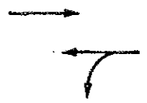
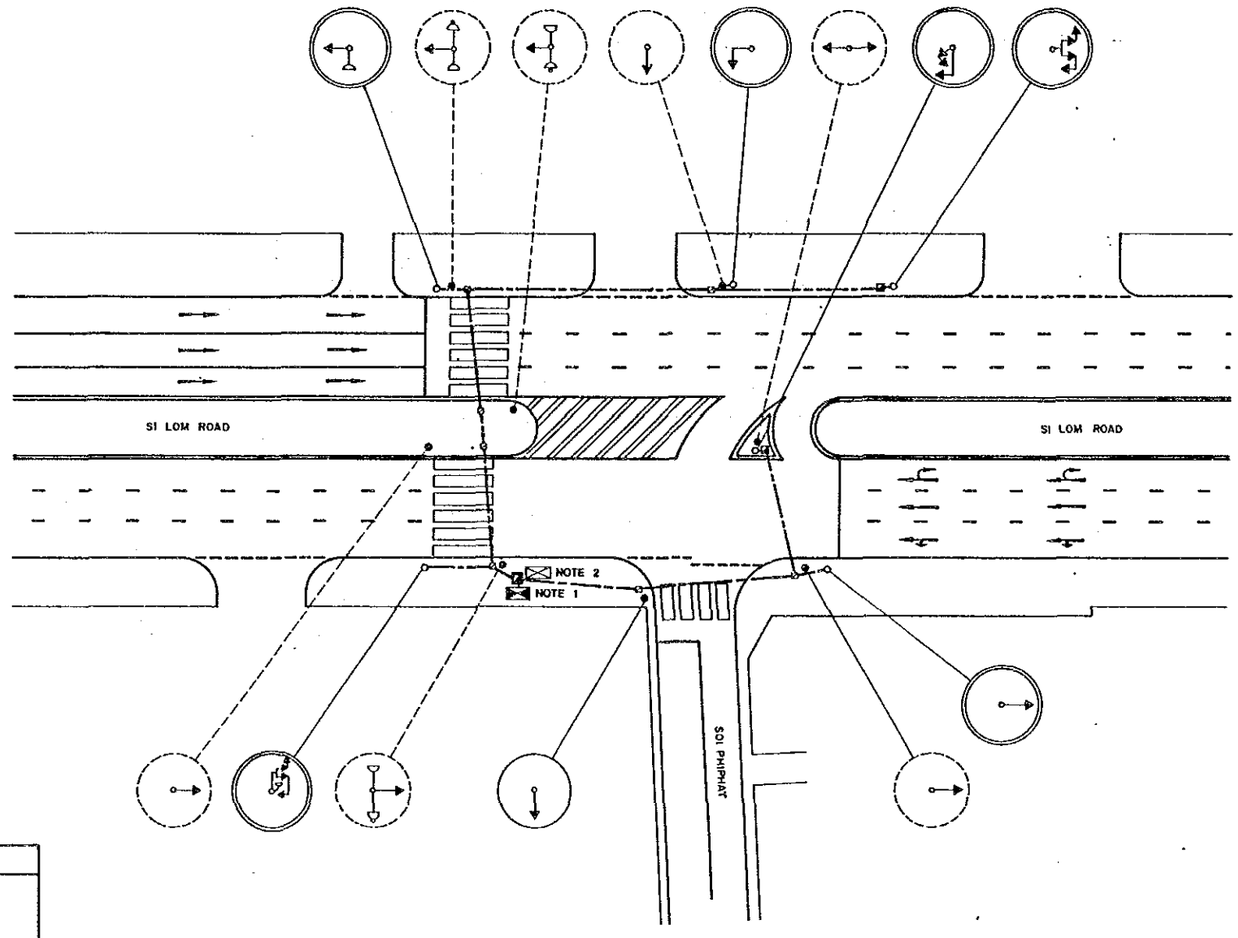
PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				

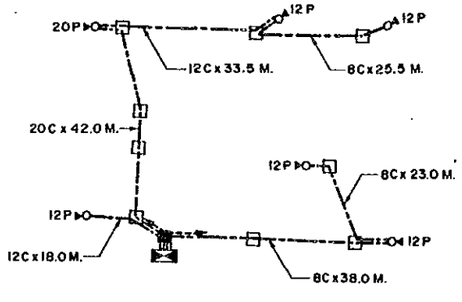
Intersection Equipments List

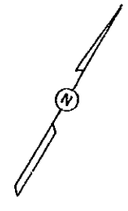
Intersection No. 175

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	3
5	Pre-Processor of Detector Pulse	-
6	Supply Power Switch Box with Power Breaker	-
7	TOT Line Box	1
8	Remove Existing Controller	1
9	Signal Pole Type A	3
10	Signal Pole Type B	3
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	5
14	Terminal 20 p	1
15	Signal Head 3 Aspects (200mm x 3)	1
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	1
17	Signal Head 3 Aspects (300mm x 3)	2
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	1
22	Signal Head 6 Aspects (300mm x 6)	1
23	Signal Head Pedestrian	2
24	Lantern Arrow Mask	6
25	Target Board for 3 Aspects	2
26	Target Board for 4 Aspects	-
27	Target Board for 6 Aspects	1
28	PVC Conduit 100 mm (4")	118
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	-
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	118
34	Install Conduit under Rail	-
35	Install Conduit on Fiber Support Pole	5
36	Handhole Type C	1
37	Handhole Type D	1
38	Signal Cable 8c (2 sq.mm)	-
39	Signal Cable 8c (2 sq.mm)	85.5
40	Signal Cable 12c (2 sq.mm)	51.5
41	Signal Cable 20c (2 sq.mm)	42
42	Power Cable	5
43	Cable Splicing Kit	1
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	7
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5



CABLE LAYOUT





Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

SI LOM--SOI PHIPHAT (BANGKOK BANK)

INTERSECTION NO. 175

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Jure Kodera, JICA Study Team Leader

Designed By : Yasue Nakashima, JICA Study Member

Approved By : Boonyawat Tiptus, BMA Study Team Leader

Checked By : TED., BMA

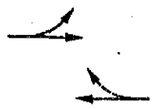
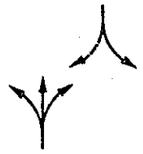
Scale 1 / 250

Date SEPTEMBER '90

Drawing NO. 2175

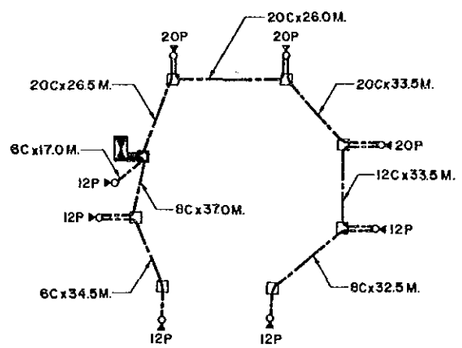
Total 102 / 139

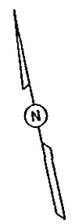
PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				

Intersection Equipments List Intersection No. 176		
ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	8
5	Pre-Processor of Detector Pulse	1
6	Supply Power Switch Box with Power Breaker	-
7	TOT Line Box	1
8	Remove Existing Controller	1
9	Signal Pole Type A	4
10	Signal Pole Type B	4
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	6
14	Terminal 20 p	3
15	Signal Head 3 Aspects (200mm x 3)	5
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	4
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 6 Aspects (300mm x 6)	-
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	-
25	Target Board for 3 Aspects	5
26	Target Board for 4 Aspects	-
27	Target Board for 6 Aspects	-
28	PVC Conduit 100 mm (4")	157
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	-
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	47
33	Install Conduit under Concrete Pavement or Sidewalk	75
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	5
36	Handhole Type C	7
37	Handhole Type D	1
38	Signal Cable 6c (2 sq.mm)	51.5
39	Signal Cable 8c (2 sq.mm)	69.5
40	Signal Cable 12c (2 sq.mm)	33.5
41	Signal Cable 20c (2 sq.mm)	86
42	Power Cable	5
43	Cable Splicing Kit	-
44	Remove Existing Signal Post and Heads (Mast-arm Type)	3
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5

CABLE LAYOUT





Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT
LAYOUT PLAN

FUANG NAKHON -- CHAROEN KRUNG

INTERSECTION Nº 176

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Juro Kodera, JICA Study Team Leader

Designed By : Yasuo Nobeshima, JICA Study Member

Approved By : Boonyawat Tiptus, BMA Study Team Leader

Checked By : TED., BMA

Scale 1 / 250

Date SEPTEMBER '90

Drawing Nº 2176

Total 103 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				

Intersection Equipments List

Intersection No. 177

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	2
5	Pre-Processor of Detector Pulse	-
6	Supply Power Switch Box with Power Breaker	-
7	TOT Line Box	1
8	Remove Existing Controller	1
9	Signal Pole Type A	3
10	Signal Pole Type B	3
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	6
14	Terminal 20 p	-
15	Signal Head 3 Aspects (200mm x 3)	3
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	3
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 6 Aspects (300mm x 6)	-
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	-
25	Target Board for 3 Aspects	3
26	Target Board for 4 Aspects	-
27	Target Board for 6 Aspects	-
28	PVC Conduit 100 mm (4")	153.5
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	-
31	Steel Conduit 28 mm	8
32	Install Conduit under Asphalt Pavement	102
33	Install Conduit under Concrete Pavement or Sidewalk	51.5
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	5
36	Handhole Type C	6
37	Handhole Type D	1
38	Signal Cable 6c (2 sq.mm)	99.5
39	Signal Cable 8c (2 sq.mm)	133
40	Signal Cable 12c (2 sq.mm)	-
41	Signal Cable 20c (2 sq.mm)	-
42	Power Cable	5
43	Cable Splicing Kit	-
44	Remove Existing Signal Post and Heads (Mast-arm Type)	3
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5

CABLE LAYOUT

Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

TANAO–BAMRUNG MUANG–FUANG NAKHON

INTERSECTION Nº 177

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Jiro Kodera, JICA Study Team Leader

Designed By : Yasco Kobashima, JICA Study Member

Approved By : Boonyawat Tiptus, BMA Study Team Leader

Checked By : TED_BMA

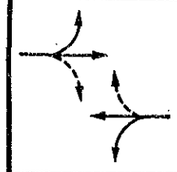
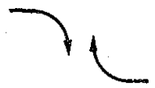
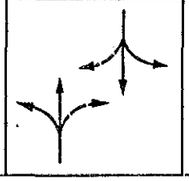
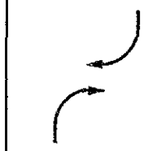
Scale 1 / 250

Date SEPTEMBER '90

Drawing Nº ·2177

Total 104 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

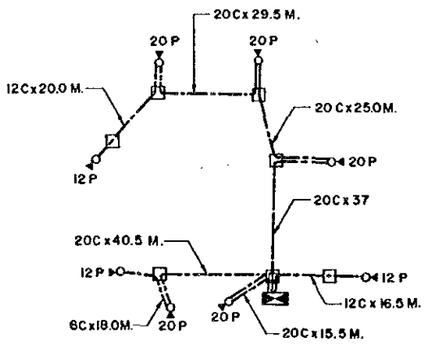
1	2	3	4	5
				

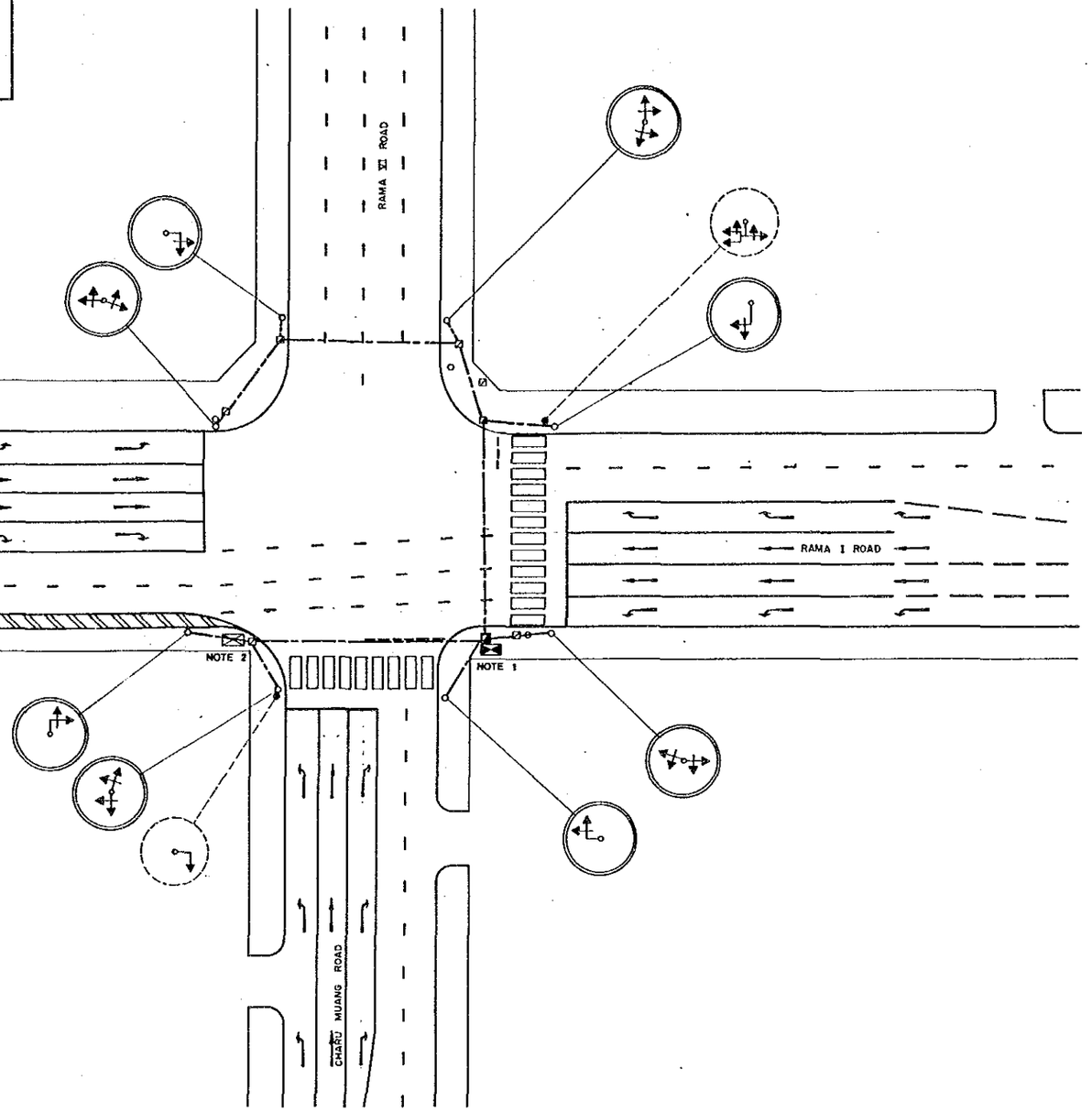
Intersection Equipments List

Intersection No. 184

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	3
5	Pre-Processor of Detector Pulse	1
6	Supply Power Switch Box with Power Breaker	1
7	TOT Line Box	1
8	Remove Existing Controller	1
9	Signal Pole Type A	4
10	Signal Pole Type B	4
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	3
14	Terminal 20 p	5
15	Signal Head 3 Aspects (200mm x 3)	-
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	8
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	4
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 6 Aspects (300mm x 6)	-
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	12
25	Target Board for 3 Aspects	-
26	Target Board for 4 Aspects	8
27	Target Board for 6 Aspects	-
28	PVC Conduit 100 mm (4")	115
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	5
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	115
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	10
36	Handhole Type C	2
37	Handhole Type D	1
38	Signal Cable 6c (2 sq.mm)	18
39	Signal Cable 8c (2 sq.mm)	-
40	Signal Cable 12c (2 sq.mm)	36.5
41	Signal Cable 20c (2 sq.mm)	147.5
42	Power Cable	20
43	Cable Splicing Kit	-
44	Remove Existing Signal Post and Heads (Mast-arm Type)	2
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5

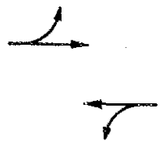
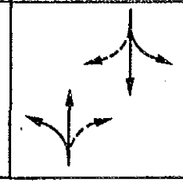
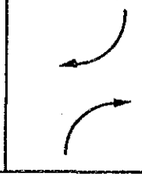
CABLE LAYOUT

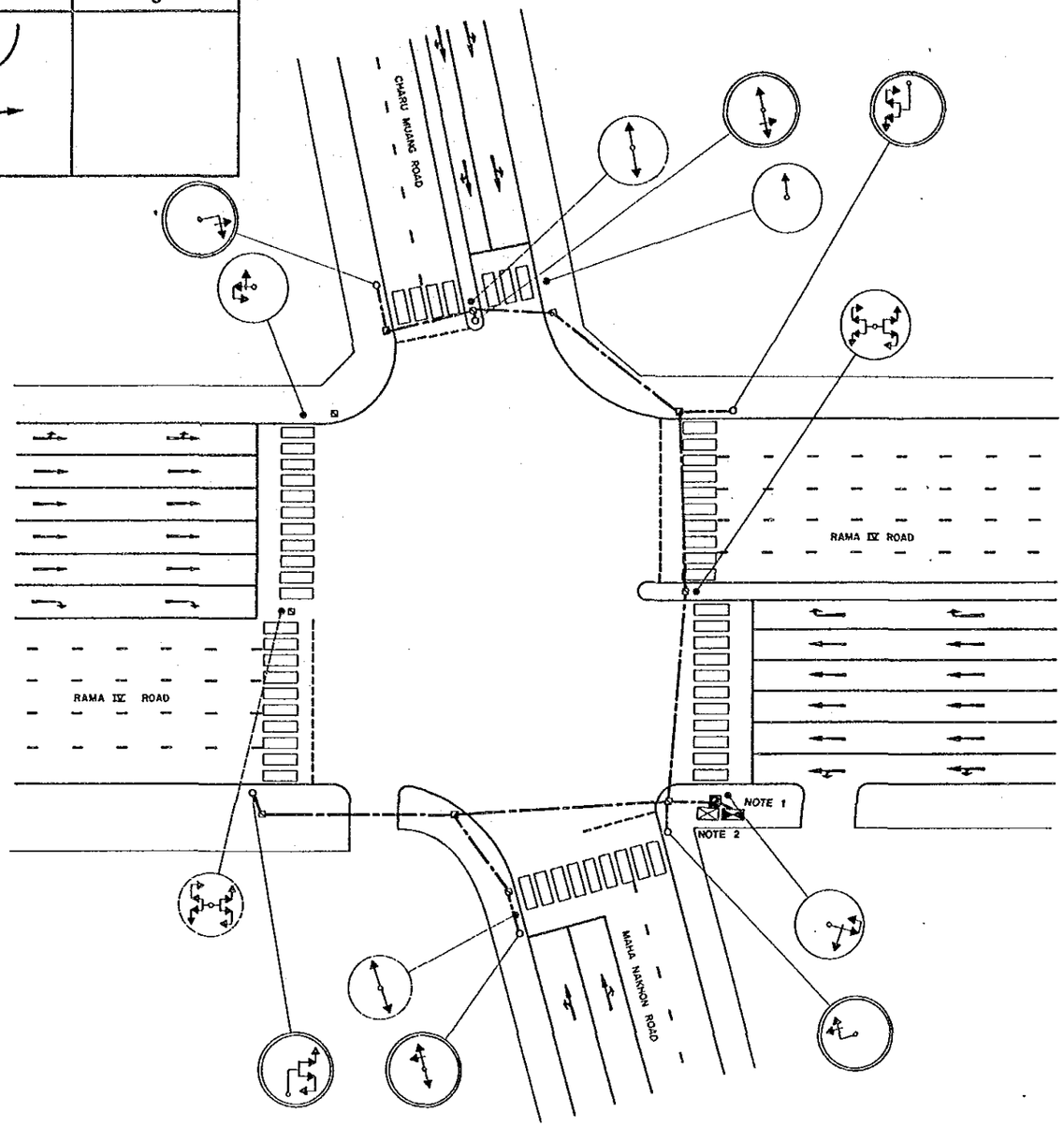




				BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I	
				INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN RAMA I – RAMA VI – CHARU MUANG	Submitted By : June Kodera, JICA Study Team Leader Designed By : Yasuo Nabeshima, JICA Study Member
				INTERSECTION Nº 184	Approved By : Boonyawat Tiptus, BMA Study Team Leader Checked By : TED., BMA
Code	Revision	Date	Initial	JICA Japan International Cooperation Agency / BMA Bangkok Metropolitan Administration	Scale 1 / 250
Associated Plan No. :					Drawing Nº 2184
					Date SEPTEMBER '90
					Total 105 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

