRIL-1983 Surveyed by: ABDUR ROJUF MONDAL
 Drawn by: JAG ADAR UJAN



- LEGEND
- 1. Structure, Permanent, Semi-permanent, Temporary, etc. [Symbol]
 - 2. Road, Metalled, Unmetalled, Embankment, etc. [Symbol]
 - 3. Pond, Dam, Barrage, etc. [Symbol]
 - 4. Survey line, Limit of road, Level, Field book, etc. [Symbol]
 - 5. Name Street, Agricultural Land, etc. [Symbol]
 - 6. Check Mark (M), Corner & Boundary, etc. [Symbol]
 - 7. Trees, Coconut, Mango, etc. [Symbol]

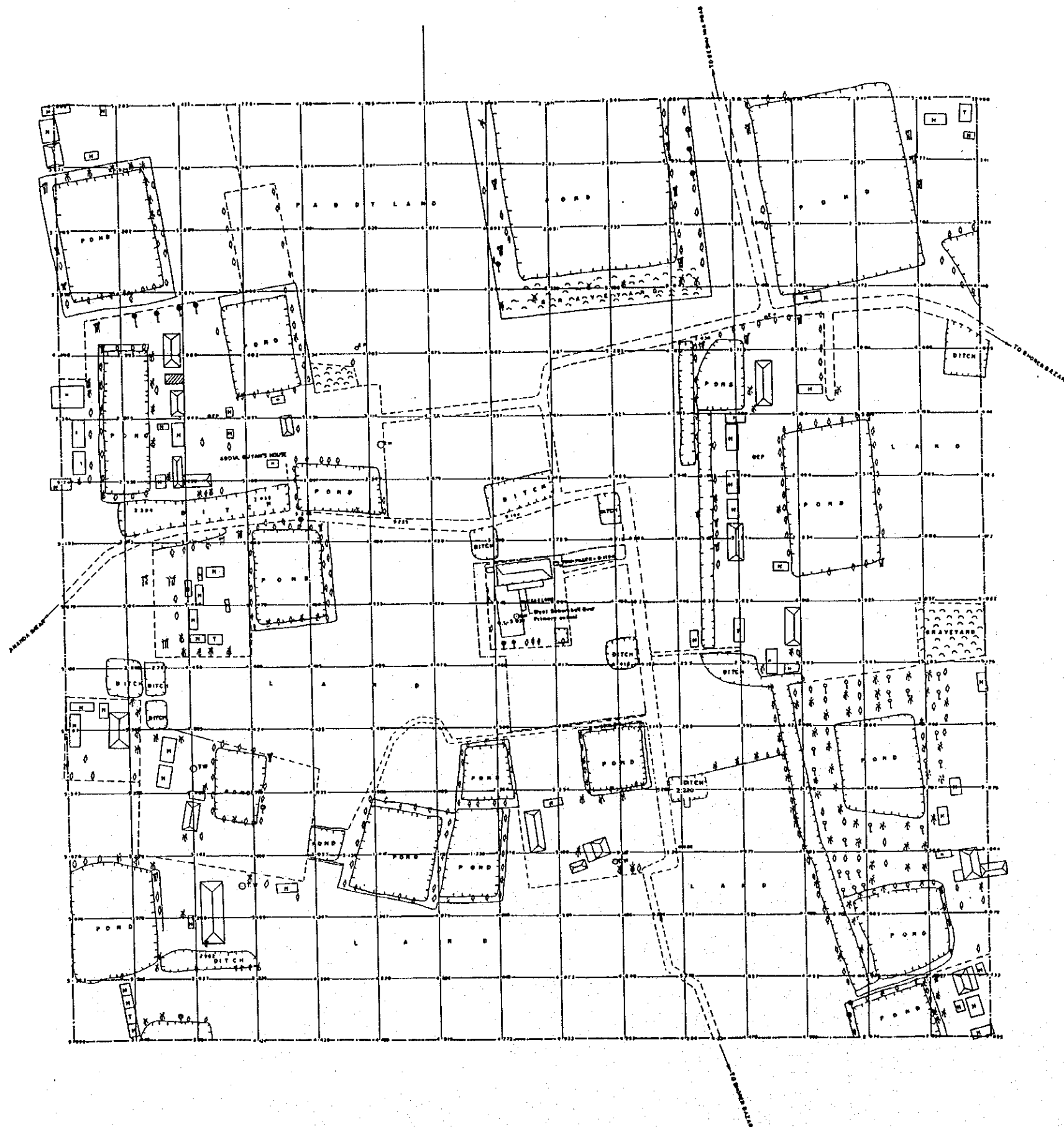
NOTE:

Height reduced from G.M. (R.L. 7.500m.) north-west corner of the base of support
 level of a bridge over Dhaka-Chittagong Highway at Subarna near Road Carpet Factory.
 All heights are in terms of P.W.D. system.
 Contour interval is 0.50 m.
 Highest Flood Level: 4.250m in 1966 (from local information)
 Lowest Flood Level: 3.420m
 High Tide Water level: Nil
 Low Tide Water level: Nil
 Area Surveyed: 9 000 hectares.

Site No. III-6
 Kabir Memorial GPS

SCALE: 1:500

CONSTRUCTION OF MULTIPURPOSE CYCLONE SHELTER	
SITE SURVEY PLAN	
AT KABIR MEMORIAL C.P.S. MIRSHARAI, CHITTAGONG	
CYCLONE SHELTER NO. 18	
Client: JICA BASIC DESIGN STUDY TEAM	
Surveyed by: BANGLADESH SURVEY ORGANISATION LTD.	
46, ROAD NO. 5, DHAKA-1205	
27.11.1995	Surveyed by: Abu Tanvir
	Drawn by: Hassan Ali
	Checked by: [Signature]



- LEGEND:**
- 1 Structure, Encampment, Tin Shed, Hut
 - 2 Road, Unimproved Embankment
 - 3 Pond, Dam, Barrage, Road
 - 4 Survey Unit
 - 5 Temporary Bench Mark, Control B Spot Height of TBM
 - 6 Trees, Coconut, Banana, Tamarind & Others

NOTE:

Height reduced from Damselkhal Sluice gate (R.L. 5.86) atalling with W.D.B. reference collected from L.S.O. Mirsharal Thana office.

Contour interval 0.50 meters

Highest Flood Level: --- 7.95m in 1963 (from local information)

Normal Flood Level: --- 5.85m

High Tide water Level: --- 5.85m

Low Tide water Level: --- 4.85m

Area Surveyed: --- 9,000 sq. meters

TBM installed in East side at a distance of 2.5m from North East Corner of School Building.

BM (Damselkhal Sluice gate) in West Saherkhali GPS TBM No. 520146.

Site No. III-7
West Saherkhali GPS

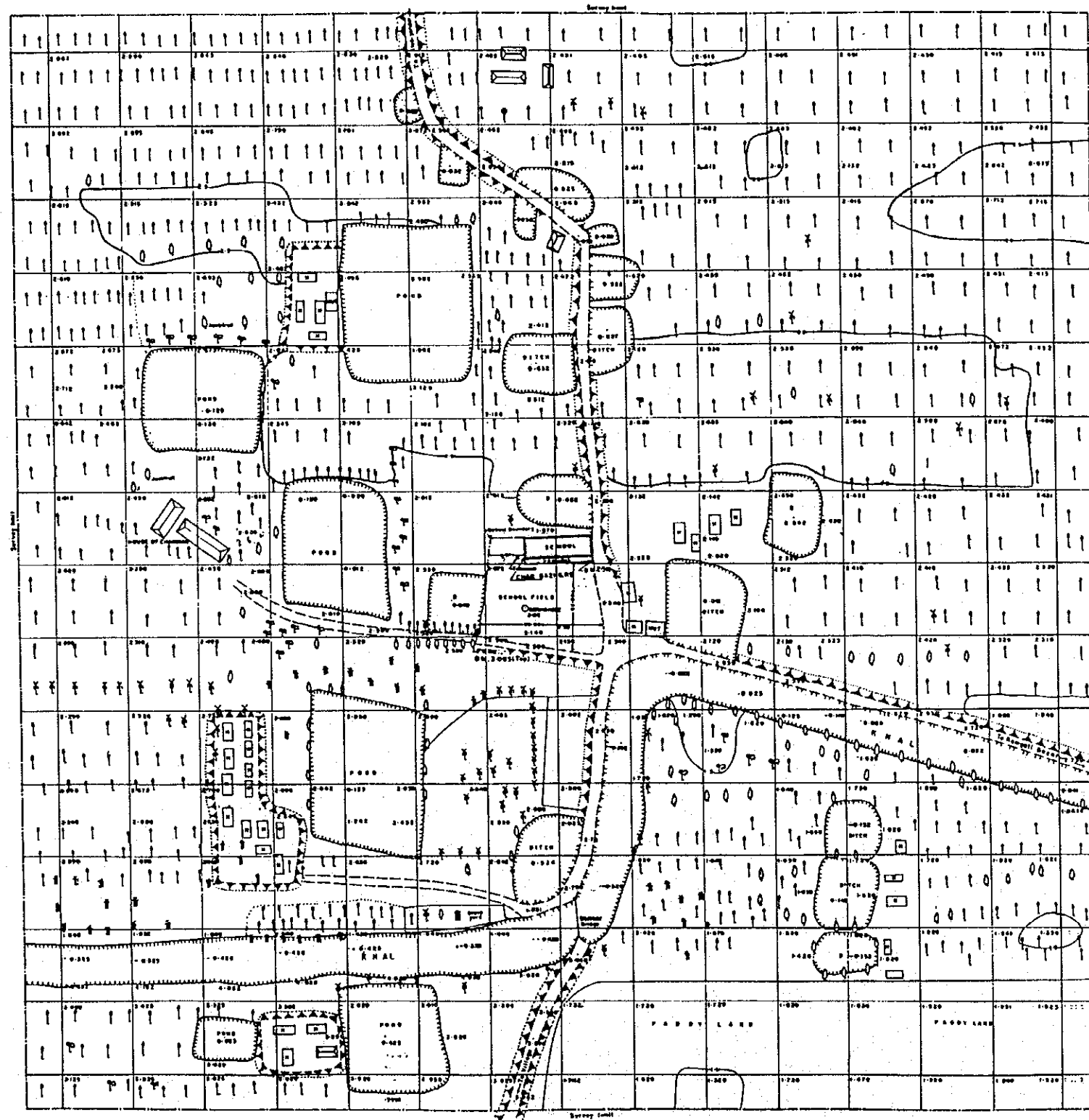
SCALE: 1:800

CONSTRUCTION OF MULTIPURPOSE CYCLONE SHELTER (III)

SITE SURVEY PLAN
AT WEST SAHERKHALI GPS U.P. SAHERKHALI
THANA, MIRSHARAL, DIST. CHITTAGONG

Client: JICA BASIC DESIGN STUDY TEAM
Surveyed by: BANGLADESH SURVEYORS ASSOCIATION LTD.
60, ROAD NO. 3, GHANAMANDI AREA, DHAKA-1205

APRIL 1995
Checked by: ABDUL HOSEIN MURSHED
Drawn by: S. B. BAN
Submitted



- LEGEND
- 1. Structure, Demarcation, To shed, etc. [Symbol]
 - 2. Road, Unimproved, Embankment [Symbol]
 - 3. Field, DMZ, Burrow, etc. [Symbol]
 - 4. Survey line, Limit of road, Field boundary [Symbol]
 - 5. Water Sheds, Agricultural Land [Symbol]
 - 6. Dotted line (D.M.), Contour & Spot height [Symbol]
 - 7. Trees: Coconut, Betelnut, Mango, Tamarind, etc. [Symbol]

NOTE:

Height reduced from S.M.S.L. (400m) as per slope level of Dakhinon in Bangal.

All heights are in meters of P.W.D. Datum.

Contour interval is 0.50 meters.

Highest flood level 6.70m in 1988 (from local informant).

Normal flood level 2.00m.

High tide water level m.

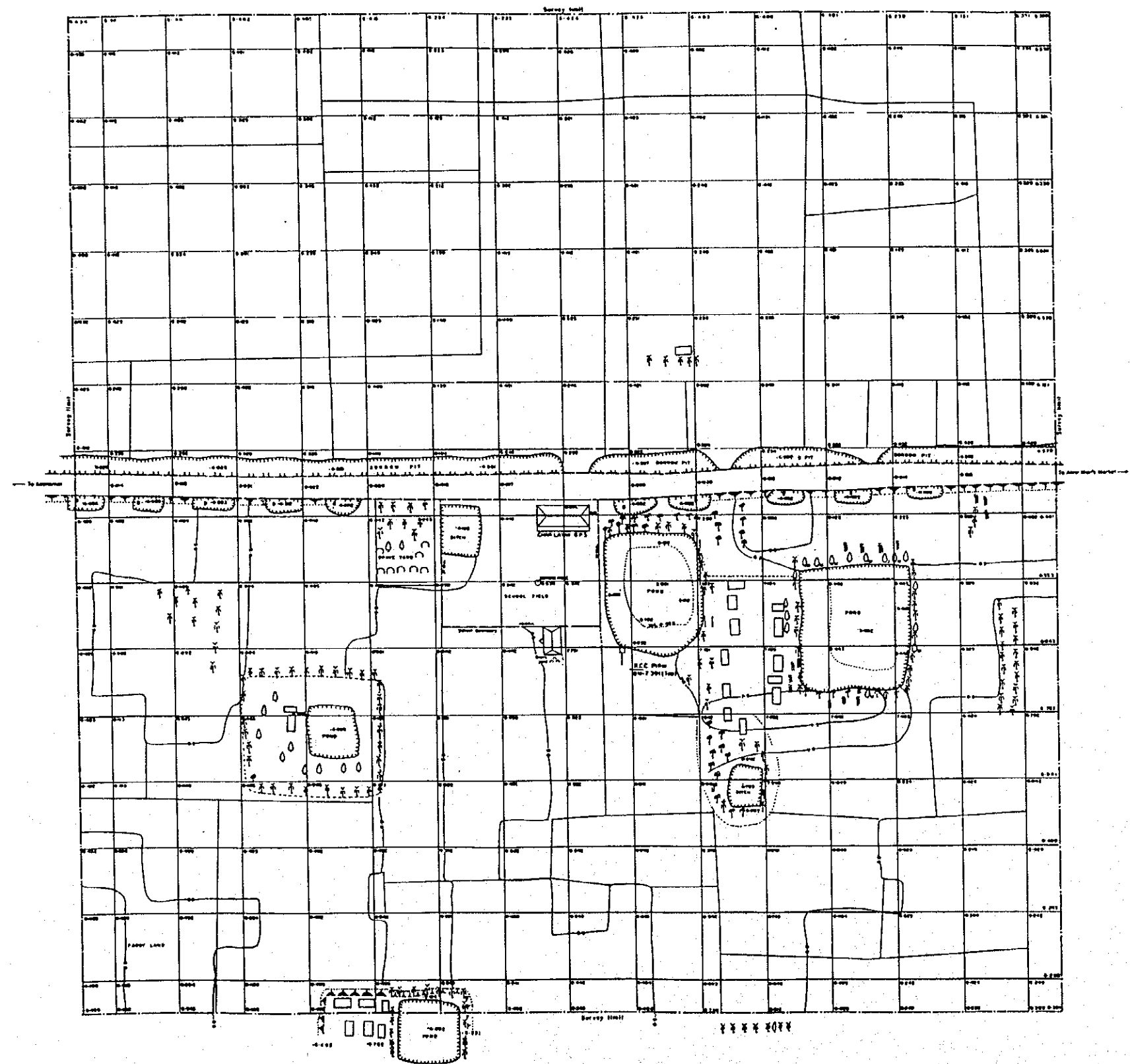
Low tide water level m.

Area surveyed 9000 hectares.

Site No. III-9
Char Gazi GPS

SCALE: 1:500

CONSTRUCTION OF MULTIPURPOSE CYCLONE SHELTER		
SITE SURVEY PLAN		
AT CHAR GAZI G.P.S., CHARGAZI, RAMGATI, LAXMIPUR.		
CYCLONE SHELTER NO. 30		
Client: JICA BASIC DESIGN STUDY TEAM		
Surveyed by: BANGLADESH SURVEY ORGANISATION LTD.		
No. ROAD NO. 5, DAKSHINON P.O., DHAKA-1205		
APP - 1995	Drawn by: A. K. M. M. M.	Submitted: [Signature]



- LEGEND
- 1. Structure: Semi permanent, Temporary, etc.
 - 2. Road, Unsurfaced, Embankment.
 - 3. Pond, Dam, Barrage, Canal.
 - 4. Survey limit, Line of road, Field, etc.
 - 5. Home Stead, Agricultural Land.
 - 6. Bench Mark (BM), Control B. Spot height.
 - 7. Tree, Canal, Dam, etc., Temporary Structure.

NOTE:

Height reduced from BM RL, 5480m marked on the road wall of Street 20m over Char Laxmi Khat in the Stage I plan.

All heights are in terms of MGD Datum.

Control interval is 0.50 meters.

Highest Flood Level 12.000 m. as HFD (from spot elevation).

Normal flood level: 9.000 m.

High Tide Water level: 8.000 m.

Low Tide Water level: 7.000 m.

Area Surveyed: 900 hectares.

