


MINUTES OF THE MEETING
FOR
THE MASTER PLAN STUDY
ON
URBAN FACILITIES RESTORATION AND IMPROVEMENT
IN MONROVIA
(TOPOGRAPHIC MAPPING)

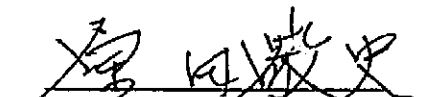
AGREED UPON
BETWEEN
LIBERIAN CARTOGRAPHIC SERVICE,
MINISTRY OF LANDS, MINES AND ENERGY
AND
JICA STUDY TEAM,
JAPAN INTERNATIONAL COOPERATION AGENCY
Monrovia,
2nd December 2008

Regarding the Symbol Specification for the Topographic Mapping of the above-mentioned project, JICA Study Team (hereinafter refers "the Team") and Liberian Cartographic Service under the Ministry of Lands, Mines and Energy (hereinafter refers "LCS") agreed on the following:

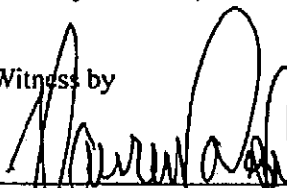
1. Agreed symbols specification, coordinate system and sheet index as attached will be used for the Topographic Mapping for the project.
2. In case unclear matters or changes found during the Topographic Mapping, both the Team and LCS will discuss and conclude under mutual consultation during the works.



Mr. Nathaniel K. CISCO
Assistant Director
Liberian Cartographic Service
Ministry of Lands, Mines and Energy



Mr. Takashi HARADA
Leader
JICA Study Team

Witness by


Mr. Lawrence Y. PAYE
Chief Architecture
Ministry of Public Works

List of Attendance

1st day (28th November 2008)

1. Edsel Edward Smith	MPW	Assist. Min. Tech. Service
2. Ambrose C. Wureh	MPW	Technical Assistant/Minister
3. O.T. Shephead	MPW	Urban Planning
4. Lawrence Y. Paye	MPW	Chief Architect
5. Kenneth Y. Awadjie	MPW	Asst. Chief Architect
6. Stephen S. Doe	MLM&E	Special Assitant/LCS
7. Nathaniel K. Cisco	MLM&E	Asst. Director/LCS
8. Takashi Harada	JICA Study Team	Leader
9. Kentaro Usuda	JICA Study Team	Supervisor

2nd day (2nd December 2008)

1. O.T. Shephead	MPW	Urban Planning
2. Lawrence Y. Paye	MPW	Chief Architect
3. Kenneth Y. Awadjie	MPW	Asst. Chief Architect
4. Stephen S. Doe	MLM&E	Special Assitant/LCS
5. Nathaniel K. Cisco	MLM&E	Asst. Director/LCS
6. Louis K. Kekulah	MLM&E	Cartographer/LCS
6. Takashi Harada	JICA Study Team	Leader
7. Kentaro Usuda	JICA Study Team	Supervisor

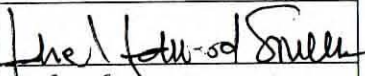
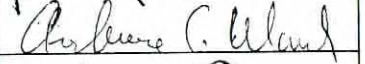

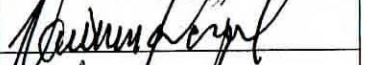




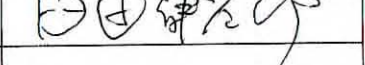
THE MASTER PLAN STUDY ON URBAN FACILITIES RESTORATION AND IMPROVEMENT
(TOPOGRAPHIC MAPPING)

