

Appendix II Letter of Returning of 1:50,000 Scale Topographic Maps

29 June 2004

To: Major Khandaker Aftab Hossain
Director Development Survey
Survey of Bangladesh

Subject: Returning of 1:50,000 Scale Topographic Maps to SOB

The Study team would like to return 1:50,000 scale topographic maps that were used for 1:5,000 scale digital topographic mapping in Japan to SOB.

The list of topographic maps is shown on the attached list.

Thanks for you cooperation in this project.

渡辺 徹

Toru Watanabe

Team Leader of the Study Team

Received the above maps
Total (7) sheets
Gommanfomni
20/7/04

cc: Brig Gen. Muhammad Shafiqul Islam
Surveyor General
Survey of Bangladesh

List of 1:50,000 Scale Topographic Maps

No.	Sheet Number
1	78-L-4
2	78-L-8
3	78-I-1
4	79-I-5
5	79-I-6
6	79-I-9
7	79-I-10

OK
on

Appendix 12 Letter of Donation Equipment

NO. P-2295 / 11-G-A-JICA (Urban - Info)

Date 19-07-2004

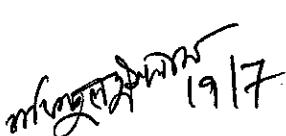
Mr. Akio Arai
Resident Representative
Bangladesh Office
Japan International Cooperation Agency

Re: Request for donation of equipment procured for "The Study On Urban Information Management for Greater Dhaka City in The People's Republic of Bangladesh"

We hereby have the honor to request for the donation of the equipment procured by Japan International Cooperation Agency (JICA) to Survey of Bangladesh (SOB) after the completion of The Study on Urban Information Management for Greater Dhaka City in The Republic of Bangladesh.

SOB will be responsible for the control and storage of the equipment and SOB will utilize the equipment effectively for future digital mapping work of SOB. The equipment subject to donation is listed up on the attached paper.

SOB sincerely hopes that this request is approved by JICA positively. SOB would like to organize a donation ceremony in the technical seminar on 26th of July 2004.


19/7
Brig. Gen. Muhammad Shafiqul Islam
Surveyor General of Bangladesh
Survey of Bangladesh

✓ CC. Mr. Toru Watanabe
Team Leader of JICA Study Team

10 July 2004

Brig Gen. Muhammad Shafiqul Islam
Surveyor General of Bangladesh
Survey of Bangladesh

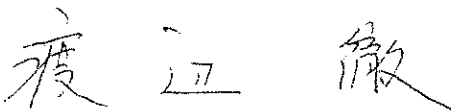
Re: Donation of equipment used for the Study

Dear Sir,

After the completion of the Study, JICA want to donate the following equipment used by the Study Team to SOB. The board list of the equipment is as follows:

- | | |
|-------------------------------|--------------------------------------|
| 1) Digital mapping system | 1 set (Details attached as Annex A) |
| 2) Digital compilation system | 2 sets (Details attached as Annex B) |
| 3) GIS system | 1 set (Details attached as Annex C) |
| 4) UPS | 4 sets (Details attached as Annex D) |
| 5) Other equipment | Details attached as Annex E |

Thank you for your arrangement in this matter. Please take necessary action on this matter.



Toru Watanabe

Team Leader of the Study Team

C.C.: Maj. Khandaker Aftab Hossain
Chief Counterpart of the Study

No.	Name	Type	Serial/License No.	Volume	Unit	Remark
Software						
1	Socet Set	Ver 4.4.2	F7721B9D	1	set	
Hardware						
2	Work Station for digital photogrammetric system			1	set	
	Pentium 4 Processor at 2.80 GHz w/8000MHz front side bus/512K L2 Cache 1 GB					
	Dual Channel DDR SDRAM at 400 MHz (2x512M) Dell Quietkey Keyboard 19 in 18.0					
	in viewable) M992 CRT Monitor Additional 19 in (18.0 in viewable) M992 CRT Monitor					
	New 128 DDr ATIRADEON 9800 Graphic Card with TV-Out and DVI 36 GB Serial					
	ATA Hard Drive (10000RPM) 3.5 in Floppy Drive Microsoft Windows XP Home					
	Edition Dell 2-button Scroll Mouse Integrated intel PRO 10/100 Ethernet 56K PCI					
	Data/Fax Modem 16 Max DVD-ROM Drive Sound Blaster-Audigy 2 sound card with DVD Audio					
3	Stereographic Z screen non-integrated			1	set	
4	3D Mouse			1	set	
5	PRO600 (includes the PRODPW and PRO ART items)			1	set	
Others						
6	Data editing software Microstation J/7.1		73158774800505	1	pc	
7	PATB-NT for aerial triangulation			1	pc	

No.	Name	Type	Serial/License No.	Volume	Unit	Remark
Software						
1	Microstation J	7.1 version	73158535800505	1	set	
2	Microstation J	7.1 version	73158156800505	1	set	
3	Microsoft Office XP Professional with Publisher	Version2002	DJMYM-HUQDC-PRPM8-YR2MF-CYH6D VKM2C-2V4KX-YVM3B-P3739-M8FMD	1	set	
4	Microsoft Office XP Professional with Publisher	Version2002	DF39J-RBV6C-2343Y-VYR6M-RJF96 K62F3- XD39F-DMXT7-CR2BP-24RJT	1	set	
5	Microsoft Office Small Business	Edition 2003	HMPQF-VWBKH-QMXPP-9BTP7- 7J8YQ	1	set	
6	Adobe Illustrator CS		1034-1200-9237-1839-7690-2101	1	set	
7	Adobe Illustrator CS		1034-1200-9514-2130-2814-6662	1	set	
8	Adobe Photoshop CS		1045-1202-2332-6746-4276-4345	1	set	
9	Adobe Photoshop CS		1045-1200-4008-1399-2123-6655	1	set	
10	Adobe Acrobat	6.0 Standard	1016-1201-9622-3873-6418-8019	1	set	
Hardware						
11	CPU: Intel Pentium 4 Processor, 2.4GHz, 512/533 Front Side Bus			2	sets	
	Memory: 512Mb PC1066 ECC RDRAM (2RIMMS)					
	Keyboard: Entry Level Quietkey Keyboard, PS/2					
	Graphic Card: ATI, FIRE GL E1, 64MB, 2VGA or 1VDA and 1DVI. (Dual Monitor capable)					
	2nd Monitor: 17inch Flat Panel Monitor (17 inch vis)					
	Hard Drive: 80GB ATA-100 IDE, 1 inch (7200rpm)					
	Floppy Drive Options: 3.5 inch 1.44MB Floppy Drive					
	CD-ROM/CR Writer: 20/48 x 1DE CD-ROM and 48 x/24x/48x CD R-W					
	Mouse: Intellimouse PS/2 (2-button, W/scroll)					
	Mouse Pad: Mouse Pad					
	Security Software: Antivirus (5 user license)					
Operating System: Windows 2000 Professional (SP3) with Media using NTFS						
Hardware Supports: 3yr parts with Labor						