Site No.III-10
Char Laxmi GPS

SCALE: 1:500

CONSTRUCTION OF MULTIPURPOSE CYCLONE SHELTER

SITE SURVEY PLAN

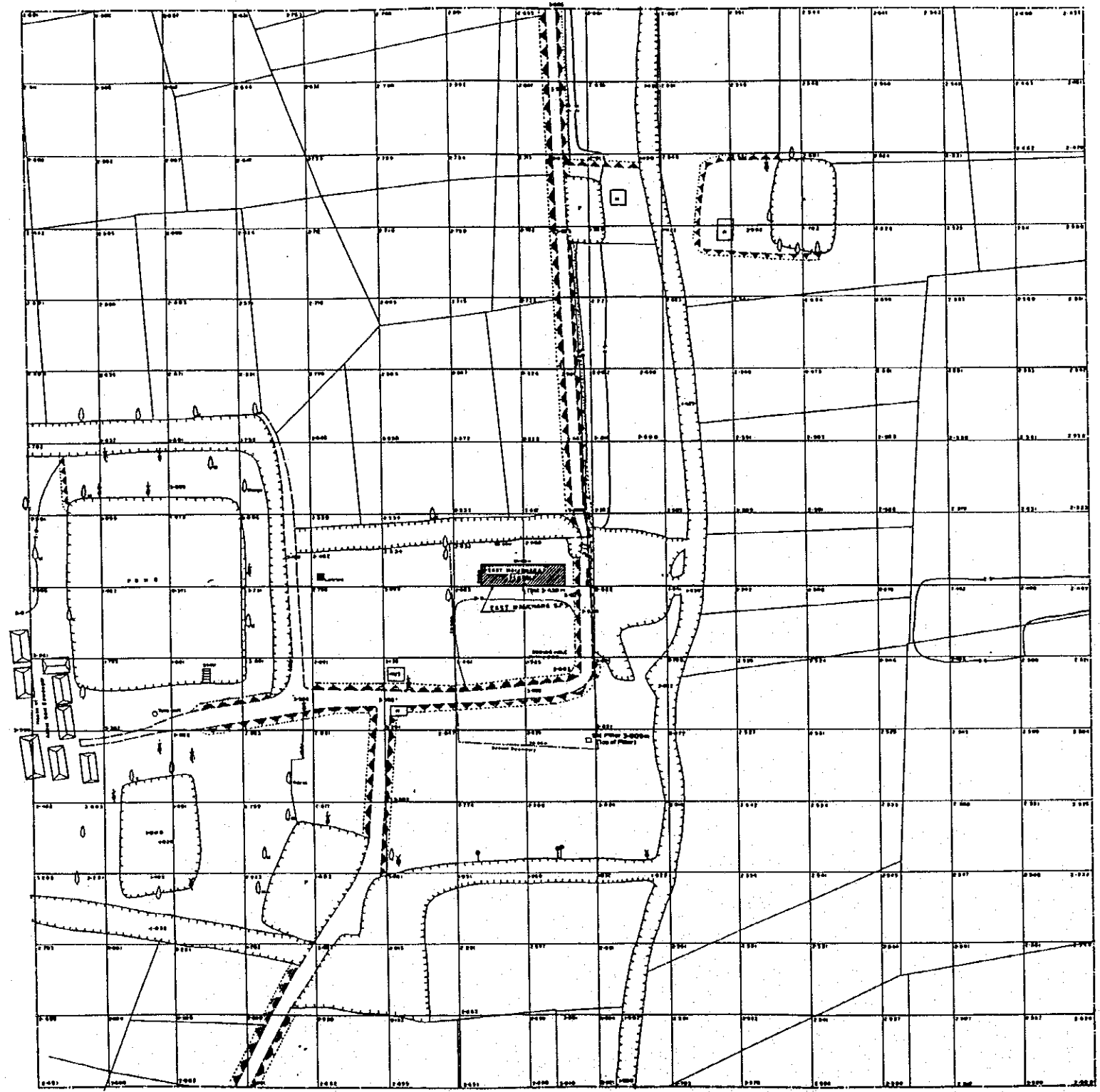
AT CHAR LAXMI G.P.S CHAR CLARK, HOAKHLI SADAR, CYCLONE SHELTER NO. 43

Client: JICA BASIC DESIGN STUDY TEAM

Surveyed by: BANGLADESH SURVEY ORGANISATION LTD.
40, ROAD NO. 3, BANARHATI P.O., DHAKA-1203

APS - 1995 Surveyed by: M. Islam
Drawn by: S. C. Islam

Submitted: K. P. D.



- LEGEND
- 1. Structure, Perimeter, Semi-permanent, To show, Not
 - 2. Road, Unmetalled, Unimproved, Embankment
 - 3. Pond, Dam, Barrage, etc.
 - 4. Survey limit, Line of retained land, etc.
 - 5. Name Street, Agricultural Land
 - 6. Bench mark (BM), Control B. Spot height
 - 7. Trees, Column, Open space, etc. as per B. Order

NOTE.

Height reduced from BM (RL 2.650 m) marked on the site and all other points over Bangladesh at Chittagong Bazar.

All heights are in terms of PWD datum.

Contour interval is 0.50 metre.

Highest Flood Level 3.967 metre in 1991 (from local information)

Normal Flood level 3.700 m.

High Tide water level 2.463 m.

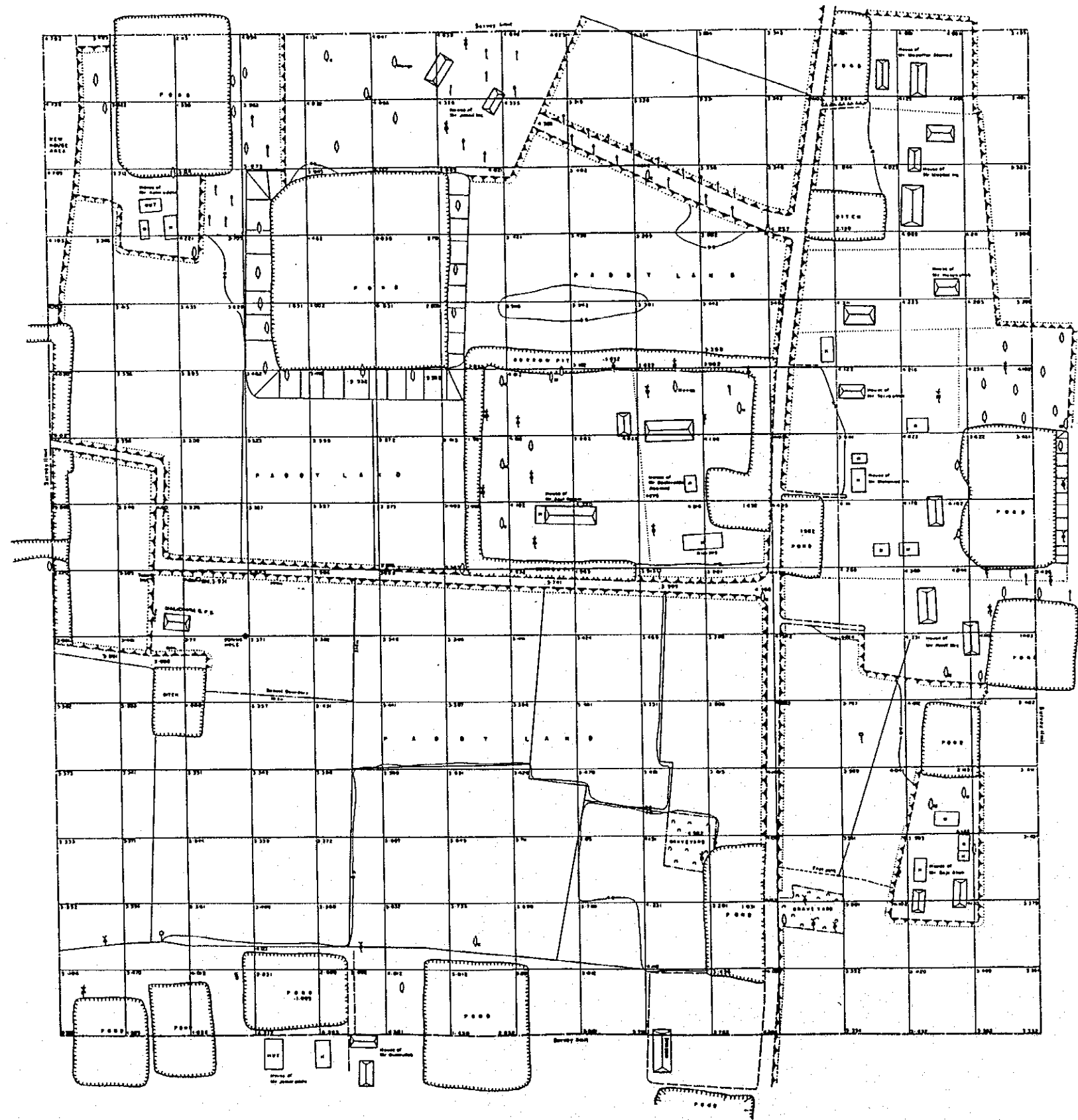
Low Tide water level 0.803 m.

Area Surveyed 9.000 hectares

Site No. III-12
East Majichara GPS

SCALE: 1:500

CONSTRUCTION OF MULTIPURPOSE CYCLONE SHELTER		
SITE SURVEY PLAN		
AT EAST MAJICHARA GPS, SONADIA, HATIA, HOAKHALL, CYCLONE SHELTER NO. 50		
Client: JICA BASIC DESIGN STUDY TEAM		
Surveyed by: BANGLADESH SURVEY ORGANISATION LTD. 46, ROAD NO. 5, SHARONDI K/A, DHAKA-1205		
APR - 1999	Drawn by: P. Chatterjee	Submitted: K.S.A.



- LEGEND
- 1. Structure, Semi permanent, To shed, Hut
 - 2. Road, Unimproved, Embankment
 - 3. Pond, Open, Burrowed, Hut
 - 4. Survey line, Limit of road, Field bound
 - 5. Home shed, Agricultural Land
 - 6. Bench Mark (BM), Contour & Spot Height
 - 7. Trees, Coconut, Date palm, Terepalm & Others

NOTE:

Height measured from BM (RL 5.254 m) marked on the head wall of gate gate no. 36/A near Burrowed shed

All heights are in terms of P.W.D Datum

Contour interval is 0.50 metre.

Highest Flood Level 3.93 m (B.S) (from local information).

Normal Flood level Nil.

High Tide Water level Nil.

Low Tide Water level Nil.

Area Surveyed 9.000 hectares

Site No. III-13
Majichara GPS

SCALE: 1:500

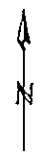
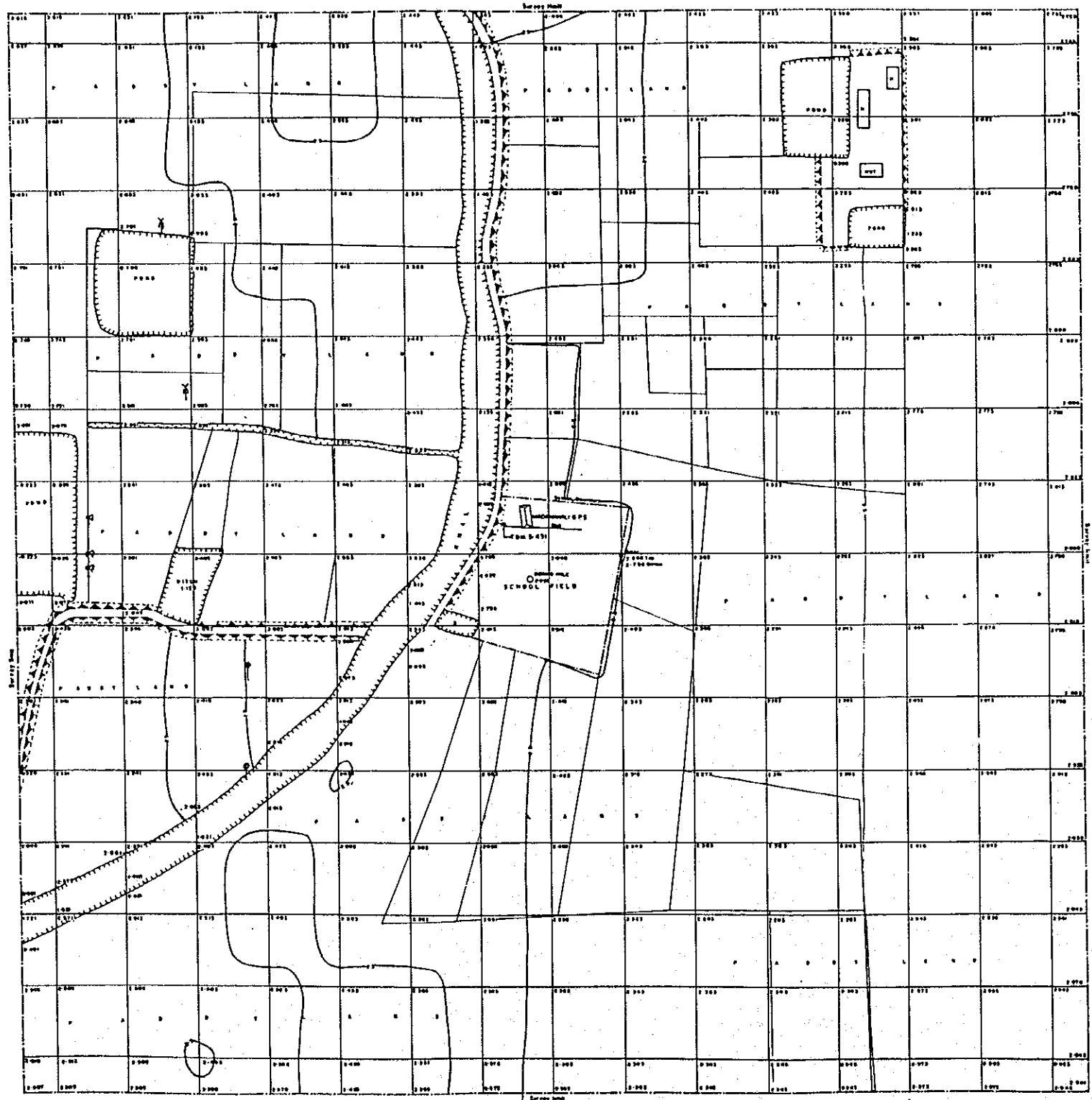
CONSTRUCTION OF MULTIPURPOSE CYCLONE SHELTER

SITE SURVEY PLAN
AT MAIJCHARA C.P.S. BURIRCHAR, HATIA, NOAKHALI
CYCLONE SHELTER NO. 86

Client: JICA BASIC DESIGN STUDY TEAM

Surveyed by: BANGLADESH SURVEY ORGANISATION LTD.
44, ROAD NO 3, DHAKA-1203

Drawn by: MUSA ARA



- LEGEND
- 1. Structure, Semi permanent, To shed, etc.
 - 2. Road, Unimproved, Encasement
 - 3. Pond, Check, Barrage, etc.
 - 4. Survey line, Lines of force and, Plane table
 - 5. House shed, Agricultural Load
 - 6. Bench Mark (B.M.), Corner B. Surveying
- Tree, Casuarina, Durian, Nipa Palm & Others

NOTE

Height measured from B.M. (L. 2 & 50 m) marked on the site and of
 Spot height over datum sheet at Chittagong Bazar
 All heights are in terms of P.W.D. Datum
 Contour interval is 0.500 m
 Highest Flood Level 4.000 m (1991) (From level of maximum)
 Normal Flood level 2.040 m
 High Tide Water level 2.700 m
 Low Tide Water level 0.220 m
 Area Surveyed 9.000 hectares