LIST OF ATTENDANCE

For

2008/11/28

The Consultation of Symbol Specification for Digital Topographic Mapping

No.	Name	Organization	Position	Signature
1	Edsel Edward Smith	MPW	ASSIST. MIN. TECHN. SERV	
2	AMBROSE C. WUREH	MPW	TECHNICAL ASSISTANT/M	
3	O.P. SHEPHERD	MPW	URBAN PLANNING	
4	LAWRENCE Y. PAYE	M.P.W.	CHIEF ARCHITECT MPW	
5	Kenneth Y. Awajie	MPW	Asst. Chief Architect/MPW	
6	Stephen S. Doe	MLM&E	Special Assistant/LCS MLM&E	
7	Nathaniel K. Gwido, Sr.	MLM&E	Asst. Director/LCS	
8	Takashi Murada	JICA Study Team	Leader	
9	Kentaro USUDA	JICA Study Team	Supervisor	
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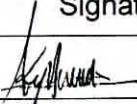
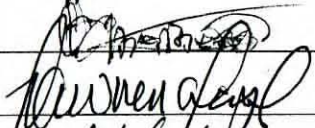
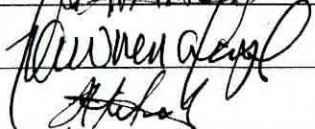
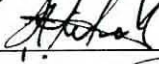
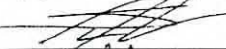
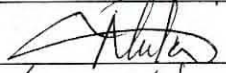

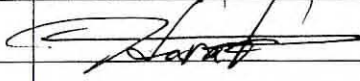
THE MASTER PLAN STUDY ON URBAN FACILITIES RESTORATION AND IMPROVEMENT
(TOPOGRAPHIC MAPPING)


LIST OF ATTENDANCE

For

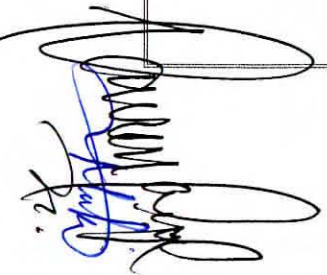
2008/12/02

The Consultation of Symbol Specification for Digital Topographic Mapping

No.	Name	Organization	Position	Signature
1	Kenneth Y. Awadjie	MPW	Asst. Chief Architect	
2	STOLARNEY P. SHEPHERD	✓	URBAN PLANNERS	
3	LAWRENCE Y. PAYE	MPW	CHIEF ARCHITECT	
4	Louis K. Kekulaha	LM&E	Cartographer	
5	Stephen S. Doe	LM&E	Special Assistant	
6	Nathaniel K. Coates, Jr.	LM&E	Asst. Director/LCS	
7	Kentaro USUDA	JICA	Member	
8	Tagashi HARADA	JICA Study Team	Leader	
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Map Symbols
of
Topographic Map (1/10,000)
for
The Master Plan on Urban Restoration
and
Improvement in Monrovia
in
The Republic of Liberia


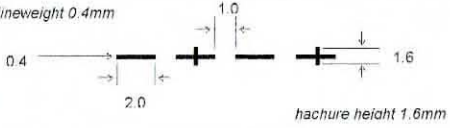

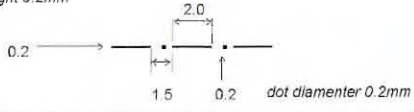

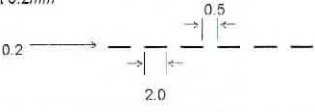
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Abbreviated keyword

Color	Entity
BK->Black	Pt->Point
BN->Brown	Pg->Polygon
RD->Red	L->Line
OG->Orange	
GN->Green	
BU->Blue	


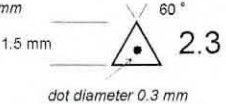

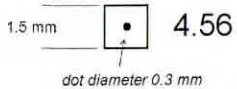
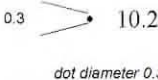

The List of Symbols for Topographic Map at a scale of 1/10,000

11-Boundaries





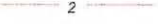

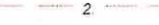





No.	Classification Code		Description	Symbol	Cartographic Specification	Data Type			Notes on Usage
	Primary	Secondary				Entity	weight	color	
1	11	01	Boundary-National 国境		<i>lineweight 0.4mm</i>  <i>hachure height 1.6mm</i>	L	4	BK	Acquire as line data
2	11	02	Boundary-County 郡界		<i>lineweight 0.2mm</i>  <i>dot diameter 0.2mm</i>	L	2	BK	Acquire as line data
3	11	03	Boundary-District 地区界		<i>lineweight 0.2mm</i> 	L	2	BK	Acquire as line data