No.	Name	Type	Serial/License No.	Volume	Unit	Remark
Software						
1	Arc/Info	Arc GIS ver 8.3 (for NT)	37152204 27005	1	set	
2	Symantec Antivirus Corp	ED 8.0 (5 user license)		1	set	
Hardware						
3	Processor: Intel Pentium 4 , 2.4GHz			1	set	
	Memory: 512Mb PC1066 ECC RDRAM (2RIMMS)					
	Mother board: ATX full features mother board					
	Video Memory: Graphics Controller Built-in On Moter Board Diskette Drive: one, 3.5 inch 1.44MB					
	Multimedia (CD-ROM Drive, Audio and Speakers: Internal Speakers and 48 x/24x/48x EIDE CD-ROM and CD WR Drive, ATAPI)					
	I/O Ports: 1-Parallel, 2 PS/2 and USB Ports					
	Casing: ATX Mid Tower Casing					
	Keyboard: Enhanced 104 Keys, PSA/2 Based					
	Monitor: 21 inch NEC Color Monitor					
	Mouse & Pad: PS/2 Mouse with Pad					
Software of Operating system: Windows 2000 Professional with License and Manual CD Media						
Hardware Supports: 3yr parts with Labor						

UPS

Annex D

No.	Name	Type	Serial/License No.	Volume	Unit	Remark
UPS for Workstation						
1	Model and capacity: APC Smart-UPS XL, 1000V (670W), 230V			4	sets	
	Runtime: 3.21 hours at 41% load					
	Output & Interface: Output 2, Interface port6 DB-9 RS-232					
	Key Features: Automatic Voltage Regulator, Built-in Smartlot, Hot Batteries, Load Meter, Overload indicator, scalable runtime, Software an Repleacebale Batteries					
	Additional: Co with software, Hot swap batteries. User Manual and standard accessories					

Other Equipment

Annex E

No.	Name	Type	Serial/License No.	Volume	Unit	Remark
1	Handy GPS	Megellan	30881	1	pc	
2	Handy GPS	Megellan	30882	1	pc	
3	Handy GPS	Megellan	30883	1	pc	
4	Handy GPS	Megellan	30888	1	pc	
5	Digital Camera	Casio G. Bros	20850137A	1	pc	with compact flash card
6	Digital Camera	Casio G. Bros	20850156A	1	pc	
7	Digital Camera	Casio G. Bros	20850168A	1	pc	
8	Digital Camera	Casio G. Bros	20652126A	1	pc	
9	Plain Table	Tamura		3	sets	with tripod and accessories
10	Mirror Stereoscope	Topcon	PF0966	1	pc	
11	Personal Computer	COMPAQ 7500				
12	(Monitor)	Assembly-P/N-261605-109 Model S-7500	307PC76 SB-375	1	set	
13	(Keyboard)	COMPAQ Model No. 6511-VA Extension No. S1/R	4200601	1	set	
14	(CPU)		7307KTPZ1155	1	set	
15	Laser Printer	EPSON EPL-5900L	D2ZZ080173	1	pc	
16	Scanner	EPSON Perfection 1650	EC3W002665	1	pc	
17	Copy Machine	HP Laser Jet 3300	CNCRB41764	1	pc	
18	UPS	Model No. BK-650M	PB0307224190	1	pc	
19	UPS	Model No. BK-650M	PB0307327372	1	pc	
20	UPS	BRAZER	433719732	1	pc	
21	UPS	HOSSONI UPS-500	20607350	1	pc	
22	UPS	MICRO UPS & AVR 1000VA	MF25-12-02	1	pc	
23	Personal Computer (1)	COMPAQ EVO D380MX P4 2.4GHz Model:40GB/256MB/52X CD- ROM/32MB/NIC/CD-RW/17"				
	(Monitor)	S7500 Color Monitor	215CM64LA863	1	pc	
	(Keyboard)	Compaq 104-Keys Keyboard for Windows 98 Style		1	pc	Model: 6511-VA
	(CPU)		7G28KTPZ053	1	pc	
24	Personal Computer(2)	COMPAQ EVO D380MX P4 2.4GHz Model:40GB/256MB/52X CD- ROM/32MB/NIC/CD-RW/17"				
	(Monitor)	S7500 Color Monitor	307CP76SC010	1	pc	
	(Keyboard)	Compaq 104-Keys Keyboard for Windows 98 Style	M020613510	1	pc	
	(CPU)		7307KTPZ1165	1	pc	

Japan International Cooperation Agency

IDB Bhaban (12th Floor), E/8-A Rokeya Sharani, Sher-e-Bangla Nagar, Dhaka-1207
Facsimile: (880-2) 9128804 / Telephone: (880-2) 8124551~3

July 26, 2004

Brig. Gen. Muhammad Shafiqul Islam
Surveyor General of Bangladesh
Survey of Bangladesh (SOB)

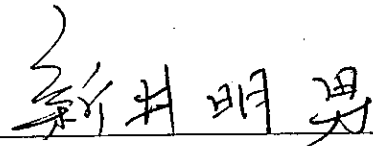
Subject: Reply to the request for equipment related to the Study on Urban Information Management for Greater Dhaka City in The People's Republic of Bangladesh

Dear Brig. Gen. Muhammad Shafiqul Islam

In response to your letter dated July 19, 2004, I am honored to inform you that JICA will comply with the request conveyed in the letter. JICA will provide the Survey of Bangladesh with the Digital Mapping-related equipment and Field Survey-related equipment procured by JICA for the Study on Map Information Management, on condition that they shall be used by the Survey of Bangladesh for further progress of the study and the development of the Maps.

I hope that the equipment donated will prove useful for your organization.

Sincerely yours,



Akio ARAI

Resident Representative

Bangladesh Office

Japan International Cooperation Agency

No. 2822/11-GI-A-Lica (Urban Info)

29 July 2004

Mr. Akio Arai
Resident Representative
Bangladesh Office
Japan International Cooperation Agency

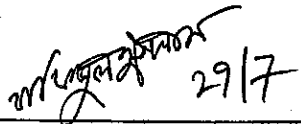
Subject: Donation Equipment

Dear Mr. Arai

It is our pleasure to inform you that Survey of Bangladesh received all equipment used for "The Study on Urban Information Management for Greater Dhaka City" from the Study Team.

Thank you for your cooperation and assistance to Survey of Bangladesh.

Sincerely yours,


29/7
Brig. Gen. Muhammad Shafiqul Islam
Surveyor General of Bangladesh
Survey of Bangladesh

✓ Cc: Mr. Toru Watanabe
Team Leader of the Study Team

Appendix 13 Letter from the Ministry of Defense

৬৫

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
প্রতিরক্ষা মন্ত্রণালয়
গণডবন কমপ্লেক্স
শেরে বাংলা নগর, ঢাকা

নং-প্রম/পিসি/সার্ভে-২/২০০৩/২৬৬

তারিখঃ ০১-১১-২০০৩

বিষয়ঃ **The Study on Urban Information Management for Greater Dhaka City** শীর্ষক প্রকল্পের আওতায় প্রণয়নতব্য ম্যাপের কপিরাইট প্রসংগে।

সূত্রঃ পত্র নং-পি-৩৪১১/১১-জি-এ-জাইকা (আরবান ইনফো-ঢাকা) তারিখঃ ০৮ অক্টোবর, ২০০৩।

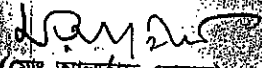
উপর্যুক্ত বিষয় ও সূত্রানুযায়ী নির্দেশক্রমে জানানো যাচ্ছে যে বাংলাদেশ জরিপ অধিদপ্তরের প্রস্তুতাবতির উপর গত ২৩-১০-২০০৩ তারিখে প্রতিরক্ষা মন্ত্রণালয়ের যুগ্ম-সচিব (পঃউঃ) মহোদয়ের সভাপতিত্বে তাঁর অফিস কক্ষে একটি আলোচনা সভা অনুষ্ঠিত হয়। এ সভায় বাংলাদেশ জরিপ অধিদপ্তরের **The Study on Urban Information Management for Greater Dhaka City** শীর্ষক প্রকল্পের **Interim Report** এর উপর জাইকা ও বাংলাদেশ জরিপ অধিদপ্তরের মধ্যে অনুষ্ঠিত যৌথ মিটিং এর কার্যবিবরণীর ৫ নং প্যারায় উল্লিখিত মন্তব্যের বিষয়ে বিস্তারিত আলোচনা শেষে নিম্নোক্তভাবে উভয় সংশোধনের সিদ্ধান্ত গৃহীত হয়ঃ

"In case JICA wants to use the final products of the Study for Japanese ODA (Official Development Assistance) programmes for any other Government Organisation in Bangladesh, SOB will agree that the JICA Study Team can use the final products with prior notice to SOB from JICA for execution of the program without any charge."