Site No. III-14
 Madankhali GPS

SCALE: 1:500

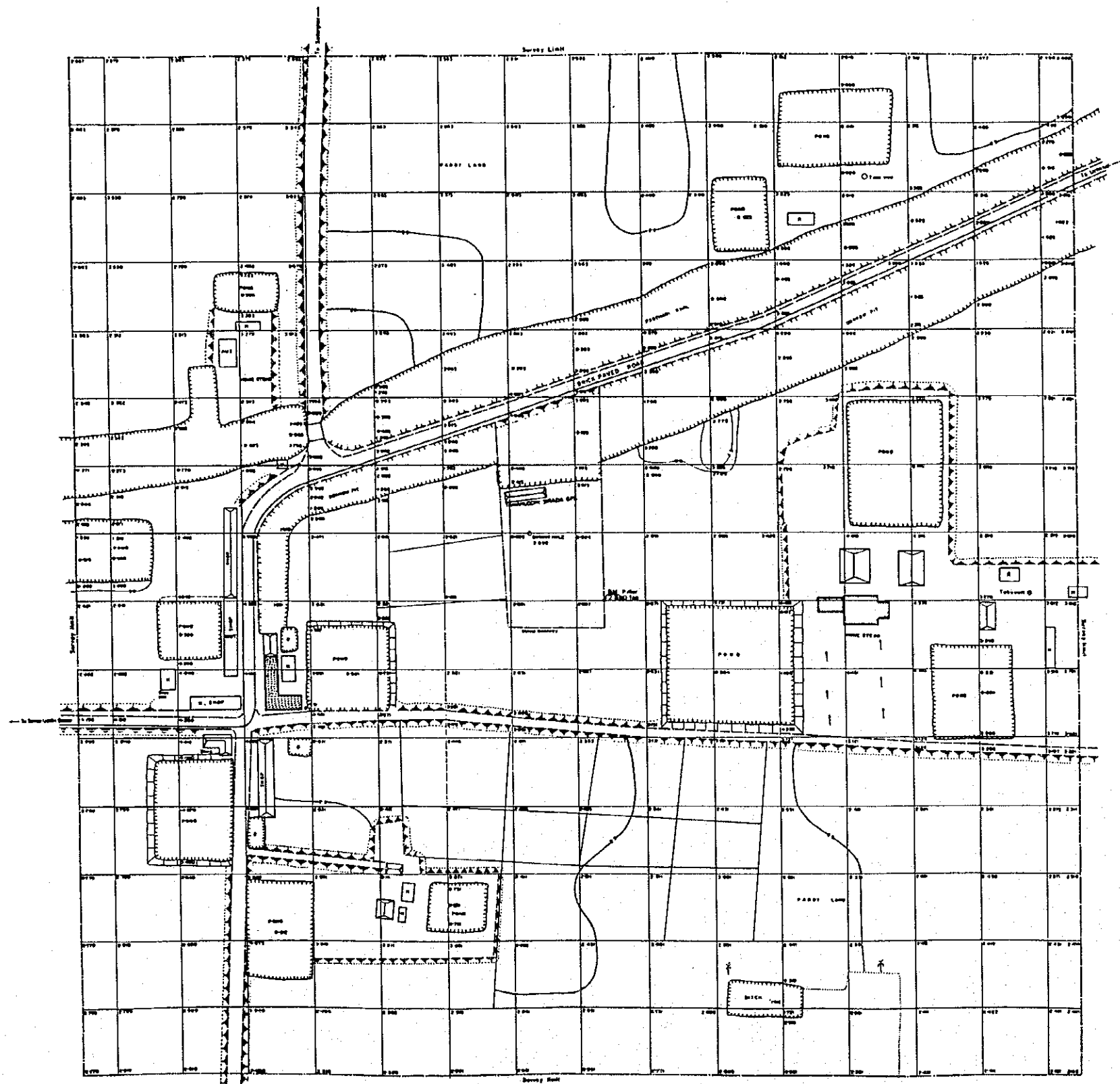
CONSTRUCTION OF MULTIPURPOSE CYCLONE SHELTER

SITE SURVEY PLAN
 AT MADANKHALI G.P.S. TAMARUDDIN, HATIA, NOARKHALI,
 CYCLONE SHELTER NO. 60

Client: JICA BASIC DESIGN STUDY TEAM

Surveyed by: BANGLADESH SURVEY ORGANISATION LTD.
 46, ROAD NO 5, SHARMOHA R/O, DHAKA-1203

APA-1823 Surveyed by: M. M. Hossain
 Drawn by: M. C. P. Hossain



LEGEND

1. Structure, Semi permanent, Temporary, etc.	
2. Road, Unimproved, Embankment, etc.	
3. Canal, Ditch, Barrage, etc.	
4. Survey boundary, Proposed, etc.	
5. Home, Street, Agricultural Land, etc.	
6. Bench Mark (BM), Contour & Spot height	
7. Trees, Coconut, Other palm, Turpentine & Others	

NOTE:
 Height received from BM (R.L. 2650m) measured on the level of
 steel pipe over Surveyed, level at Chittagong. Bazar
 All heights are in terms of PWD Datum
 Contour interval is 0.500m
 Highest Flood Level 4100 m (19m) from top of embankment
 Normal Flood Level 3624 m
 High Tide Water level 36
 Low Tide Water level 36
 Area Surveyed 9000 sqmeters

Site No. III-15
 Tamaruddin Sirajia GPS

SCALE: 1:500

CONSTRUCTION OF MULTIPURPOSE CYCLONE SHELTER

SITE SURVEY PLAN
 AT TAMARUDDIN SIRAJIA GPS, TAMARUDDIN, HATIA, NOAKHALI
 CYCLONE SHELTER NO. 61

CHART: JICA BASIC DESIGN STUDY TEAM

Surveyed by: BANGLADESH SURVEY ORGANISATION LTD.
 46, ROAD NO 2, DHAKA 1205

APR - 1982

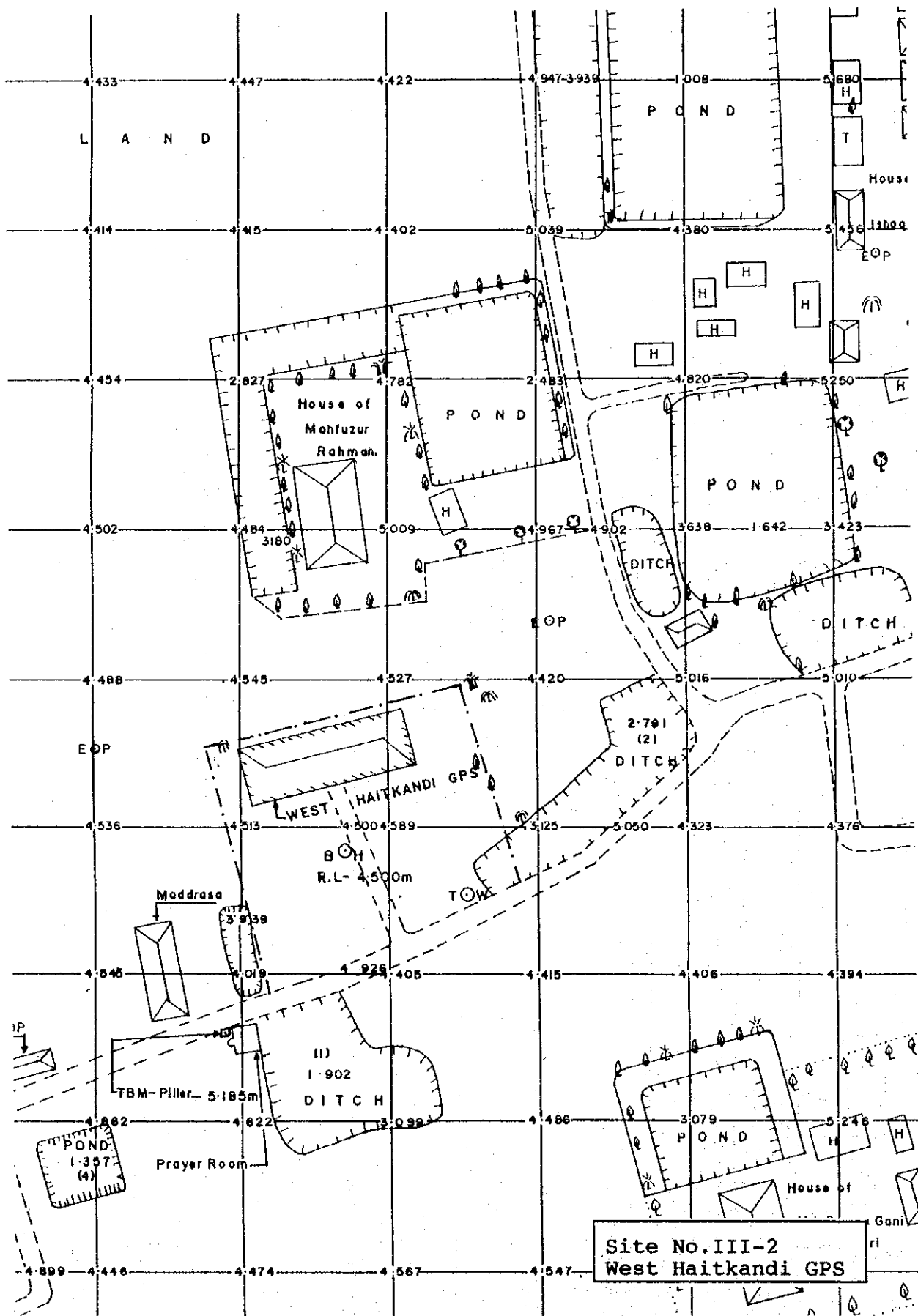
11-2 地質調査

(1) 調査内容

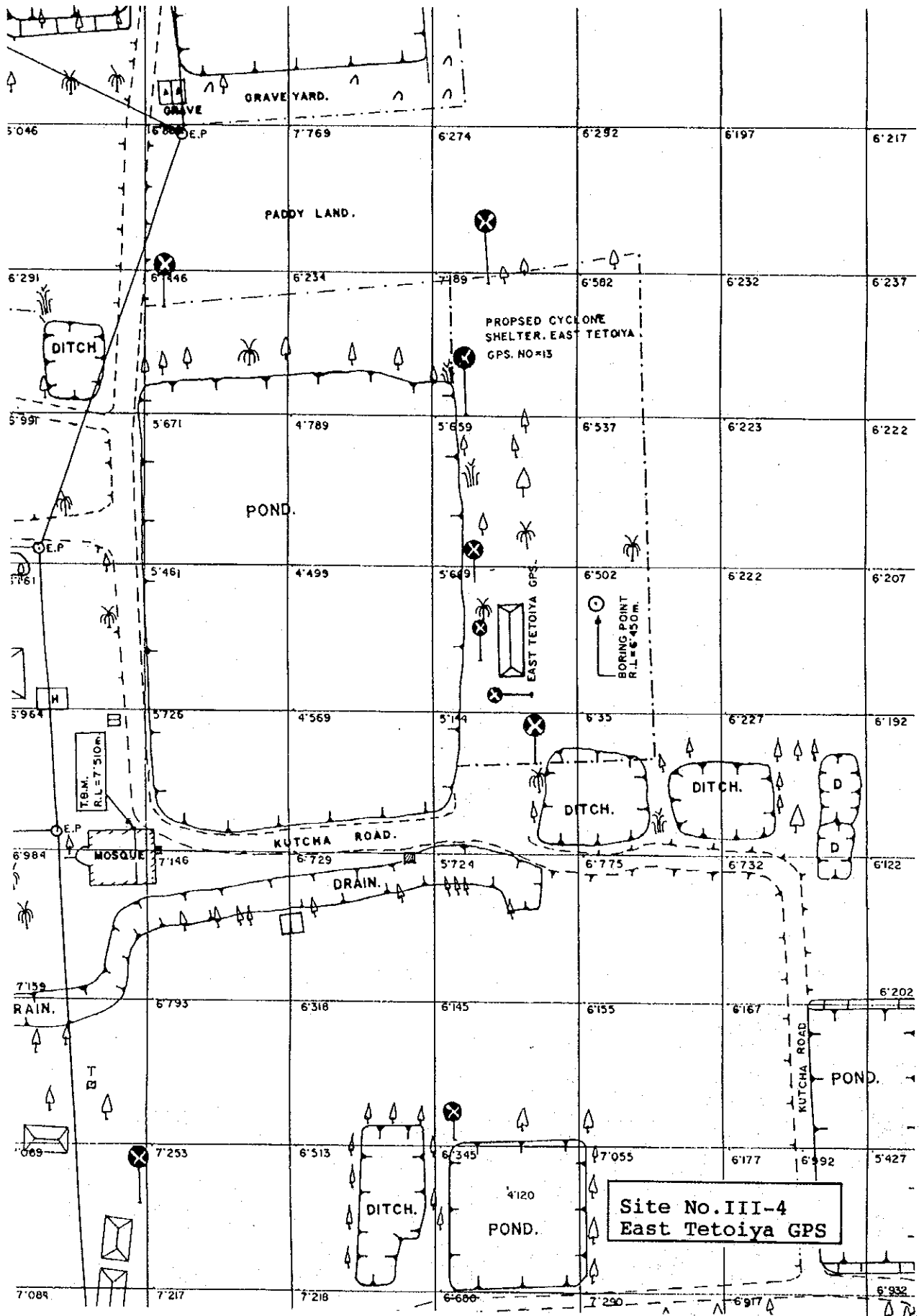
- 1) ボーリング(土質) : シェルター建設予定地において、シェルター1カ所あたり1本のボーリング調査を実施する。
なお、ボーリング深度は、各々支持層に達した地点から5m程度とするが、支持層がない場合は、1本あたり20mを目安とする。
- 2) 標準貫入試験 : 原則として1mごとに実施する。
- 3) 土質試験 : 一軸圧縮強度、粒度分布、自然含水比等を求める。