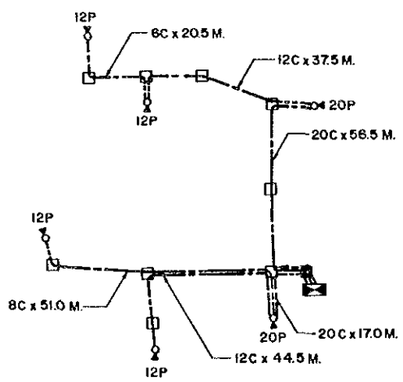
1	2	3	4	5
				

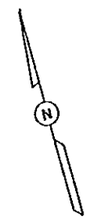


Intersection Equipments List
Intersection No. 185

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	4
5	Pre-Processor of Detector Pulse	1
6	Supply Power Switch Box with Power Breaker	-
7	TOT Line Box	1
8	Remove Existing Controller	1
9	Signal Pole Type A	4
10	Signal Pole Type B	3
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	4
14	Terminal 20 p	2
15	Signal Head 3 Aspects (200mm x 3)	2
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	2
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	2
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 6 Aspects (300mm x 6)	2
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	8
25	Target Board for 3 Aspects	2
26	Target Board for 4 Aspects	2
27	Target Board for 6 Aspects	-
28	PVC Conduit 100 mm (4")	139.5
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	-
31	Steel Conduit 29 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	139.5
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	5
36	Handhole Type C	3
37	Handhole Type D	1
38	Signal Cable 6c (2 sq.mm)	20.5
39	Signal Cable 8c (2 sq.mm)	51
40	Signal Cable 12c (2 sq.mm)	82
41	Signal Cable 20c (2 sq.mm)	61.5
42	Power Cable	5
43	Cable Splicing Kit	1
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	2
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5

CABLE LAYOUT





Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN
RAMA IV – CHARU MUANG – MAHA NAKHON

INTERSECTION Nº 185

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Jun Kodera, JICA Study Team Leader

Designed By : Yasuo Kobashima, JICA Study Member

Approved By : Boonyawat Tiptus, BMA Study Team Leader

Checked By : TED, BMA

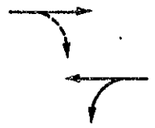
Scale 1 / 250

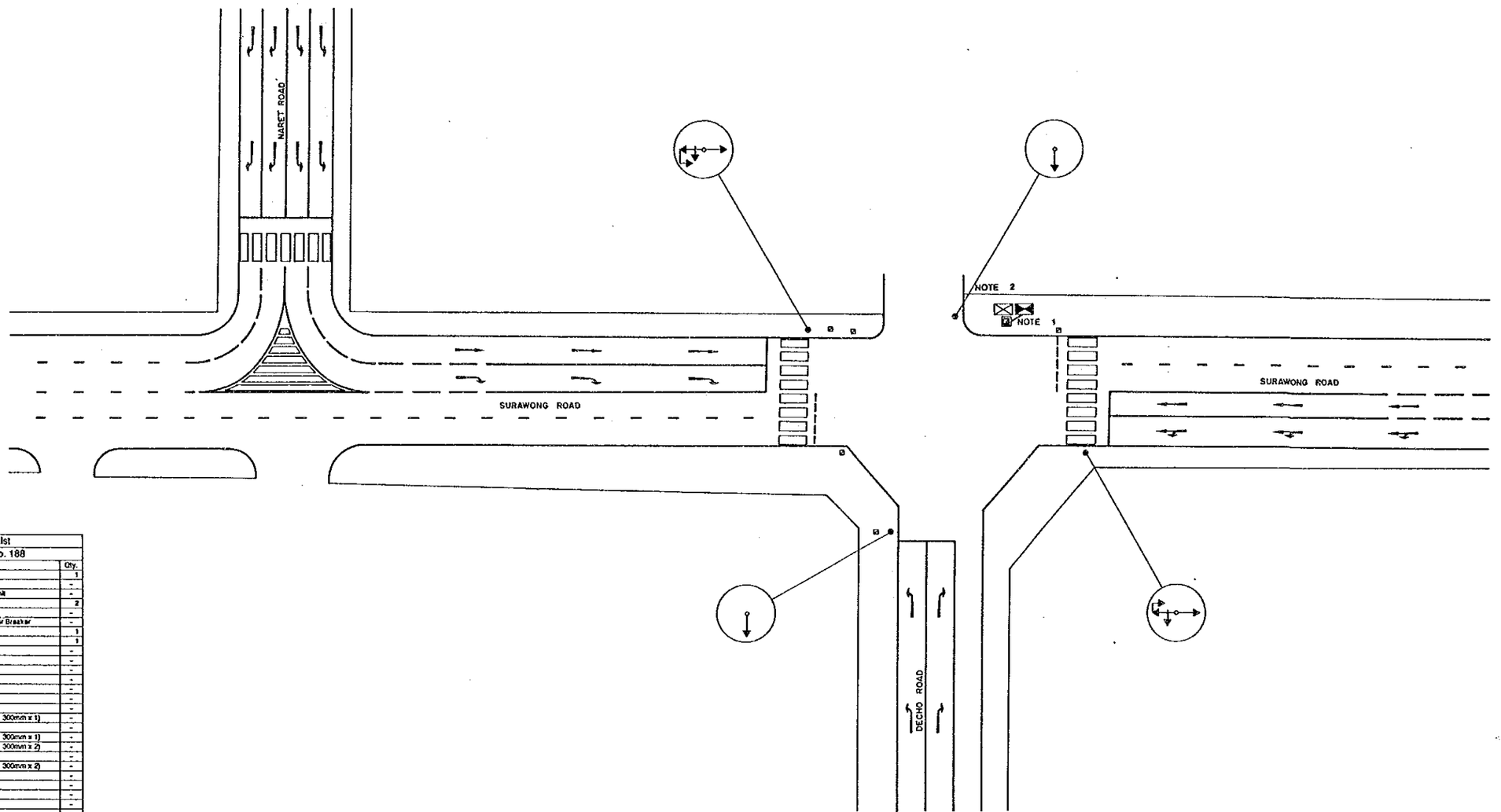
Date SEPTEMBER '90

Drawing Nº 2185

Total 106 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				



Intersection Equipments List
Intersection No. 188

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	2
5	Pre-Processor of Detector Pulse	-
6	Supply Power Switch Box with Power Breaker	-
7	TOT Line Box	1
8	Remove Existing Controller	1
9	Signal Pole Type A	-
10	Signal Pole Type B	-
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	-
14	Terminal 20 p	-
15	Signal Head 3 Aspects (200mm x 3)	-
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 6 Aspects (300mm x 6)	-
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	-
25	Target Board for 3 Aspects	-
26	Target Board for 4 Aspects	-
27	Target Board for 6 Aspects	-
28	PVC Conduit 100 mm (4")	6
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	-
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	6
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	5
36	Handhole Type C	-
37	Handhole Type D	1
38	Signal Cable 8c (2 sq.mm)	-
39	Signal Cable 8c (2 sq.mm)	-
40	Signal Cable 12c (2 sq.mm)	6
41	Signal Cable 20c (2 sq.mm)	-
42	Power Cable	5
43	Cable Splicing Kit	1
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5

Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

SURAWONG – DECHO

INTERSECTION Nº 188

Submitted By : Juro Kodera, JICA Study Team Leader

Designed By : Yasuo Nakashima, JICA Study Member

Approved By : Boonyanut Tiptus, BMA Study Team Leader

Checked By : TED., BMA

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

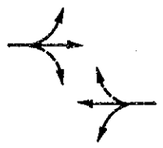
Scale 1 / 250

Date SEPTEMBER' 90

Drawing Nº 2188

Total 107 / 139

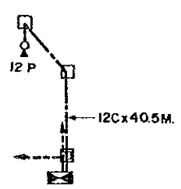
PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				

NOTE : Signal Phasing shown here is for the Morning Peak only.
For evening peak and off-peak, please refer to "Design Volume and Signal Phasing Plans".

Intersection Equipments List					
Intersection No. 189					
ITEM	Name of Equipment	Qty.	ITEM	Name of Equipment	Qty.
1	Local Controller	1	27	Target Board for 6 Aspects	-
2	Railroad Pre-emption Control Unit	-	28	PVC Conduit 100 mm (4")	33.5
3	Pedestrian Push Button Interface Unit	-	29	Steel Conduit 100 mm (4")	-
4	Solid State Relay Unit	3	30	Steel Conduit 36 mm	-
5	Pre-Processor of Detector Pulse	-	31	Steel Conduit 28 mm	5
6	Supply Power Switch Box with Power Breaker	-	32	Install Conduit under Asphalt Pavement	15
7	TOT Line Box	1	33	Install Conduit under Concrete Pavement or Sidewalk	18.5
8	Remove Existing Controller	1	34	Install Conduit under Rail	-
9	Signal Pole Type A	-	35	Install Conduit on Riser Support Pole	5
10	Signal Pole Type B	1	36	Handhole Type C	-
11	Signal Pole Type C	-	37	Handhole Type D	1
12	Signal Pole Type D	-	38	Signal Cable 6c (2 sq mm)	-
13	Terminal 12 p	1	39	Signal Cable 8c (2 sq mm)	-
14	Terminal 20 p	-	40	Signal Cable 12c (2 sq mm)	40.5
15	Signal Head 3 Aspects (200mm x 3)	1	41	Signal Cable 20c (2 sq mm)	5
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-	42	Power Cable	5
17	Signal Head 3 Aspects (300mm x 3)	-	43	Cable Splicing Kit	1
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	1	44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-	45	Remove Existing Signal Post and Heads (Pedestal Type)	1
20	Signal Head 4 Aspects (300mm x 4)	-	46	Remove Existing Signal Head	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-	47	Remove Existing Arrow Mask	-
22	Signal Head 6 Aspects (300mm x 6)	-	48	Remove Pedestrian Push Button	-
23	Signal Head Pedestrian	-	49	TOT Line (CPV, 0.65mm, 1P)	20
24	Lantern Arrow Mask	-	50	Grounding Rod	1
25	Target Board for 3 Aspects	1	51	Grounding Cable (IV 5.5 sq mm x 1c)	5
26	Target Board for 4 Aspects	1			

CABLE LAYOUT



Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

ATSADANG – BAMRUNG MUANG

INTERSECTION Nº 189

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Juro Kodera, JICA Study Team Leader

Designed By : Yasuo Nabeshima, JICA Study Member

Approved By : Boonyanat Tiptus, BMA Study Team Leader

Checked By : TED, BMA

Scale 1 / 250

Date SEPTEMBER '90

Drawing Nº 2189

Total 108 / 139

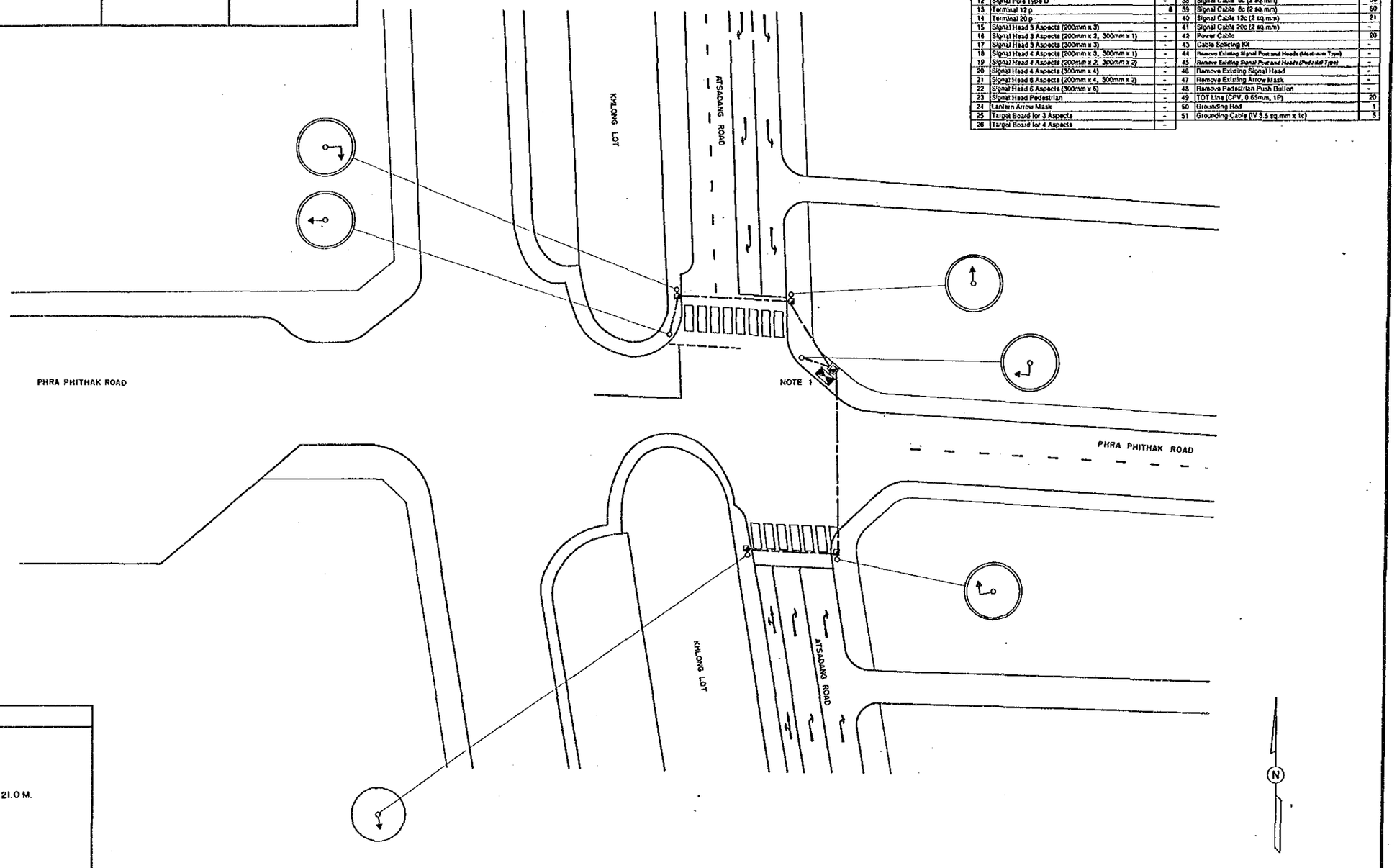
PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				

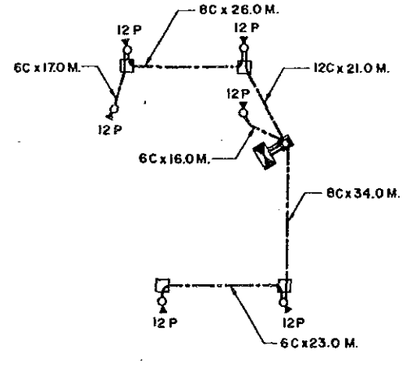
Intersection Equipments List

Intersection No. 191

ITEM	Name of Equipment	Qty.	ITEM	Name of Equipment	Qty.
1	Local Controller	1	27	Target Board for 6 Aspects	-
2	Railroad Pre-emption Control Unit	-	28	PVC Conduit 100 mm (4")	77
3	Pedestrian Push Button Interface Unit	-	29	Steel Conduit 100 mm (4")	-
4	Solid State Relay Unit	8	30	Steel Conduit 39 mm	5
5	Pre-Processor of Detector Pulse	-	31	Steel Conduit 28 mm	5
6	Supply Power Switch Box with Power Breaker	1	32	Install Conduit under Asphalt Pavement	36
7	TOT Line Box	1	33	Install Conduit under Concrete Pavement or Sidewalk	42
8	Remove Existing Controller	-	34	Install Conduit under Rail	-
9	Signal Pole Type A	3	35	Install Conduit on Riser Support Pole	10
10	Signal Pole Type B	3	36	Handhole Type C	4
11	Signal Pole Type C	-	37	Handhole Type D	1
12	Signal Pole Type D	-	38	Signal Cable 6c (2 sq.mm)	56
13	Terminal 12 p	6	39	Signal Cable 8c (2 sq.mm)	60
14	Terminal 20 p	-	40	Signal Cable 12c (2 sq.mm)	21
15	Signal Head 3 Aspects (200mm x 3)	-	41	Signal Cable 20c (2 sq.mm)	-
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-	42	Power Cable	20
17	Signal Head 3 Aspects (300mm x 3)	-	43	Cable Splicing Kit	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-	44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-	45	Remove Existing Signal Post and Heads (Pedestal Type)	-
20	Signal Head 4 Aspects (300mm x 4)	-	46	Remove Existing Signal Head	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-	47	Remove Existing Arrow Mask	-
22	Signal Head 6 Aspects (300mm x 6)	-	48	Remove Pedestrian Push Button	-
23	Signal Head Pedestrian	-	49	TOT Line (CPV, 0.65mm, 1P)	20
24	Lantern Arrow Mask	-	50	Grounding Rod	1
25	Target Board for 3 Aspects	-	51	Grounding Cable (IV 5.5 sq.mm x 1c)	5
26	Target Board for 4 Aspects	-			



CABLE LAYOUT



Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

ATSADANG – PHRA PHITHAK

INTERSECTION Nº 191

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Juro Kodera, JICA Study Team Leader

Designed By : Yasuo Nobeshima, JICA Study Member

Approved By : Boonyawat Tipsuo, BMA Study Team Leader

Checked By : TED., BMA

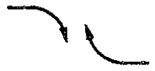
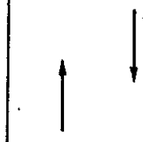
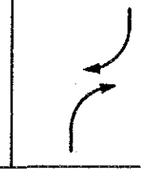
Scale 1 / 250

Date SEPTEMBER '90

Drawing Nº 2191

Total 109 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				

Intersection Equipments List

Intersection No. 194

ITEM	Name of Equipment	Qty.	ITEM	Name of Equipment	Qty.
1	Local Controller	1	27	Target Board for 5 Aspects	-
2	Railroad Pre-emption Control Unit	-	28	PVC Conduit 100 mm (4")	6
3	Pedestrian Push Button Interface Unit	-	29	Steel Conduit 100 mm (4")	-
4	Solid State Relay Unit	4	30	Steel Conduit 39 mm	-
5	Pre-Processor of Detector Pulse	1	31	Steel Conduit 28 mm	5
6	Supply Power Switch Box with Power Breaker	-	32	Install Conduit under Asphalt Pavement	-
7	TOT Line Box	1	33	Install Conduit under Concrete Pavement or Sidewalk	6
8	Remove Existing Controller	1	34	Install Conduit under Rail	-
9	Signal Pole Type A	-	35	Install Conduit on Riser Support Pole	5
10	Signal Pole Type B	-	36	Handhole Type C	-
11	Signal Pole Type C	-	37	Handhole Type D	1
12	Signal Pole Type D	-	38	Signal Cable 6c (2 sq.mm)	8
13	Terminal 12 p	-	39	Signal Cable 8c (2 sq.mm)	-
14	Terminal 20 p	-	40	Signal Cable 12c (2 sq.mm)	-
15	Signal Head 3 Aspects (200mm x 3)	-	41	Signal Cable 20c (2 sq.mm)	8
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-	42	Power Cable	8
17	Signal Head 3 Aspects (300mm x 3)	-	43	Cable Splicing Kit	1
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-	44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-	45	Remove Existing Signal Post and Heads (Pedestal Type)	-
20	Signal Head 4 Aspects (300mm x 4)	-	46	Remove Existing Signal Head	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-	47	Remove Existing Arrow Mask	-
22	Signal Head 6 Aspects (300mm x 6)	-	48	Remove Pedestrian Push Button	-
23	Signal Head Pedestrian	-	49	TOT Line (CPV, 0.65mm, 1P)	20
24	Lanean Arrow Mask	-	50	Grounding Rod	1
25	Target Board for 3 Aspects	-	51	Grounding Cable (IV 5.5 sq.mm x 1c)	6
26	Target Board for 4 Aspects	-			

Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

RATCHADAPHISEK – ASOK DIN DAENG RAMA IX

INTERSECTION Nº 194

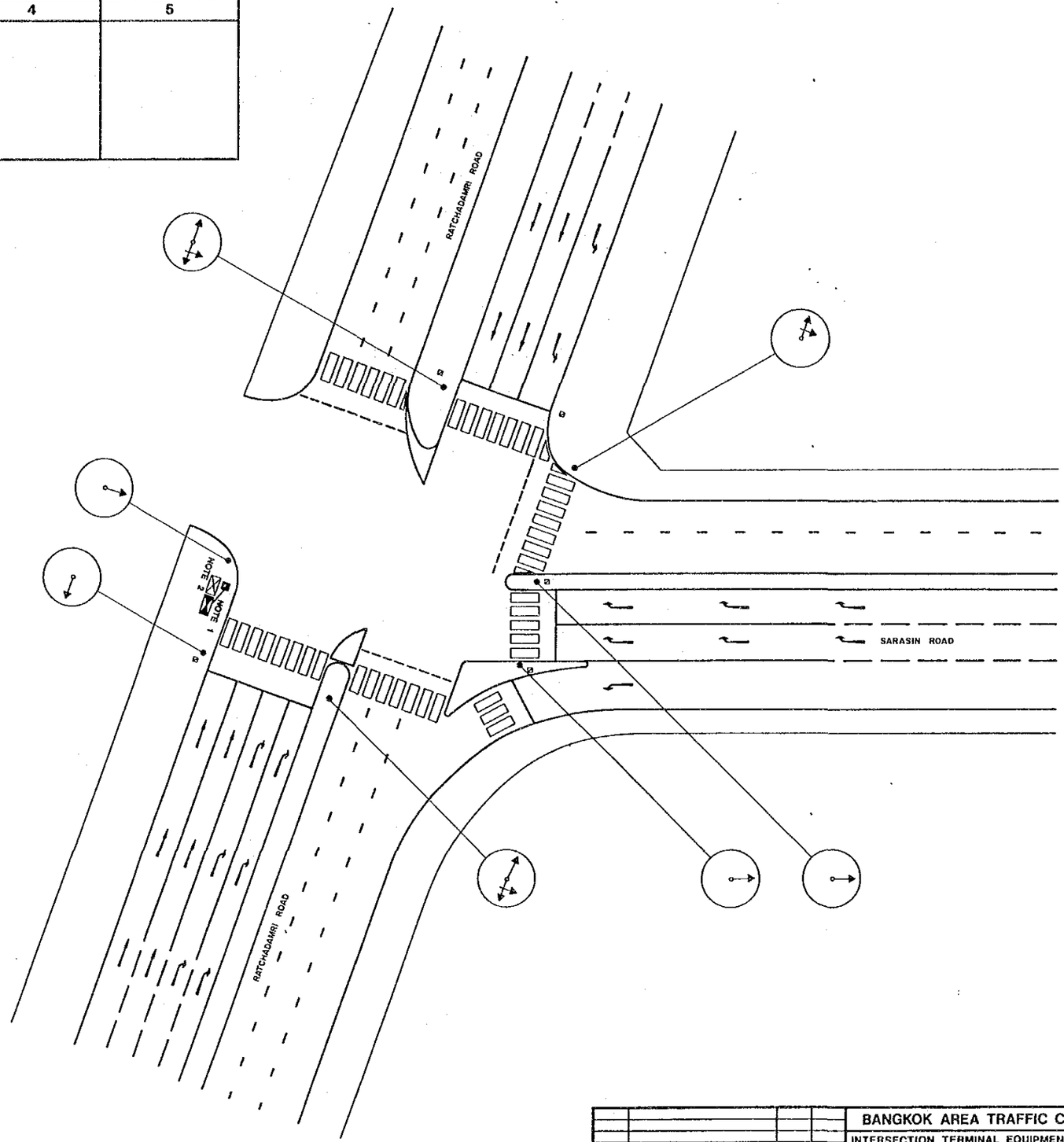
JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Jun Kadara, JICA Study Team Leader	Approved By : Boonyawat Tiptus, BMA Study Team Leader
Designed By : Yasue Habashima, JICA Study Member	Checked By : TED, BMA
Scale 1 / 250	Drawing Nº 2194
Date SEPTEMBER '90	Total 110 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				



Intersection Equipments List		
Intersection No. 196		
ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	2
5	Pre-Processor of Detector Pulse	1
6	Supply Power Switch Box with Power Breaker	-
7	TOT Line Box	1
8	Remove Existing Controller	1
9	Signal Pole Type A	-
10	Signal Pole Type B	-
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	-
14	Terminal 20 p	-
15	Signal Head 3 Aspects (200mm x 3)	-
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 5 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 5 Aspects (300mm x 5)	-
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	-
25	Target Board for 3 Aspects	-
26	Target Board for 4 Aspects	-
27	Target Board for 5 Aspects	-
28	PVC Conduit 100 mm (4")	6
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	-
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	6
34	Install Conduit under Rail	-
35	Install Conduit on Fiber Support Pole	5
36	Handhole Type C	-
37	Handhole Type D	1
38	Signal Cable 6c (2 sq.mm)	-
39	Signal Cable 8c (2 sq.mm)	-
40	Signal Cable 12c (2 sq.mm)	-
41	Signal Cable 20c (2 sq.mm)	6
42	Power Cable	5
43	Cable Splicing Kit	1
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5

Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

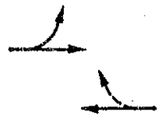
INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

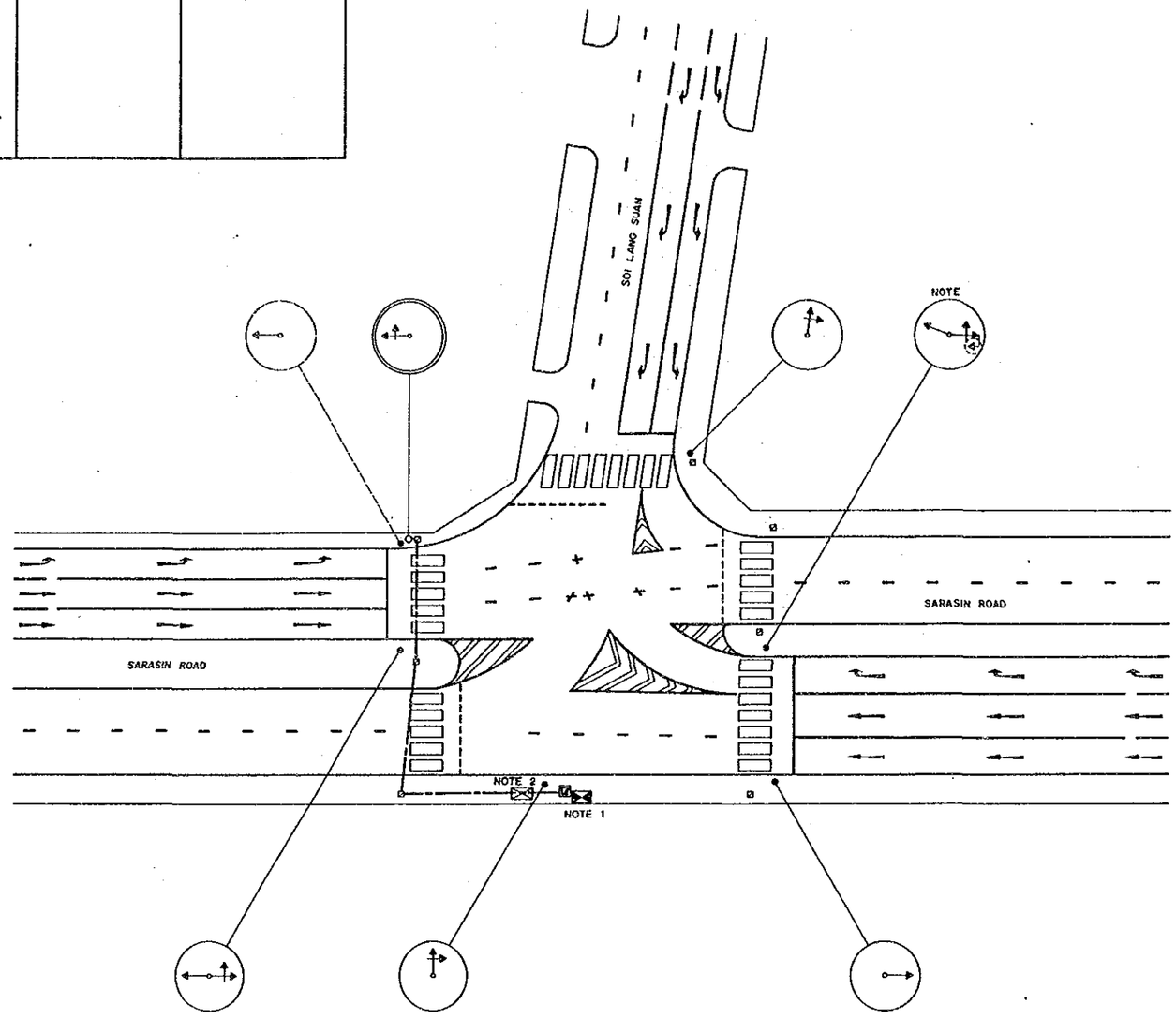
SARASIN – RATCHADAMRI

INTERSECTION NO. 196

Submitted By : Juro Kodera, JICA Study Team Leader	Approved By : Boonyawat Tiptus, BMA Study Team Leader
Designed By : Yasuo Nabeshima, JICA Study Member	Checked By : TED., BMA
JICA Japan International Cooperation Agency / BMA Bangkok Metropolitan Administration	Scale 1 / 250
Date SEPTEMBER '90	Drawing NO. 2196
	Total III / 139

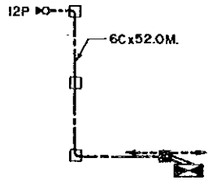
PHASE PLAN FOR AUTOMATIC SEQUENCE

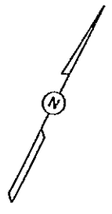
1	2	3	4	5
				



Intersection Equipments List		
Intersection No. 197		
ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	2
5	Pre-Processor of Detector Pulse	-
6	Supply Power Switch Box with Power Breaker	-
7	TOT Line Box	1
8	Remove Existing Controller	1
9	Signal Pole Type A	-
10	Signal Pole Type B	1
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	1
14	Terminal 20 p	-
15	Signal Head 3 Aspects (200mm x 3)	-
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	1
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 6 Aspects (300mm x 6)	-
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	1
25	Target Board for 3 Aspects	-
26	Target Board for 4 Aspects	1
27	Target Board for 6 Aspects	-
28	PVC Conduit 100 mm (4")	44
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	-
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	44
34	Install Conduit under R.R.	-
35	Install Conduit on Riser Support Pole	5
36	Handhole Type C	-
37	Handhole Type D	1
38	Signal Cable 6c (2 sq.mm)	52
39	Signal Cable 8c (2 sq.mm)	-
40	Signal Cable 12c (2 sq.mm)	-
41	Signal Cable 20c (2 sq.mm)	8
42	Power Cable	5
43	Cable Splicing Kit	1
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	1
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5

CABLE LAYOUT





Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

SARASIN – SOI LANG SUAN

INTERSECTION NO. 197

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Juro Kodera, JICA Study Team Leader

Approved By : Boonyawat Tiptus, BMA Study Team Leader

Designed By : Yasuo Nobeshima, JICA Study Member

Checked By : TED., BMA

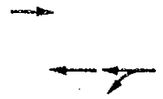
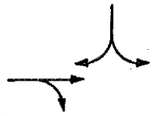
Scale 1 / 250

Drawing NO. 2197

Date SEPTEMBER '90

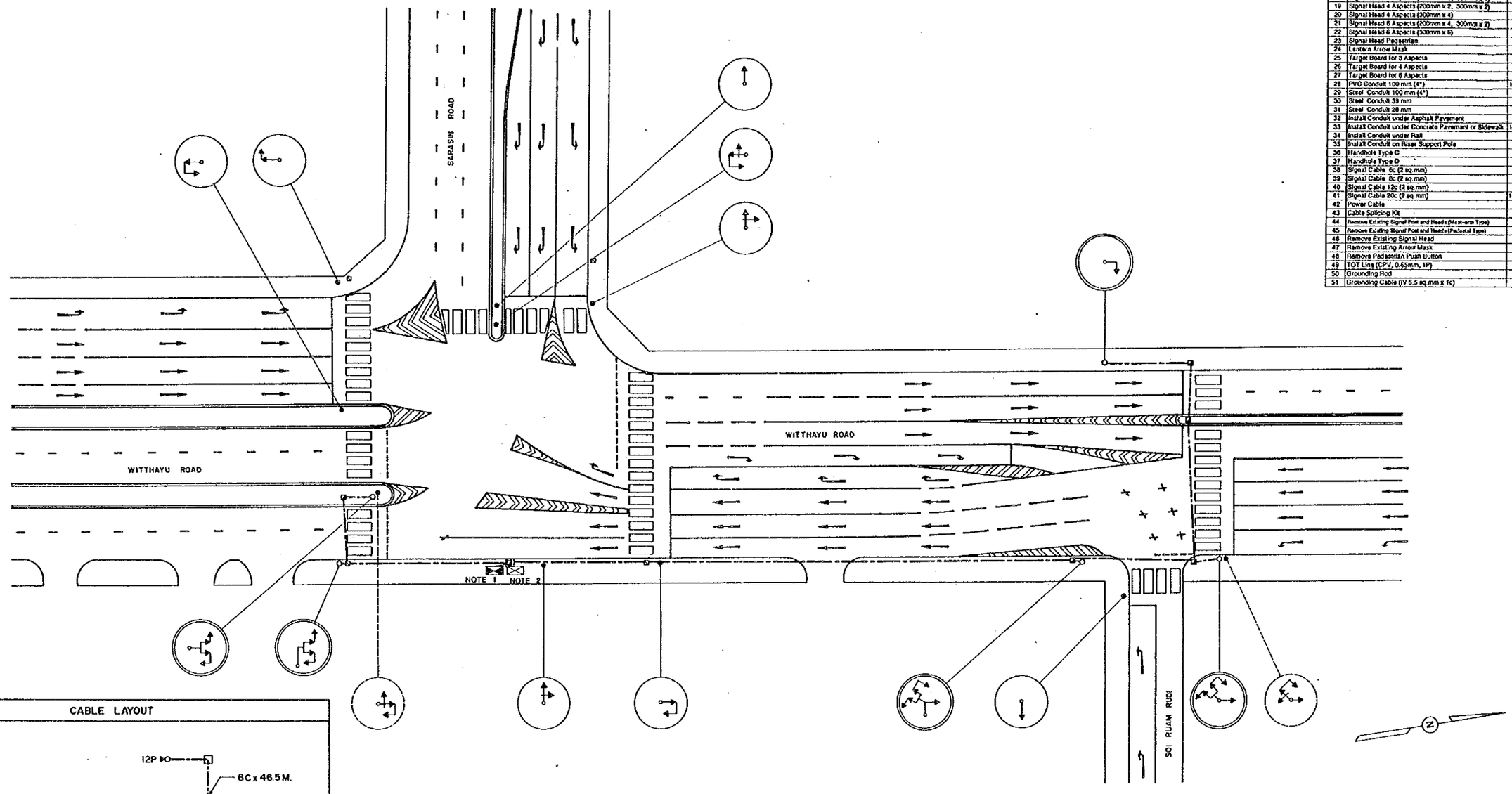
Total 112 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

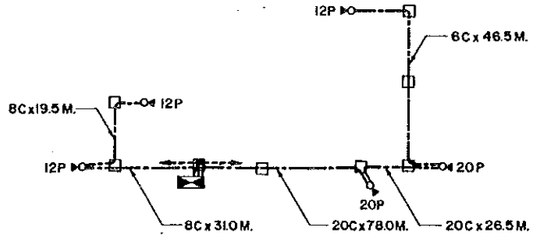
1	2	3	4	5
				

Intersection Equipments List
Intersection No. 198

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	3
5	Pre-Processor of Detector Pulse	1
6	Supply Power Switch Box with Power Breaker	-
7	TOT Line Box	1
8	Remove Existing Controller	1
9	Signal Pole Type A	3
10	Signal Pole Type B	2
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	3
14	Terminal 20 p	2
15	Signal Head 3 Aspects (200mm x 3)	2
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	1
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	2
22	Signal Head 6 Aspects (300mm x 6)	2
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	-
25	Target Board for 3 Aspects	2
26	Target Board for 4 Aspects	-
27	Target Board for 6 Aspects	2
28	PVC Conduit 100 mm (4")	153.5
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	-
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	153.5
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	5
36	Handhole Type C	5
37	Handhole Type D	1
38	Signal Cable 6c (2 sq.mm)	46.5
39	Signal Cable 8c (2 sq.mm)	50.5
40	Signal Cable 12c (2 sq.mm)	-
41	Signal Cable 20c (2 sq.mm)	104.5
42	Power Cable	5
43	Cable Splicing Kit	1
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	2
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5



CABLE LAYOUT



Code	Revision	Date	Initial

Associated Plan No. :

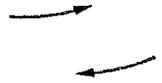
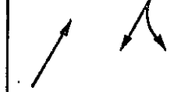
BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN
SARASIN – WITTHAYU – SOI RUAM RUDI

INTERSECTION Nº 198

Submitted By : Juro Kodera, JICA Study Team Leader	Approved By : Boonyamet Tiptus, BMA Study Team Leader
Designed By : Yasuo Habashima, JICA Study Member	Checked By : TED, BMA
JICA Japan International Cooperation Agency / BMA Bangkok Metropolitan Administration	Scale 1 / 250
Date SEPTEMBER '90	Drawing Nº 2198
	Total 113 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				

CABLE LAYOUT

Intersection Equipments List
Intersection No. 199

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	4
5	Pre-Processor of Detector Pulse	1
6	Supply Power Switch Box with Power Breaker	-
7	TOT Line Box	1
8	Remove Existing Controller	1
9	Signal Pole Type A	4
10	Signal Pole Type B	1
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	4
14	Terminal 20 p	1
15	Signal Head 3 Aspects (200mm x 3)	1
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	2
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	3
22	Signal Head 6 Aspects (300mm x 6)	2
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	10
25	Target Board for 3 Aspects	1
26	Target Board for 4 Aspects	-
27	Target Board for 6 Aspects	5
28	PVC Conduit 100 mm (4")	160.5
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	-
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	160.5
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	5
36	Handhole Type C	3
37	Handhole Type D	1
38	Signal Cable 6c (2 sq.mm)	8
39	Signal Cable 8c (2 sq.mm)	83.5
40	Signal Cable 12c (2 sq.mm)	99
41	Signal Cable 20c (2 sq.mm)	44
42	Power Cable	5
43	Cable Splicing Kit	1
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	2
46	Remove Existing Signal Head	1
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5

Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

RATCHADAPHISEK–SUNTHON KOSA–RAMA III–NA RANONG

INTERSECTION Nº 199

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Juro Kodera, JICA Study Team Leader