২। উপর্যুক্ত সংশোধনী অনুযায়ী এ বিষয়ে প্রয়োজনীয় কার্যক্রম গ্রহণ করার জন্য অনুরোধ জানানো হলো।

৪৫৬৪
জাইকার নং
নথি নং ১১/০৫-৬/২৬৬
তারিখঃ ৪/১১/০৩
সি.বি.সি. অফিস, ঢাকা

সার্ভেয়ার জেনারেল
সার্ভে অফ বাংলাদেশ
তেজগাঁও, ঢাকা।


(মোঃ আলতাফ হোসেন)
সিনিয়র সহকারী প্রধান
৯১১৩১৮৭

সার্ভেয়ার জেনারেল অফিস	
সার্ভেয়ার জেনারেল	১৩/১১
সহ সার্ভেয়ার জেনারেল	
উপ সার্ভেয়ার জেনারেল	
কার্য	
রেকর্ড কপিয়ার/সামগ্রিক শাখা	

GOVERNMENT OF PEOPLES REPUBLIC OF BANGLADESH
MINISTRY OF DEFENSE
GANABHABAN COMPLEX
Sher-E-Bangla Nagar, Dhaka

No.Prom/PC/Survey-2/2003/263

Date:01-11-2003

Sub: The Study on Urban Information Management for Greater Dhaka City

Source Letter No.P-3411/11-G-A-JICA (Urban Infro-Dhaka) Date: 08 October, 2003

According to the above subject & reference it is informed that a discussion meeting was held presiding over by the joint secretary Ministry of Defense in his office on the proposal of Survey of Bangladesh on 23.10.2003 last. Previously a joint meeting was held about the Interim Report of the Project titled "The Study on Urban Information Management for Greater Dhaka City". After the joint meeting, minutes of the meeting were prepared. In the Ministerial meeting discussion was held on the comment of the Para No.5 minutes of the JICA & SOB meeting and the following amendment was accepted it was like that:

"In case JICA wants to use the final products of the Study for Japanese ODA (Office Development Assistance) programmes For any other Government Organization in Bangladesh, SOB will agree that the JICA Study Team can use the final products with prior notice to SOB from JICA for execution of the program without any charge".

2. It is urges to take necessary steps according to the amendment

Surveyor General
Survey of Bangladesh
Tejgaon, Dhaka.

Md. Altaf Hossain
Senior Assistant Chief
Tel:9113187

Appendix 14 Agreement on Copyright

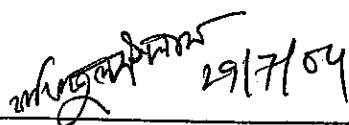
Agreement On Copyright

The Japan International Cooperation Agency (hereinafter referred to as "JICA") has conducted "The Study on Urban Information Management for Greater Dhaka City" (hereinafter referred to as "the Study") under cooperation of Survey of Bangladesh (hereinafter referred to as "SOB") from November 2002 to July 2004.

JICA and SOB agreed upon the final product (the map and digital data) created by the Study as follows:

1. The copyright of the final products of the Study will be kept both by SOB and JICA. In case JICA wants to use the final products of the Study for Japanese ODA (Official Development Assistance) programmes/projects for any other Government Organizations in Bangladesh, SOB will agree that JICA can use the final products with prior notice to SOB from JICA Bangladesh Office for the execution of the ODA programmes/projects without any charge. JICA agrees that the utmost care should be taken so that no copy or duplication of those data is made and it must not be utilized for some other purpose. Further, contents and the purpose of the digital data to be created must be informed to SOB beforehand, and JICA returns back the original and modified digital data to SOB after the said programmes/projects are finished.
2. JICA and SOB agree that other organizations, agencies of Government of Bangladesh can obtain the original and modified data from SOB as per their requirement by following normal procedure. No original data and modified data will be given directly to the concerned organization by JICA.
3. JICA agreed to put the copyright sentence as mentioned in the Interim Report on 1:5,000 scale topographic maps to be prepared by the Study Team.
4. In case SOB wants to revise the contents of the final products of the Study, SOB can revise without a notice to JICA.

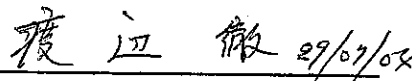
July 2004


29/7/04

Brig. Gen. Muhammad Shafiqul Islam
Surveyor General of Bangladesh
Survey of Bangladesh

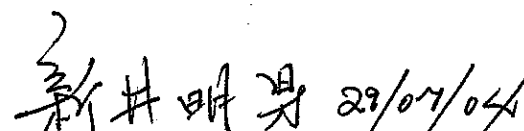
Witness

Mr. Iqbal Mahmood
Deputy Secretary
Economic Relations Division
Ministry of Finance


29/07/04

Mr. Toru Watanabe
Team Leader
JICA Study Team

Witness


29/07/04

Mr. Akio Arai
Resident Representative
JICA Bangladesh Office

***Appendix 15 Map Style and Map Symbols for 1:5,000 Scale Digital
Topographic Maps (Version 3.0)***

Map Style and Map Symbols for 1:5,000 Scale Digital Topographic Maps

for

The Study on Urban Information Management



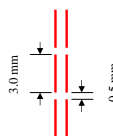
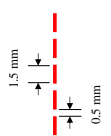
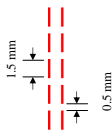
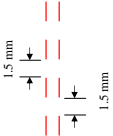
for

Greater Dhaka City

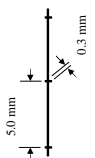
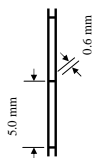
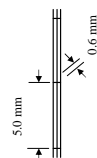
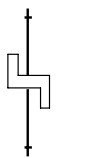
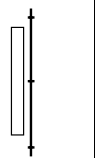
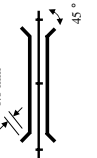
(Version 3.0)