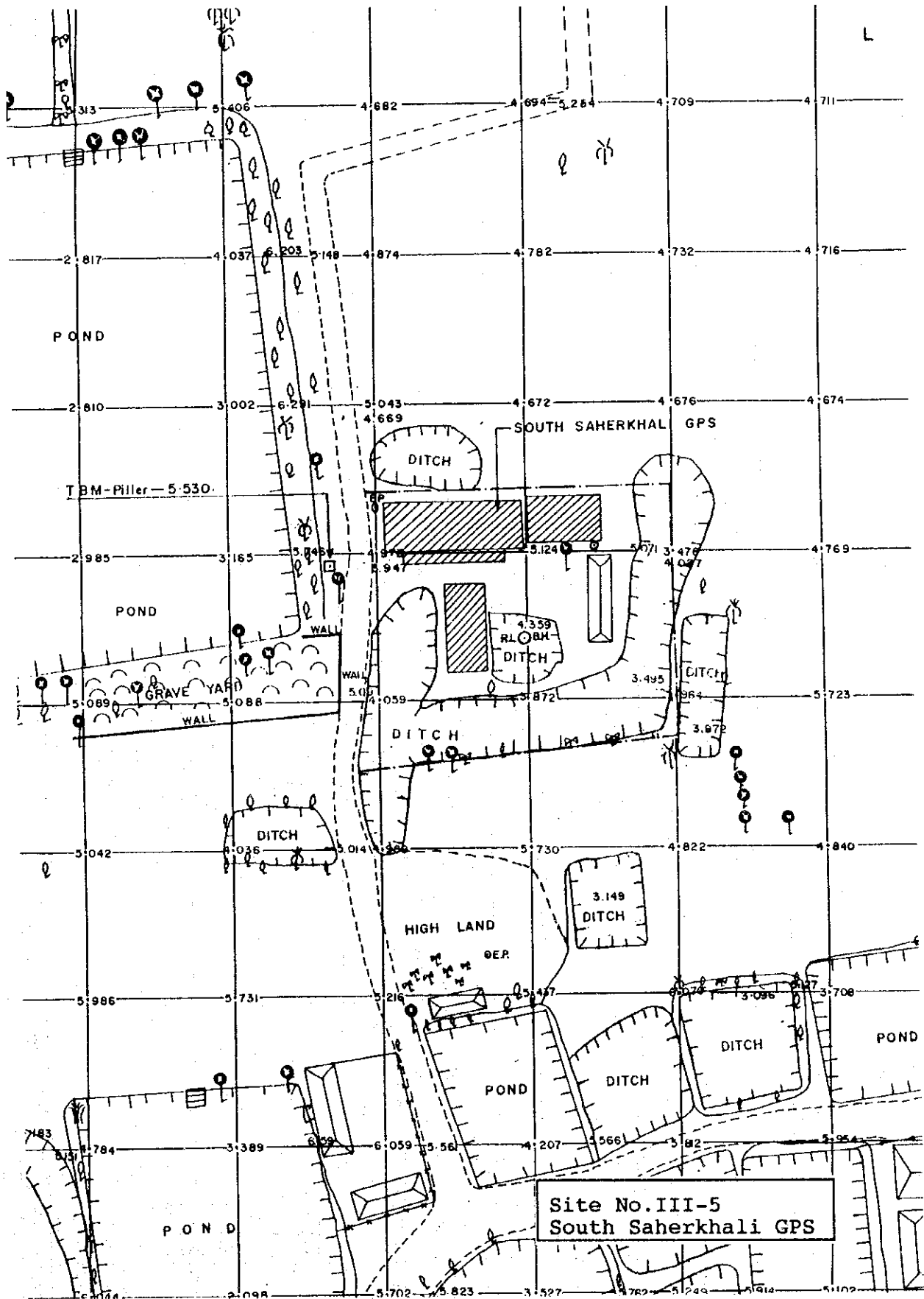
以上の地質調査結果については以下に示すとおりである。

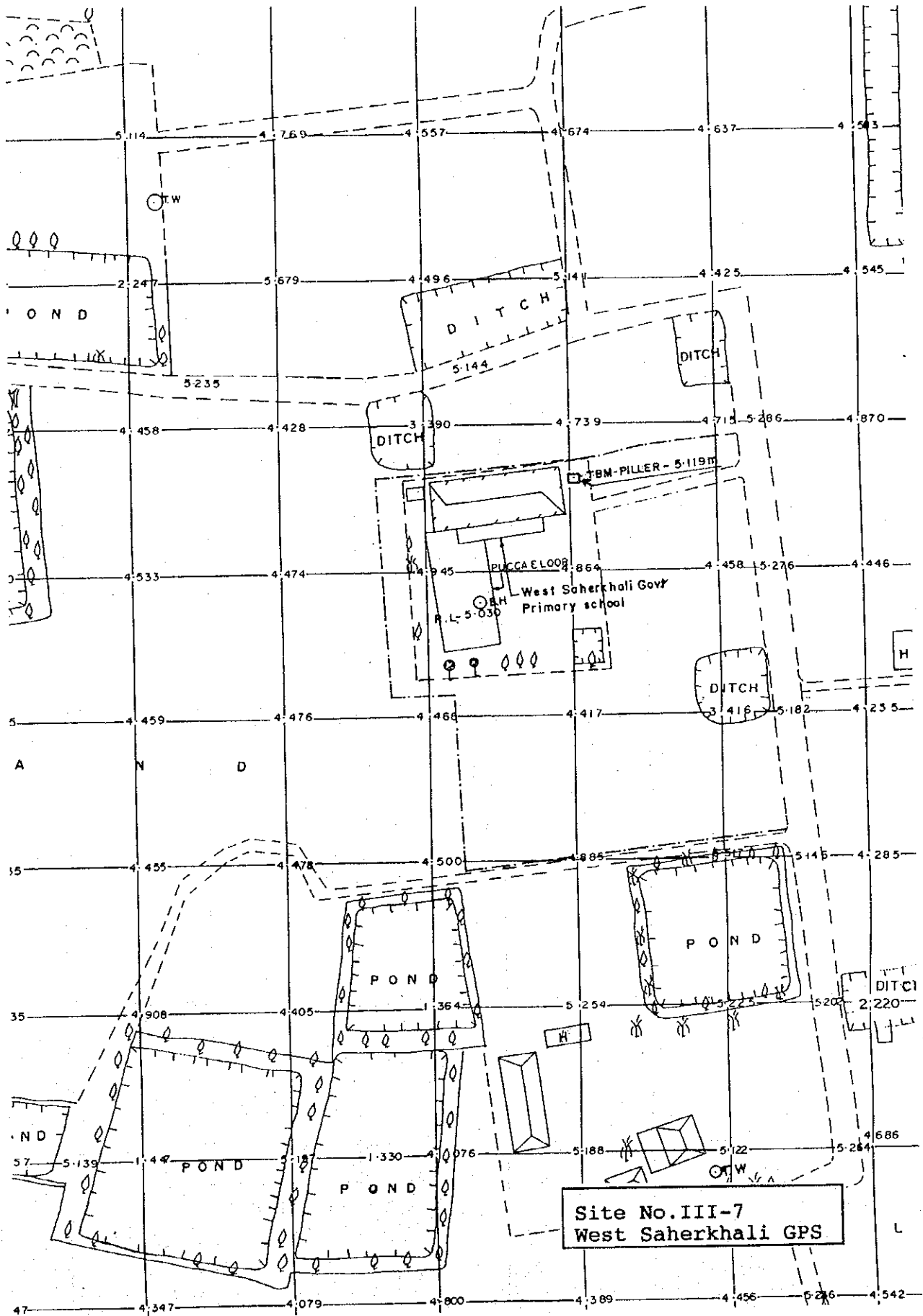
11-2-1 ボーリング調査位置図

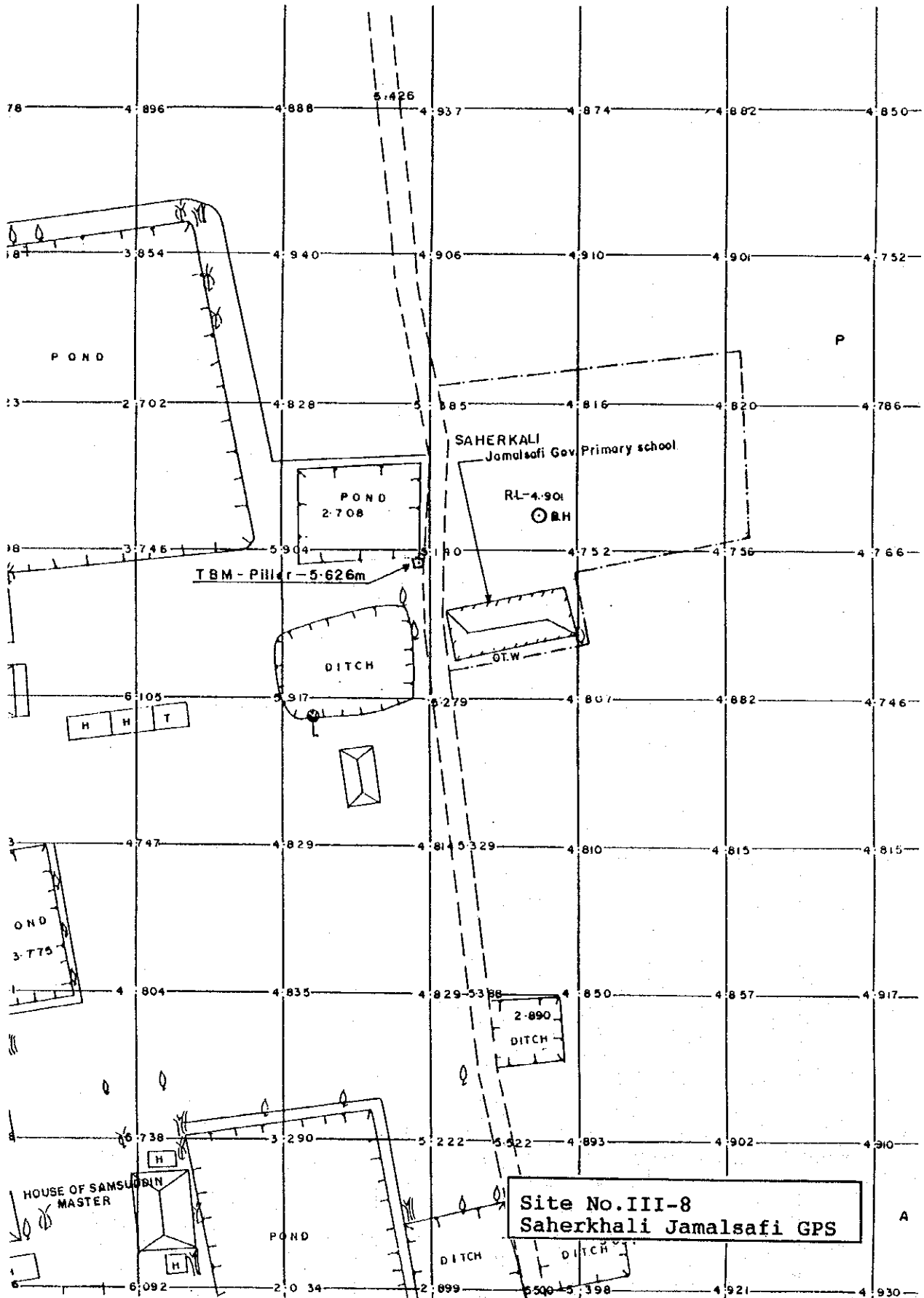


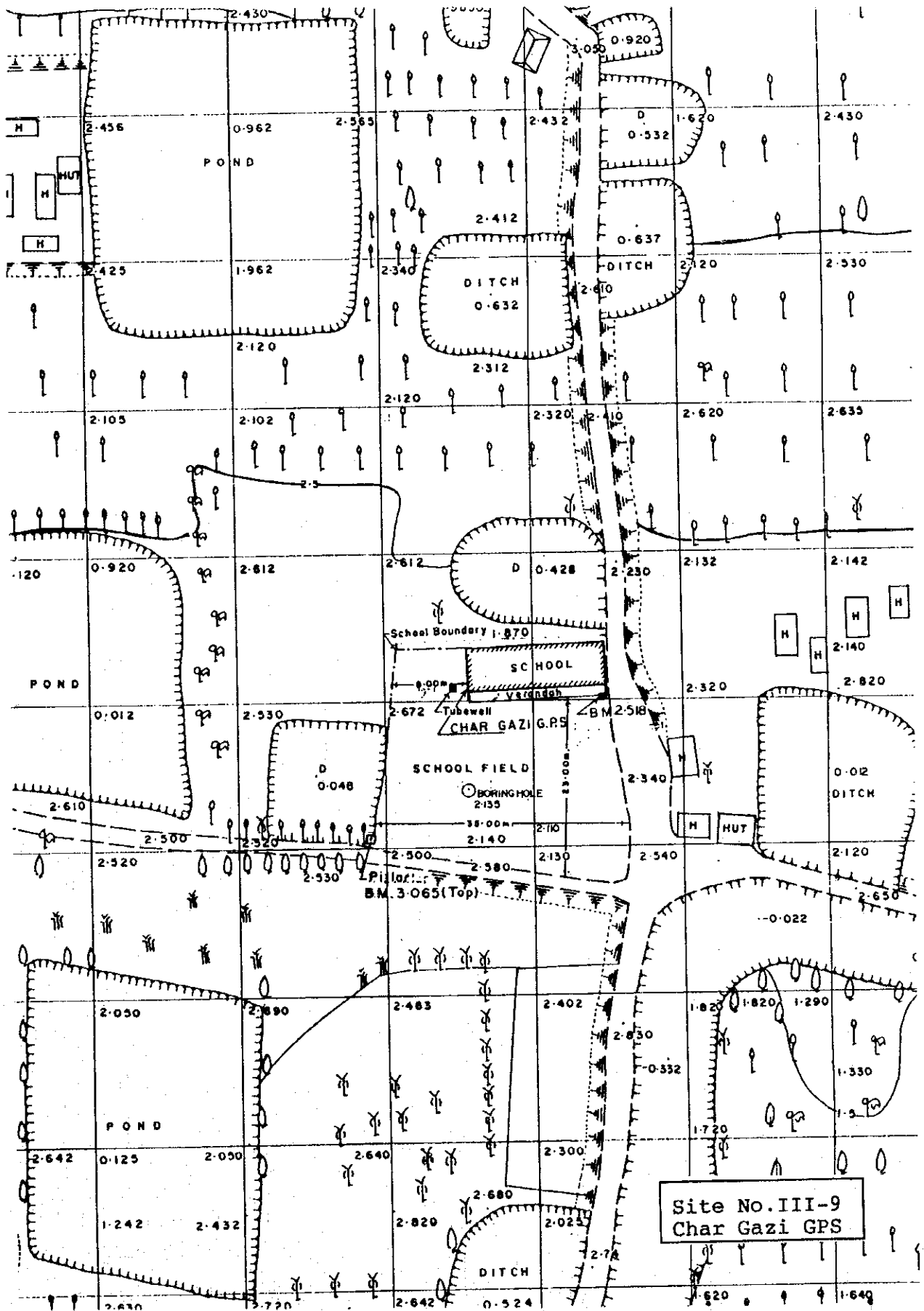
Site No. III-2
West Haitkandi GPS



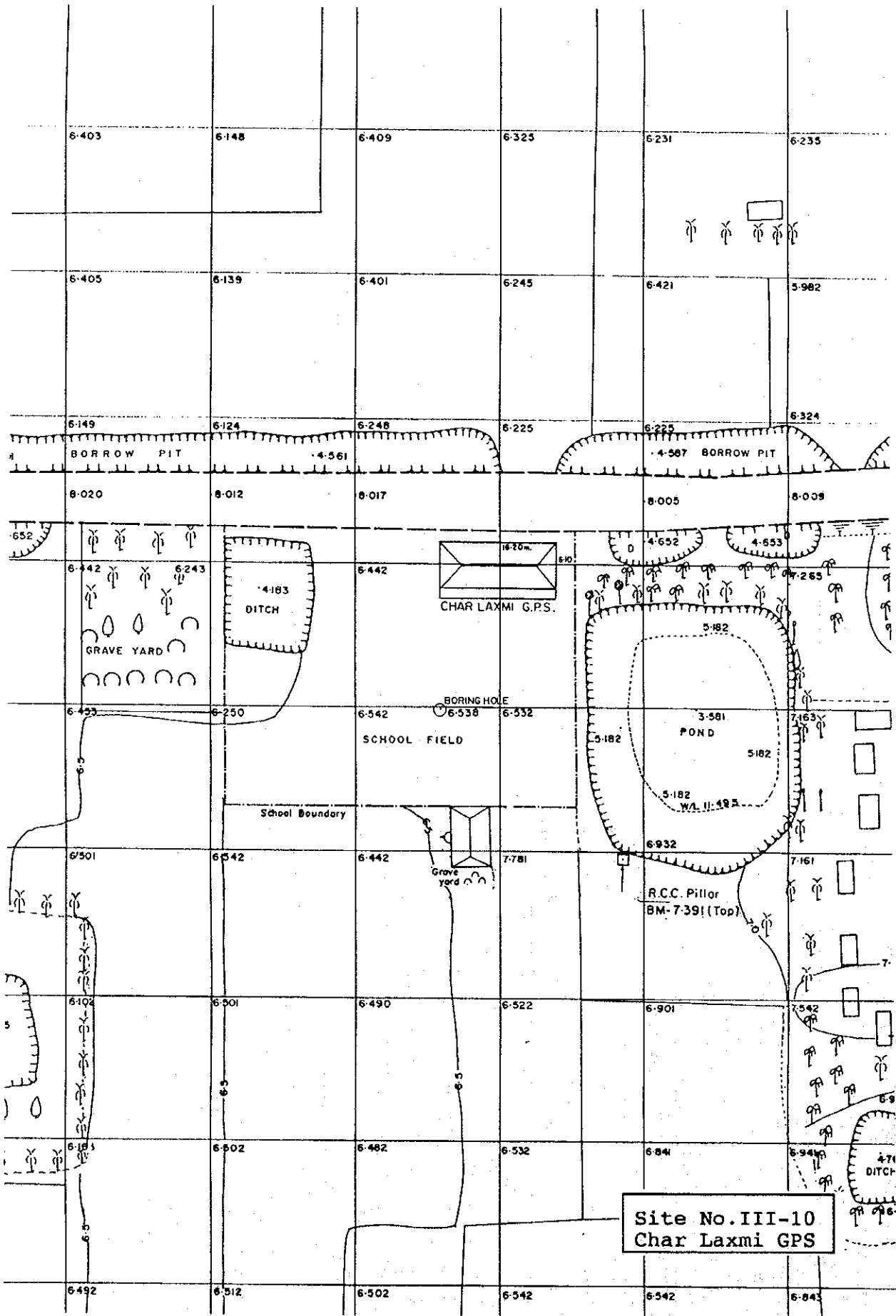




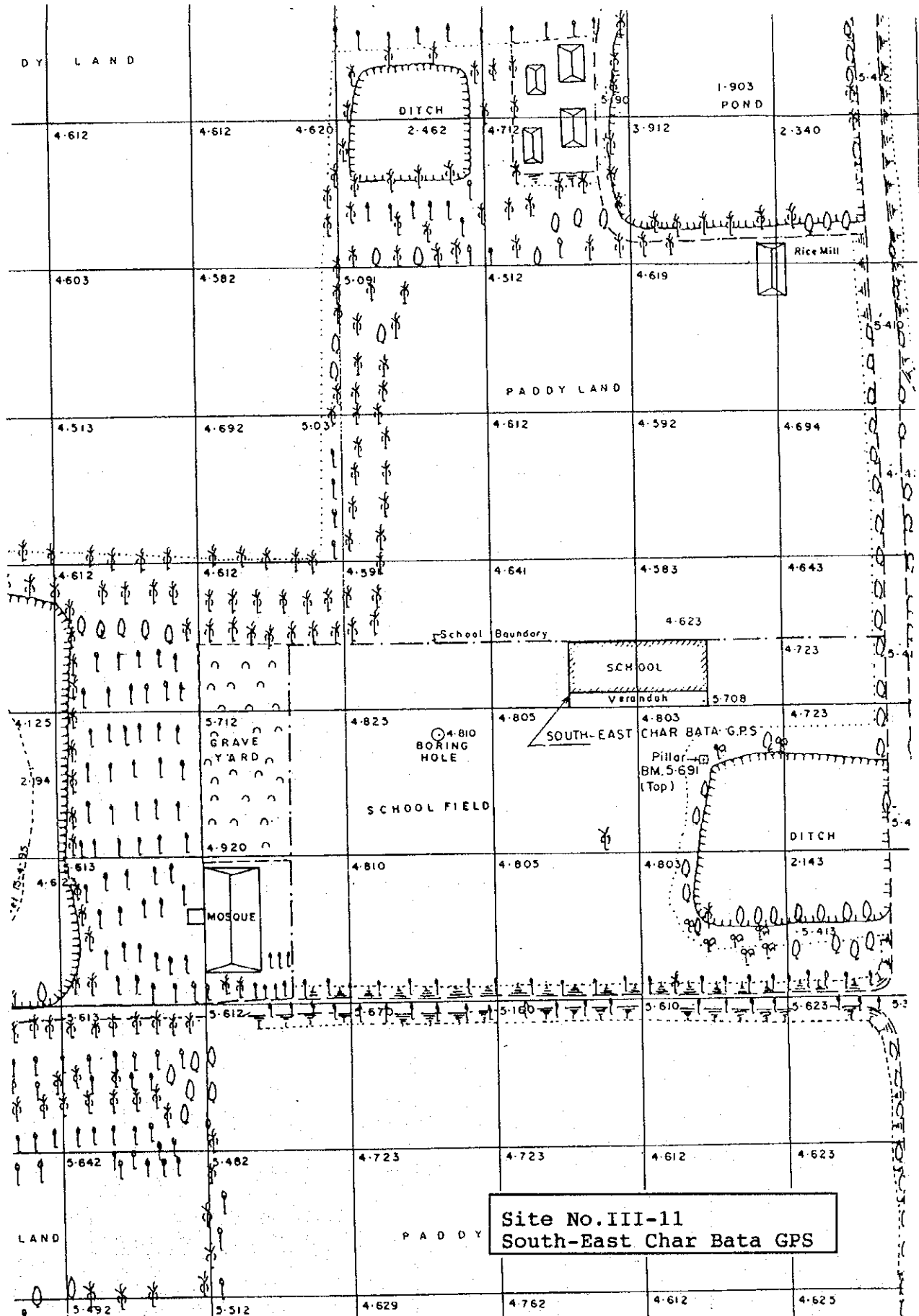


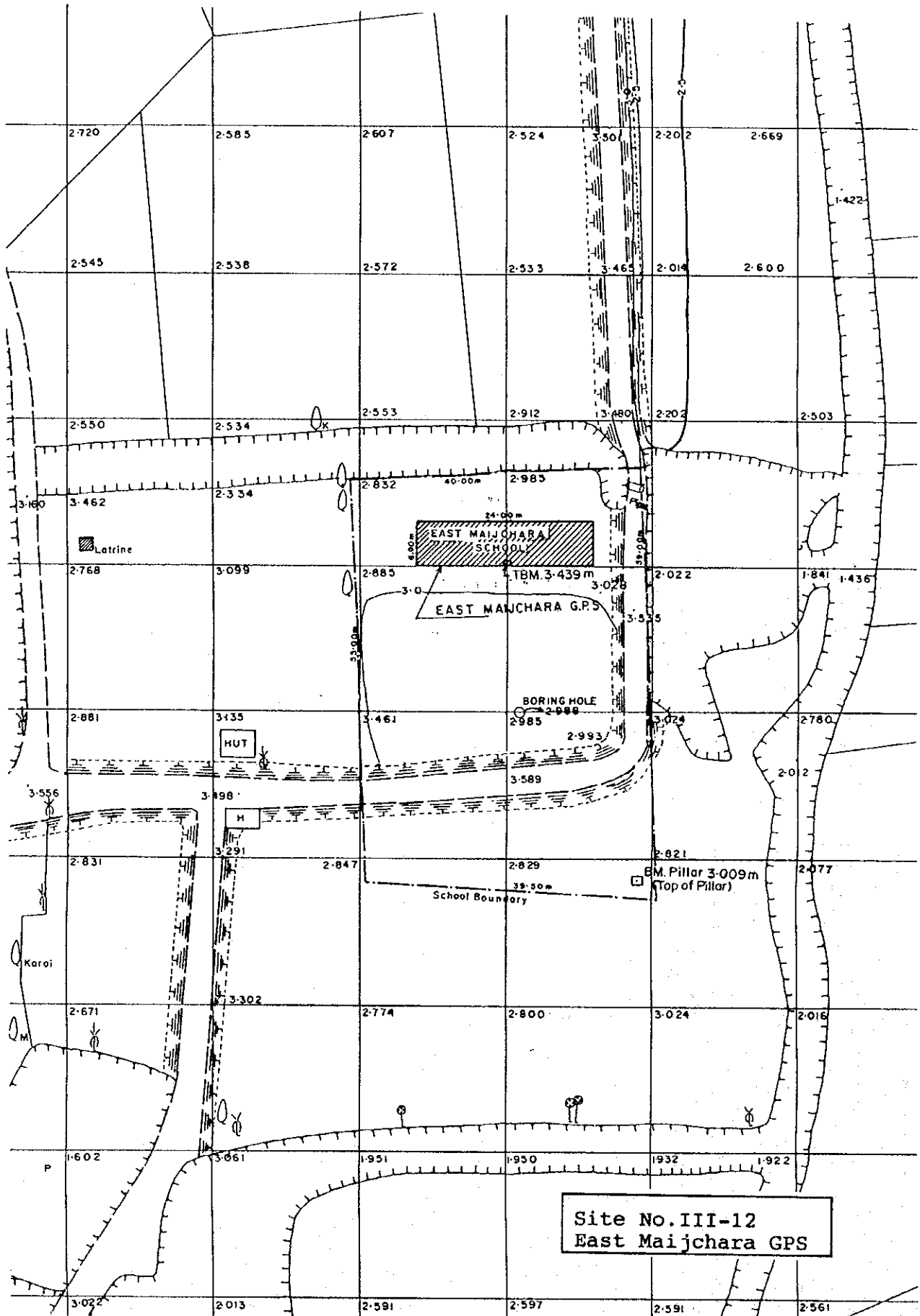


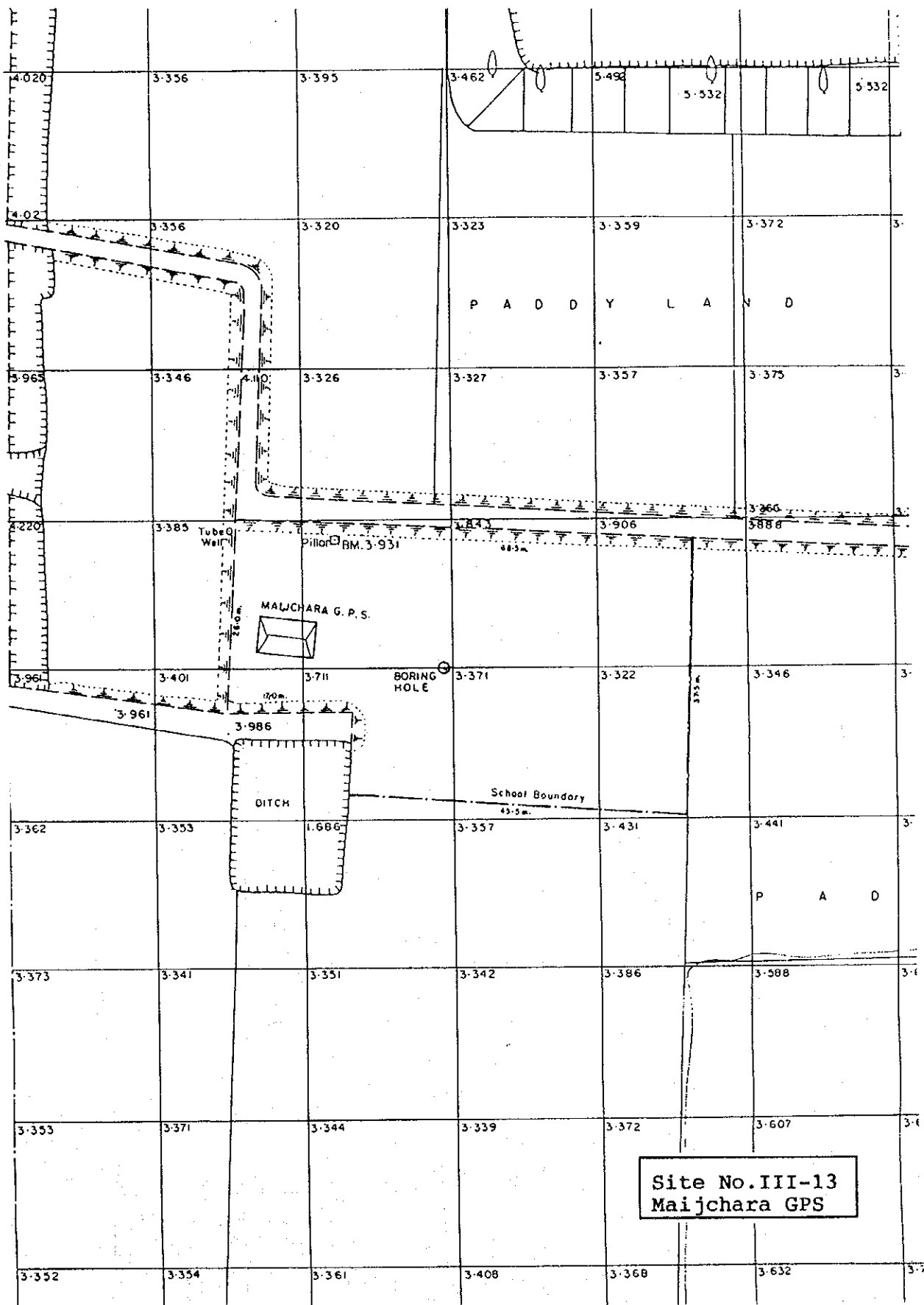
Site No. III-9
Char Gazi GPS

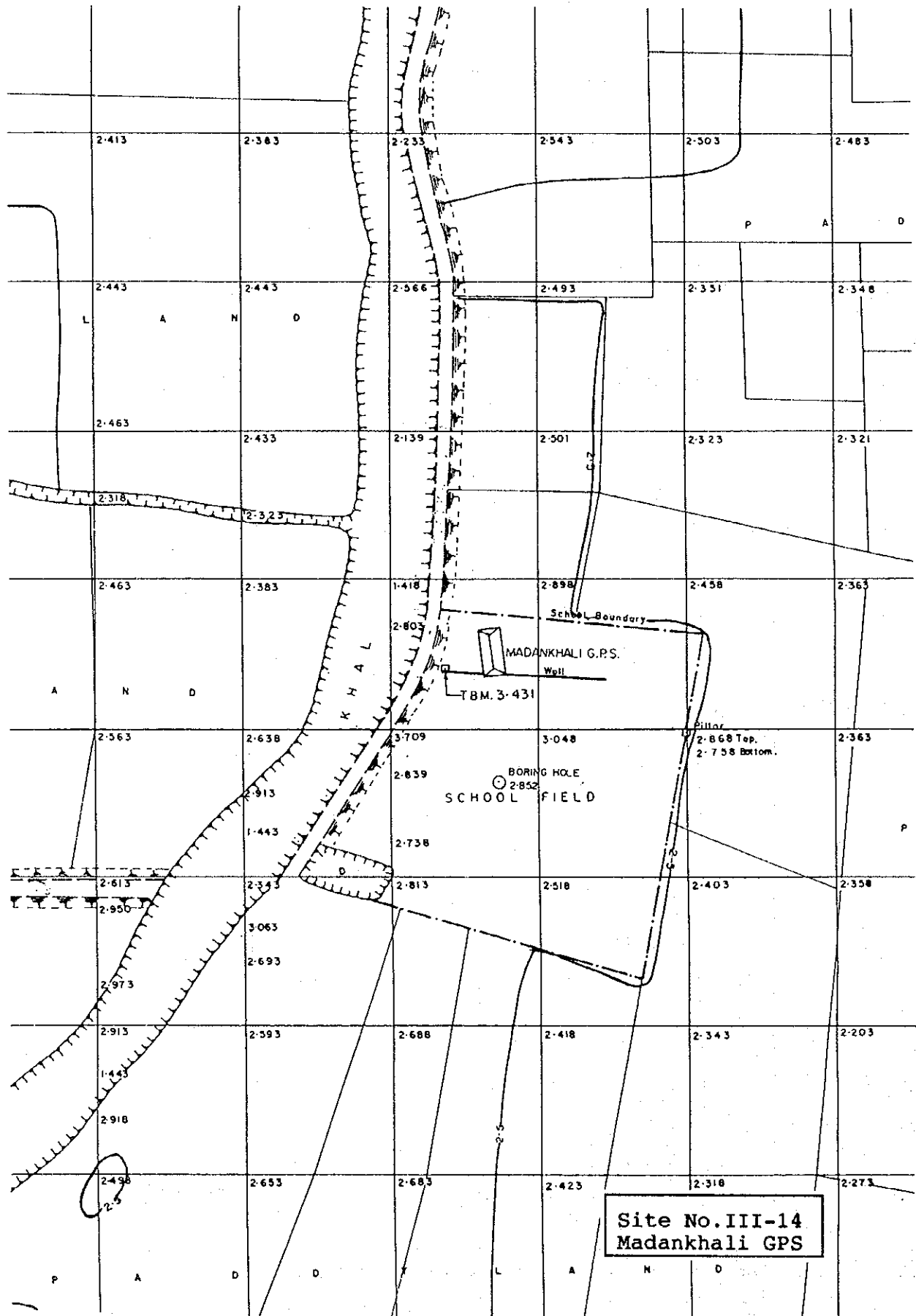


Site No. III-10
Char Laxmi GPS

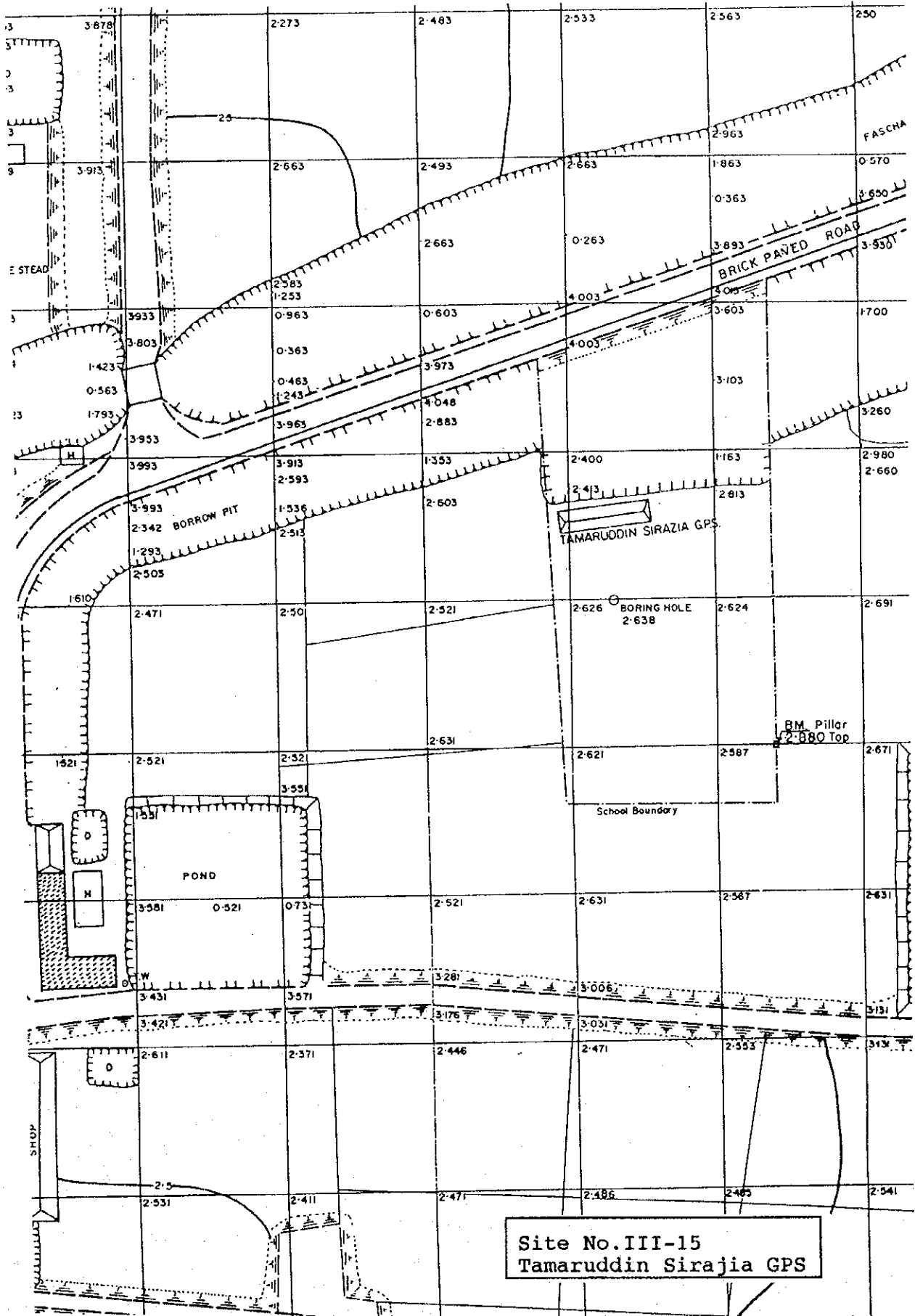








Site No. III-14
Madankhali GPS



Site No. III-15
 Tamaruddin Sirajia GPS

11-2-2 ボーリング柱状図

BORING LOG (Soil exploration)

MULTIPURPOS CYLONE SHELTER (PHASE-3)
PROJECT LOCATION (SITE NO. III-1)

Tingharia Tola Abu Taher G.P.S.
Moghada Miraharai , Chittagong

GROUND ELEVATION 4.604m

DATE OF INVESTIGATION

6, APR '95

DEPTH TO GROUND WATER
LEVEL IN HOLE

-2.80m

INVESTINGATED BY

STAFF m	ELE- VATION m	DE- PTH m	THICK- NESS m	FIELD OBSERVATIONAL DESCRIPTION				STANDARD PENETRATION TEST								SAMPLING									
				COLUMN SECTION (Graphic mark)	Soil or Rock NAME OF CLASSIFICATION	COLOR TONE	DESCRIPTION	Depth m	S INTER- PENE cm	Num of Blows Every 15cm			NUMBER OF BLOWS N						Sample No.	Depth m	Method				
										15 cm	30 cm	45 cm	0	10	20	30	40	50				60			
								1.00	14/30	4	6	8													