Approved By : Boonyawat Tiptus, BMA Study Team Leader

Designed By : Yasuo Nabeshima, JICA Study Member

Checked By : TED., BMA

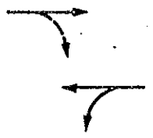
Scale 1 / 250

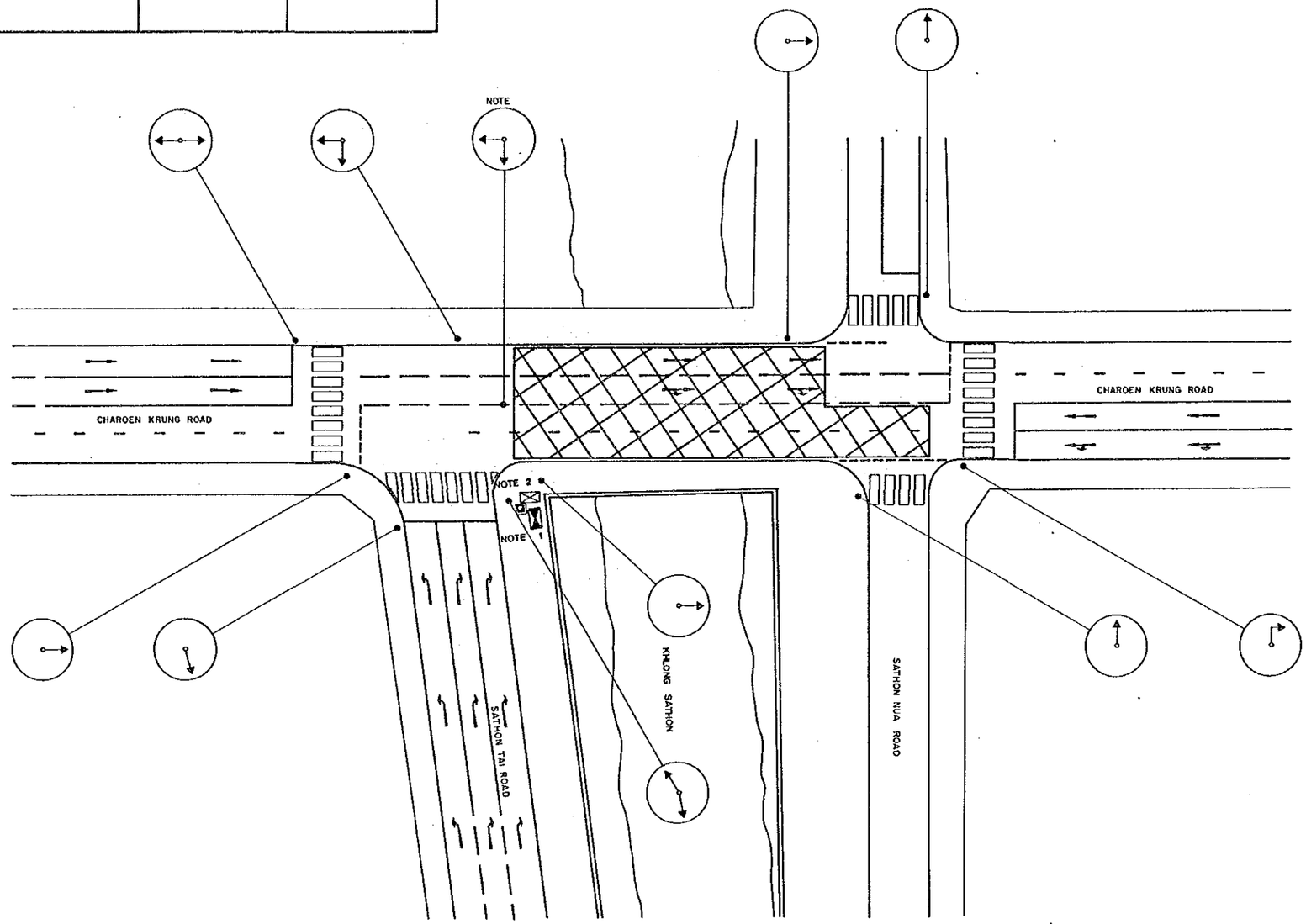
Drawing Nº 2199

Date SEPTEMBER '90

Total 114 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				



Intersection Equipments List
Intersection No. 214

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	3
5	Pre-Processor of Detector Pulse	1
6	Supply Power Switch Box with Power Breaker	-
7	TOT Line Box	1
8	Remove Existing Controller	1
9	Signal Pole Type A	-
10	Signal Pole Type B	-
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	-
14	Terminal 20 p	-
15	Signal Head 3 Aspects (200mm x 3)	-
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 6 Aspects (300mm x 6)	-
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	-
25	Target Board for 3 Aspects	-
26	Target Board for 4 Aspects	-
27	Target Board for 6 Aspects	-
28	PVC Conduit 100 mm (4")	6
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 38 mm	-
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	6
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	5
36	Handhole Type C	-
37	Handhole Type D	1
38	Signal Cable 6c (2 sq.mm)	-
39	Signal Cable 8c (2 sq.mm)	-
40	Signal Cable 12c (2 sq.mm)	-
41	Signal Cable 20c (2 sq.mm)	6
42	Power Cable	5
43	Cable Splicing Kit	1
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5

Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

SATHON—CHAROEN KRUNG

INTERSECTION NO 214

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Jiro Kodera, JICA Study Team Leader

Designed By : Yasuo Nobeshima, JICA Study Member

Approved By : Boonyawat Tipsuo, BMA Study Team Leader

Checked By : TED., BMA

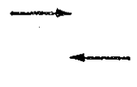
Scale 1 / 250

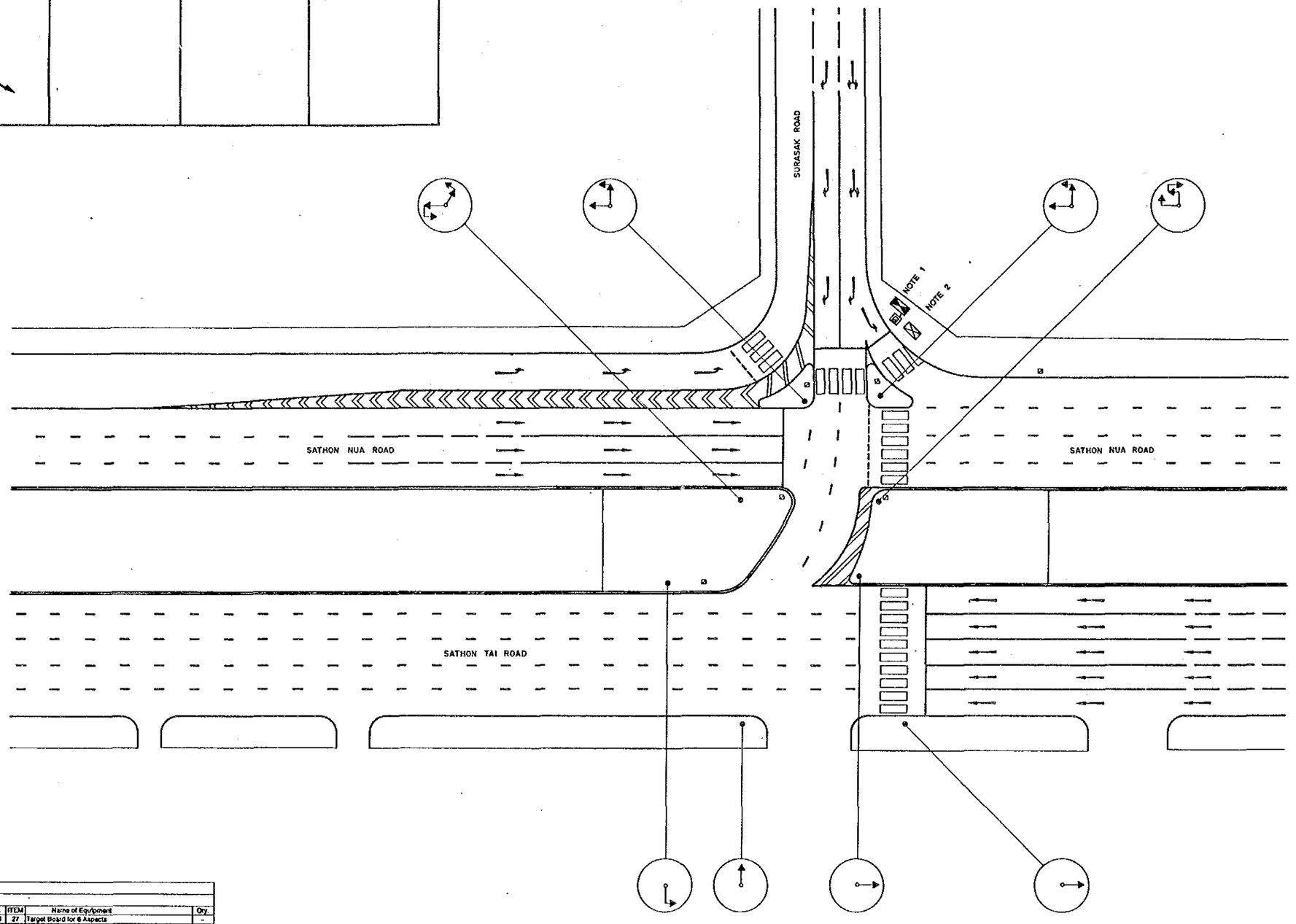
Date SEPTEMBER' 90

Drawing NO 2214

Total 115 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				



Intersection Equipments List
Intersection No. 215

ITEM	Name of Equipment	Qty.	ITEM	Name of Equipment	Qty.
1	Local Controller	1	27	Target Board for 6 Aspects	-
2	Railroad Pre-emption Control Unit	-	28	PVC Conduit 100 mm (4")	6
3	Pedestrian Push Button Interface Unit	-	29	Steel Conduit 100 mm (4")	-
4	Solid State Relay Unit	2	30	Steel Conduit 39 mm	-
5	Pre-Processor of Detector Pulse	-	31	Steel Conduit 28 mm	5
6	Supply Power Switch Box with Power Breaker	-	32	Install Conduit under Asphalt Pavement	-
7	TOT Line Box	1	33	Install Conduit under Concrete Pavement or Sidewalk	6
8	Remove Existing Controller	1	34	Install Conduit under Rail	-
9	Signal Pole Type A	-	35	Install Conduit on Riser Support Pole	5
10	Signal Pole Type B	-	36	Handhole Type C	-
11	Signal Pole Type C	-	37	Handhole Type D	1
12	Signal Pole Type D	-	38	Signal Cable 8c (2 sq.mm)	-
13	Terminal 12 p	-	39	Signal Cable 8c (2 sq.mm)	-
14	Terminal 20 p	-	40	Signal Cable 12c (2 sq.mm)	8
15	Signal Head 3 Aspects (200mm x 3)	-	41	Signal Cable 20c (2 sq.mm)	-
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-	42	Power Cable	5
17	Signal Head 3 Aspects (300mm x 3)	-	43	Cable Splicing Kit	1
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-	44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-	45	Remove Existing Signal Post and Heads (Pedestal Type)	-
20	Signal Head 4 Aspects (300mm x 4)	-	46	Remove Existing Signal Head	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-	47	Remove Existing Arrow Mask	-
22	Signal Head 6 Aspects (300mm x 6)	-	48	Remove Pedestrian Push Button	-
23	Signal Head Pedestrian	-	49	TOT Line (CPV, 0.65mm, 1P)	20
24	Lantern Arrow Mask	-	50	Grounding Rod	1
25	Target Board for 3 Aspects	-	51	Grounding Cable (IV 5.5 sq.mm x 1c)	5
26	Target Board for 4 Aspects	-			

Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

SATHON NUA – SURASAK

INTERSECTION Nº 215

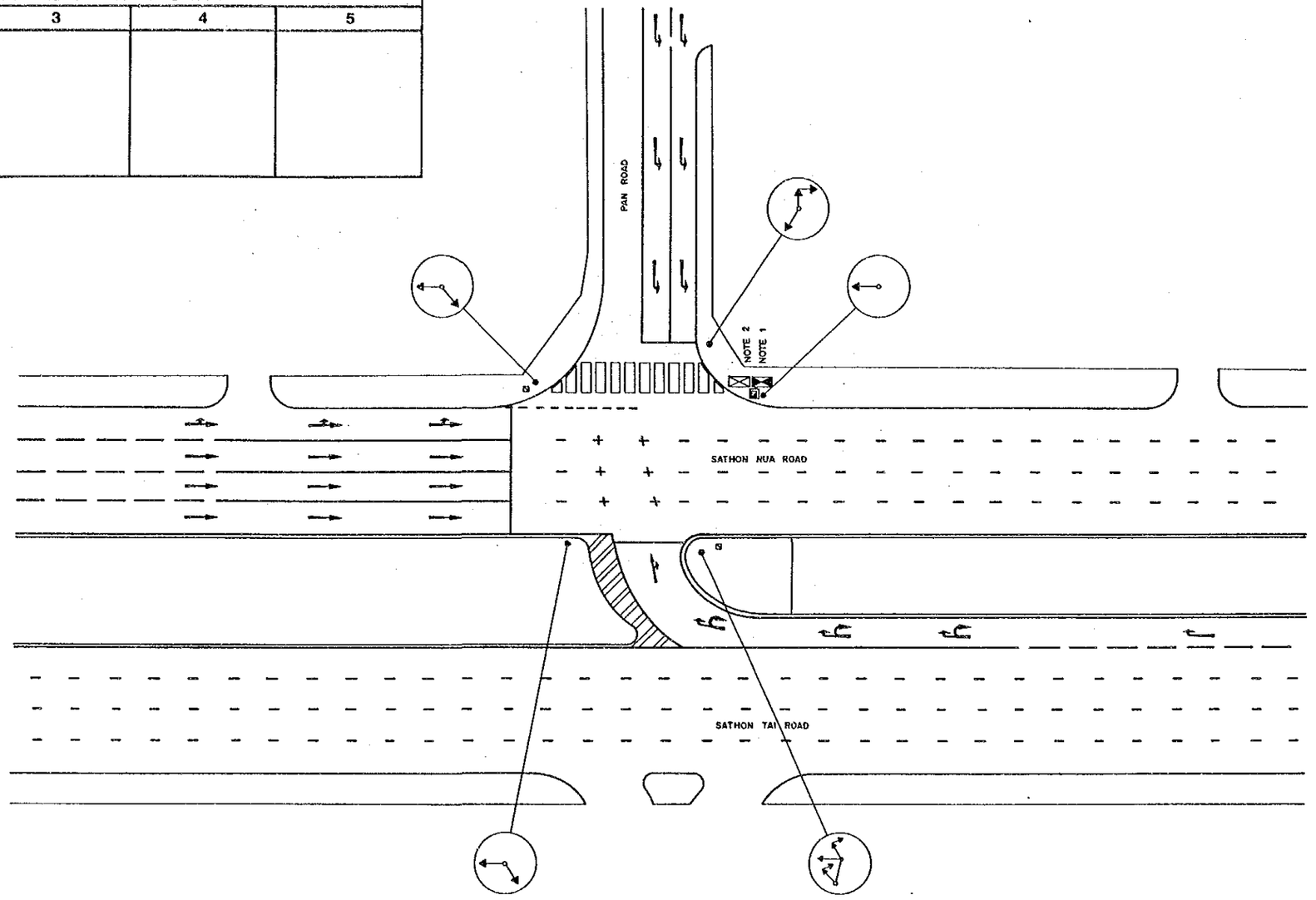
JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Jun Kodera, JICA Study Team Leader	Approved By : Boonyawat Tiptus, BMA Study Team Leader
Designed By : Yasuo Nakashima, JICA Study Member	Checked By : TED, BMA
Scale 1 / 250	Drawing Nº 2215
Date SEPTEMBER '90	Total 116 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

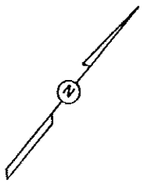
1	2	3	4	5
				



Intersection Equipments List

Intersection No. 217

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	2
5	Pre-Processor of Detector Pulse	1
6	Supply Power Switch Box with Power Breaker	-
7	TOT Line Box	1
8	Remove Existing Controller	1
9	Signal Pole Type A	-
10	Signal Pole Type B	-
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	-
14	Terminal 20 p	-
15	Signal Head 3 Aspects (200mm x 3)	-
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 8 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 6 Aspects (300mm x 6)	-
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	-
25	Target Board for 3 Aspects	-
26	Target Board for 4 Aspects	-
27	Target Board for 8 Aspects	-
28	PVC Conduit 100 mm (4")	6
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	-
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	5
33	Install Conduit under Concrete Pavement or Sidewalk	6
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	5
36	Handhole Type C	-
37	Handhole Type D	1
38	Signal Cable 6c (2 sq.mm)	-
39	Signal Cable 8c (2 sq.mm)	-
40	Signal Cable 12c (2 sq.mm)	-
41	Signal Cable 20c (2 sq.mm)	6
42	Power Cable	5
43	Cable Splicing Kit	1
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq mm x 1c)	5



Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

SATHON NUA – PAN

INTERSECTION Nº 217

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Juro Kodera, JICA Study Team Leader

Designed By : Yasuo Nabeshima, JICA Study Member

Approved By : Boonyawat Tiptus, BMA Study Team Leader

Checked By : TED, BMA

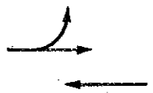
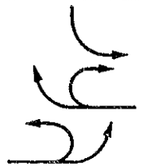
Scale 1 / 250

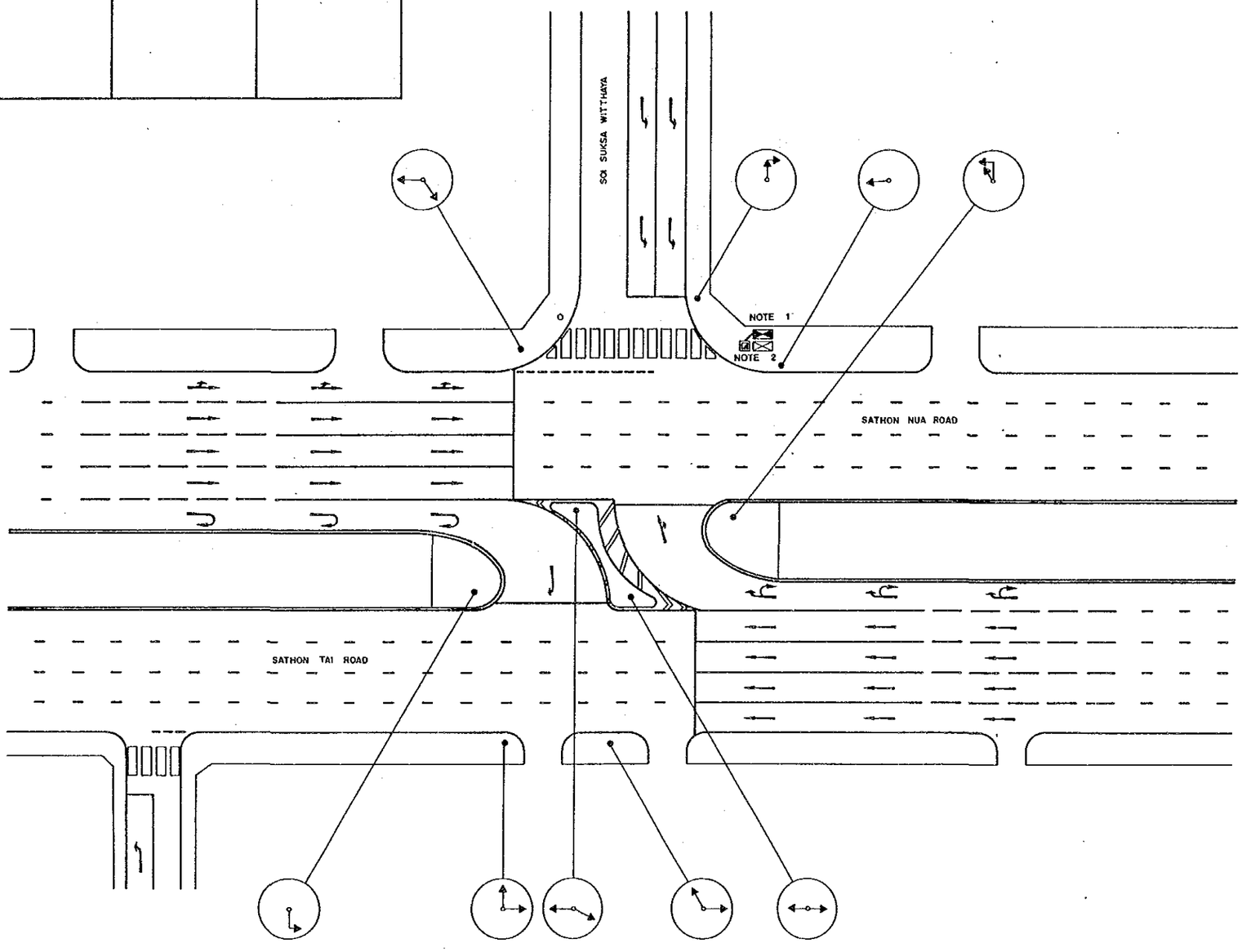
Date SEPTEMBER '90

Drawing Nº 2217

Total 117 / 139

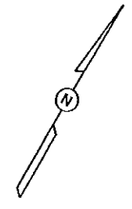
PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				



Intersection Equipments List
Intersection No. 219

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	3
5	Pre-Processor of Detector Pulse	-
6	Supply Power Switch Box with Power Breaker	-
7	TOT Line Box	1
8	Remove Existing Controller	1
9	Signal Pole Type A	-
10	Signal Pole Type B	-
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	-
14	Terminal 20 p	-
15	Signal Head 3 Aspects (200mm x 3)	-
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 6 Aspects (300mm x 6)	-
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	-
25	Target Board for 3 Aspects	-
26	Target Board for 4 Aspects	-
27	Target Board for 6 Aspects	-
28	PVC Conduit 100 mm (4")	6
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	-
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	6
34	Install Conduit under Wall	-
35	Install Conduit on Riser Support Pole	5
36	Handhole Type C	-
37	Handhole Type D	1
38	Signal Cable 6c (2 sq.mm)	-
39	Signal Cable 8c (2 sq.mm)	-
40	Signal Cable 12c (2 sq.mm)	-
41	Signal Cable 20c (2 sq.mm)	8
42	Power Cable	5
43	Cable Splicing Kit	1
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5



Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN
SATHON – SOI SUKSA WITTHAYA (BANG RAK HOSPITAL)