Nov 2003

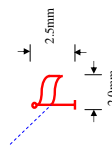
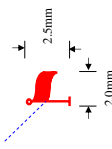
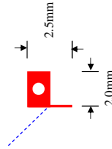
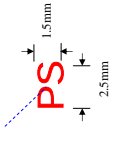
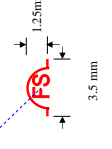
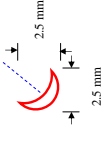
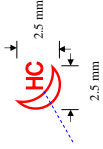
No.	Legend	Symbol (shape and size)	Description		Digital plotting data type	
					Point	Line
(1) Geodetic points and Contour Lines (基準点と等高線)						
Geodetic points (基準点)						
1	GPS point		GPS point	GPS点		
			Line width = 0.2 mm	線の太さ = 0.2 mm		
			Text = Arial Color = Black	フォント = Arial 色 = 黒		
2	Benchmark		Benchmark	水準点		
			Line width = 0.2 mm	線の太さ = 0.2 mm		
			Text = Arial Color = Black	フォント = Arial 色 = 黒		
3	Spot height		The point of spot height observed by stereo plotter	図化機により測定された標高単点		
			Line width = 0.2 mm	線の太さ = 0.2mm		
			Text = Arial Color = Black	フォント = Arial 色 = 黒		
Contour Lines (等高線)						
4	Index contour		Index contour lines is 10 meter interval.	計曲線。10mごとに表示する。		
			Line width = 0.2 mm	線の太さ = 0.2mm		
			Text = Arial Color = Black	フォント = Arial 色 = 黒		
			Intermediate contour lines is 2 meter interval.	主曲線。2mごとに表示する。		
5	Intermediate contour		Intermediate contour lines is 2 meter interval.	主曲線。2mごとに表示する。		
			Line width = 0.1 mm	線の太さ = 0.1mm		
			Color = Black	色 = 黒		
			Supplementary contour lines displays the part where geographical features is not appropriately expressible only by intermediate contour lines at intervals of 1/2 of intermediate contour lines.	補助曲線。主曲線だけでは地形を適切に表現できない部分について、主曲線の1/2の間隔に表示する。		
6	Supplementary contour		Supplementary contour lines displays the part where geographical features is not appropriately expressible only by intermediate contour lines at intervals of 1/2 of intermediate contour lines.	補助曲線。主曲線だけでは地形を適切に表現できない部分について、主曲線の1/2の間隔に表示する。		
			Line width = 0.1 mm	線の太さ = 0.1mm		
			Color = Black	色 = 黒		
			An arrow is displayed on spot height of depression toward the lower one from the higher one.	凹地部の図化単点に矢印を高い方から低い方に向かって表示する。		
7	Depression		An arrow is displayed on spot height of depression toward the lower one from the higher one.	凹地部の図化単点に矢印を高い方から低い方に向かって表示する。		
			Line width = 0.1 mm	線の太さ = 0.1 mm		
			Color = Black	色 = 黒		

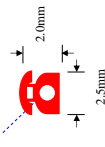
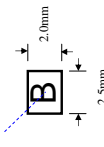
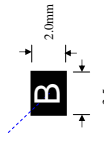
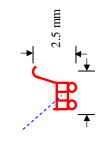
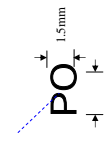
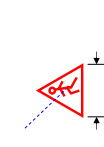
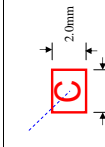
No.	Legend	Symbol (shape and size)	Description		Digital plotting data type		
					Point	Line	Polygon
(2) Roads (道路)							
Roads (道路)							
1	Highway		National road/Regional road	国道・地方幹線道			
			Line width = 0.4 mm Color = Red	線の太さ = 0.4 mm 色 = 赤			
2	Superior road		Metalled road more than width 2.0m is acquired.	幅員2.0m以上の舗装された道路。			
			Line width = 0.2 mm Color = Red	線の太さ = 0.2mm 色 = 赤			
3	Unmetalled road		Unmetalled road more than width 2.0m is acquired.	幅員2.0m以上の舗装されていない道路。			
			Line width = 0.2 mm Color = Red	線の太さ = 0.2mm 色 = 赤			
4	Foot path		More than length 50m and less than width 2.0m is acquired.	徒歩道、幅員2.0m未満で長さが50m以上の道路を表示する。			
			Line width = 0.3 mm Color = Red	線の太さ = 0.3 mm 色 = 赤			
5	Road inside compound		More than width 2.0m is acquired as the road inside compound, such as a factory.	庭園路、工場等の特定の敷地内の道路で幅員2.0m以上を表示する。			
			Line width = 0.2 mm Color = Red	線の太さ = 0.2mm 色 = 赤			
6	Road under construction		It is under construction now and more than width 2.0m is acquired.	建設中の道路。現在建設中で、幅員2.0m以上を表示する。			
			Line width = 0.1 mm Color = Red	線の太さ = 0.1 mm 色 = 赤			

No.	Legend	Symbol (shape and size)	Description	Digital plotting data type			
				Point	Line	Polygon	
Road institutions (道路施設)							
8	Embankment(large)		Aman made bank or dike higher than 1.5 m and longer than 50m				
			Line width = 0.1 mm	高さが1.5m以上で長さが50m以上の堤防、土手			
			Color = Black	線の太さ = 0.1 mm			
9	Embankment(small)		Embankment(small) is disable to displayed by Embankment(large). Height less than 3.0m				
			Line width = 0.1 mm	土堤、被覆のない堤防及び敷地等の周囲にある盛土をいし、Embankment(large)で表現できない形状のもので、高さが3.0m未満のもの、			
			Color = Black	線の太さ = 0.1 mm			
10	Road, underpass		The entrance to an underground part				
			Line width = 0.1 mm	地下部への出入口			
			Color = Black	線の太さ = 0.1 mm			
11	Over bridge, road		Over bridge, road				
			Line width = 0.1 mm	道路を横断するために構築された歩道橋、			
			Color = Black	線の太さ = 0.1 mm			
12	Distance marker		The sign in which an additional distance of km unit from a starting point is shown.				
			Line width = 0.1 mm	起点からのkm単位の追加距離を示す標識。			
			Color = Black	線の太さ = 0.1 mm テキスト = Arial			
13	Bridge		More than length 5.0m and more than width 2.0m is acquired.				
			Line width = 0.3 mm	橋床部の長さが5.0m以上で幅員が2.0m以上のもの、			
			Color = Red	線の太さ = 0.3mm			
14	Foot bridge		More than length 5.0m and less than width 2.0m is acquired.				
			Line width = 0.3 mm	徒橋、橋床部の長さが5.0m以上で幅員が2.0m未満のものを表示する、			
			Color = Red	線の太さ = 0.3mm			
15	Road divider		The central line of a road divider is acquired.				
			Line width = 0.2 mm	分離帯、一線線で表示する、			
			Color = Red	線の太さ = 0.2 mm			

No.	Legend	Symbol (shape and size)	Description		Digital plotting data type		
					Point	Line	Polygon
(3) Railways (鉄道)							
Railways (鉄道)							
1	Metre gauge		Metre gauge	メートルゲージ			
			Line width = 0.2 mm	線の太さ = 0.2mm			
			Color = Black	色 = 黒			
2	Broad gauge		Broad gauge	ブロードゲージ			
			Line width = 0.2 mm	線の太さ = 0.2 mm			
			Color = Black	色 = 黒			
3	Mixed gauge		Mixed gauge	3線軌条			
			Line width = 0.1 mm	線の太さ = 0.1 mm			
			Color = Black	色 = 黒			
Railway institutions (鉄道施設)							
4	Over bridge, railway		Over bridge, railway	鉄道を横断するために構築された歩道橋。			
			Line width = 0.2 mm	線の太さ = 0.2mm			
			Color = Black	色 = 黒			
5	Platform		Platform	プラットホームは、その外周の正射影を表示する。			
			Line width = 0.1 mm	線の太さ = 0.1mm			
			Color = Black	色 = 黒			
6	Railway bridge		More than length 5.0m is acquired.	長さが5.0m以上のもの。			
			Line width = 0.3 mm	線の太さ = 0.3mm			
			Color = Black	色 = 黒			