								2.00	10/30	3	4	6											2.05		
		2.10	2.50	2.50		SILT	Grey and Brown															U-1	2.50		
								3.00	6/30	2	2	4											U-2	3.00	
								4.00	5/30	2	2	3												3.45	
								5.00	5/30	1	1	4													
		-1.55	6.15	3.65		SILT	Grey	6.00	10/30	2	4	6													
								7.00	18/30	4	8	10													
								8.00	23/30	6	10	13													
								9.00	10/30	3	4	6													
								10.00	27/30	8	12	15													
		-6.20	11.20	5.15		Fine SAND	Grey	11.00	30/30	10	14	16													
								12.00	29/30	8	14	15													
								13.00	31/30	8	15	16													
		-9.50	14.10	2.80		SAND and SILT	Grey	14.00	36/30	10	15	21													
								15.00	51/30	15	21	30													
		-11.00	16.10	1.90		SAND	Grey	16.00	56/30	16	24	32													
17								17.00																	
18								18.00																	
19								19.00																	
20								20.00																	
21								21.00																	
22								22.00																	
23								23.00																	
24								24.00																	
25								25.00																	
26								26.00																	
27								27.00																	
28								28.00																	
29								29.00																	
30								30.00																	

BORING LOG (Soil exploration)

MULTIPURPOS CYLONE SHELTER (PHASE-3)
PROJECT LOCATION (SITE NO.111-2)

West Haitkandi G.P.S.