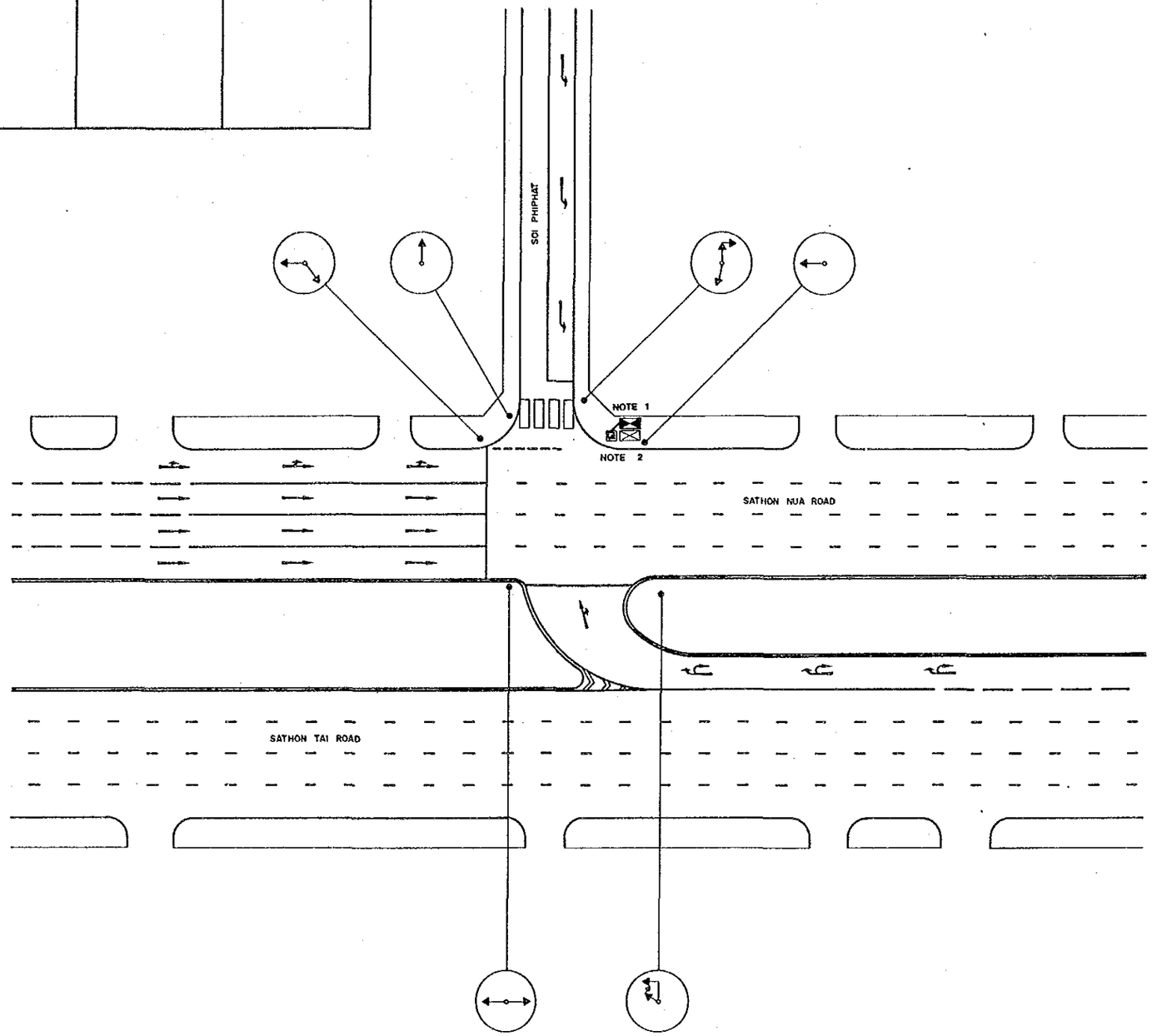
INTERSECTION Nº 219

JICA Japan International Cooperation Agency
BMA Bangkok Metropolitan Administration

Submitted By : Jure Kudara, JICA Study Team Leader	Approved By : Boonyawat Tiptus, BMA Study Team Leader
Designed By : Yasuo Nakashima, JICA Study Member	Checked By : TED., BMA
Scale 1 / 250	Drawing Nº 2219
Date SEPTEMBER '90	Total 118 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

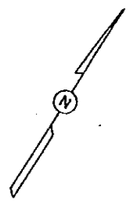
1	2	3	4	5
				



Intersection Equipments List

Intersection No. 221

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	2
5	Pre-Processor of Detector Pulse	-
6	Supply Power Switch Box with Power Breaker	-
7	TOT Line Box	1
8	Remove Existing Controller	1
9	Signal Pole Type A	-
10	Signal Pole Type B	-
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	-
14	Terminal 20 p	-
15	Signal Head 3 Aspects (200mm x 3)	-
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 6 Aspects (300mm x 6)	-
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	-
25	Target Board for 3 Aspects	-
26	Target Board for 4 Aspects	-
27	Target Board for 6 Aspects	-
28	PVC Conduit 100 mm (4")	8
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	-
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	8
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	5
36	Handhole Type C	-
37	Handhole Type D	1
38	Signal Cable 8c (2 sq.mm)	-
39	Signal Cable 8c (2 sq.mm)	-
40	Signal Cable 12c (2 sq.mm)	8
41	Signal Cable 20c (2 sq.mm)	-
42	Power Cable	5
43	Cable Splicing Kit	1
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5



Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

SATHON NUA – SOI PHIPHAT

INTERSECTION NO 221

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Juro Kodera, JICA Study Team Leader

Approved By : Boonyawat Tipkus, BMA Study Team Leader

Designed By : Yasuo Nabeshima, JICA Study Member

Checked By : TED_BMA

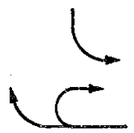
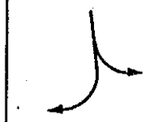
Scale 1 / 250

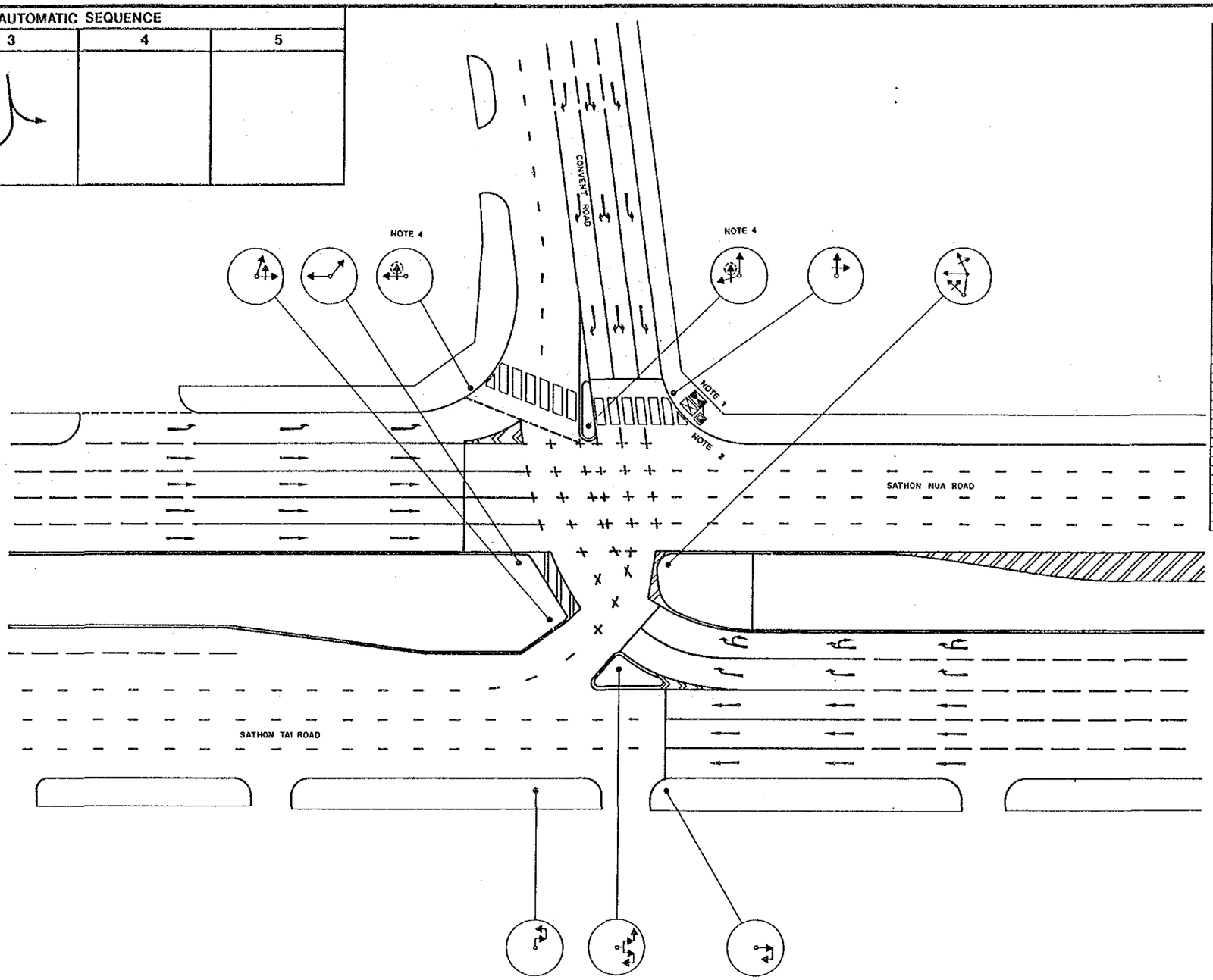
Drawing NO 2221

Date SEPTEMBER '90

Total 119 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				



Intersection Equipments List
Intersection No. 222

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	3
5	Pre-Processor of Detector Pulse	-
6	Supply Power Switch Box with Power Breaker	-
7	TOT Line Box	1
8	Remove Existing Controller	1
9	Signal Pole Type A	-
10	Signal Pole Type B	-
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	-
14	Terminal 20 p	-
15	Signal Head 3 Aspects (200mm x 3)	-
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 5 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 6 Aspects (300mm x 6)	-
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	-
25	Target Board for 3 Aspects	-
26	Target Board for 4 Aspects	-
27	Target Board for 5 Aspects	-
28	PVC Conduit 100 mm (4")	6
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	-
31	Steel Conduit 28 mm	6
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	6
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	5
36	Handhole Type C	-
37	Handhole Type D	-
38	Signal Cable 6c (2 sq.mm)	-
39	Signal Cable 8c (2 sq.mm)	-
40	Signal Cable 12c (2 sq.mm)	-
41	Signal Cable 20c (2 sq.mm)	8
42	Power Cable	5
43	Cable Splicing Kit	1
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	2
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5

Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

SATHON NUA–CONVENT

INTERSECTION NO. 222

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Jun Kodera, JICA Study Team Leader

Approved By : Boonyawat Tiptus, BMA Study Team Leader

Designed By : Yasuo Nakashima, JICA Study Member

Checked By : TED, BMA

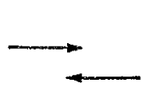
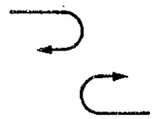
Scale 1 / 250

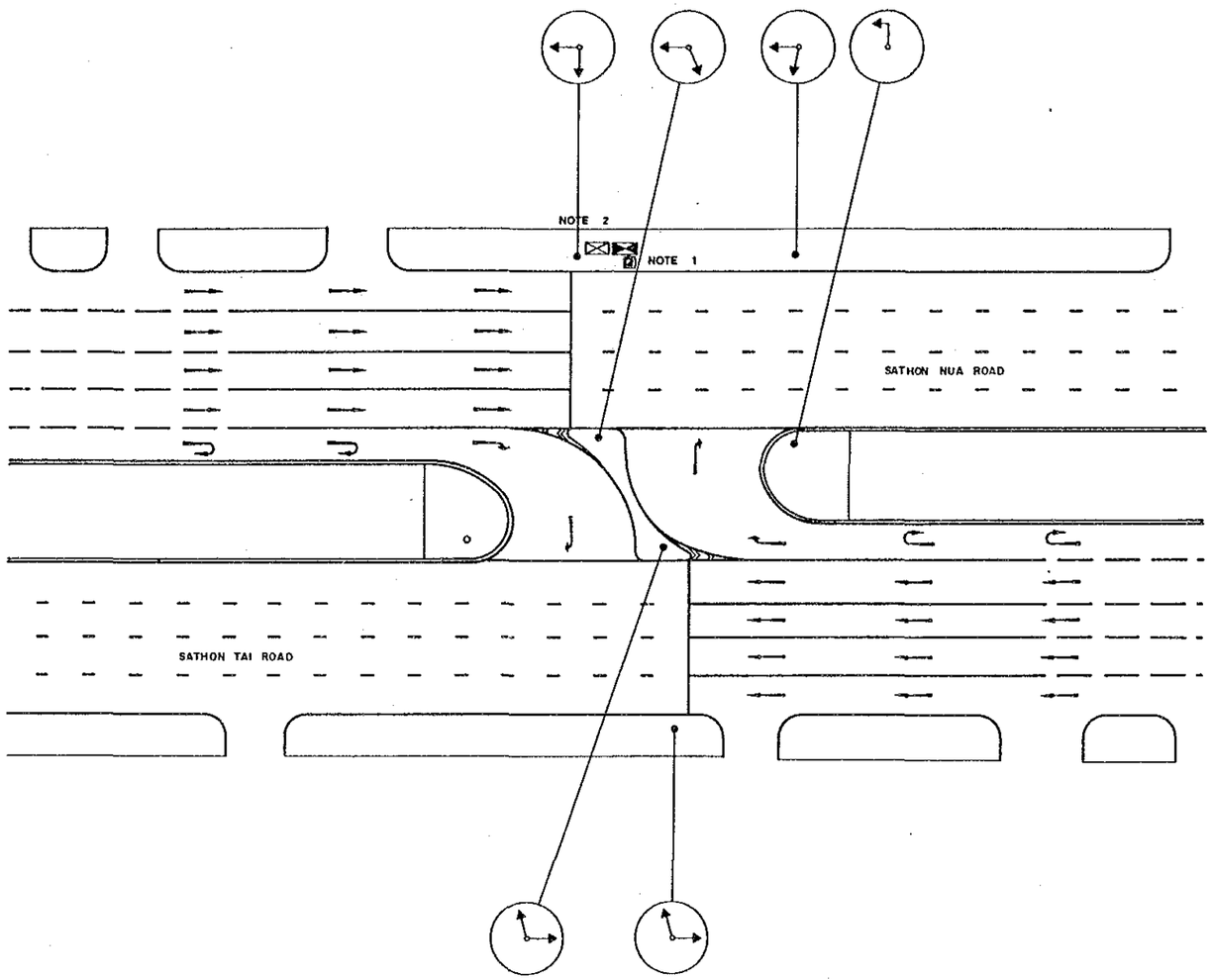
Drawing NO. 2222

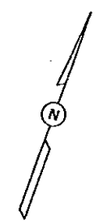
Date SEPTEMBER '90

Total 120 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				





Intersection Equipments List
Intersection No. 224

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	4
5	Pre-Processor of Detector Pulse	1
6	Supply Power Switch Box with Power Breaker	-
7	TOT Line Box	1
8	Remove Existing Controller	1
9	Signal Pole Type A	-
10	Signal Pole Type B	-
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	-
14	Terminal 20 p	-
15	Signal Head 3 Aspects (200mm x 3)	-
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 6 Aspects (300mm x 6)	-
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	-
25	Target Board for 3 Aspects	-
26	Target Board for 4 Aspects	-
27	Target Board for 6 Aspects	-
28	PVC Conduit 100 mm (4")	8
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 33 mm	-
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	8
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	5
36	Handhole Type C	-
37	Handhole Type D	1
38	Signal Cable 6c (2 sq.mm)	-
39	Signal Cable 8c (2 sq.mm)	-
40	Signal Cable 12c (2 sq.mm)	8
41	Signal Cable 20c (2 sq.mm)	-
42	Power Cable	5
43	Cable Splicing Kit	1
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5

Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

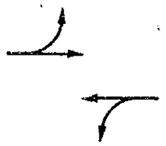
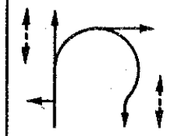
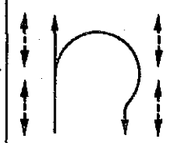
INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN
SATHON (U-TURN NEAR SOI ATTHAKAN PRASIT)

INTERSECTION Nº 224

JICA Japan International Cooperation Agency
SMA Bangkok Metropolitan Administration

Submitted By : Jun Kodera, JICA Study Team Leader
Approved By : Boonyawat Tiptus, BMA Study Team Leader
Designed By : Yasuo Nabeshima, JICA Study Member
Checked By : YED., BMA
Scale 1 / 250
Drawing Nº 2224
Date SEPTEMBER '90
Total 121/139

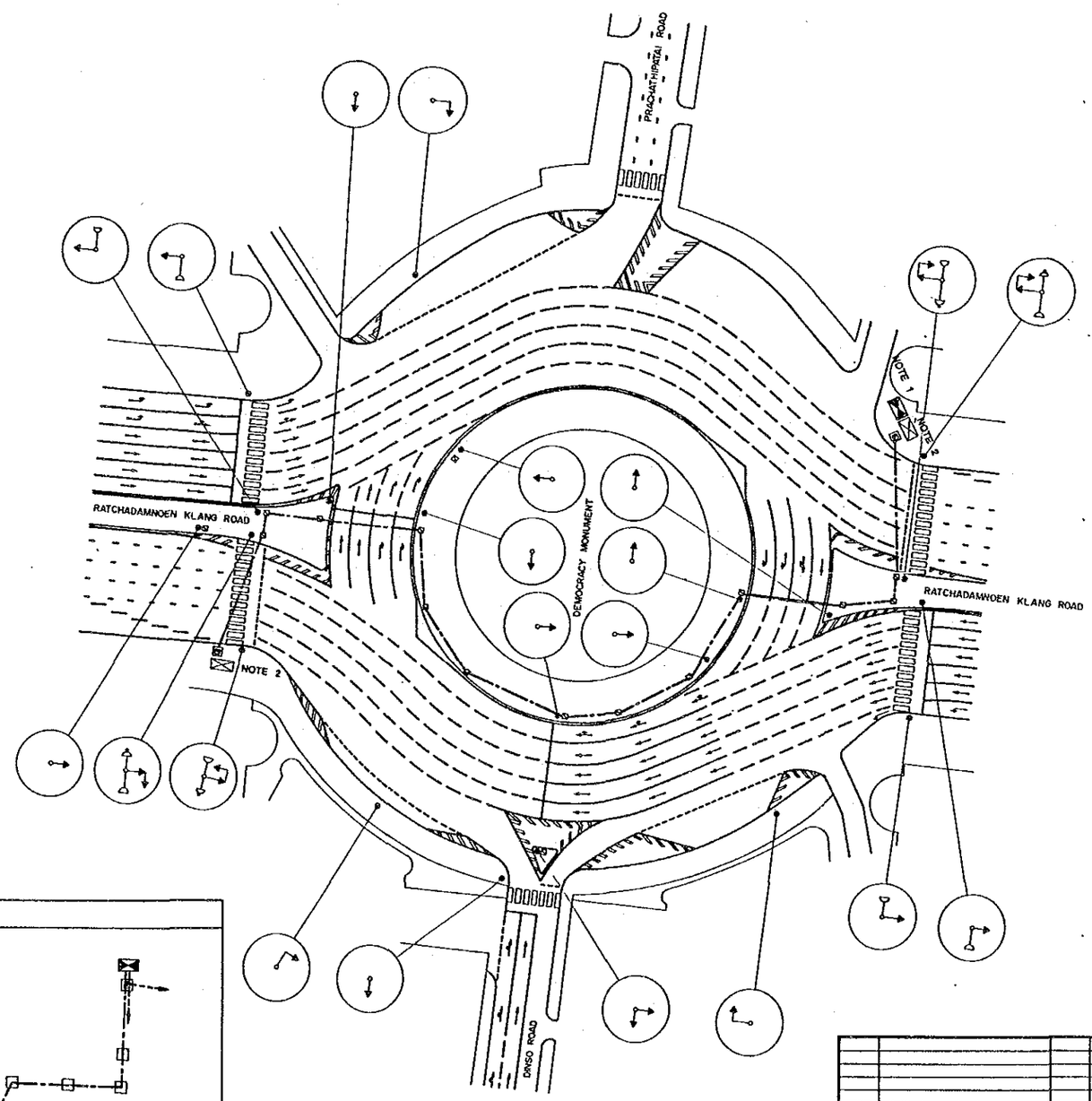
PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				
	 PEDESERIAN CROSSING SIGNAL BY DEMAND.			