No.	Legend	Symbol (shape and size)	Description		Digital plotting data type		
					Point	Line	Polygon
(4) Administrative Boundaries (境界線)							
Administrative Boundaries (境界線)							
1	District boundary		A line of boundary between district	DistrictとDistrictとの境界			
			Line width = 0.5 mm	線の太さ = 0.5mm			
			Color = Black	色 = 黒			
2	Thana / Upazila boundary		A line of boundary between Thana and Upazila	Thana, UpazilaとThana, Upazilaとの境界			
			Line width = 0.3 mm	線の太さ = 0.3mm			
			Color = Black	色 = 黒			
3	Municipality boundary		A line of boundary between Municipality	MunicipalityとMunicipalityとの境界			
			Line width = 0.2 mm	線の太さ = 0.2 mm			
			Color = Black	色 = 黒			
4	Ward boundary		A line of boundary between Ward	WardとWardとの境界			
			Line width = 0.2 mm	線の太さ = 0.2mm			
			Color = Black	色 = 黒			

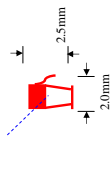
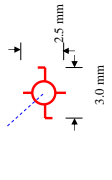
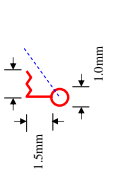
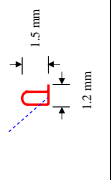
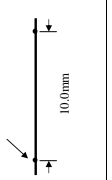
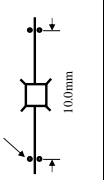
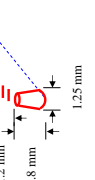
No.	Legend	Symbol (shape and size)	Description		Digital plotting data type		
					Point	Line	Polygon
(5) Public facilities (公共施設)							
Public facility symbols (公共施設記号)							
1	Consular office		Consular office Line width = 0.2 mm Line width = 0.2 mm Color = Red	領事館 線の太さ = 0.2mm 色 = 赤			
2	Embassy		Embassy Line width = 0.2 mm Color = Red	大使館 線の太さ = 0.2mm 色 = 赤			
3	Government office		Government office Line width = 0.2 mm Color = Red	官庁 線の太さ = 0.2mm 色 = 赤			
4	Police station		Police station Line width = 0.2 mm Color = Red	警察署 線の太さ = 0.2mm 色 = 赤			
5	Fire station		Fire station Line width = 0.2 mm Color = Red	消防署 線の太さ = 0.2mm 色 = 赤			
6	Hospital		Hospital Line width = 0.2 mm Color = Red	病院 線の太さ = 0.2mm 色 = 赤			
7	Health centre		Health center Line width = 0.2 mm Color = Red	ヘルスセンター 線の太さ = 0.2mm 色 = 赤			

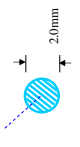
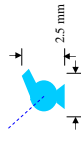



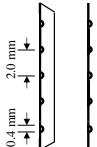
No.	Legend	Symbol (shape and size)	Description	Digital plotting data type		
				Point	Line	Polygon
8	Telephone and Telegraph office		Telephone and Telegraph office			
			Line width = 0.2 mm			
			Color = Red			
			色 = 赤			
9	Bank		Bank			
			Line width = 0.2 mm			
			Color = Black			
			色 = 黒			
10	Bank 24H		銀行(24時間)			
			Line width = 0.2 mm			
			Color = Black			
			色 = 黒			
11	Shopping centre		ショッピングセンター			
			Line width = 0.2 mm			
			Color = Red			
			色 = 赤			
12	Post office		郵便局			
			Line width = 0.2 mm			
			Color = Black			
			色 = 黒			
13	School		学校			
			Line width = 0.2 mm			
			Color = Red			
			色 = 赤			
14	Community centre		コミュニティセンター			
			Line width = 0.2 mm			
			Color = Red			
			色 = 赤			

No.	Legend	Symbol (shape and size)	Description	Digital plotting data type		
				Point	Line	Polygon
15	Mot		ヒンズー教の施設			
			Line width = 0.2 mm			
			Color = Red			
16	Church		キリスト教の教会			
			Line width = 0.2 mm			
			Color = Red			
17	Mosque		イスラム教のモスク			
			Line width = 0.2 mm			
			Color = Red			
18	Temple		寺院			
			Line width = 0.2 mm			
			Color = Red			
19	Idgah		イドガー			
			Line width = 0.2 mm			
			Color = Red			
20	Pagoda		ハコダ			
			Line width = 0.2 mm			
			Color = Red			
21	Cemetery		墓地			
			Line width = 0.2 mm			
			Color = Red			

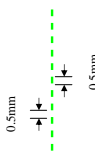
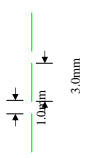
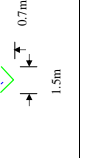
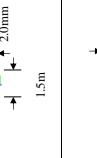
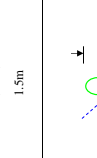
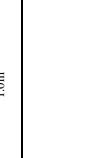
No.	Legend	Symbol (shape and size)	Description	Digital plotting data type		
				Point	Line	Polygon
22	Tomb		墓			
			Line width = 0.2 mm			
			Color = Red			
23	Grave		埋葬地			
			line width = 0.2 mm			
			Color = Black			
24	Madrasa		マドラサ			
			line width = 0.2 mm			
			Color = Red			
(6) Artificial features (人造物)						
Buildings (建物)						
1	Building/House		独立した建物			
			line width = 0.1 mm			
			Color = Black			
3	Build-up area		市街地等において建物が密集し個々の建物を表示しがたい場合は総括して表示する。			
			Hatch line width = 0.1 mm			
			Hatch line interval = 2.0 mm			
			Hatch line angle = 45 degrees			
			Color = Black hatch			
Fences (柵田)						
4	Fence		構囲。高さが1.5m以上、長さ50m以上のものを表示する。			
			Line width = 0.2 mm			
			Color = Black			

No.	Legend	Symbol (shape and size)	Description		Digital plotting data type		
					Point	Line	Polygon
Building symbols (建物記号)							
5	Hotel		Hotel	ホテル			
			Line width = 0.2 mm	線の太さ = 0.2mm			
			Color = Red	色 = 赤			
6	Restaurant		Restaurant	レストラン			
			Line width = 0.2 mm	線の太さ = 0.2mm			
			Color = Red	色 = 赤			
7	Cinema hall		Cinema hall	映画館			
			Line width = 0.2 mm	線の太さ = 0.2mm			
			Color = Red	色 = 赤			
8	Factory		Factory	工場			
			Line width = 0.2 mm	線の太さ = 0.2mm			
			Color = Red	色 = 赤			
9	Warehouse		Warehouse	倉庫			
			Line width = 0.2 mm	線の太さ = 0.2mm			
			Color = Red	色 = 赤			

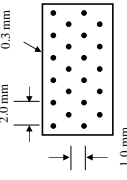


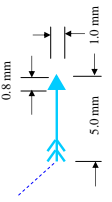

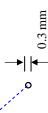
No.	Legend	Symbol (shape and size)	Description		Digital plotting data type		
					Point	Line	Polygon
Accessory objects (小物体)							
10	Petrol pump		Petrol pump	ガソリンポンプ			
			Line width = 0.2 mm	線の太さ = 0.2mm			
			Color = Red	色 = 赤			
11	Electric power station		Electric power station	変電所			
			Line width = 0.2 mm	線の太さ = 0.2mm			
			Color = Red	色 = 赤			
12	Tower and antenna (Microwave, etc.)		Tower and antenna	電波塔			
			Line width = 0.2 mm	線の太さ = 0.2mm			
			Color = Red	色 = 赤			
13	Monument		Monument	記念碑			
			Line width = 0.2 mm	線の太さ = 0.2mm			
			Color = Red	色 = 赤			
14	Pipe line		Pipe line	輸送管			
			Line width = 0.2mm	線の太さ = 0.2mm			
			Color = Black	色 = 黒			
15	High voltage electric power transmission line with tower		High voltage electric power transmission line with tower	送電線と高塔			
			Line width = 0.2mm	線の太さ = 0.2mm			
			Color = Black	色 = 黒			
16	Chimney		Large scale is acquired.	煙突、規模の大きなものについて取得する。			
			Line width = 0.2 mm	線の太さ = 0.2mm			
			Color = Red	色 = 赤			