Haitkandi Mirsharai , Chittagong

GROUND ELEVATION 4,500m

DATE OF INVESTIGATION

4, APR '95

DEPTH TO GROUND WATER
LEVEL IN HOLE

-2.00m

INVESTIGATED BY

STAFF m	ELE- VATION m	DE- PTH m	THICK- NESS m	FIELD OBSERVATIONAL DESCRIPTION			STANDARD PENETRATION TEST													SAMPLING					
				COLUMN SECTION (Graphic mark)	Soil or Rock NAME OF CLASSIFICATION	COLOR TONE	DESCRIPTION	Depth m	N INTER- PENE- cm	Num of blows Every 15cm			NUMBER OF BLOWS N						Sample No.	Depth m	Me- thod				
										15 cm	30 cm	45 cm	0	10	20	30	40	50				60			
1	3.30	1.20	1.20	[Hatched pattern]	SILT, trace sand	Light brown grey	Compressible SILT, trace sand (medium stiff)	1.00	7/30	3	4	3													
2				[Horizontal line pattern]				2.00	3/30	2	2	1													
3	1.00	3.50	2.30	[Horizontal line pattern]	CLAY	Light brown grey	Medium plastic CLAY (soft)	3.00	2/30	1	1	1											U-1	3.00	
4				[Dotted pattern]				4.00	4/30	1	2	2													
5	-0.70	5.20	1.70	[Dotted pattern]	Sandy CLAY	Deep grey	Sandy CLAY, medium plastic (soft)	5.00	3/30	1	1	2													
6				[Vertical line pattern]				6.00	8/30	3	4	4													
7	-2.25	7.25	2.05	[Vertical line pattern]	SAND & SILT	Deep grey	Fine SAND & SILT (loose)	7.00	9/30	4	4	5													
8				[Vertical line pattern]				8.00	12/30	5	6	6													
9	-4.10	8.60	1.35	[Vertical line pattern]	SAND, some silt	Deep grey	Fine SAND, some silt (medium dense)	9.00	7/30	4	4	3											U-2	8.00	
10				[Vertical line pattern]				10.00	7/30	3	3	4													
11	-7.00	11.50	2.90	[Vertical line pattern]	SAND & SILT	Deep grey	Fine SAND & SILT (loose)	11.00	9/30	4	5	4													
12				[Dotted pattern]				12.00	6/30	3	3	3													
13	-8.50	13.00	1.50	[Dotted pattern]	Sandy CLAY	Deep grey	Sandy CLAY, medium plastic (medium stiff)	13.00	6/30	2	3	3													
14				[Vertical line pattern]				14.00	8/30	4	3	5													
15	-10.25	14.75	1.75	[Vertical line pattern]	SAND & SILT	Deep grey	Fine SAND & SILT (loose)	15.00	11/30	4	5	6											U-3	14.00	
16				[Vertical line pattern]				16.00	11/30	5	5	6													
17				[Vertical line pattern]				17.00	14/30	7	7	7													
18	-13.75	18.25	3.50	[Vertical line pattern]	SAND some silt	Grey	Fine SAND, some silt (medium dense)	18.00	15/30	7	8	7													
19				[Vertical line pattern]				19.00	16/30	7	8	8													
20	-16.00	20.50	2.25	[Vertical line pattern]	SAND some silt	Light grey	Fine SAND, some silt (medium dense)	20.00	15/30	8	7	8											U-3	13.00	
21				[Hatched pattern]				21.00	17/30	8	9	8													
22	-17.50	22.00	1.50	[Hatched pattern]	little silt	Light grey	Fine SAND, little silt (medium dense)	22.00	18/30	8	9	9													
23								23.00																	
24								24.00																	
25								25.00																	
26								26.00																	
27								27.00																	
28								28.00																	
29								29.00																	
30								30.00																	

BORING LOG (Soil exploration)

MULTIPURPOS CYLONE SHELTER (PHASE-3)
PROJECT LOCATION (SITE NO. III-3)

Alia Pathan G.P.S.

(East Isakhali Oli Khan)

Isakhali Mirsharai, Chittagong

GROUND ELEVATION 4.739m

DATE OF INVESTIGATION

6, APR '95

DEPTH TO GROUND WATER

LEVEL IN HOLE -2.70m

INVESTIGATED BY

STAFF m	ELE- VATION m	DE- PTH m	THICK- NESS m	FIELD OBSERVATIONAL DESCRIPTION			STANDARD PENETRATION TEST											SAMPLING												
				COLUMN SECTION (Graphic mark)	Soil or Rock NAME OF CLASSIFICATION	COLOR TONE	DESCRIPTION	Depth m	N INTER- PENE- TRATION	Num of blows Every 15cm			NUMBER OF BLOWS N						Sample No.	Depth m	Method									
										15 cm	30 cm	45 cm	0	10	20	30	40	50				60								
1	3.24	1.50	1.50		SILT	Grey and Brown	Brown medium stiff SILT with clay.	1.00	6/30	2	3	3																		
2											2.00	3/30	1	1	2															
3												3.00	4/30	1	2	2														
4					Clayey SILT	Grey	Soft clayey SILT trace fine sand.	4.00	2/30	0	1	1																		
5	-0.36	5.10	2.60								5.00	2/30	0	1	1															
6												6.00	2/30	1	1	1														
7	-2.36	7.10	2.60						SILT and SAND	Grey	Very loose SILT & fine SAND.	7.00	3/30	1	1	2														
8																8.00	28/30	7	12	16										
9					SAND	Grey	Medium dense fine to medium SAND with silt.	9.00	12/30	5	5	7																		
10												10.00	12/30	5	5	7														
11												11.00	16/30	6	7	9														
12												12.00	18/30	6	7	11														
13												13.00	18/30	6	6	12														
14	-9.26	14.50	7.40									14.00	21/30	4	7	14														
15												15.00	31/30	9	15	16														
16												16.00	36/30	10	17	19														
17								17.00	38/30	11	16	22																		
18								18.00	42/30	12	19	23																		
19								19.00	40/30	18	18	22																		
20	-15.26	20.00	5.80		SAND	Grey	Dense silty fine to medium SAND.	20.00	41/30	20	19	22																		
21												21.00																		
22												22.00																		
23												23.00																		
24												24.00																		
25												25.00																		
26												26.00																		
27												27.00																		
28												28.00																		
29												29.00																		
30								30.00																						

BORING LOG (Soil exploration)

MULTIPURPOS CYLONE SHELTER (PHASE-3)
PROJECT LOCATION (SITE NO. III-4)

East Tetoia G.P.S.

GROUND ELEVATION 6,450m

DATE OF INVESTIGATION

7, APR '95

Katachara Mirsharai, Chittagong

DEPTH TO GROUND WATER
LEVEL IN HOLE

-3.10m

INVESTINGATED BY

STAFF m	ELE- VATION m	DE- PTH m	THICK- NESS m	FIELD OBSERVATIONAL DESCRIPTION			STANDARD PENETRATION TEST										SAMPLING								
				COLUMN SECTION (Graphic mark)	Soil or Rock NAME OF CLASSIFICATION	COLOR TONE	DESCRIPTION	Depth m	N INTER- PENE- ON	Num of Blows Every 15cm			NUMBER OF BLOWS N						Sample No.	Depth m	Me- thod				
										15 cm	30 cm	45 cm	0	10	20	30	40	50				60			
1								1.00	8/30	3	4	4													
2	4.35	2.10	2.10		SILT	Grey	Medium stiff to soft SILT with clay trace fine sand	2.00	3/30	1	1	2													
	3.75	2.70	0.60		SAND	Grey	Medium dense fine to medium SAND trace sil	3.00	18/30	6	9	9													
3					SAND and SILT	Grey	Medium dense fine SAND & SILT	4.00	12/30	3	6	6													
4	2.35	4.10	1.40					5.00	16/30	7	10	6													
5								6.00	17/30	6	7	10													
6								7.00	14/30	4	6	8													
7								8.00	20/30	9	10	10													
8	1.65	8.10	4.00		fine SAND	Grey	Medium dense fine SAND with sil	9.00	40/30	9	17	23													
9								10.00	42/30	10	18	24													
10								11.00	37/30	15	18	19													
11								12.00	51/30	14	23	28													
12								13.00	42/30	14	20	22													
13								14.00	42/30	13	18	24													
14	7.55	14.00	5.90	silty SAND	Grey	Dense to very dense silty fine SAND	15.00																		
15							16.00																		
16							17.00																		
17							18.00																		
18							19.00																		
19							20.00																		
20							21.00																		
21							22.00																		
22							23.00																		
23							24.00																		
24							25.00																		
25							26.00																		
26							27.00																		
27							28.00																		
28							29.00																		
29							30.00																		

BORING LOG (Soil exploration)

MULTIPURPOS CYLONE SHELTER (PHASE-3)
PROJECT LOCATION (SITE NO. III-3)

GROUND ELEVATION 4.359m DATE OF INVESTIGATION 4, APR '95

South Saher Khari G.P.S.

DEPTH TO GROUND WATER
LEVEL IN HOLE -2.00m

INVESTIGATED BY

Saher Khari Mirsharai, Chittagong

STAFF m	ELE- VATION m	DE- PTH m	THICK- NESS m	FIELD OBSERVATIONAL DESCRIPTION			STANDARD PENETRATION TEST											SAMPLING							
							COLUMN SECTION (Graphic mark)	Soil or Rock NAME OF CLASSIFICATION	COLOR TONE	DESCRIPTION	Depth m	N INTER-PENE cm	Blows per Scan			NUMBER OF BLOWS N						Sample No.	Depth m	Method	
				15 cm	30 cm	45 cm							0	10	20	30	40	50	60						
1				CLAY		Light brown & grey	Medium plastic CLAY (medium)	1.00	4/30	2	2	2													
2	2.16	2.20	2.20					2.00	4/30	2	2	2													
3		1.26	3.00	0.80	Sandy CLAY	Brown and Grey	Sandy CLAY, medium plastic (medium)	3.00	4/30	2	2	2											U-1	3.00	
4				4.00	3/30			2	2	1															
5		-1.04	5.40	2.40	Sandy CLAY	Grey	Sandy CLAY medium plastic (medium)	5.00	3/30	2	1	2													
6				6.00	18/30			8	9	9															
7				7.00	19/30	8	10	9																	
8		-3.64	8.00	2.60	SAND little silt	Light Grey	Fine SAND, little silt (medium dense)	8.00	13/30	7	7	6											U-2	8.00	
9		-4.94	9.30	1.30	SAND some silt			Light brown grey	Fine SAND, some silt (medium dense)	9.00	6/30	4	3	3											
10				10.00	4/30	2	2			2															
11		-6.89	11.25	1.95	Sandy CLAY	Light grey	Sandy CLAY medium plastic (medium)	11.00	4/30	1	2	2													
12				12.00	4/30			2	1	3															
13				13.00	4/30	2	2	2																	
14				14.00	4/30	1	1	3																	
15		-11.41	15.50	4.25	CLAY, trace silt	Grey	Medium plastic CLAY, trace sand (medium stiff)	15.00	27/30	10	13	14										U-3	14.00		
16				16.00	32/30			15	16	16															
17				17.00	32/30	14	14	18																	
18		-13.89	16.25	2.75	SAND, trace silt	Brown Grey	Medium to fine SAND, trace silt (medium dense to dense)	18.00	36/30	17	18	18													
19				19.00	37/30			16	19	18															
20				20.00	34/30	18	17	17														U-4	19.00		
21		-15.64	21.00	2.75	SAND, trace silt	Light Grey	Medium to fine SAND, trace silt (dense)	21.00																	
22				22.00																					
23				23.00																					
24				24.00																					
25				25.00																					
26				26.00																					
27				27.00																					
28				28.00																					
29				29.00																					
30				30.00																					

BORING LOG (Soil exploration)

MULTIPURPOS CYLONE SHELTER (PHASE-3)
PROJECT LOCATION (SITE NO. III-7)

West Saherkhali G.P.S.

Saherkhali Mirsharai, Chittagong

GROUND ELEVATION 5.30m

DATE OF INVESTIGATION 6, APR '95

DEPTH TO GROUND WATER

LEVEL IN HOLE -2.00m

INVESTIGATED BY

STAFF m	ELE- VATION m	DE- PTH m	THICK- NESS m	FIELD OBSERVATIONAL DESCRIPTION			STANDARD PENETRATION TEST										SAMPLING						
				COLUMN SECTION (Graphic mark)	Soil or Rock NAME OF CLASSIFICATION	COLOR TONE	DESCRIPTION	Depth m	N INTER- PENE- TRATION	Num of blows Every 30cm			NUMBER OF BLOWS N						Sample No.	Depth m	Method		
										15 cm	30 cm	45 cm	0	10	20	30	40	50	60				
1								1.00	5/30	2	2	3											
2	2.53	2.50	2.50		CLAY	Light brown & grey	Medium plastic CLAY (medium stiff)	2.00	4/30	2	2	2											
3								3.00	4/30	2	2	2											3.00
4	0.53	4.50	2.00		CLAY	Light brown	Medium plastic CLAY (soft)	4.00	3/30	2	2	1											3.45
5								5.00	2/30	1	1	1											
6								6.00	3/30	1	1	2											
7	2.27	7.30	2.80		CLAY	Grey	Medium plastic CLAY (soft)	7.00	4/30	2	2	2											
8	2.97	8.00	0.70		Sandy CLAY	Grey	Sandy CLAY, medium plastic (medium stiff)	8.00	4/30	1	1	3											8.00
9								9.00	19/30	6	8	11											8.45
10								10.00	20/30	10	9	11											
11	6.17	11.20	3.20		SAND, some silt	Grey	Fine SAND, some silt (medium dense)	11.00	24/30	12	13	11											
12								12.00	3/30	3	2	1											
13								13.00	4/30	1	2	2											
14	9.57	14.60	3.40		Sandy CLAY	Grey	Sandy CLAY, medium plastic (soft)	14.00	3/30	2	1	2											14.00
15								15.00	6/30	2	3	3											14.45
16	11.37	16.40	1.80		Sandy CLAY	Grey	Sandy CLAY, medium plastic (medium stiff)	16.00	5/30	2	2	3											
17	12.67	17.20	1.30		SAND, little silt	Light brown	Fine SAND, little silt (dense)	17.00	35/30	8	13	12											
18								18.00	9/30	6	4	5											
19	14.47	19.50	1.80		Sandy CLAY	Grey	Sandy CLAY, medium plastic (soft)	19.00	11/30	5	6	5											19.00
20								20.00	12/30	5	6	6											19.45
21								21.00	12/30	6	5	7											
22	16.97	22.00	2.50		Sandy CLAY	Grey	Laminated sandy CLAY, medium plastic (stiff)	22.00	12/30	7	6	6											
23								23.00															
24								24.00															
25								25.00															
26								26.00															
27								27.00															
28								28.00															
29								29.00															
30								30.00															

BORING LOG (Soil exploration)

MULTIPURPOS CYLONE SHELTER (PHASE-3)
PROJECT LOCATION (SITE NO.III-8)

Saherkhari Jamalsafi G.P.S.

GROUND ELEVATION 4.901m

DATE OF INVESTIGATION 7. APR '95

Saherkhari Mirsharai, Cittagong

DEPTH TO GROUND WATER
LEVEL IN HOLE -2.50m

INVESTINGATED BY _____

STAFF m	ELE- VATION m	DE- PTH m	THICK- NESS m	FIELD OBSERVATIONAL DESCRIPTION			STANDARD PENETRATION TEST										SAMPLING								
				COLUMN SECTION (Graphic mark)	Soil or Rock NAME OF CLASSIFICATION	COLOR TONE	DESCRIPTION	Depth m	N INTER- PENE- CA	Num of blows Every 15cm			NUMBER OF BLOWS N						Sample No.	Depth m	Me- thod				
										15 cm	30 cm	45 cm	0	10	20	30	40	50				60			
1	3.40	1.50	1.50		CLAY	Redish brown & grey	Medium plastic CLAY (soft)	1.00	3/30	1	1	2													
2								2.00	3/30	1	1	2													
3	1.30	3.60	2.10		CLAY	Light brown & grey	Laminated CLAY, medium plastic (soft)	3.00	3/30	2	2	1													
4								4.00	2/30	1	1	1									U-1	1.45			
5	-0.50	5.40	1.80		CLAY	Light grey	Medium plastic CLAY (soft)	5.00	3/30	1	2	1													
6								6.00	2/30	1	1	1													
7								7.00	3/30	1	1	2													
8	-3.10	8.00	2.60		Sandy Clay	Grey	Laminated sandy CLAY, medium plastic (soft)	8.00	4/30	2	2	2													
9								9.00	32/30	15	15	17									U-2	8.00			
10								10.00	30/30	16	15	15													
11	-6.50	11.40	3.40		SAND some silt	Light grey	Fine SAND, some silt (medium dense to dense)	11.00	26/30	15	15	11													
12								12.00	7/30	10	4	3													
13								13.00	8/30	3	4	4													
14								14.00	7/30	4	3	4													
15								15.00	7/30	4	3	4									U-3	14.45			
16	-11.35	16.35	4.85		Sandy Clay	Grey	Laminated sandy CLAY, medium plastic (medium stiff)	16.00	7/30	3	3	4													
17								17.00	5/30	3	3	2													
18	-12.85	17.75	1.50		Sandy Clay	Deep grey	Laminated sandy CLAY, medium plastic (medium stiff)	18.00	7/30	2	3	4													
19								19.00	8/30	4	4	4													
20	-14.00	19.50	1.75		Sandy Clay	Grey	Laminated sandy CLAY, medium plastic (medium stiff)	20.00	13/30	5	6	7									U-3	19.00			
21								21.00	14/30	7	6	8													
22	-17.10	22.00	2.50		Sandy Clay	Light grey	Laminated sandy CLAY, medium plastic (medium stiff)	22.00	16/30	8	7	9													
23								23.00																	
24								24.00																	
25								25.00																	
26								26.00																	
27								27.00																	
28								28.00																	
29								29.00																	
30								30.00																	

BORING LOG (Soil exploration)

MULTIPURPOS CYLONE SHELTER (PHASE-3)
PROJECT LOCATION (SITE NO.111-9)

GROUND ELEVATION 2.135m

DATE OF INVESTIGATION 11, APR '95

Char Gazi G.P.S.