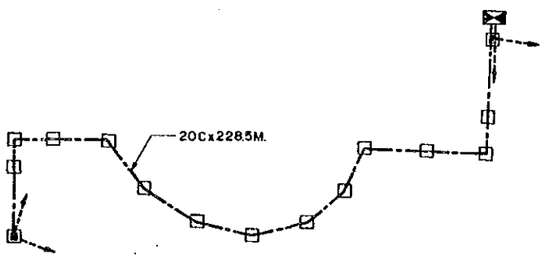
Intersection Equipments List

Intersection No. 228

ITEM	Name of Equipment	Qty.	ITEM	Name of Equipment	Qty.
1	Local Controller	1	27	Target Board for 6 Aspects	-
2	Railroad Pre-emption Control Unit	-	28	PVC Conduit 100 mm (4")	212.5
3	Pedestrian Push Button Interface Unit	-	29	Steel Conduit 100 mm (4")	-
4	Solid State Relay Unit	2	30	Steel Conduit 39 mm	-
5	Pre-Processor of Detector Pulse	1	31	Steel Conduit 28 mm	5
6	Supply Power Switch Box with Power Breaker	-	32	Install Conduit under Asphalt Pavement	-
7	TOT Line Box	1	33	Install Conduit under Concrete Pavement or Sidewalk	212.5
8	Remove Existing Controller	2	34	Install Conduit under Rail	-
9	Signal Pole Type A	-	35	Install Conduit on Riser Support Pole	5
10	Signal Pole Type B	-	36	Handhole Type C	2
11	Signal Pole Type C	-	37	Handhole Type D	2
12	Signal Pole Type D	-	38	Signal Cable 8c (2 sq.mm)	8
13	Terminal 12 p	-	39	Signal Cable 8c (2 sq.mm)	-
14	Terminal 20 p	-	40	Signal Cable 12c (2 sq.mm)	-
15	Signal Head 3 Aspects (200mm x 3)	-	41	Signal Cable 20c (2 sq.mm)	238.5
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-	42	Power Cable	5
17	Signal Head 3 Aspects (300mm x 3)	-	43	Cable Splicing Kit	2
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-	44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-	45	Remove Existing Signal Post and Heads (Pedestal Type)	-
20	Signal Head 4 Aspects (300mm x 4)	-	46	Remove Existing Signal Head	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-	47	Remove Existing Arrow Mask	-
22	Signal Head 6 Aspects (300mm x 6)	-	48	Remove Pedestrian Push Button	-
23	Signal Head Pedestrian	-	49	TOT Line (CPV, 0.65mm, 1P)	20
24	Lantern Arrow Mask	-	50	Grounding Rod	1
25	Target Board for 3 Aspects	-	51	Grounding Cable (IV 5.5 sq.mm x 1c)	5
26	Target Board for 4 Aspects	-			



CABLE LAYOUT



Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

DEMOCRACY MONUMENT

INTERSECTION Nº 227, 228

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Juro Kodera, JICA Study Team Leader

Approved By : Boonyawat Tipiua, BMA Study Team Leader

Designed By : Yasuo Nabeshima, JICA Study Member

Checked By : TED, BMA

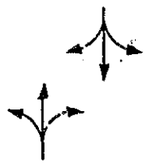
Scale 1/500

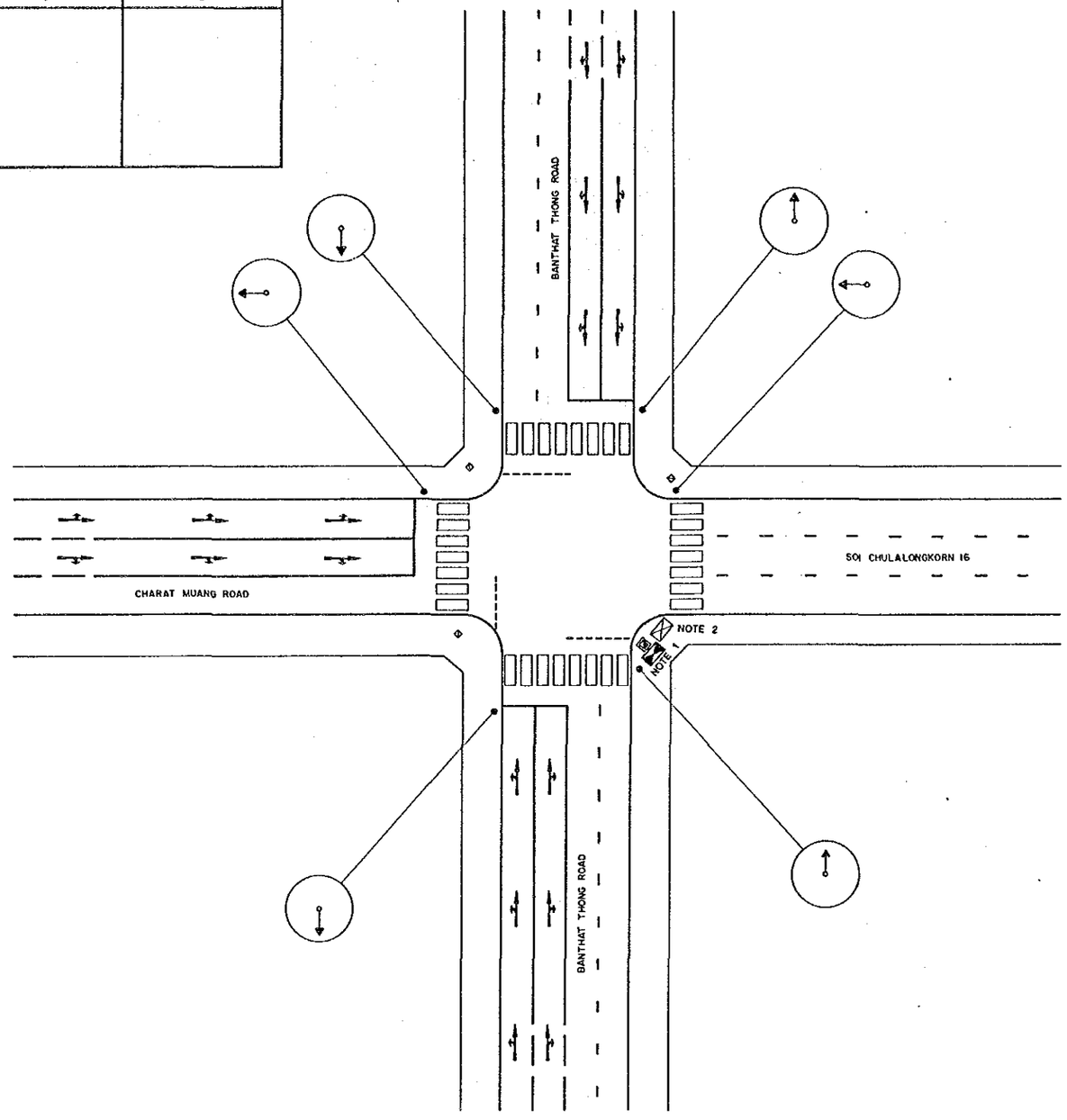
Drawing Nº 2228

Date SEPTEMBER '90

Total 122 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

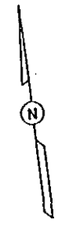
1	2	3	4	5
				



Intersection Equipments List

Intersection No. 232

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	1
5	Pre-Processor of Detector Pulse	-
6	Supply Power Switch Box with Power Breaker	-
7	TOT Line Box	1
8	Remove Existing Controller	1
9	Signal Pole Type A	-
10	Signal Pole Type B	-
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	-
14	Terminal 20 p	-
15	Signal Head 3 Aspects (200mm x 3)	-
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 6 Aspects (300mm x 6)	-
23	Signal Head Pedestrian	-
24	Lanvern Arrow Mask	-
25	Target Board for 3 Aspects	-
26	Target Board for 4 Aspects	-
27	Target Board for 6 Aspects	-
28	PVC Conduit 100 mm (4")	6
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	-
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	6
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	5
36	Handhole Type C	-
37	Handhole Type D	1
38	Signal Cable 6c (2 sq.mm)	-
39	Signal Cable 8c (2 sq.mm)	-
40	Signal Cable 12c (2 sq.mm)	6
41	Signal Cable 20c (2 sq.mm)	-
42	Power Cable	5
43	Cable Splicing Kit	1
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPY, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5



Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

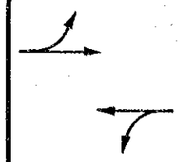
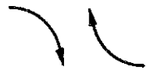
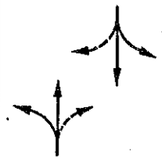
INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN
BANTHAT THONG – SOI CHULALONGKORN 16

INTERSECTION Nº 232

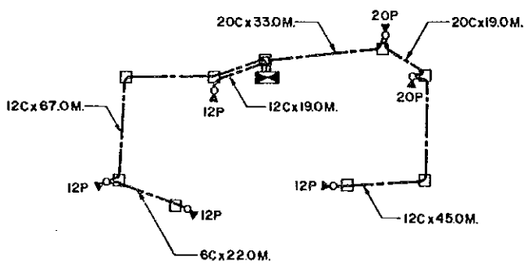
JICA Japan International Cooperation Agency
BMA Bangkok Metropolitan Administration

Submitted By : Jure Kodera, JICA Study Team Leader
Approved By : Boonyawat Tipiue, BMA Study Team Leader
Designed By : Yasuo Nabeshima, JICA Study Member
Checked By : TED, BMA
Scale 1 / 250
Drawing Nº 2232
Date SEPTEMBER '90
Total 123 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				

CABLE LAYOUT



Intersection Equipments List
Intersection No. 236

ITEM	Name of Equipment	Qty.	ITEM	Name of Equipment	Qty.
1	Local Controller	1	27	Target Board for 6 Aspects	-
2	Railroad Pre-emption Control Unit	-	28	PVC Conduit 100 mm (4")	137
3	Pedestrian Push Button Interface Unit	-	29	Steel Conduit 100 mm (4")	-
4	Solid State Relay Unit	3	30	Steel Conduit 39 mm	5
5	Pre-Processor of Detector Pulse	1	31	Steel Conduit 28 mm	5
6	Supply Power Switch Box with Power Breaker	1	32	Install Conduit under Asphalt Pavement	-
7	TOT Line Box	1	33	Install Conduit under Concrete Pavement or Sidewalk	137
8	Remove Existing Controller	-	34	Install Conduit under Rail	-
9	Signal Pole Type A	4	35	Install Conduit on Riser Support Pole	10
10	Signal Pole Type B	2	36	Handhole Type C	8
11	Signal Pole Type C	-	37	Handhole Type D	1
12	Signal Pole Type D	-	38	Signal Cable 6c (2 sq.mm)	22
13	Terminal 12 p	4	39	Signal Cable 8c (2 sq.mm)	-
14	Terminal 20 p	2	40	Signal Cable 12c (2 sq.mm)	131
15	Signal Head 3 Aspects (200mm x 3)	2	41	Signal Cable 20c (2 sq.mm)	52
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-	42	Power Cable	20
17	Signal Head 3 Aspects (300mm x 3)	2	43	Cable Splicing Kit	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-	44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	2	45	Remove Existing Signal Post and Heads (Pedestal Type)	-
20	Signal Head 4 Aspects (300mm x 4)	-	46	Remove Existing Signal Head	-
21	Signal Head 5 Aspects (200mm x 4, 300mm x 2)	-	47	Remove Existing Arrow Mask	-
22	Signal Head 6 Aspects (300mm x 6)	2	48	Remove Pedestrian Push Button	-
23	Signal Head Pedestrian	-	49	TOT Line (CPV, 0.65mm, 1P)	20
24	Lantern Arrow Mask	8	50	Grounding Rod	1
25	Target Board for 3 Aspects	2	51	Grounding Cable (IV 5.5 sq.mm x 1C)	5
26	Target Board for 4 Aspects	2			

Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

PHETCHABURI – SOI CHIT LOM

INTERSECTION Nº 236

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Juro Kodera, JICA Study Team Leader

Approved By : Boonyawat Tiptus, BMA Study Team Leader

Designed By : Yasuo Nobashima, JICA Study Member

Checked By : TED_BMA

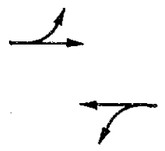
Scale 1 / 250

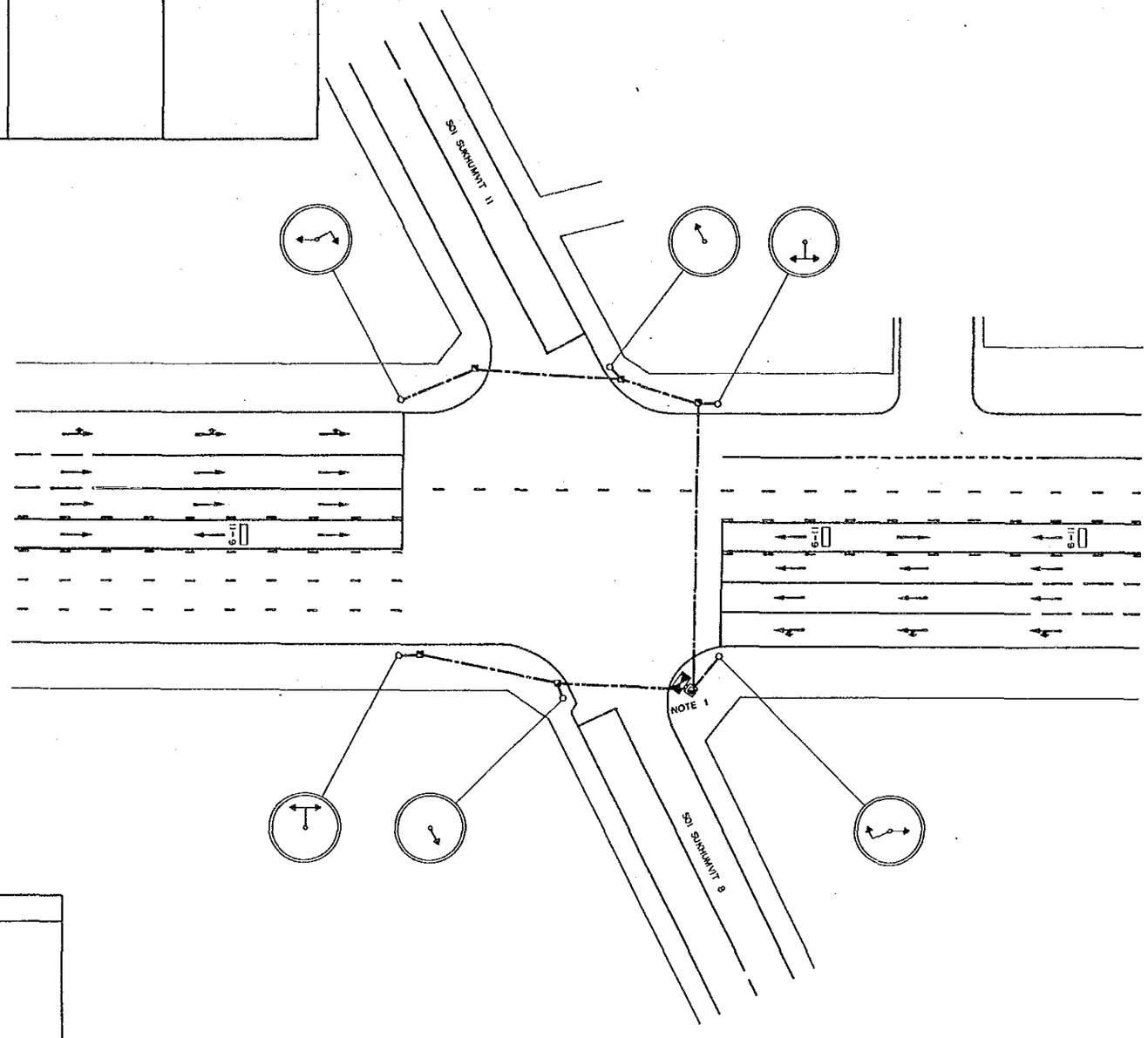
Drawing Nº 2236

Date SEPTEMBER' 90

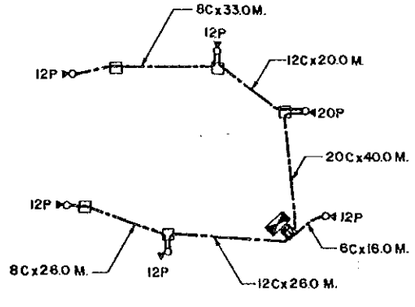
Total 124 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				



CABLE LAYOUT



Intersection Equipments List
Intersection No. 237

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	2
5	Pre-Processor of Detector Pulse	1
6	Supply Power Switch Box with Power Breaker	1
7	TOT Line Box	1
8	Remove Existing Controller	-
9	Signal Pole Type A	4
10	Signal Pole Type B	1
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	5
14	Terminal 20 p	1
15	Signal Head 3 Aspects (200mm x 3)	4
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	8
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 6 Aspects (300mm x 6)	-
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	-
25	Target Board for 3 Aspects	4
26	Target Board for 4 Aspects	-
27	Target Board for 6 Aspects	-
28	PVC Conduit 100 mm (4")	103
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	5
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	103
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	10
36	Handhole Type C	5
37	Handhole Type D	1
38	Signal Cable 6c (2 sq.mm)	16
39	Signal Cable 8c (2 sq.mm)	49
40	Signal Cable 12c (2 sq.mm)	48
41	Signal Cable 20c (2 sq.mm)	40
42	Power Cable	20
43	Cable Splicing Kit	-
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5

Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

SUKHUMVIT – SOI SUKHUMVIT II

INTERSECTION NO. 237

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Juro Kedare, JICA Study Team Leader

Designed By : Yasuo Matsushima, JICA Study Member

Approved By : Boonyawat Tiptus, BMA Study Team Leader

Checked By : YED, BMA

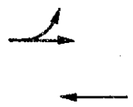
Scale 1 / 250

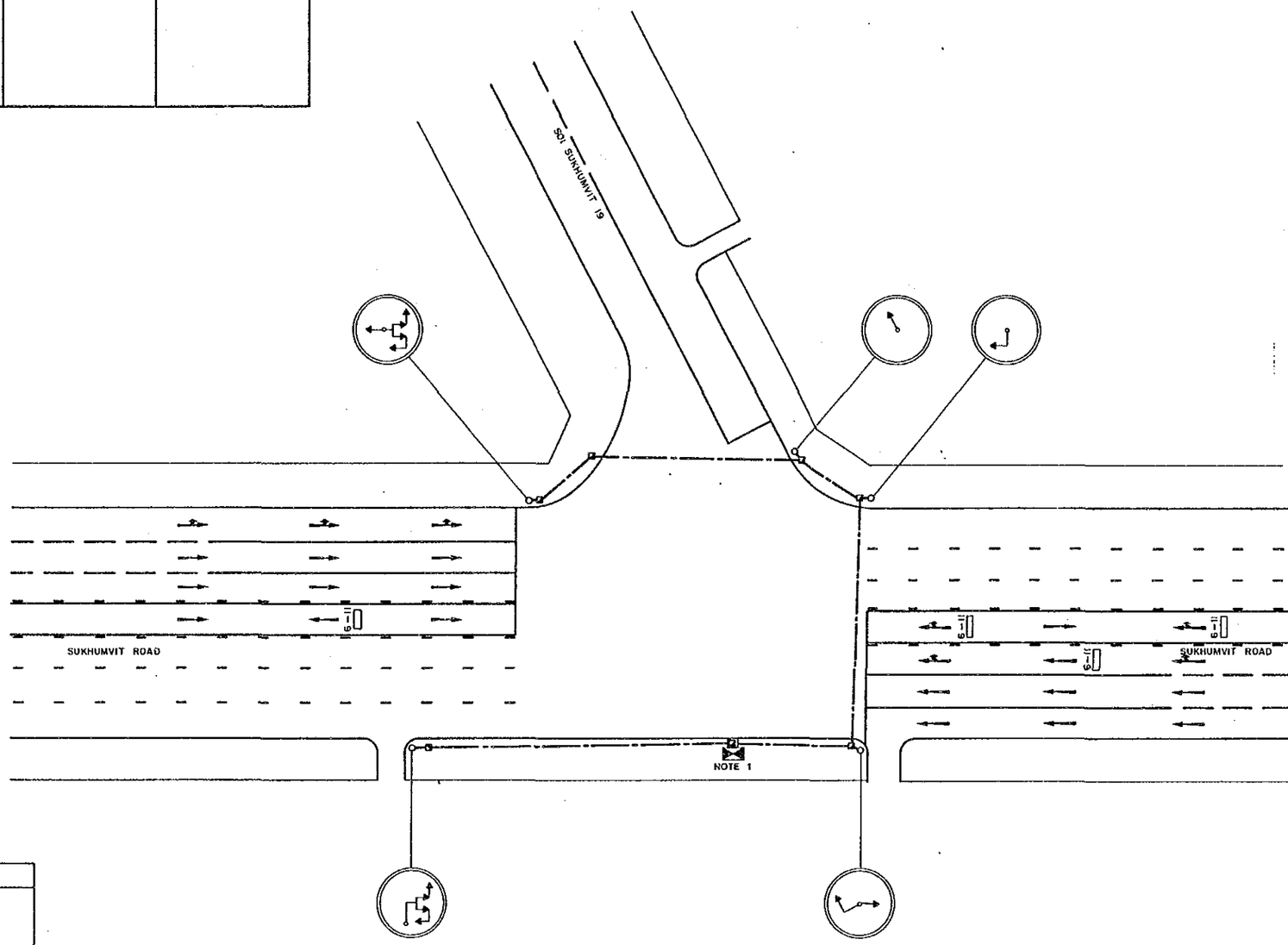
Date SEPTEMBER '90

Drawing NO. 2237

Total 125 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				

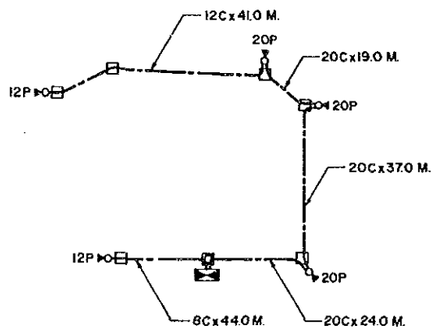


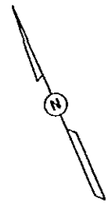
Intersection Equipments List

Intersection No. 238

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	2
5	Pre-Processor of Detector Pulse	1
6	Supply Power Switch Box with Power Breaker	1
7	TOT Line Box	1
8	Remove Existing Controller	-
9	Signal Pole Type A	3
10	Signal Pole Type B	2
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	2
14	Terminal 20 p	3
15	Signal Head 3 Aspects (200mm x 3)	3
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	2
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	1
22	Signal Head 6 Aspects (300mm x 6)	1
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	4
25	Target Board for 3 Aspects	3
26	Target Board for 4 Aspects	-
27	Target Board for 6 Aspects	1
28	PVC Conduit 100 mm (4")	118
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	5
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	118
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	10
36	Handhole Type C	6
37	Handhole Type D	1
38	Signal Cable 6c (2 sq.mm)	-
39	Signal Cable 8c (2 sq.mm)	44
40	Signal Cable 12c (2 sq.mm)	41
41	Signal Cable 20c (2 sq.mm)	60
42	Power Cable	20
43	Cable Splicing Kit	-
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq mm x 1c)	5