The List of Symbols for Topographic Map at a scale of 1/10,000

Relief-73_Geodetic Control Points

No.	Classification Code		Description	Symbol	Cartographic Specification	Data Type			Notes on Usage
	Primary	Secondary				Entity	weight	color	
4	73	01	Horizontal Control Point 三角点		<i>lineweight 1.5 mm</i>  <i>dot diameter 0.3 mm</i>	Pt	1.5	BK	Acquire as point data
5	73	02	Benchmark 水準点		<i>lineweight 1.5 mm</i>  <i>dot diameter 0.3 mm</i>	Pt	1.5	BK	Acquire as point data
6	73	03	Direct Leveling Point 直接水準標高点	• 10.2	 <i>dot diameter 0.3 mm</i>	Pt		BK	Indicate surveyed numeric value of direct leveling points in metric on the map. An smallest unit is 10cm.
7	73	04	Spot Height 図化標高点/図上10cm×10cm で9点(標高点も含む)を取得する。	• 10	 <i>lineweight 1.5 mm</i>	Pt		BK	Acquire 9 spot heights, including contour value in 10cm by 10cm on the map. An smallest unit is in meter.

The List of Symbols for Topographic Map at a scale of 1/10,000 Relief-71_Contour lines


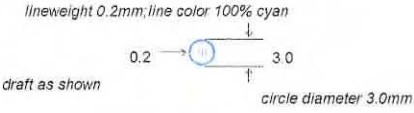
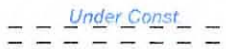
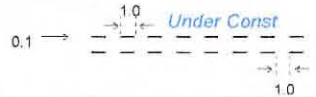
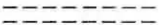
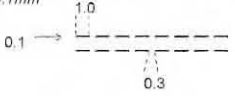
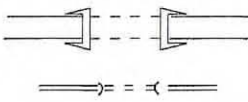
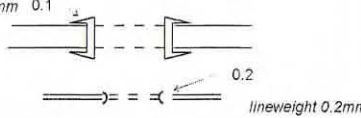
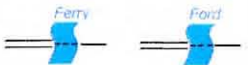

No.	Classification Code		Description	Symbol	Cartographic Specification	Data Type			Notes on Usage
	Primary	Secondary				Entity	weight	color	
8	71	01	Index Contour Line 計曲線 * 等高線数値は高い方に向かって表示する。		 <i>lineweight 0.25 mm; line color 100% brown line and text color 100% brown</i>	L	2.5	BN	Index Contour Line shall be shown at 10m vertical. *Orientation of contour value shall face to the high point of land.
9	71	02	Intermediate Contour Line 主曲線 * 等高線数値は高い方に向かって表示する。	 	<i>at flat area</i>  <i>at hilly</i>  <i>lineweight 0.15 mm; line color 100% brown line and text color 100% brown</i>	L	1.5	BN	Intermediate Contour Line shall be shown at 2m vertical at flat area and 5m at hilly area *Orientation of contour value shall face to the high point of land.
10	71	03	Supplementary Contour Line 補助曲線		 <i>dash length 4.0 mm; spacing 0.3 mm lineweight 0.15 mm; line color 100% brown line and text color 100% brown</i>	L	1.5	BN	Supplementary Contour Line shall be shown at 2.5m vertical interval, if necessary.
11	71	04	Depression, Index Contour Line おう地(計曲線)		<i>tick lineweight 0.15; length 0.5 mm; spacina 3.0 mm</i>  <i>contour lineweight 0.25mm line color 100% brown</i>	L	2	BN	
12	71	05	Depression, Intermediate Contour Line おう地(主曲線)		<i>tick lineweight 0.15; length 0.5 mm; spacina 3.0 mm</i>  <i>contour lineweight 0.15 mm line color 100% brown</i>	L	1.5	BN	