No.	Legend	Symbol (shape and size)	Description	Digital plotting data type		
				Point	Line	Polygon
Water features (水部に関する構造物)						
17	Over head tank		<p>Over head tank</p> <p>Line width = 0.2 mm</p> <p>Color = Dark blue</p>	<p>高置式タンク</p> <p>線の太さ = 0.2mm</p> <p>色 = 濃い青</p>		
18	Water supply station		<p>Water supply station</p> <p>Line width = 0.2 mm</p> <p>Color = Dark blue</p>	<p>揚排水ポンプ場</p> <p>線の太さ = 0.2mm</p> <p>色 = 濃い青</p>		
19	Drainage and irrigation canal > 2.0m width		<p>More than width 2.0m is acquired.</p> <p>Line width = 0.2 mm</p> <p>Color = Dark blue(line)</p> <p>Color = Blue(inside)</p>	<p>幅2.0m以上の水路</p> <p>線の太さ = 0.2mm</p> <p>色 = 濃い青(線)</p> <p>色 = 青(内部)</p>		
20	Drainage and irrigation canal < 2.0m width		<p>Less than width 2.0m is acquired.</p> <p>Line width = 0.2 mm</p> <p>Color = Dark blue</p>	<p>幅2.0m未満の水路</p> <p>線の太さ = 0.2mm</p> <p>色 = 濃い青</p>		
22	Sluice gate		<p>Water gate</p> <p>Line width = 0.2 mm</p> <p>Color = Dark blue</p>	<p>水門</p> <p>線の太さ = 0.2mm</p> <p>色 = 濃い青</p>		
23	Artificial revement (Concrete, Bamboo and Wooden)		<p>More than height 1.5m and more than length 50m is acquired. When the width is less than 2.0m, it is acquired only as an upper line.</p> <p>Line width(Upper) = 0.2 mm</p> <p>Line width(Lower) = 0.1 mm</p> <p>Color = Black</p>	<p>道路、河岸等の斜面を保護するためのコンクリート、石積等の堅ろうな工作物をいい、その高さが、5m以上、長さが50m以上のものを表示する。 幅が2.0m未満のものは上線のみで表示する。</p> <p>線の太さ(上線) = 0.2mm</p> <p>線の太さ(下線) = 0.1mm</p> <p>色 = 黒</p>		

No.	Legend	Symbol (shape and size)	Description		Digital plotting data type		
					Point	Line	Polygon
(7) Traffic (交通)							
Traffic symbols (交通記号)							
1	Bus terminal		Bus terminal	バスターミナル			
			Line width = 0.2 mm	線の太さ = 0.2mm			
			Color = Red	色 = 赤			
2	Airport		Airport	空港			
			Line width = 0.2 mm	線の太さ = 0.2mm			
			Color = Red	色 = 赤			
3	Heliport		Heliport	ヘリポート			
			Line width = 0.2 mm	線の太さ = 0.2mm			
			Color = Red	色 = 赤			
4	Anchorage		Anchorage	港			
			Line width = 0.2 mm	線の太さ = 0.2mm			
			Color = Red	色 = 赤			
5	Light house		Light house	灯台			
			Line width = 0.2 mm	線の太さ = 0.2mm			
			Color = Red	色 = 赤			

No.	Legend	Symbol (shape and size)	Description		Digital plotting data type		
					Point	Line	Polygon
(8) Vegetation (植生)							
Vegetation (植生)							
1	Vegetation boundary		Boundary of vegetation	植生界			
			Line width = 0.2 mm	線の太さ = 0.2mm			
			Color = Green	色 = 緑			
2	Cultivation limit		Boundary of paddy field unit	耕地域界			
			Line width = 0.1 mm	線の太さ = 0.1mm			
			Color = Green	色 = 緑			
4	Cultivated land		Cultivated land	畑			
			Line width = 0.1 mm	線の太さ = 0.1mm			
			Color = Green	色 = 緑			
5	Plantation		Mixed garden / Plantation	農園			
			Line width = 0.1 mm	線の太さ = 0.1mm			
			Color = Green	色 = 緑			
6	Coconut tree		Coconut tree	椰子の樹			
			Line width = 0.1 mm	線の太さ = 0.1mm			
			Color = Green	色 = 緑			
8	Other trees		Other trees is not included in this table.	その他の樹木			
			Line width = 0.1 mm	線の太さ = 0.1mm			
			Color = Green	色 = 緑			

No.	Legend	Symbol (shape and size)	Description	Digital plotting data type		
				Point	Line	Polygon
9	Palm tree		シユロの樹			
			Line width = 0.1 mm 線の太さ = 0.1mm			
			Color = Green 色 = 緑			
10	Bush and scrub		荒地			
			Line width = 0.1 mm 線の太さ = 0.1mm			
			Color = Green 色 = 緑			
11	Bamboo		竹林			
			Line width = 0.1 mm 線の太さ = 0.1mm			
			Color = Green 色 = 緑			
12	Grass		草地			
			Line width = 0.1 mm 線の太さ = 0.1mm			
			Color = Green 色 = 緑			
13	Swamp		湿地			
			Line width = 0.1 mm 線の太さ = 0.1mm			
			Hatch line length = 2.5mm ハッチラインの長さ = 2.5mm			
			Hatch line interval = 2.5 mm ハッチラインの間隔 = 2.5mm			
			Color = Dark blue 色 = 濃い青			

No.	Legend	Symbol (shape and size)	Description	Digital plotting data type		
				Point	Line	Polygon
(9) Natural features (自然物)						
Natural features (自然物)						
1	Sand		An area covered by sand Line width = 0.1 mm Dot size = 0.3 mm Dot interval = 2.0 mm Color = Black	砂で覆われた地域 線の太さ = 0.1mm 点の径 = 0.3mm 点の間隔 = 2.0 mm 色 = 黒		
2	River		More than width 2.0m is acquired. Line width = 0.2 mm Color = Dark blue(line) Color = Blue(inside)	河川は、平水時において流水部の幅が2.0m以上のものを表示する。 線の太さ = 0.2mm 色 = 濃い青(線) 色 = 青(内部)		
3	Stream		1.0-2.0m width is acquired. Line width = 0.2 mm Color = Dark blue	一糸河川とは、流水部の幅が1.0m以上2.0m未満の河川をいう。 線の太さ = 0.2mm 色 = 濃い青		
4	Flow direction		A stream direction is suitably displayed on the position which does not overlap with feature, when the width of a river is wide, the width of a river is narrow and a symbol does not go into the central part of the river Line width = 0.2 mm Color = Dark blue	流水方向の記号は、川幅が広い場合は河川の中央部に、川幅が狭く記号が入らない場合は適宜、地物と重ならない位置に表示する。 線の太さ = 0.2mm 色 = 濃い青		
5	Lake and pond		The lake and pond more than 10m ² are acquired in general. Line width = 0.2 mm Color = Dark blue	湖・池はおおむね10m ² 以上のものを表示する。 線の太さ = 0.2mm 色 = 濃い青		
(10) Others (その他)						
Others (その他)						
1	Indicating point		A indicating point cannot be displayed on the inside of the feature, when displaying a public facility, a building symbol, and annotation, but when the feature cannot be specified, it is displayed. Line width = 0.1 mm Color = Black	指示点は、公共施設、建物記号及び注記を表示する場合に、その対象物の内部に表示できず、対象とするものが特定できない場合に表示する。 線の太さ = 0.1mm 色 = 黒		

DISTRICT: DHAKA
THANA: UTTARA
UNION: UTTAR KHAN

DISTRICT: GAZIPUR
THANA: TONGI
MUNICIPALITY: TONGI

GREATER DHA

90°21'00"

GREATER DHAKA CITY AND SURROUNDINGS

90'21.00"

30"

JRROUNDINGS

Sheet No.112

30"

90'22"00"

90°21'00"

Sca



This map was prepared jointly by the Japan International Cooperation Agency (JICA) under the Japanese Government Technical Cooperation Program and the Government of the People's Republic of Bangladesh (SOB).