DEPTH TO GROUND WATER

-2.10m

INVESTIGATED BY

Char Gazi Ramgati, Laxmipur

LEVEL IN HOLE

-2.10m

STAFF m	ELE- VATION m	DE- PTH m	THICK- NESS m	FIELD OBSERVATIONAL DESCRIPTION			STANDARD PENETRATION TEST										SAMPLING				
				COLUMN SECTION (Graphic mark)	Soil or Rock NAME OF CLASSIFICATION	COLOR TONE	DESCRIPTION	Depth m	N INTER- PENE- CEN	Num of Blows Every 15cm			NUMBER OF BLOWS N						Sample No.	Depth m	Me- thod
										15 cm	30 cm	45 cm	0	10	20	30	40	50			
1							1.00	5/30	2	2	3										
2	0.26	2.10	2.10		SILT	Grey and Brown	2.00	5/30	2	2	3								2.05		
							3.00	4/30	1	2	2								2.50		
3							4.00	2/30	0	1	1								4.05		
4							5.00	4/30	1	2	2								4.50		
5							6.00	4/30	2	2	2								6.05		
6	3.97	6.10	4.00		SILT	Grey	7.00	6/30	2	3	3								6.50		
7							8.00	7/30	3	3	4								8.05		
8	6.02	8.15	2.05		SILT and SAND	Grey	9.00	11/30	4	5	6								8.50		
9							10.00	12/30	4	5	7										
10	8.02	10.15	2.00		SILT	Grey	11.00	25/30	8	12	13										
11							12.00	26/30	8	12	14										
12							13.00	46/30	12	20	26										
13							14.00	48/30	13	22	26										
14							15.00	52/30	10	24	28										
15							16.00	56/30	13	26	30										
16	13.87	16.00	5.85		SAND	Grey	17.00														
17							18.00														
18							19.00														
19							20.00														
20							21.00														
21							22.00														
22							23.00														
23							24.00														
24							25.00														
25							26.00														
26							27.00														
27							28.00														
28							29.00														
29							30.00														
30																					

BORING LOG (Soil exploration)

MULTIPURPOS CYLONE SHELTER (PHASE-3)
PROJECT LOCATION (SITE NO. III-10)

GROUND ELEVATION 6.538m

DATE OF INVESTIGATION

10, APR '95

Char Laxi G.P.S.

DEPTH TO GROUND WATER
LEVEL IN HOLE -3.10m

INVESTIGATED BY

Char Clark Ssadar, Noakhali

STAFF m	ELE- VATION m	DE- PTH m	THICK- NESS m	FIELD OBSERVATIONAL DESCRIPTION			STANDARD PENETRATION TEST										SAMPLING							
				COLUMN SECTION (Graphic mark)	Soil or Rock NAME OF CLASSIFICATION	COLOR TONE	DESCRIPTION	Depth m	N INTER- PENE- cm	Num of blows Every 15cm			NUMBER OF BLOWS N						Sample No.	Depth m	Me- thod			
										15 cm	30 cm	45 cm	0	10	20	30	40	50				60		
				[Diagonal hatching graphic]	SILT	Grey	Medium stiff to soft SILT with clay trace fine sand.	1.00	5/30	2	2	3								U-1	1.05			
1			2.00					5/30	1	2	3											1.50		
2			3.00					4/30	2	2	2											3.05		
3			4.00					1/30	0	0	1											3.50	U-2	
4			5.00					3/30	0	1	2											5.05		
5			6.00					3/30	1	1	2											5.50	U-2	
6	0.44	6.10	6.10	[Diagonal hatching graphic]	SILT and SAND	Grey	Loose SILT & fine to medium SAND	7.00	9/30	3	3	6												
7			8.00					6/30	2	3	3													
8	-1.76	8.20	2.20					9.00	26/30	10	12	14												
9			10.00					30/30	10	14	16													
10			11.00					40/30	12	18	22													
11			12.00					41/30	12	19	22													
12			13.00					36/30	14	17	19													
13			14.00					34/30	10	16	18													
14			15.00					34/30	8	17	17													
15			16.00					35/30	12	16	19													
16	-3.46	16.00	7.70					[Dotted graphic]	SAND	Grey	Medium dense to dense fine SAND with silt.	17.00												
17			18.00																					
18			19.00																					
19			20.00																					
20			21.00																					
21			22.00																					
22			23.00																					
23			24.00																					
24			25.00																					
25			26.00																					
26			27.00																					
27			28.00																					
28			29.00																					
29			30.00																					
30																								

BORING LOG (Soil exploration)

MULTIPURPOS CYLONE SHELTER (PHASE-3)
PROJECT LOCATION (SITE NO.111-12)

GROUND ELEVATION 2.988m

DATE OF INVESTIGATION

9, APR '95

East Majichara G.P.S.

DEPTH TO GROUND WATER
LEVEL IN HOLE -2.90m

INVESTIGATED BY

Sonadia Hatia Noakhali

STAFF m	ELE- VATION m	DE- PTH m	THICK- NESS m	FIELD OBSERVATIONAL DESCRIPTION			STANDARD PENETRATION TEST										SAMPLING								
				COLUMN SECTION (Graphic mark)	Soil or Rock NAME OF CLASSIFICATION	COLOR TONE	DESCRIPTION	Depth m	N INTER- PENE- CEN	Num of blows Every 15cm			NUMBER OF BLOWS N						Sample No.	Depth m	Meth- od				
										15 cm	30 cm	45 cm	0	10	20	30	40	50				60			
1					SILT	Deep Grey	Medium stiff clayey SILT.	1.00	3/30	1	1	2													
2			2.00					4/30	2	2	2												U-1	1.55 2.00	
3			3.00					5/30	3	2	3														
4			4.00					5/30	2	3	2														
5	-2.01	5.00	5.00									5.00	6/30	2	3	3									
6					Sandy SILT	Deep Grey	Stiff to very Stiff SILT with SAND trace SILT.	6.00	13/30	5	6	7													
7			7.00					13/30	6	7	6														
8			8.00					17/30	7	8	9														
9			9.00					16/30	8	8	8														
10			10.00					19/30	8	10	9														
11			11.00					17/30	8	9	8														
12			12.00					14/30	7	8	7														
13			13.00					13/30	7	7	6														
14			14.00					13/30	6	7	6														
15	-12.01	15.00	10.00									15.00	11/30	6	6	5									
16					Clayey SILT	Deep Grey	Stiff Clayey SILT trace sand	16.00	10/30	4	5	5													
17			17.00					10/30	5	5	5														
18			18.00					11/30	5	6	5														
19			19.00					11/30	5	6	5														
20	-17.01	20.00	5.00									20.00	12/30	6	6	6									
21								21.00																	
22								22.00																	
23								23.00																	
24								24.00																	
25								25.00																	
26								26.00																	
27								27.00																	
28								28.00																	
29								29.00																	
30								30.00																	

BORING LOG (Soil exploration)

MULTIPURPOS CYLONE SHELTER (PHASE-3)
PROJECT LOCATION (SITE NO. III-13)

GROUND ELEVATION 3.371m DATE OF INVESTIGATION 11, APR '95

Majichara G.P.S.

DEPTH TO GROUND WATER
LEVEL IN HOLE -2.62m

INVESTIGATED BY _____

Burirchar Hatia Noakhali

STAFF m	ELE- VATION m	DE- PTH m	THICK- NESS m	FIELD OBSERVATIONAL DESCRIPTION			STANDARD PENETRATION TEST										SAMPLING									
				COLUMN SECTION (Graphic mark)	Soil or Rock NAME OF CLASSIFICATION	COLOR TONE	DESCRIPTION	Depth m	N INTER- PENE cm	Num of blows Every 15cm			NUMBER OF BLOWS N						Sample No.	Depth m	Me- thod					
										15 cm	30 cm	45 cm	0	10	20	30	40	50				60				
				(Hatched pattern)																						
1					Clayey SILT	Deep Grey	Soft, clayey SILT trace fine sand	1.00	2/30	1	1	1														
2	1.37	2.00	2.00					2.00	4/30	1	2	2														
3								3.00	9/30	4	4	5														
4								4.00	17/30	6	9	8														
5	-1.63	5.00	3.00		SILT with SAND	Deep Grey	Stiff, silt with some fine SAND	5.00	14/30	7	8	6														
6								6.00	10/30	4	5	5														
7								7.00	11/30	5	5	6														
8								8.00	10/30	4	5	5														
9								9.00	11/30	5	6	5														
10	-6.63	10.00	5.00		SILT with SAND	Deep Grey	Medium stiff, silt with medium fine SAND trace sand	10.00	11/30	5	6	5														
11								11.00	8/30	4	3	5														
12								12.00	10/30	4	4	6														
13								13.00	12/30	5	6	6														
14	-10.63	14.00	4.00		SILT with SAND	Deep Grey	Medium stiff, SILT with sand trace clay	14.00	11/30	6	5	6														
15								15.00	13/30	6	6	7														
16								16.00	13/30	7	6	7														
17								17.00	13/30	7	6	7														
18								18.00	14/30	5	7	7														
19								19.00	13/30	6	7	7														
20	-16.63	20.00	5.00		Clayey SILT	Deep Grey	Clay SILT trace fine sand.	20.00	17/30	7	7	10														
21								21.00																		
22								22.00																		
23								23.00																		
24								24.00																		
25								25.00																		
26								26.00																		
27								27.00																		
28								28.00																		
29								29.00																		
30								30.00																		

BORING LOG (Soil exploration)

MULTIPURPOS CYLONE SHELTER (PHASE-3)
PROJECT LOCATION (SITE NO. IIT-15)

GROUND ELEVATION 2.638m

DATE OF INVESTIGATION 12, APR '95

Tamaruddin Sirajia G.P.S.

DEPTH TO GROUND WATER
LEVEL IN HOLE -2.69m

INVESTIGATED BY _____

Tamaruddin Hatia Noakhali

STAFF m	ELE- VATION m	DE- PTH m	THICK- NESS m	FIELD OBSERVATIONAL DESCRIPTION			STANDARD PENETRATION TEST											SAMPLING							
				COLUMN SECTION (Graphic) mark	Soil or Rock NAME OF CLASSIFICATION	COLOR TONE	DESCRIPTION	Depth m	N INTER-PENE cm	Num of blows Every 15cm			NUMBER OF BLOWS N						Sample No.	Depth m	Method				
										15 cm	30 cm	45 cm	0	10	20	30	40	50				60			
				[Diagonal Hatching]																					
1								1.00	9/30	4	5	4													
2								2.00	7/30	4	4	3												U-1	1.55 2.00
3		-0.36	3.00	3.00	Clayey SILT	Deep Grey	Medium stiff, clayey SILT trace sand	3.00	5/30	2	2	3													
4								4.00	11/30	4	5	6													
5								5.00	17/30	7	9	8													
6								6.00	16/30	8	8	8													
7		-4.36	7.00	4.00	SILT with SAND	Deep Grey	Stiff SILT with SAND trace clay	7.00	14/30	6	6	8													
8								8.00	26/30	10	12	14													
9								9.00	28/30	13	14	14													
10								10.00	28/30	12	15	13													
11								11.00	23/30	10	13	10													
12								12.00	19/30	9	10	9													
13								13.00	17/30	9	9	8													
14		-11.36	14.00	7.00	SILT with SAND	Deep Grey	Stiff to very stiff SILT with fine to medium SAND trace clay	14.00	15/30	8	8	7													
15								15.00	10/30	4	6	4													
16								16.00	7/30	4	3	4													
17								17.00	7/30	4	4	3												U-2	16.55 17.00
18								18.00	8/30	3	4	4													
19								19.00	9/30	4	4	5													
20		-17.36	20.00	6.00	Clayey SILT	Deep Grey	Medium stiff clayey SILT trace sand	20.00	12/30	6	7	5													
21								21.00																	
22								22.00																	
23								23.00																	
24								24.00																	
25								25.00																	
26								26.00																	
27								27.00																	
28								28.00																	
29								29.00																	
30								30.00																	

11-2-3 土質試驗結果一覽表

SUMMARY OF LABORATORY TEST (1)

Moghaddia Mirsharai, Chittagong (III-1)

1-1

SITE LOCATION (Site No.)											
BORING HOLE No.											
SAMPLE No.											
DEPTH (m)											
		U-1	U-2	D-7	D-12	D-15					
GENERAL		2.10	3.00	6.55	11.55	14.55					
DRY DENSITY ρ_d g/cm ³		~	~	~	~	~					
WET DENSITY ρ_w g/cm ³		2.55	3.45	7.00	12.00	15.00					
SPECIFIC GRAVITY ρ_s g/cm ³		0.989	0.953								
NATU. MOIST. CONT. W_n %		1.238	1.154								
VOID RATIO e		2.593		2.663	2.648	2.70					
SATURATION S_r %		23.89	35.23	24.64	25.86	21.81					
GRAVEL (2~75mm) %											
SAND (75 μ m~2mm) %		3		75	53	96					
SILT (5~75 μ m) %		85		25	47	4					
CLAY (Under 5 μ m) %		12									
UNIFORMITY U_c											
CORVATURE U_c'											
MAX. GRAIN SIZE mm											
ATTERBERG LIMITS		42.17	47.72	N.P.	N.P.						
LIQUID LIMIT W_L %		24.00	26.92								
PLASTIC LIMIT W_P %											
PLASTICITY INDEX I_P											
CONSISTENCY INDEX											
SOIL CLASSIFICATION											
UNIFIDE SOIL CLASS.											
UNCONFINED COMPRESSION		1.804	0.666								
STRENGTH											
FAILURE STRAIN %		5.357	8.928								

SUMMARY OF LABORATORY TEST (3)

SITE LOCATION (Site No.)		Isakhai Mirsharai, Chittagong (III-3)									
BORING HOLE No.		3-1									
SAMPLE No.											
DEPTH (m)											
GENERAL		U-1	U-2	U-3	U-18	U-4					
DRY DENSITY	ρ_d g/cm ³	3.00	8.55	14.00	18.55	19.55					
WET DENSITY	ρ_t g/cm ³	~	~	~	~	~					
SPECIFIC GRAVITY	ρ_s g/cm ³	3.45	9.00	14.45	19.00	20.00					
NATU. MOIST. CONT.	w_n %	0.727	0.899	0.884		0.911					
VOID RATIO	e	1.077	1.180	1.162		1.180					
SATURATION	S_r %	2.561	2.663	2.677	2.671						
GRAVEL (2~75mm)	%										
SAND (75 μ m~2mm)	%	2	74	82	69						
SILT (5~75 μ m)	%	63	26	18	31						
CLAY (Under 5 μ m)	%	35									
UNIFORMITY	Uc										
CORVATURE	Uc'										
MAX. GRAIN SIZE	mm										
LIQUID LIMIT	w_L %	57.50	N.P.	N.P.	N.P.						
PLASTIC LIMIT	w_p %	28.46									
PLASTICITY INDEX	Ip										
CONSISTENCY INDEX											
CLASSIFICATION											
UNIFIDE SOIL CLASS.											
UNCONFINED COMPRESSION STRENGTH	qu kg/cm ²	0.445	0.502	0.273		0.439					
FAILURE STRAIN	%	10.71	8.928	3.51		7.14					

SUMMARY OF LABORATORY TEST (4)

SITE LOCATION (Site No.)		Katachara Mirsharai, Chittagong (III-4)									
BORING HOLE No.		4-1									
SAMPLE No.		U-1	U-2	U-3	U-4	D-10					
DEPTH (m)		2.10	4.10	6.10	8.10	9.55					
GENERAL		-	-	-	-	-					
DRY DENSITY ρ_d g/cm ³		2.55	4.55	6.55	8.55	10.00					
WET DENSITY ρ_s g/cm ³		0.999	0.959	0.902	0.946						
SPECIFIC GRAVITY ρ_s g/cm ³		1.238	1.211	1.185	1.198						
NATU. MOIST. CONT. W_n %		2.706	2.643	2.660		2.671					
VOID RATIO e		23.89	26.26	31.37	26.63	24.30					
SATURATION S_r %											
GRAVEL (2~75mm) %											
SAND (75 μ m~2mm) %		98	74	77		70					
SILT (5~75 μ m) %		2	26	23		30					
CLAY (Under 5 μ m) %											
UNIFORMITY U_c											
CORVAURE U_c'											
MAX. GRAIN SIZE											
LIQUID LIMIT w_L %											
PLASTIC LIMIT w_p %											
PLASTICITY INDEX I_p											
CONSISTENCY INDEX											
CLASSIFICATION											
UNIFIDE SOIL CLASS.											
UNCONFINED COMPRESSION STRENGTH		0.319	0.602	0.599	0.639						
FAILURE STRAIN %		5.357	7.140	3.510	5.357						

SUMMARY OF LABORATORY TEST (5)