The List of Symbols for Topographic Map at a scale of 1/10,000

Transportation Features-21_Roads,22_Related-features

No.	Classification Code		Description	Symbol	Cartographic Specification	Data Type			Notes on Usage
	Primary	Secondary				Entity	weight	color	
13	21	01	All weather, pavement road (width of 3m or more) undivided (shown at scale) 図上0.3m以上の全天候型舗装道路		<p>outlines: linewidths 0.2mm in 100% black</p> <p>fill: color fill 100% orange</p>	Pg	2	BK OR	The road (width of 2m or more) shall be acquired as polygon data at scale. Fill in areas of a graphic with orange in color.
14	21	02	All weather, pavement road (width of 3m or more), divided by centerline (shown at scale) 図上0.3m以上の全天候型、2車線以上の舗装道路		<p>outlines and center line: linewidths 0.2mm in 100% black</p> <p>fill: color fill 100% orange</p>	Pg	2	BK OR	The road (width of 3m or more) shall be acquired as polygon data in actual scale size. Fill in areas of a graphic with orange in color. Central road separation shall be acquired as line data at road center.
15	21	03	Dry Weather Road (shown at scale) 3m以上の乾燥した道路		<p>linewidth 0.2mm</p>	L	2	BK	The road (width of 3m or more) shall be acquired as line data at scale.
16	21	04	Improved surface road/street in urban area; width of 3m or more (shown at scale) 都市内の舗装道路		<p>linewidth 0.1mm</p> <p>congested areas</p> <p>minimum width 0.3mm</p>	L	1	BK	The road (width of 3m or more) shall be acquired as line data at scale.
17	21	05	Track/4 wheel Drive (symbolized) 軽車道/3m以下の未改良道路		<p>linewidth 0.2mm</p>	L	2.5	BK	The road (width of 3m less or equal) shall be acquired as a single line at road center.
18	21	06	Footpath (symbolized) 徒歩道		<p>linewidth 0.2mm</p>	L	2.5	BK	The trail shall be acquired at road center. It will be omitted at congested housing area.

The List of Symbols for Topographic Map at a scale of 1/10,000 Transportation Features-21_Roads,22_Related-features

No.	Classification Code		Description	Symbol	Cartographic Specification	Data Type			Notes on Usage
	Primary	Secondary				Entity	weight	color	
19	21	07	National Route Marker 国道番号		<p>lineweight 0.2mm; line color 100% cyan</p> <p>draft as shown</p>  <p>circle diameter 3.0mm</p>	PT	2	BU	Express as point data at an appropriate position.
20	21	08	Road, Under Construction (showing abbreviated annotation with "Under const.") 建設中の道路		<p>lineweight 0.1mm; line color 100% black</p> 	L Text	1	BK BU	Acquire both sides of road edge as line data. Showing "Under Const. "
21	21	09	Garden Path 庭園路		<p>lineweight 0.1mm</p> 	L	1	BK	Acquire both sides of road edge as line data.
22	21	10	Road, Underground 地下の道路		<p>lineweight 0.2mm</p>  <p>lineweight 0.2mm</p>	L 2	1 2	BK	The underground part is expressed at scale.
23	21	11	Ferry/Ford フェリー/浅瀬		<p>lineweight 0.1mm</p> 	L Text	2	BK	Acquired as line data. Showing "Ferry or Ford".

The List of Symbols for Topographic Map at a scale of 1/10,000 Transportation Features-21_Roads,22_Related-features

No.	Classification Code		Description	Symbol	Cartographic Specification	Data Type			Notes on Usage
	Primary	Secondary				Entity	weight	color	
24	22	01	Side Walk 歩道		<p>linewidth 0.1mm</p>	L	1	BK	Acquire the side wake width of 3m or more as line data.
25	22	02	Road with Tree Row 並木		<p>linewidth 0.1mm</p> <p>circle diameter 0.4.0mm</p>	Pt	1	BK	Acquire as point data
26	22	03	Grade Separation 立体交差: 高架の長さが図上10mm以上の 道路に適用する。		<p>linewidth 0.3mm</p>	Pt	3	BK	Acquire as point data Apply symbol to the elevated road with length of 10mm or more on the map
27	22	04	Pedestrian Overpass 歩道橋 歩道橋の図上幅は、最小0.3mm とする。		<p>linewidth 0.1mm</p>	L	1	BK	Acquire as polygon data. Minimum width shall be 0.3mm on the map.
28	22	05	Bridge 橋 長さが図上2mm (20m)で幅員が 0.3mm (3m)以上を表示する。		<p>linewidth 0.1mm</p>	L	1	BK	The firm bridges (length of 20m or more and width of 3m or more) shall be acquired as line data.
29	22	06	Foot Bridge 徒橋 上記 "2205"以外の橋に適用す る。		<p>linewidth 0.1mm</p>	L	1	BK	Bridges other than the above"2205", shall be acquired as single line data.
30	22	07	Stone Steps/ 石段 図上の長さが2mm、幅員0.5mm 以上に適用する。		<p>linewidth 0.1mm</p>	L	1	BK	Acquire stone steps, length of 2mm or more and width of 0.5mm or more on the map, as line data.