Refer to this map as: 1:5,000 Sheet No.112
 Ellipsoid: Everest 1830
 1st Edition 2003

Projection: Bangladesh Universal Transverse Mercator Projection (BUTM)
 Reference point for horizontal coordinates: Datum point at Gulshan

Reference point for elevation: MSL at Bay of Bengal

Contour interval: 2.0m

Date of aerial photography: January, 2003

Date of ground control survey: January - February, 2003

Date of field identification: February - November, 2003

Date of digital photogrammetric mapping: May, 2003 - January, 2004

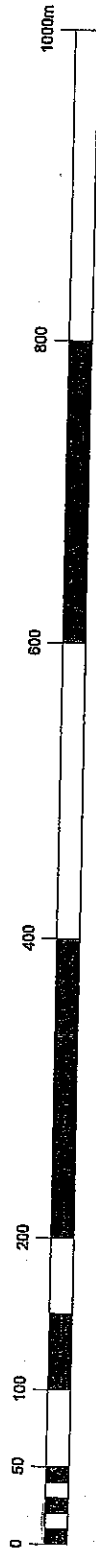
Date of printing: ~~June~~, 2004
 7/02/04

1st Edition 2003

Published by Survey of Bangladesh

LINE SYMBOLS	
CONTOUR LINES	ADMINISTRATIVE BOUNDARIES:
— 10 — Index contour	— — — — — District bound
— — — — — Intermediate contour	— — — — — Thana / Upa
— — — — — Supplementary contour	— — — — — Municipality
ROADS	— — — — — Ward bounds
===== Highway	RAILWAYS
===== Superior road	===== Metre Gauge
===== Unmetalled road	===== Broad Gauge
===== Foot path	===== Mixed Gauge
===== Road inside compound	===== Over bridge, 1
===== Road under construction	===== Platform
TTTTTTTTTT Embankment (large)	===== Railway bridg
+++++ Embankment (small)	ARTIFICIAL FEATURES
===== Road, underpass	===== Building/Hous
===== Over bridge, road	===== Fence
===== Distance marker / Road divider	===== Pipe line
===== Bridge	===== High voltage electric
===== Foot bridge	===== Drainage and Irrig
VEGETATION	===== Drainage and Irrig
===== Vegetation boundary	===== Sluice gate
===== Cultivation limit	===== Artificial reveget

Scale 1 : 5,000 or 1cm to 50 metres



GOVE C

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ngladesh (SOB).

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permission of the Sur

<p>LINE SYMBOLS</p> <p>CONTOUR LINES</p> <ul style="list-style-type: none"> 10 Intermediate contour Supplementary contour <p>ROADS</p> <ul style="list-style-type: none"> Highway Superior road Unmetalled road Foot path Road inside compound Road under construction Embankment (large) Embankment (small) Road, underpass Over bridge, road 5cm Distance marker / Road divider Bridge Foot bridge <p>VEGETATION</p> <ul style="list-style-type: none"> Vegetation boundary Cultivation limit 	<p>ADMINISTRATIVE BOUNDARIES (Alignment approximate)</p> <ul style="list-style-type: none"> District boundary Thana / Upazila boundary Municipality boundary Ward boundary <p>RAILWAYS</p> <ul style="list-style-type: none"> Metre Gauge Broad Gauge Mixed Gauge Over bridge, railway Platform Railway bridge <p>ARTIFICIAL FEATURES</p> <ul style="list-style-type: none"> Building/House Fence Pipe line High voltage electric power transmission with tower Drainage and irrigation canal > 2.0m width Drainage and irrigation canal < 2.0m width Sluice gate Artificial revetment 	<p>NATURAL FEATURES</p> <ul style="list-style-type: none"> River Lake and pond Stream <p>POINT SYMBOLS</p> <ul style="list-style-type: none"> Consular office Embassy Government office Police station Fire station Hospital Health centre Telephone and Telegraph office Bank Bank 24H Shopping centre Post office School Community centre Mot Church Mosque Temple Iddah Pagoda Cemetery Tomb Grave Madrasa Hotel Restaurant Cinema hall Factory Warehouse Petrol pump Electric power station Over head tank Water supply station 	<p>TOWER AND ANTENNA</p> <ul style="list-style-type: none"> Chimney Monument Bus terminal Airport/airfield Heliport Anchorage Light house Flow direction 12.5 GPS point 12.56 Benchmark 12.3 Spot height Depression <p>TINT LEGEND</p> <ul style="list-style-type: none"> Build-up area Swamp Sand
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20	40	60	80	100	120	140	160	180	200	220	240	260	280

SYMBOLS

- Temple
- Idgah
- Pagoda
- Cemetery
- Tomb
- Grave
- Madrasa
- Hotel
- Restaurant
- Cinema hall
- Factory
- Warehouse
- Petrol pump
- Electric power station
- Over head tank
- Water supply station

Stream

- Tower and antenna
- Chimney
- Monument
- Bus terminal
- Airport/airfield
- Helipoint
- Anchorage
- Light house
- Flow direction

TINT LEGEND

- Cultivated land
- Plantation
- Coconut tree
- Other trees
- Palm tree
- Bush and scrub
- Bamboo
- Grass
- Sand
- Build-up area
- Swamp