SITE LOCATION (Site No.)		Saherkhali Mirsharai, Chittagong (III-5)														
BORING HOLE No.		5-1														
SAMPLE No.																
DEPTH (m)																
GENERAL	DRY DENSITY	ρ_d g/cm ³	U-1	D-6	D-8	U-2	D-10	D-11	D-12	U-3	D-16	D-17	D-18	U-4	D-21	
	WET DENSITY	ρ_w g/cm ³	3.00	5.55	7.55	8.00	9.55	10.55	11.55	14.00	15.55	16.55	17.55	19.00	20.55	
	SPECIFIC GRAVITY	ρ_s g/cm ³	~	~	~	~	~	~	~	~	~	~	~	~	~	
	NATU. MOIST. CONT.	W _n %	3.45	6.00	8.00	8.45	10.00	11.0	12.0	14.45	16.00	17.00	18.00	19.45	21.00	
	VOID RATIO	e	1.383			1.618				1.449				1.634		
	SATURATION	S _r %	1.777			1.996				1.882				2.02		
	GRAVEL (2~75mm)	%	2.682			2.631				2.683				2.629		
	SAND (75μm~2mm)	%	28.56			23.41				26.32				23.67		
	SILT (5~75μm)	%		84	89	87						90	91	92	98	95
	CLAY (Under 5μm)	%		16	11	13						10	9	8	2	5
GRAIN SIZE	UNIFORMITY	U _c														
	CORVATURE	U _{c'}														
ATTERBERG LIMITS	MAX. GRAIN SIZE	mm														
	LIQUID LIMIT	W _L %	48	46			47	45	46	45						
	PLASTIC LIMIT	W _P %														
	PLASTICITY INDEX	I _p	23	20			20	19	21	19						
SOIL CLASS	CONSISTENCY INDEX															
	CLASSIFICATION															
	UNIFIDE SOIL CLASS.															
	UNCONFINED COMPRESSION	q _u kgf/cm ²	0.395							0.515						
	FAILURE STRAIN	%	13								14					

SUMMARY OF LABORATORY TEST (6)

SITE LOCATION (Site No.)		Mirsharai, Chittagong (III-6)									
BORING HOLE No.		6-1									
SAMPLE No.											
DEPTH (m)											
GENERAL		D-2	U-1	U-2	D-10						
DRY DENSITY	ρ_s g/cm ³		0.774	0.941							
WET DENSITY	ρ_w g/cm ³		1.111	1.198							
SPECIFIC GRAVITY	ρ_s g/cm ³	2.580	2.593	2.668	2.663						
NATU. MOIST. CONT.	W _n %	24.18	43.49	27.73	24.47						
VOID RATIO	e										
SATURATION	S _r %										
GRAVEL	(2~75mm) %										
SAND	(75 μ m~2mm) %	4	2	86	75						
SILT	(5~75 μ m) %	79	74	14	25						
CLAY	(Under 5 μ m) %	17	24								
UNIFORMITY	U _c										
CORVATURE	U _c '										
MAX. GRAIN SIZE	mm										
LIQUID LIMIT	W _L %	47.61	55.00	N.P.	N.P.						
PLASTIC LIMIT	W _p %	25.38	28.57								
PLASTICITY INDEX	I _p										
CONSISTENCY INDEX											
CLASSIFICATION											
UNIFIDE SOIL CLASS.											
UNCONFINED											
COMPRESSION	q _u kgf/cm ²		0.654	0.409							
STRENGTH											
FAILURE STRAIN	%		8.928	5.357							

SUMMARY OF LABORATORY TEST (7)

SITE LOCATION (Site No.)		Saherkhali Mirsharai, Chittagong (III-7)													
BORING HOLE No.		7-1													
SAMPLE No.															
DEPTH (m)															
GENERAL	DRY DENSITY	ρ_d	g/cm ³	U-1	D-6	U-2	D-10	D-11	D-12	D-14	U-3	D-17	D-18	U-4	D-22
	WET DENSITY	ρ	g/cm ³	4.00	5.55	4.00	9.55	10.55	11.55	13.55	14.00	16.55	17.55	19.00	21.55
	SPECIFIC GRAVITY	ρ_s	g/cm ³	~	~	~	~	~	~	~	~	~	~	~	~
	NATU. MOIST. CONT.	W_n	%	4.45	6.00	4.45	10.00	11.00	12.00	14.00	14.45	17.00	18.00	19.45	22.00
GRAIN SIZE	VOID RATIO	e		1.397		1.617					1.468			1.618	
	SATURATION	S_r	%	1.76		1.99					1.831			1.996	
	GRAVEL (2~75mm)	%													
	SAND (75 μ m~2mm)	%				73	75	78				88			
	SILT (5~75 μ m)	%				27	25	22				12			
	CLAY (Under 5 μ m)	%													
	UNIFORMITY	Uc													
	CORVATURE	Uc'													
	MAX. GRAIN SIZE	mm													
	LIQUID LIMIT	W _L	%	45	46					45	46	47	46	48	49
PLASTIC LIMIT	W _p	%													
PLASTICITY INDEX	I _p		18	17				19	21	23	19	22	24		
ATTERBERG LIMITS															
SOIL CLASSIFICATION															
UNIFIDE SOIL CLASS.															
UNCONFINED COMPRESSION STRENGTH	qu	kgf/cm ²	0.454								0.594			1.423	
FAILURE STRAIN	%		12								13			9	

SUMMARY OF LABORATORY TEST (8)

SITE LOCATION (Site No.)		Saherkhali Mirsharai, Chittagong (III -8)														
BORING HOLE No.		8-1														
SAMPLE No.																
DEPTH (m)																
GENERAL		D-2	U-1	D-5	D-7	U-2	D-9	D-10	D-11	D-12	U-3	D-16	D-17	D-19	U-4	D-22
GRAIN SIZE		1.55	3.00	4.55	6.55	8.00	8.55	9.55	10.55	11.55	14.00	15.55	16.55	18.55	19.00	21.55
UNCONFINED COMPRESS STRENGTH		2.00	3.45	5.00	7.00	8.45	9.00	10.00	11.00	12.00	14.55	16.00	17.00	19.00	19.45	22.00
FAILURE STRAIN											1.558				1.636	
UNIFORMITY			1.349			1.608					1.934			2.004		
CORVATURE			1.727			1.963					2.680			2.682		
MAX. GRAIN SIZE			2.681			2.684										
LIQUID LIMIT																
PLASTIC LIMIT																
PLASTICITY INDEX																
CONSISTENCY INDEX																
CLASSIFICATION																
UNIFIDE SOIL CLASS.																
UNCONFINED COMPRESSION STRENGTH											0.9304				1.4580	
FAILURE STRAIN			0.3708								11				9	
FAILURE STRAIN			12													

SUMMARY OF LABORATORY TEST (9)

SITE LOCATION (Site No.)		Char Gazi Ramgati Laxipur (III-9)									
BORING HOLE No.		9-1									
SAMPLE No.											
DEPTH (m)											
GENERAL		U-1	U-2	U-3	U-4	D-11	D-14				
DRY DENSITY	ρ_d g/cm ³	2.10	4.10	6.10	8.10	10.55	13.55				
WET DENSITY	ρ_s g/cm ³	2.55	4.55	6.55	8.55	11.00	14.00				
SPECIFIC GRAVITY	ρ_s g/cm ³	0.851	0.842	0.809	0.831						
NATU. MOIST. CONT.	W_n %	1.142	1.138	1.114	1.123	2.671	2.668				
VOID RATIO	e	2.588	2.621								
SATURATION	S_r %	34.16	35.04	37.70	35.10	27.20	24.24				
GRAVEL	(2~75mm) %										
SAND	(75 μ m~2mm) %	4	18			67	65				
SILT	(5~75 μ m) %	96	71			33	35				
CLAY	(Under 5 μ m) %	11									
UNIFORMITY	U_c										
CORVATURE	U_c'										
MAX. GRAIN SIZE	mm										
LIQUID LIMIT	W_L %	36.95	40.90	N.P.							
PLASTIC LIMIT	W_p %	19.28	23.07	N.P.							
PLASTICITY INDEX	I_p										
CONSISTENCY INDEX											
CLASSIFICATION											
UNIFIDE SOIL CLASS.											
UNCONFINED											
COMPRESSION	q_u kgf/cm ²	1.049	0.511	0.804	0.604						
STRENGTH											
FAILURE STRAIN	%	5.357	5.357	7.14	8.928						

SUMMARY OF LABORATORY TEST (10)

SITE LOCATION (Site No.)		Char Clark Sadar, Noakhari (III-10)										
BORING HOLE No.		10-1										
SAMPLE No.												
DEPTH (m)												
GENERAL		U-1	U-2	U-3	D-13							
DRY DENSITY	ρ_d g/cm ³	1.10	3.10	6.10	12.55							
WET DENSITY	ρ_t g/cm ³	~	~	~	~							
SPECIFIC GRAVITY	ρ_s g/cm ³	1.55	3.55	6.55	13.00							
NATU. MOIST. CONT.	W_n %	0.862	0.831	0.682								
VOID RATIO	e	1.162	1.161	1.167								
SATURATION	S_r %	2.607	2.577	2.633	2.671							
GRAVEL (2~75mm)	%	34.87	39.68	35.38	21.77							
SAND (75 μ m~2mm)	%					3	4	42	77			
SILT (5~75 μ m)	%					77	80	58	23			
CLAY (Under 5 μ m)	%					20	16					
UNIFORMITY	Uc											
CORVATURE	Uc'											
MAX. GRAIN SIZE	mm											
LIQUID LIMIT	W _L %	50.00	47.82	N.F.	N.F.							
PLASTIC LIMIT	W _p %	27.27	26.92									
PLASTICITY INDEX	I _p											
CONSISTENCY INDEX												
CLASSIFICATION												
UNIFIDE SOIL CLASS.												
UNCONFINED COMPRESSION	q _u kgf/cm ²	0.891	0.37	0.678								
STRENGTH												
FAILURE STRAIN	%	7.14	8.928	8.928								

SUMMARY OF LABORATORY TEST (11)

SITE LOCATION (Site No.)		Char Bata Sadar, Noakhari (III-11)									
BORING HOLE No.		11-1									
SAMPLE No.											
DEPTH (m)											
GENERAL		U-1	U-2	U-3	U-4	D-11					
DRY DENSITY	ρ_d g/cm ³	1.10	3.10	5.10	8.10	10.55					
WET DENSITY	ρ g/cm ³	~	~	~	~	~					
SPECIFIC GRAVITY	ρ_s g/cm ³	1.55	3.55	5.55	8.55	11.00					
NATU. MOIST. CONT.	W _n %	0.856	0.842	0.911	0.884						
VOID RATIO	e	1.180	1.167	1.200	1.171						
SATURATION	S _r %	2.593	2.615	2.607							
GRAVEL	(2~75mm) %	37.91	38.65	31.74	32.50	24.14					
SAND	(75μm~2mm) %			14	80	73					
SILT	(5~75μm) %	4		76	20	27					
CLAY	(Under 5μm) %	84		10							
UNIFORMITY	U _c	12									
CORVATURE	U _{c'}										
MAX. GRAIN SIZE	mm										
LIQUID LIMIT	W _L %	45.23	40.47								
PLASTIC LIMIT	W _p %	24.61	23.07	N.P.	N.P.						
PLASTICITY INDEX	I _p										
CONSISTENCY INDEX											
CLASSIFICATION											
UNIFIDE SOIL CLASS.											
UNCONFINED											
COMPRESSION	q _u kgf/cm ²	0.542	0.839	0.765	0.370						
STRENGTH											
FAILURE STRAIN	%	10.714	8.928	8.928	5.357						

SUMMARY OF LABORATORY TEST (12)

SITE LOCATION (Site No.)		Sonadia Hatia, Noakhari (III-12)																		
BORING HOLE No.		12-1																		
SAMPLE No.																				
DEPTH (m)																				
DRY DENSITY	ρ_d g/cm ³																			
WET DENSITY	ρ_s g/cm ³																			
SPECIFIC GRAVITY	ρ_s g/cm ³																			
NATU. MOIST. CONT.	W_n %																			
VOID RATIO	e																			
SATURATION	S_r %																			
GRAVEL	(2~75mm) %																			
SAND	(75 μ m~2mm) %																			
SILT	(5~75 μ m) %																			
CLAY	(Under 5 μ m) %																			
UNIFORMITY	U_c																			
CORVATURE	U_c'																			
MAX. GRAIN SIZE	mm																			
LIQUID LIMIT	W_L %																			
PLASTIC LIMIT	W_P %																			
PLASTICITY INDEX	I_p																			
CONSISTENCY INDEX																				
CLASSIFICATION																				
UNIFIDE SOIL CLASS.																				
UNCONFINED																				
COMPRESSION	q_u kgf/cm ²																			
STRENGTH																				
FAILURE STRAIN	%																			

SUMMARY OF LABORATORY TEST (13)

SITE LOCATION (Site No.)		Burirchar Hatia, Noakhari (II-13)									
BORING HOLE No.		13-1									
SAMPLE No.											
DEPTH (m)											
		U-1	D-2	D-3	D-4	D-9	D-11	D-12	U-2		
GENERAL	DRY DENSITY ρ_d g/cm ³	1.00	2.00	3.00	4.00	9.00	11.00	12.00	15.55		
	WET DENSITY ρ g/cm ³	~	~	~	~	~	~	~	~		
	SPECIFIC GRAVITY ρ_s g/cm ³	1.45	2.45	3.45	4.45	9.45	11.45	12.45	16.00		
	NATU. MOIST. CONT. W_n %	32.40	31.10	29.36						37.17	
GRAIN SIZE	VOID RATIO e										
	SATURATION S_r %										
	GRAVEL (2~75mm) %										
	SAND (75 μ m~2mm) %				73	3	4	3			
	SILT (5~75 μ m) %				27	87	84	89			
	CLAY (Under 5 μ m) %					10	12	8			
	UNIFORMITY U_c										
ATTERBERG LIMITS	CORVATURE U_c										
	MAX. GRAIN SIZE mm										
	LIQUID LIMIT W_L %	38					36		39		
	PLASTIC LIMIT W_P %	22					21		22		
SOIL CLASS	PLASTICITY INDEX I_P	16					15		17		
	CONSISTENCY INDEX										
	CLASSIFICATION										
	UNIFIDE SOIL CLASS.										
UNCONFINED COMPRESS	UNCONFINED COMPRESSION q_u kgf/cm ²	0.40							0.32		
	STRENGTH										
	FAILURE STRAIN %	5.0							5.0		

SUMMARY OF LABORATORY TEST (14)

SITE LOCATION (Site No.)		Tamaruddin Hatia, Noakhari (III-14)									
BORING HOLE No.		14-1									
SAMPLE No.											
DEPTH (m)											
		D-1	U-1	D-10	D-11	U-2	D-20				
GENERAL		1.00	1.50	10.00	11.00	18.00	20.00				
DRY DENSITY ρ_d g/cm ³		~	~	~	~	~	~				
WET DENSITY ρ_t g/cm ³		1.45	1.95	10.45	11.45	18.45	20.45				
SPECIFIC GRAVITY ρ_s g/cm ³		1.09	1.51			1.45	1.26				
NATU. MOIST. CONT. W_n %		1.51	2.01			1.95	1.66				
VOID RATIO e		2.65		2.645	2.64		2.64				
SATURATION S_r %		38.31	32.74			35.00	31.68				
GRAVEL (2~75mm) %											
SAND (75 μ m~2mm) %		2		8	3		4				
SILT (5~75 μ m) %		83		84	95		93				
CLAY (Under 5 μ m) %		15		8	2		3				
UNIFORMITY U_c											
CORVATURE U_c'											
MAX. GRAIN SIZE mm											
LIQUID LIMIT W_L %			43	40		41					
PLASTIC LIMIT W_P %			25	22		25					
PLASTICITY INDEX I_P			18	18		16					
CONSISTENCY INDEX											
CLASSIFICATION											
UNIFIDE SOIL CLASS											
UNCONFINED COMPRESSION STRENGTH q_u kgf/cm ²			0.56				0.33				
FAILURE STRAIN %			8.0				6.0				

SUMMARY OF LABORATORY TEST (15)

SITE LOCATION (Site No.)		Tamaruddin Hatia, Noakhari (H-15)									
BORING HOLE No.		15-1									
SAMPLE No.											
DEPTH (m)											
GENERAL		D-1	U-1	D-3	D-8	D-9	D-12	U-2			
GRAIN SIZE		1.00	1.55	3.00	8.00	9.00	12.00	16.55			
ATTERBERG		~	~	~	~	~	~	~			
SOIL CLASS		1.45	2.00	3.45	8.45	9.45	12.45	17.00			
UNCONFINED		1.04	1.39	1.23				1.40			
COMPRESSION		1.51	1.95	1.64				1.92			
STRENGTH		2.635									
FAILURE STRAIN											4.0
DRY DENSITY	ρ_d g/cm ³										
WET DENSITY	ρ g/cm ³										
SPECIFIC GRAVITY	ρ_s g/cm ³										
NATU. MOIST. CONT.	W_n %										
VOID RATIO	e					2.60		2.595			
SATURATION	S_r %										
GRAVEL	(2~75mm) %										
SAND	(75 μ m~2mm) %	3			80	85	87				
SILT	(5~75 μ m) %	91			20	15	13				
CLAY	(Under 5 μ m) %	6									
UNIFORMITY	U_c										
CORVATURE	U_c'										
MAX. GRAIN SIZE	mm										
LIQUID LIMIT	W_L %		38					40			
PLASTIC LIMIT	W_P %		21					25			
PLASTICITY INDEX	I_p		17					15			
CONSISTENCY INDEX											
CLASSIFICATION											
UNIFIDE SOIL CLASS.											
UNCONFINED											
COMPRESSION	q_u kgf/cm ²		0.15					0.11			
STRENGTH											
FAILURE STRAIN	%		4.0					4.0			