The List of Symbols for Topographic Map at a scale of 1/10,000


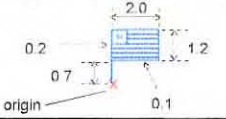

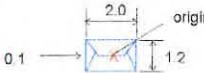

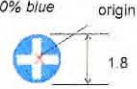

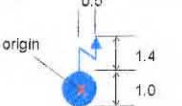

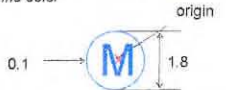




23-Railroad and Related-features

No.	Classification Code		Description	Symbol	Cartographic Specification	Data Type			Notes on Usage
	Primary	Secondary				Entity	weight	color	
31	23	01	Railways/Normal Gauge 4' 8/1/2" (1435mm)-single track 鉄道(単線) 標準軌(単線)を表示する。		<i>lineweight 0.4mm</i> <i>tick length 1.0mm, lineweight 0.1mm</i>	L	4 1	BK	Acquire the center of railways as line data.
32	23	02	Railways/Normal Gauge 4' 8/1/2" (1435mm)-double track 鉄道(複線) 標準軌(複線)を表示する。		<i>lineweight 0.4mm</i> <i>tick length 1.0mm, lineweight 0.1mm</i>	L	4 1	BK	Acquire the center of railways as line data.
33	23	03	Railways/Narrow gauge 3' 6" (1067mm)-single track 鉄道(単線) 狭軌(単線)を表示する。		<i>lineweight 0.4mm</i> <i>tick length 0.5mm, lineweight 0.1mm</i>	L	4 1	BK	Acquire the center of railways as line data.
34	23	04	Railways/Narrow gauge 3' 6" (1435mm)-double track 鉄道(複線) 狭軌(複線)を表示する。		<i>lineweight 0.4mm</i> <i>tick length 0.5mm, lineweight 0.1mm</i>	L	4 1	BK	Acquire the center of railways as line data.
35	23	05	Sidetracks 側線		<i>lineweight 0.1mm</i> <i>tick length 0.5mm, lineweight 0.1mm</i>	L	1	BK	Acquire the center of railways as line data in scale.
36	23	06	Railway Stations 駅		<i>lineweight 0.1mm</i> <i>tick length 0.5mm, lineweight 0.1mm</i>	L	1	BK	Acquire the outline of railways station at scale as polygon data .
37	23	07	Ropeways 索道 空中ケーブル、ベルトコンベアーを含む。 *部品は自動発生して表示する。		<i>lineweight 0.1mm</i> <i>tick length 0.5mm, lineweight 0.1mm</i>	L	1	BK	Acquire center of ropeways as line data. Parts of rope way shall be symbolized automatically.

The List of Symbols for Topographic Map at a scale of 1/10,000 Inhabited Area-30_Buildings, 35_Building Classification Symbols