Handwritten signature/initials

Appendix 16 Map Features Code

MicroStation Map Feature Code

ver4

Code	Type				Legend	Level	Color	Weight	Style	Point Cell name	Liner Pattern Cell name	Text size	Text pitch
	cell	Line string	shape	text									
Geodetic points and Contour Lines													
1101					GPS point	1	1	1	0	S1101			
1102					Benchmark	2	2	1	0	S1102			
1103					Spot height	3	3	1	0	S1103			
1201					Index contour	4	4	1	0				
1211					Index contour (non-print line)	4	134	1	1				
1202					Intermediate contour	5	5	0	0				
1212					Intermediate contour (non-print line)	5	135	0	1				
1203					Supplementary contour	6	6	0	2		L1203		
1204					Depression (arrow)	7	37	0	0	S1204			
Roads													
2101					Highway	8	8	3	0				
2111					Highway (non-print line)	8	178	3	1				
2102					Superior road	9	9	1	0				
2112					Superior road (non-print line)	9	179	1	1				
2103					Unmetalled road	10	10	1	2		L2103		
2113					Unmetalled road (non-print line)	10	180	1	1				
2105					Foot path	12	12	2	2		L2105		
2115					Foot path (non-print line)	12	182	2	1				
2107					Road inside compound	13	13	1	2		L2107		
2117					Road inside compound (non-print line)	13	183	1	1				
2108					Road under construction	13	53	0	2		L2108		
2201					Embankment (Upper line)	14	14	0	0		L2201		
2202					Embankment (Lower line)	14	54	0	2				
2203					Embankment (Symbol)	14	114	0	0				
2204					Embankment (small)	14	34	0	2		L2204		
2301					Road, underpass	15	15	0	0				
2302					Over bridge, road	15	25	0	0				
2303					Distance marker	15	35	0	0				
2311					Bridge	16	16	2	0				
2312					Foot bridge	16	36	2	0				
2316					Road divider	15	55	1	0				
Railways													
2401					Metre gauge	17	17	1	2		L2401		
2402					Broad gauge	18	18	1	2		L2402		
2403					Mixed gauge	19	19	0	2		L2403		
2404					Over bridge, railway	20	20	1	0				
2405					Bridge, railway	20	23	2	0				
2501					Platform	21	21	0	0				
Administrative Boundaries													
3101					District boundary	23	81	4	2		L3101		
3102					Thana/Upazila boundary	24	82	2	2		L3102		
3103					Municipality boundary	25	83	1	2		L3103		
3104					Ward boundary	26	84	1	2		L3104		
Public facilities													
4101					Consular office	27	151	1	0	S4101			
4102					Embassy	27	152	1	0	S4102			
4103					Government office	27	153	1	0	S4103			
4104					Police station	27	154	1	0	S4104			
4105					Fire station	27	155	1	0	S4105			
4106					Hospital	27	156	1	0	S4106			
4107					Health centre	27	157	1	0	S4107			
4108					Telephone and Telegraph office	27	158	1	0	S4108			
4109					Bank	28	159	1	0	S4109			
4110					Bank 24H	28	160	1	0	S4110			
4111					Shopping centre	27	161	1	0	S4111			
4112					Post office	28	162	1	0	S4112			
4113					School	27	163	1	0	S4113			
4114					Community centre	27	164	1	0	S4114			
4115					Mot	27	165	1	0	S4115			
4116					Church	27	166	1	0	S4116			
4117					Mosque	27	167	1	0	S4117			
4118					Temple	27	168	1	0	S4118			
4119					Idgah	27	169	1	0	S4119			
4120					Pagoda	27	170	1	0	S4120			
4121					Cemetery	27	171	1	0	S4121			
4122					Tomb	27	172	1	0	S4122			
4123					Grave	28	173	1	0	S4123			
4124					Madrassa	27	174	1	0	S4124			
Artificial features													
4201					Building/House	29	28	0	0				
4204					Build-up area	32	31	0	0				
4214					Build-up area(Hatch)	32	131	0	0				
4303					Fence	34	33	1	2		L4303		
4401					Hotel	35	91	1	0	S4401			
4402					Restaurant	35	92	1	0	S4402			
4403					Cinema hall	35	93	1	0	S4403			
4404					Factory	35	94	1	0	S4404			
4405					Warehouse	35	95	1	0	S4405			
4501					Petrol pump	35	97	1	0	S4501			
4502					Electric power station	35	98	1	0	S4502			
4503					Tower and antenna	35	99	1	0	S4503			

Code	Type				Legend	Level	Color	Weight	Style	Point Cell name	Liner Pattern Cell name	Text size	Text pitch
	cell	Line string	shape	text									
4504					Monument	35	100	1	0	S4504			
4505					Pipe line	36	101	1	2		L4505		
4506					High voltage electric power transmission line	36	102	0	2		L4506		
4507					High voltage electric power transmission tower	36	103	1	0				
4508					Chimney	35	104	1	0	S4508			
4601					Over head tank	37	121	1	0	S4601			
4602					Water supply station	37	122	1	0	S4602			
4603					Drainage more than 2.0m	37	123	1	0				
4604					Drainage less than 2.0m	37	124	1	0				
4606					Sluice gate	37	126	1	0				
4607					Artificial revetment (upper line)	38	7	1	2		L4607		
4608					Artificial revetment (lower line)	38	57	0	0				
Traffic													
5101					Bus terminal	40	61	1	0	S5101			
5102					Airport	40	62	1	0	S5102			
5103					Heliport	40	63	1	0	S5103			
5104					Anchorage	40	64	1	0	S5104			
5105					Light house	40	65	1	0	S5105			
Vegetation													
6101					Vegetation boundary	41	41	1	1		L6101		
6102					Cultivation limit	42	42	0	2		L6102		
6112					Cultivated land	43	72	0	0	S6112			
6113					Plantation	43	73	0	0	S6113			
6114					Coconut tree	43	74	0	0	S6114			
6116					Other trees	43	76	0	0	S6116			
6117					Palm tree	43	77	0	0	S6117			
6118					Bush and scrub	43	78	0	0	S6118			
6119					Bamboo	43	79	0	0	S6119			
6120					Grass	43	80	0	0	S6120			
6131					Swamp	44	44	0	0				
6132					Swamp(symbol)	44	144	0	0		L6132		
Natural features													
7101					Sand	45	45	0	0				
7102					Sand(symbol)	45	145	0	0		L7102		
7111					River	46	46	1	0				
7112					Stream	46	56	1	0				
7113					Flow direction	47	47	1	0	R7114			
7114					Lake and pond	46	66	1	0				
Text													
8101					District	50	201	2	0			25.00	0.00
8102					Thana/Upazila	50	202	2	0			22.50	0.00
8103					Municipality	50	203	1	0			15.00	0.00
8104					Ward	50	204	1	0			15.00	0.00
8105					Union	50	200	1	0			15.00	0.00
8106					Village/Mohalla	50	218	1	0			12.50	0.00
8107					Area	50	219	1	0			12.50	0.00
8111					Road(large)	51	205	1	0			12.50	0.00
8111					Road(small)	51	205	1	0			10.00	0.00
8116					Distance marker	52	206	1	0			10.00	0.00
8121					Railway	51	207	1	0			15.00	0.00
8126					Station	51	208	1	0			10.00	0.00
8131					Bridge	51	209	1	0			10.00	0.00
8141					Building	53	210	1	0			10.00	0.00
8151					River(large)	54	211	1	0			17.50	0.00
8151					River(small)	54	211	1	0			12.50	0.00
8152					Stream	54	211	1	0			10.00	0.00
8153					Lake and Pond(large)	54	211	1	0			15.00	0.00
8153					Lake and Pond(small)	54	211	1	0			10.00	0.00
8156					Water feature	54	212	1	0			10.00	0.00
8161					Area features	55	213	1	0			10.00	0.00
8171					GPS point	56	214	1	0			10.00	0.00
8172					Benchmark	57	215	1	0			10.00	0.00
8173					Spot height	58	216	1	0			7.50	0.00
8176					Contour text	58	217	1	0			7.50	0.00
8199					Directing point	59	220	1	0	S8199			

Appendix 17 Standard of Line Width and Size of Annotation

Annotation

District	DHAKA	5.0mm
Thana / Upazila	TONGI	4.5mm
Municipality	TONGI	3.0mm
Ward	WARD 1	3.0mm
Union	UTTAR KHAN	3.0mm
Village	Kazipara	2.5mm
Area	Shyamoli Housing	2.5mm
Road (wide)	AZIMPUR ROAD	2.5mm
(narrow)	AZIMPUR ROAD	2.0mm
Distance marker	5km	2.0mm
Railway station	Airport Station	2.0mm
Bridge	Jamuna Bridge	2.0mm
Building	Dhaka University	2.0mm
River (wide)	BURHI GANGA RIVER	3.5mm
(narrow)	BURHI GANGA RIVER	2.5mm
Stream	Begunbari Khal	2.0mm
Lake / Pond (large)	Banani Lake	3.0mm
(small)	Crescent Lake	2.0mm
Water feature	Sluice Gate	2.0mm
Area features	Ramna Park	2.0mm