CABLE LAYOUT





Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

SUKHUMVIT-SOI SUKHUMVIT 19

INTERSECTION NO 238

Submitted By : Juro Kodera, JICA Study Team Leader

Approved By : Boonyawat Tiptus, BMA Study Team Leader

Designed By : Yasuo Nabeshima, JICA Study Member

Checked By : TEO, BMA

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

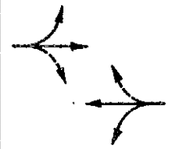
Scale 1 / 250

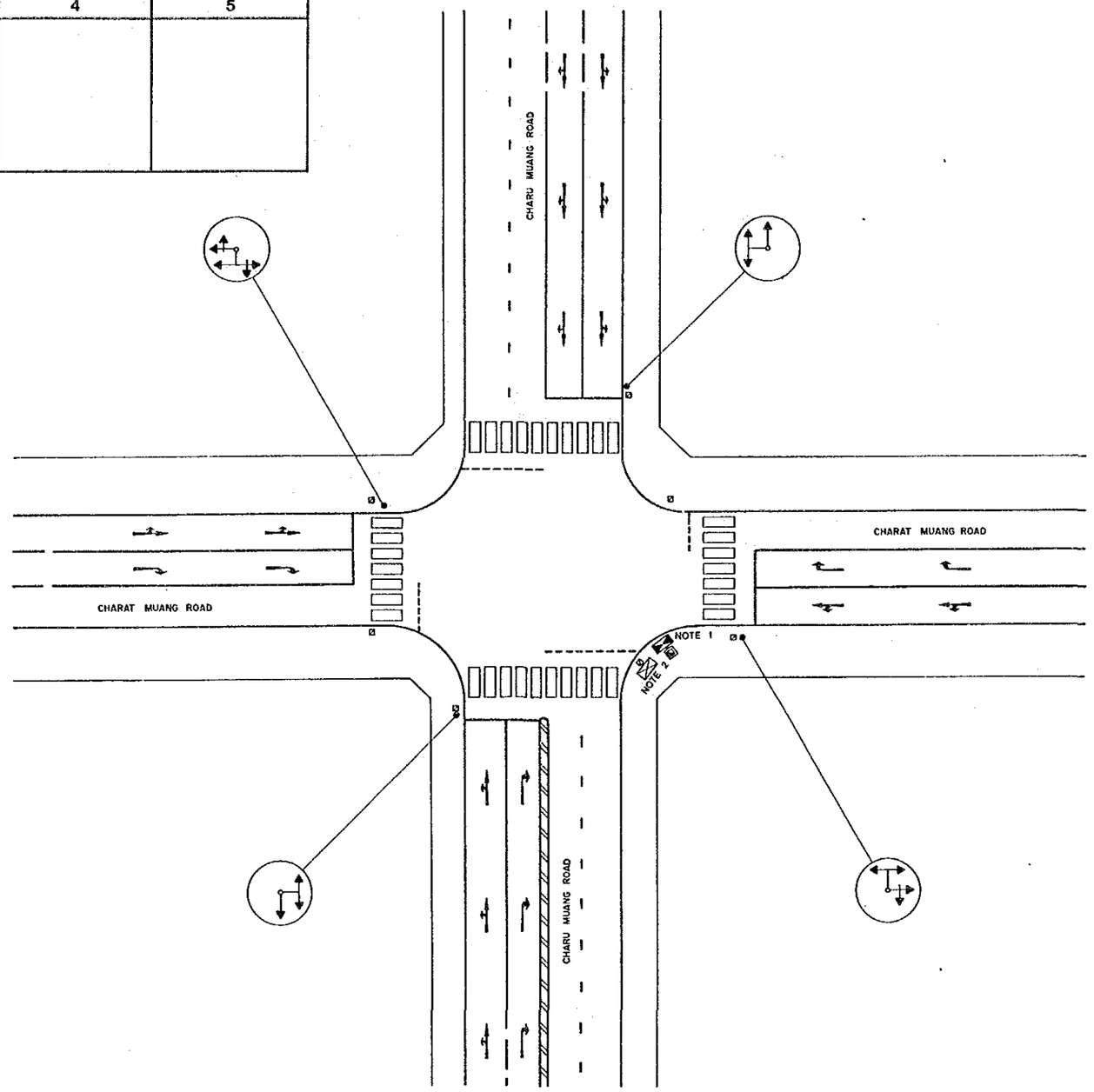
Drawing NO 2238

Date SEPTEMBER '90

Total 126 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				



Intersection Equipments List

Intersection No. 245

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	1
5	Pre-Processor of Detector Poles	1
6	Supply Power Switch Box with Power Breaker	-
7	TOT Line Box	1
8	Remove Existing Controller	1
9	Signal Pole Type A	-
10	Signal Pole Type B	-
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	-
14	Terminal 20 p	-
15	Signal Head 3 Aspects (200mm x 3)	-
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 6 Aspects (300mm x 6)	-
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	-
25	Target Board for 3 Aspects	-
26	Target Board for 4 Aspects	-
27	Target Board for 6 Aspects	-
28	PVC Conduit 100 mm (4")	6
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	-
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	6
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	5
36	Handhole Type C	-
37	Handhole Type D	1
38	Signal Cable 6c (2 sq.mm)	-
39	Signal Cable 8c (2 sq.mm)	-
40	Signal Cable 12c (2 sq.mm)	-
41	Signal Cable 20c (2 sq.mm)	8
42	Power Cable	5
43	Cable Splicing Kit	1
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5

Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

CHARU MUANG – CHARAT MUANG

INTERSECTION Nº 245

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Juro Kodera, JICA Study Team Leader

Approved By : Boonyawat Tiptus, BMA Study Team Leader

Designed By : Yasuo Nabeshima, JICA Study Member

Checked By : TED, BMA

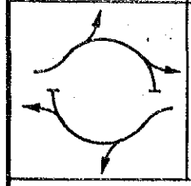
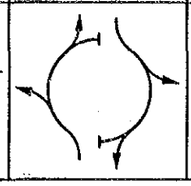
Scale 1 / 250

Drawing Nº 2245

Date SEPTEMBER' 90

Total 127 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				

CABLE LAYOUT

Intersection Equipments List

Intersection No. 255

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	8
5	Pre-Processor of Detector Pulse	-
6	Supply Power Switch Box with Power Breaker	-
7	TOT Line Box	1
8	Remove Existing Controller	1
9	Signal Pole Type A	-
10	Signal Pole Type B	-
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	-
14	Terminal 20 p	-
15	Signal Head 3 Aspects (200mm x 3)	-
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 6 Aspects (300mm x 6)	-
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	-
25	Target Board for 3 Aspects	-
26	Target Board for 4 Aspects	-
27	Target Board for 6 Aspects	-
28	PVC Conduit 100 mm (4")	502.5
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	-
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	502.5
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	5
36	Handhole Type C	8
37	Handhole Type D	4
38	Signal Cable 5c (2 sq.mm)	-
39	Signal Cable 8c (2 sq.mm)	-
40	Signal Cable 12c (2 sq.mm)	543.5
41	Signal Cable 20c (2 sq.mm)	233
42	Power Cable	5
43	Cable Splicing Kit	4
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5

Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

VICTORY MONUMENT

INTERSECTION Nº 254,255,256,257

Submitted By : Juro Kodera, JICA Study Team Leader

Approved By : Boonyawat Tiptus, BMA Study Team Leader

Designed By : Yasue Kobashima, JICA Study Member

Checked By : TED, BMA

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

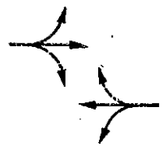
Scale 1 / 500

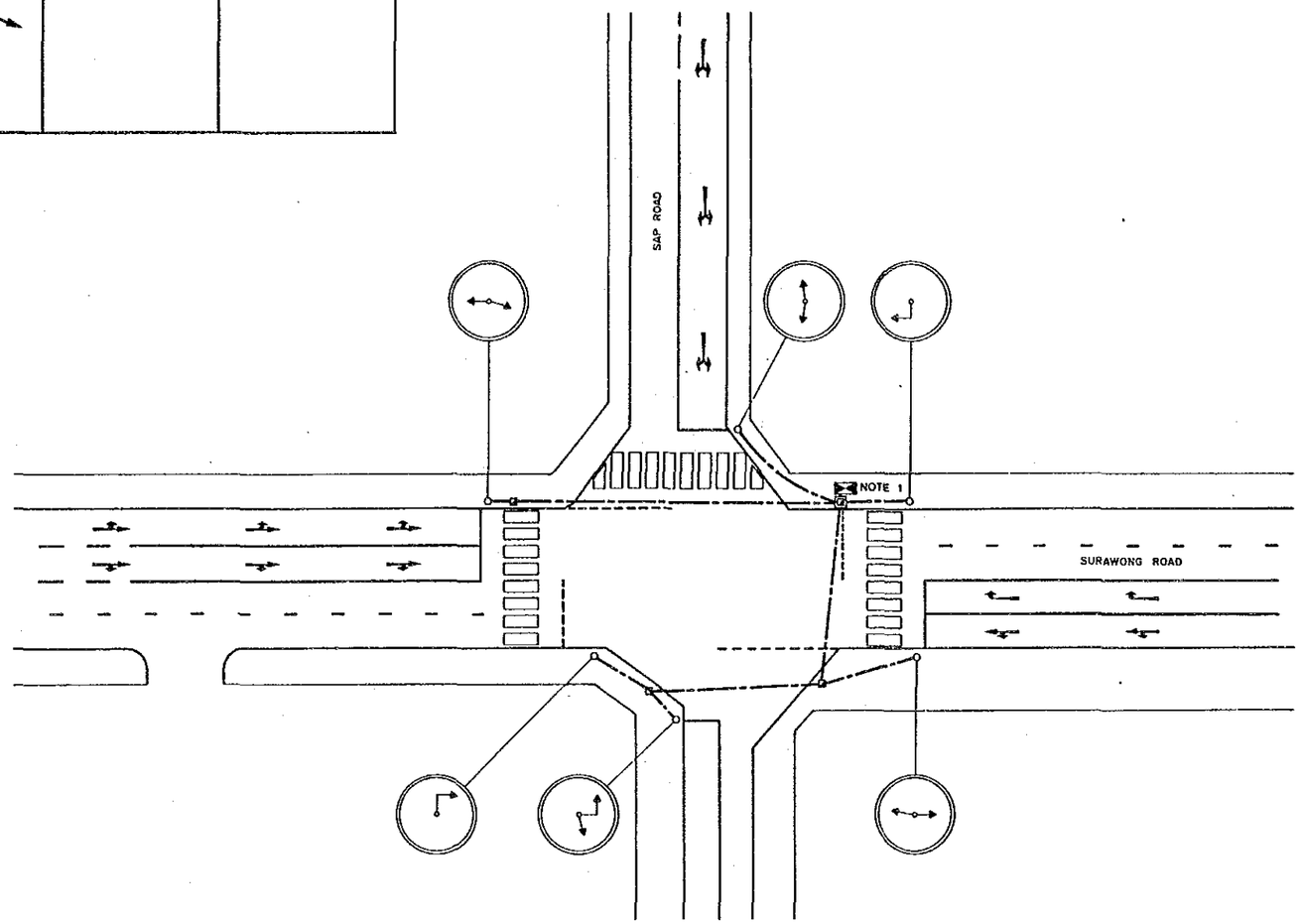
Drawing Nº 2255

Date SEPTEMBER '90

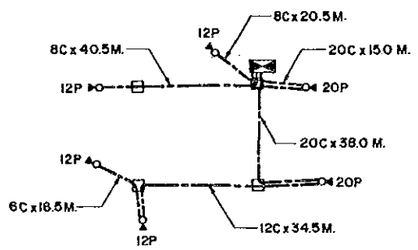
Total 128 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				



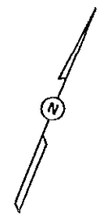
CABLE LAYOUT



Intersection Equipments List

Intersection No. 266

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	2
5	Pre-Processor of Detector Pulse	-
6	Supply Power Switch Box with Power Breaker	1
7	TOT Line Box	1
8	Remove Existing Controller	-
9	Signal Pole Type A	3
10	Signal Pole Type B	3
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	4
14	Terminal 20 p	2
15	Signal Head 3 Aspects (200mm x 3)	7
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	3
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 6 Aspects (300mm x 6)	-
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	-
25	Target Board for 3 Aspects	7
26	Target Board for 4 Aspects	-
27	Target Board for 6 Aspects	-
28	PVC Conduit 100 mm (4")	100
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	5
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	100
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	10
36	Handhole Type C	3
37	Handhole Type D	1
38	Signal Cable 8c (2 sq.mm)	18.5
39	Signal Cable 8c (2 sq.mm)	81
40	Signal Cable 12c (2 sq.mm)	34.5
41	Signal Cable 20c (2 sq.mm)	53
42	Power Cable	20
43	Cable Splicing Kit	-
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5



Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

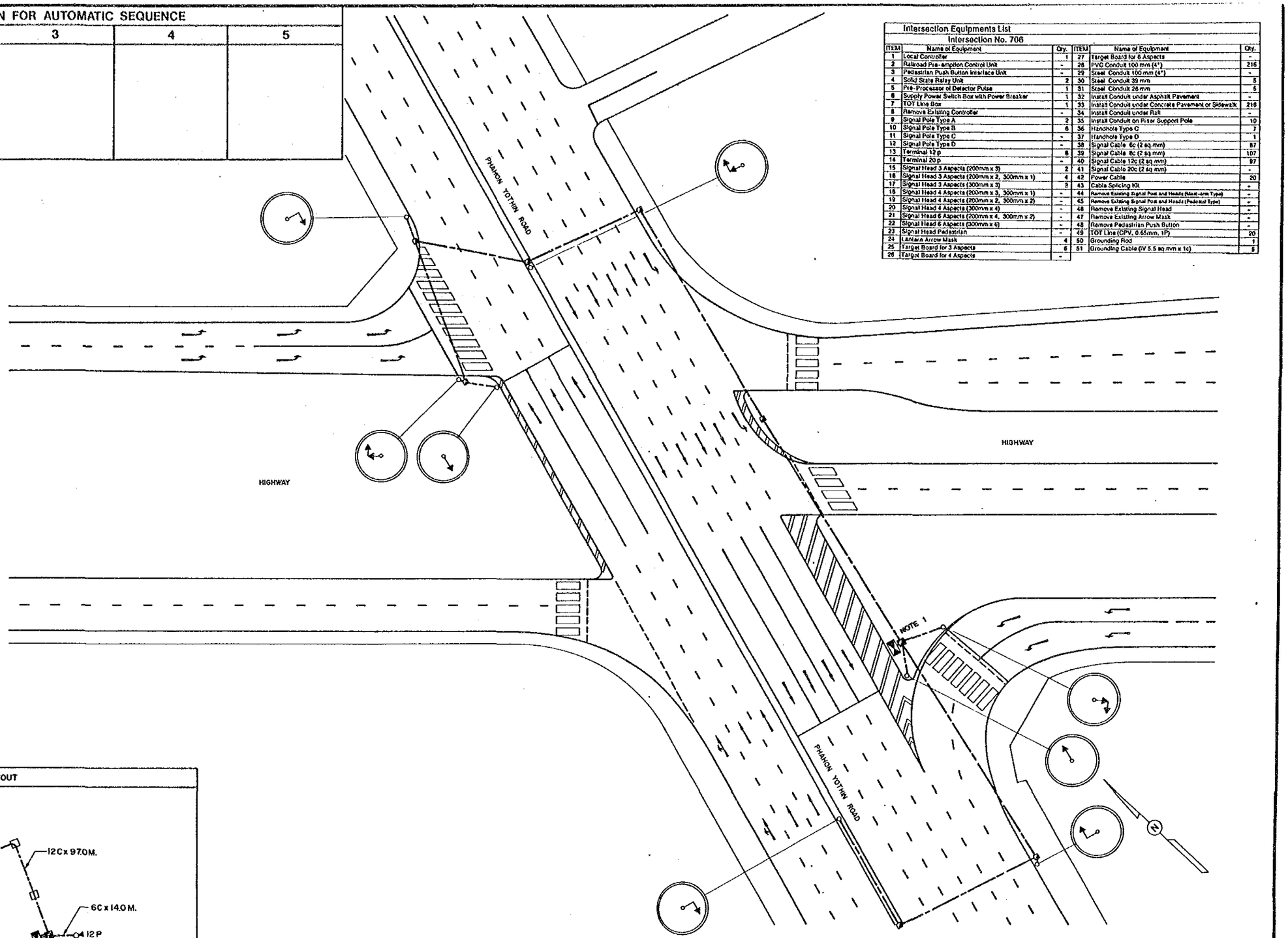
SURAWONG – SAP

INTERSECTION Nº 266

Submitted By : Juro Kodera, JICA Study Team Leader	Approved By : Boonyawat Tipsuwanporn, BMA Study Team Leader
Designed By : Yasuo Nabeshima, JICA Study Member	Checked By : TED, BMA
JICA Japan International Cooperation Agency / BMA Bangkok Metropolitan Administration	Scale 1 / 250
Date SEPTEMBER '90	Drawing Nº 2266
	Total 129 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

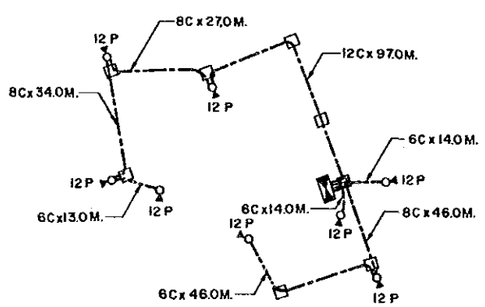
1	2	3	4	5
				



Intersection Equipments List
Intersection No. 706

ITEM	Name of Equipment	Qty.	ITEM	Name of Equipment	Qty.
1	Local Controller	1	27	Target Board for 6 Aspects	-
2	Railroad Pre-emption Control Unit	-	28	PVC Conduit 100 mm (4")	216
3	Pedestrian Push Button Interface Unit	-	29	Steel Conduit 100 mm (4")	-
4	Sc&2 State Relay Unit	2	30	Steel Conduit 39 mm	5
5	Pre-Processor of Detector Pulse	1	31	Steel Conduit 26 mm	5
6	Supply Power Switch Box with Power Breaker	1	32	Install Conduit under Asphalt Pavement	-
7	TOT Line Box	1	33	Install Conduit under Concrete Pavement or Sidewalk	216
8	Remove Existing Controller	-	34	Install Conduit under Rail	-
9	Signal Pole Type A	2	35	Install Conduit on Pole/ Support Pole	10
10	Signal Pole Type B	6	36	Handhole Type C	7
11	Signal Pole Type C	-	37	Handhole Type D	1
12	Signal Pole Type D	-	38	Signal Cable 6c (2 sq.mm)	87
13	Terminal 12 p	8	39	Signal Cable 8c (2 sq.mm)	107
14	Terminal 20 p	-	40	Signal Cable 12c (2 sq.mm)	97
15	Signal Head 3 Aspects (200mm x 3)	2	41	Signal Cable 20c (2 sq.mm)	-
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	4	42	Power Cable	20
17	Signal Head 3 Aspects (300mm x 3)	3	43	Cable Splicing Kit	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-	44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-	45	Remove Existing Signal Post and Heads (Pedestal Type)	-
20	Signal Head 4 Aspects (300mm x 4)	-	46	Remove Existing Signal Head	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-	47	Remove Existing Arrow Mask	-
22	Signal Head 6 Aspects (300mm x 6)	-	48	Remove Pedestrian Push Button	-
23	Signal Head Pedestrian	-	49	TOT Line (CPV, 0.65mm, 1P)	20
24	Lantern Arrow Mask	4	50	Grounding Rod	1
25	Target Board for 3 Aspects	8	51	Grounding Cable (IV 5.5 sq.mm x 1c)	5
26	Target Board for 4 Aspects	-			