No.	Classification Code		Description	Symbol	Cartographic Specification	Data Type			Notes on Usage
	Primary	Secondary				Entity	weight	color	
38	30	01	Independent Building/ House 3階未満の建物で、短辺が図上 0.4mm以上のものに適用する。		<i>lineweight 0.1mm, line color 100% brown</i> 	Pg	1	BN	Apply to buildings/houses less than three-stories and larger than 0.4mm on a side of houses on the map. Acquire outline of buildings/houses as polygon data at scale.
39	30	02	Prominent Building/Reinforced Concrete Buildings/Houses 重要な建物/鉄筋コンクリートで3階以上の建物			Pg	2	BN	Apply to the buildings more than three-stories and larger than 0.4mm on a side on the map. Acquire outline of buildings/houses as polygon data at scale.
40	30	03	Ruins, None-wall Building and Building, Under Construction 廃墟及び無壁建物, 工事中建物			Pg	1	BN	Acquire as polygondata in exact scale.
41	30	04	Congested Housing Area 建物が密集した地域は総描表示を行う。ただし、総描内に"3002"がある場合はその建物は表示する。			Pg	2	BN	Congested housing area shall be shown by generalized expression as build-up area. When the prominent building "3002" is located in the area, it shall be expressed as an independent building at scale.
42	30	05	Temporary Housing Area 仮設住宅地域			Pg	1	BN	Acquire out line of temporary housing area as polygon data
43	30	06	Building, minium 最小建物記号/建物の短辺が図上0.5mm以下の建物			Pt	1	BN	Acquire the house, side is shorter than 0.5mm on the map as point data.

The List of Symbols for Topographic Map at a scale of 1/10,000 Inhabited Area-30_Buildings, 35_Building Classification Symbols

No.	Classification Code		Description	Symbol	Cartographic Specification	Data Type			Notes on Usage
	Primary	Secondary				Entity	weight	color	
44	35	01	Public Building 公共建物 注記は不要		<i>lineweight 0.1mm, line color 100% cyan</i> 	Pt	1	BU	Acquire as point data. No annotation is required irrespective of its size.
45	35	02	Post Office 郵便局 注記は不要		 <i>lineweight 0.1mm, line color 100% blue</i>	Pt	1	BU	Acquire as point data. No annotation is required irrespective of its size.
46	35	03	Hospital 病院、診療所 注記は不要		<i>lineweight 0.1mm, line color 100% blue</i> 	Pt	1	BU	Acquire as point data. No annotation is required irrespective of its size.
47	35	04	Power Plant, Sub-Station 発電所、変電所 注記は不要		<i>lineweight 0.1mm, line color 100% blue</i> 	Pt	1	BU	Acquire as point data. No annotation is required irrespective of its size.
48	35	05	Market/Prominent Store 市場、顕著な商店		<i>lineweight 0.1mm, line color 100% blue</i> 	Pt	1	BU	Acquire as point data. No annotation is required irrespective of its size.
49	35	06	Embassy 大使館記号 注記は不要		<i>lineweight 0.1mm, line color 100% blue</i> 	Pt	1	BU	Acquire as point data and indicate name of embassy. No annotation is required irrespective of its size.
50	35	07	Theater/Cinema (Prominent) 劇場、映画館		<i>lineweight 0.1mm, line color 100% blue</i> 	Pt	1	BU	Acquire as point data.

The List of Symbols for Topographic Map at a scale of 1/10,000 Inhabited Area-30_Buildings, 35_Building Classification Symbols

No.	Classification Code		Description	Symbol	Cartographic Specification	Data Type			Notes on Usage
	Primary	Secondary				Entity	weight	color	
51	35	08	Fire Station 消防署 注記は不要		<i>lineweight 0.1mm , line color 100% blue</i> 	Pt	1	BU	Acquire as point data. No annotation is required irrespective of its size.
52	35	09	Hotel/Motel ホテル、モーテル		<i>lineweight 0.1mm , line color 100% blue</i> 	Pt	1	BU	Acquire as point data.
53	35	10	Gas Station ガソリンスタンド		<i>lineweight 0.1mm , line color 100% blue</i> 	Pt	1	BU	Acquire as point data.
54	35	11	Windmill 風車		<i>lineweight 0.1mm , line color 100% blue</i> 	Pt	1	BU	Acquire as point data.
55	35	12	Schools (Elementary, Junior high and High school) 小・中・高等学校 注記は不要		<i>lineweight 0.1mm , line color 100% blue</i> 	Pt	1	BU	Acquire as point data. No annotation is required irrespective of its size.
56	35	13	Church/Mission 教会、ミッション		<i>lineweight 0.1mm , line color 100% blue</i> 	Pt	1	BU	Acquire as point data. No annotation is required irrespective of its size.
57	35	14	Mosque イスラム寺院		<i>lineweight 0.1mm , line color 100% blue</i> 	Pt	1	BU	Acquire as point data.