CABLE LAYOUT



Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

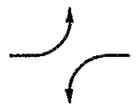
HIGHWAY – PHAHON YOTHIN

INTERSECTION Nº 706

JICA	BMA
Japan International Cooperation Agency	Bangkok Metropolitan Administration

Submitted By : Juro Kodera, JICA Study Team Leader	Approved By : Boonyawat Tipkua, BMA Study Team Leader
Designed By : Yasuo Habashima, JICA Study Member	Checked By : TED, BMA
Scale 1 / 250	Drawing Nº 2706
Date SEPTEMBER '90	Total 130 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				

CABLE LAYOUT

Intersection Equipments List

Intersection No. 707

ITEM	Name of Equipment	Qty.	ITEM	Name of Equipment	Qty.
1	Local Controller	1	27	Target Board for 6 Aspects	-
2	Railroad Pre-emption Control Unit	-	28	PVC Conduit 100 mm (4")	155
3	Pedestrian Push Button Interface Unit	-	29	Steel Conduit 100 mm (4")	-
4	Solid State Relay Unit	2	30	Steel Conduit 33 mm	5
5	Pre-Processor of Detector Pulse	1	31	Steel Conduit 28 mm	5
6	Supply Power Switch Box with Power Breaker	1	32	Install Conduit under Asphalt Pavement	-
7	TOT Line Box	1	33	Install Conduit under Concrete Pavement or Sidewalk	155
8	Remove Existing Controller	-	34	Install Conduit under Rail	-
9	Signal Pole Type A	2	35	Install Conduit on Riser Support Pole	10
10	Signal Pole Type B	4	36	Handhole Type C	6
11	Signal Pole Type C	-	37	Handhole Type D	1
12	Signal Pole Type D	-	38	Signal Cable 6c (2 sq.mm)	58
13	Terminal 12 p	4	39	Signal Cable 8c (2 sq.mm)	145
14	Terminal 20 p	-	40	Signal Cable 12c (2 sq.mm)	-
15	Signal Head 3 Aspects (200mm x 3)	2	41	Signal Cable 20c (2 sq.mm)	-
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	4	42	Power Cable	20
17	Signal Head 3 Aspects (300mm x 3)	2	43	Cable Spliciing Kit	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-	44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-	45	Remove Existing Signal Post and Heads (Pedestal Type)	-
20	Signal Head 4 Aspects (300mm x 4)	-	46	Remove Existing Signal Head	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-	47	Remove Existing Arrow Mask	-
22	Signal Head 6 Aspects (300mm x 6)	-	48	Remove Pedestrian Push Button	-
23	Signal Head Pedestrian	-	49	TOT Line (CPV, 0.65mm, 1P)	20
24	Lantern Arrow Mask	4	50	Grounding Rod	1
25	Target Board for 3 Aspects	6	51	Grounding Cable (IV 5.5 sq.mm x 1c)	5
26	Target Board for 4 Aspects	-			

Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

HIGHWAY—ASOK— DIN DAENG

INTERSECTION Nº 707

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Juro Kodera, JICA Study Team Leader

Designed By : Yasuo Nakashima, JICA Study Member

Approved By : Boonyawat Tiptus, BMA Study Team Leader

Checked By : TED, BMA

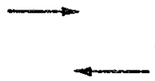
Scale 1 / 250

Drawing Nº 2707

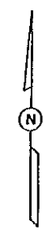
Date SEPTEMBER '90

Total 131 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				

Intersection Equipments List		
Intersection No. 708		
ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre- emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	2
5	Pre-Processor of Detector Pulse	1
6	Supply Power Switch Box with Power Breaker	-
7	TOT Line Box	1
8	Remove Existing Controller	1
9	Signal Pole Type A	-
10	Signal Pole Type B	-
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	-
14	Terminal 20 p	-
15	Signal Head 3 Aspects (200mm x 3)	-
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 6 Aspects (300mm x 6)	-
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	-
25	Target Board for 3 Aspects	-
26	Target Board for 4 Aspects	-
27	Target Board for 6 Aspects	-
28	PVC Conduit 100 mm (4")	6
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	-
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	6
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	5
36	Handhole Type C	-
37	Handhole Type D	1
38	Signal Cable 6c (2 sq.mm)	-
39	Signal Cable 8c (2 sq.mm)	-
40	Signal Cable 12c (2 sq.mm)	-
41	Signal Cable 20c (2 sq.mm)	8
42	Power Cable	5
43	Cable Splicing Kit	1
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5



Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

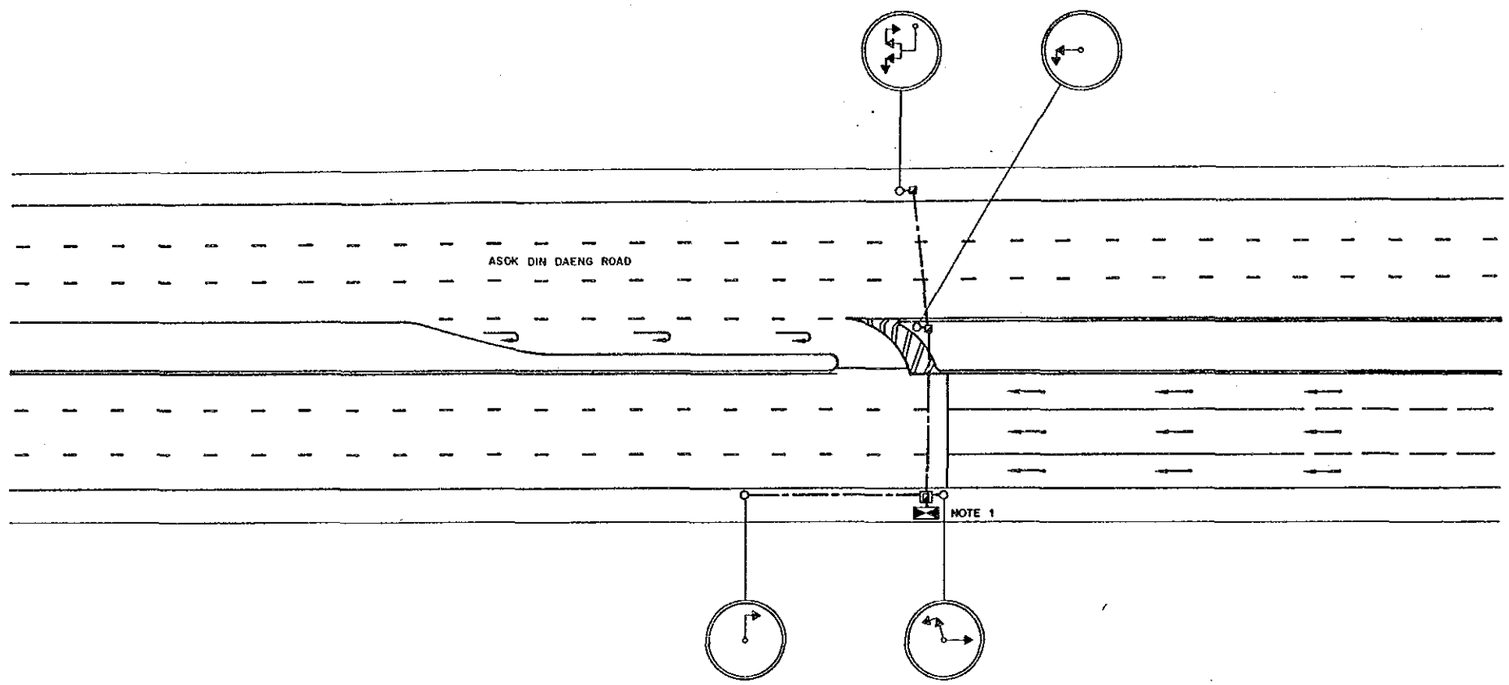
HIGHWAY – RAMA IX

INTERSECTION Nº 708

Submitted By : Jun Kodera, JICA Study Team Leader	Approved By : Boonyawat Tiatus, BMA Study Team Leader
Designed By : Yasuo Nobeshima, JICA Study Member	Checked By : TED., BMA
JICA Japan International Cooperation Agency / BMA Bangkok Metropolitan Administration	Scale 1 / 250
Date SEPTEMBER '90	Drawing Nº 2708
	Total 132 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
←	↩			

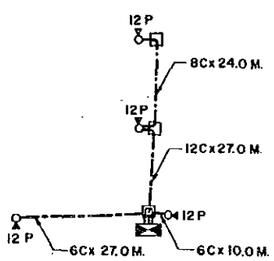


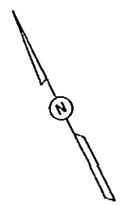
Intersection Equipments List

Intersection No. 801

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	1
5	Pre-Processor of Detector Pulse	-
6	Supply Power Switch Box with Power Breaker	1
7	TOT Line Box	1
8	Remove Existing Controller	-
9	Signal Pole Type A	2
10	Signal Pole Type B	2
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	4
14	Terminal 20 p	-
15	Signal Head 3 Aspects (200mm x 3)	1
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	2
17	Signal Head 3 Aspects (300mm x 3)	1
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 6 Aspects (300mm x 6)	1
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	4
25	Target Board for 3 Aspects	3
26	Target Board for 4 Aspects	-
27	Target Board for 6 Aspects	-
28	PVC Conduit 100 mm (4")	52
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 38 mm	5
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	52
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	10
36	Handhole Type C	2
37	Handhole Type D	1
38	Signal Cable 6c (2 sq.mm)	37
39	Signal Cable 8c (2 sq.mm)	24
40	Signal Cable 12c (2 sq.mm)	27
41	Signal Cable 20c (2 sq.mm)	-
42	Power Cable	20
43	Cable Splicing Kit	-
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 12P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5

CABLE LAYOUT





Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

U--TURN AT ASOK DIN DAENG (WEST)

INTERSECTION Nº 801

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Juro Kodera, JICA Study Team Leader

Designed By : Yasuo Nabeshima, JICA Study Member

Approved By : Boonyawat Tipiue, BMA Study Team Leader

Checked By : TED, BMA

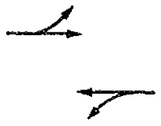
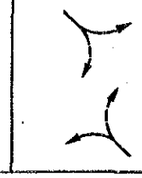
Scale 1 / 250

Date SEPTEMBER' 90

Drawing Nº 2801

Total 133 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

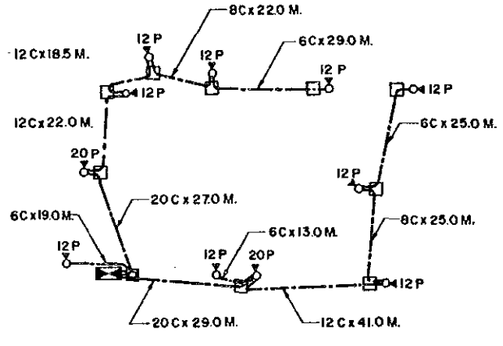
1	2	3	4	5
				

Intersection Equipments List

Intersection No. 802

ITEM	Name of Equipment	Qty.	ITEM	Name of Equipment	Qty.
1	Local Controller	1	27	Target Board for 6 Aspects	-
2	Railroad Pre-emption Control Unit	-	28	PVC Conduit 100 mm (4")	183.5
3	Pedestrian Push Button Interface Unit	-	29	Steel Conduit 100 mm (4")	-
4	Solid State Relay Unit	5	30	Steel Conduit 39 mm	5
5	Pre-Processor of Detector Pulse	-	31	Steel Conduit 28 mm	5
6	Supply Power Switch Box with Power Breaker	1	32	Install Conduit under Asphalt Pavement	-
7	TOT Line Box	1	33	Install Conduit under Concrete Pavement or Sidewalk	183.5
8	Remove Existing Controller	-	34	Install Conduit under Rail	-
9	Signal Pole Type A	4	35	Install Conduit on Riser Support Pole	10
10	Signal Pole Type B	7	36	Handhole Type C	9
11	Signal Pole Type C	-	37	Handhole Type D	1
12	Signal Pole Type D	-	38	Signal Cable 6c (2 sq.mm)	94
13	Terminal 12 p	9	39	Signal Cable 8c (2 sq.mm)	47
14	Terminal 20 p	2	40	Signal Cable 12c (2 sq.mm)	82
15	Signal Head 3 Aspects (200mm x 3)	4	41	Signal Cable 20c (2 sq.mm)	58
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	4	42	Power Cable	20
17	Signal Head 3 Aspects (300mm x 3)	4	43	Cable Splicing Kit	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-	44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-	45	Remove Existing Signal Post and Heads (Pedestal Type)	-
20	Signal Head 4 Aspects (300mm x 4)	-	46	Remove Existing Signal Head	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-	47	Remove Existing Arrow Mask	-
22	Signal Head 6 Aspects (300mm x 6)	-	48	Remove Pedestrian Push Button	-
23	Signal Head Pedestrian	-	49	TOT Line (CPV, 0.65mm, 1P)	20
24	Lantern Arrow Mask	4	50	Grounding Rod	1
25	Target Board for 3 Aspects	8	51	Grounding Cable (IV 5.5 sq.mm x 1c)	5
26	Target Board for 4 Aspects	-			

CABLE LAYOUT



Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

U-TURN AT ASOK DIN DAENG (EAST)

INTERSECTION Nº 802

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Jure Kodera, JICA Study Team Leader

Approved By : Boonyawat Tiptus, BMA Study Team Leader

Designed By : Yasuo Nabeshima, JICA Study Member

Checked By : TED, BMA

Scale 1 / 250

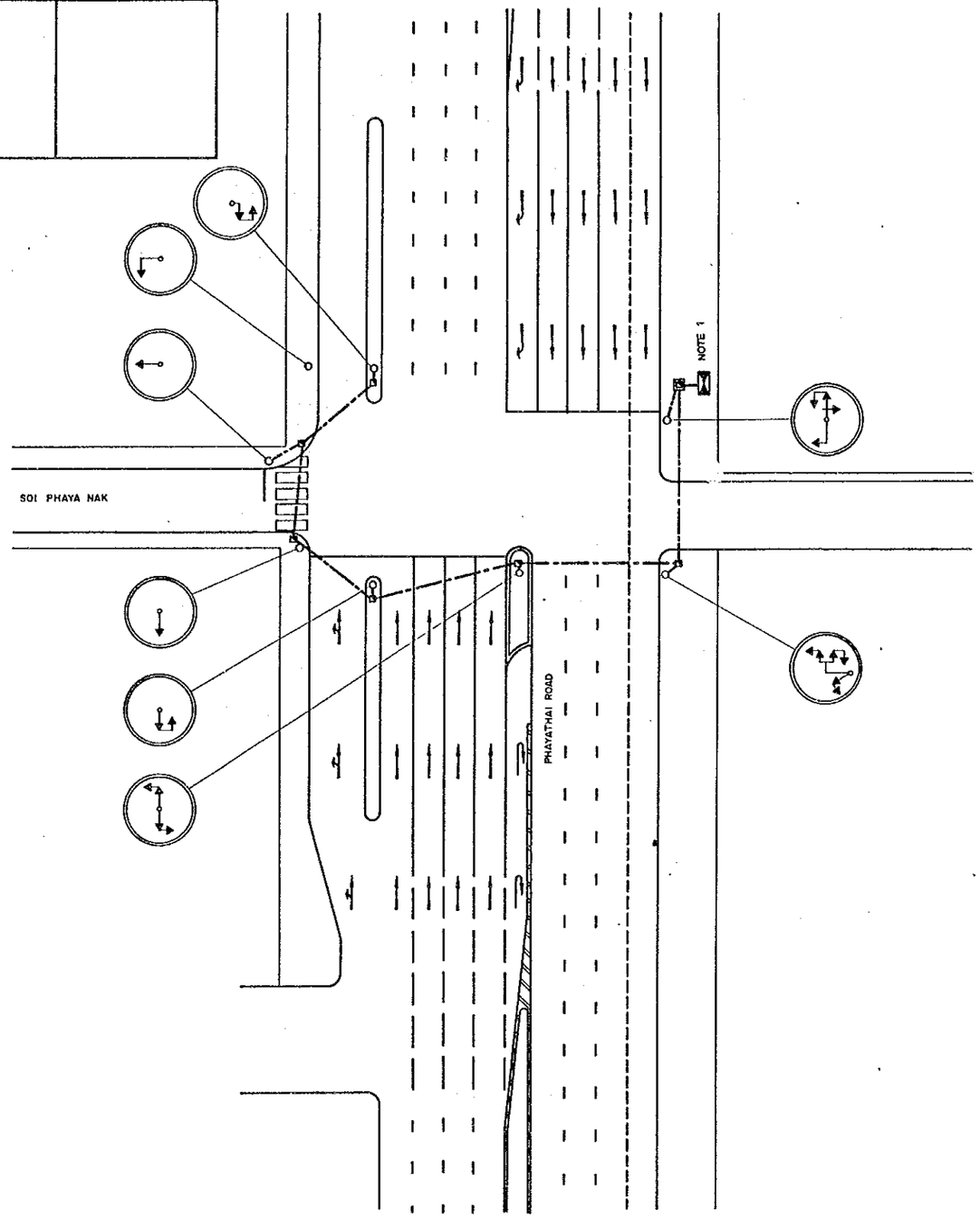
Drawing Nº 2602

Date SEPTEMBER '90

Total 134 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				

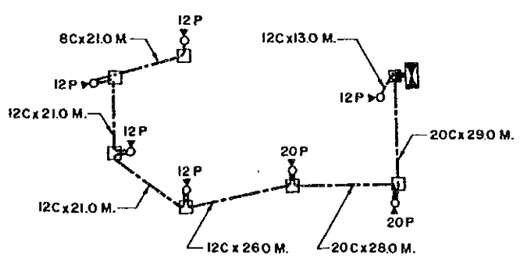


Intersection Equipments List

Intersection No. 803

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	3
5	Pre-Processor of Detector Pulse	1
6	Supply Power Switch Box with Power Breaker	1
7	TOT Line Box	1
8	Remove Existing Controller	-
9	Signal Pole Type A	2
10	Signal Pole Type B	4
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	5
14	Terminal 20 p	2
15	Signal Head 3 Aspects (200mm x 3)	2
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	4
17	Signal Head 3 Aspects (300mm x 3)	3
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	1
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 6 Aspects (300mm x 6)	1
23	Signal Head Pedestrian	-
24	Lanteen Arrow Mask	9
25	Target Board for 3 Aspects	6
26	Target Board for 4 Aspects	1
27	Target Board for 6 Aspects	-
28	PVC Conduit 100 mm (4")	96
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	5
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	96
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	10
36	Handhole Type C	6
37	Handhole Type D	1
38	Signal Cable 6c (2 sq.mm)	-
39	Signal Cable 8c (2 sq.mm)	21
40	Signal Cable 12c (2 sq.mm)	81
41	Signal Cable 20c (2 sq.mm)	57
42	Power Cable	20
43	Cable Splicing Kit	-
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5

CABLE LAYOUT



Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

U-TURN AT PHAYA THAI(ASIA HOTEL)

INTERSECTION Nº 803

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Jiro Kodera, JICA Study Team Leader

Approved By : Boonyawat Tistus, BMA Study Team Leader

Designed By : Yasuo Nobeshima, JICA Study Member

Checked By : TED., BMA

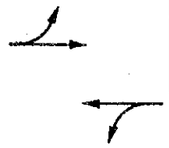
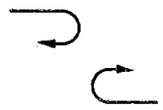
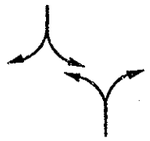
Scale 1 / 250

Drawing Nº 2803

Date SEPTEMBER '90

Total 135/139

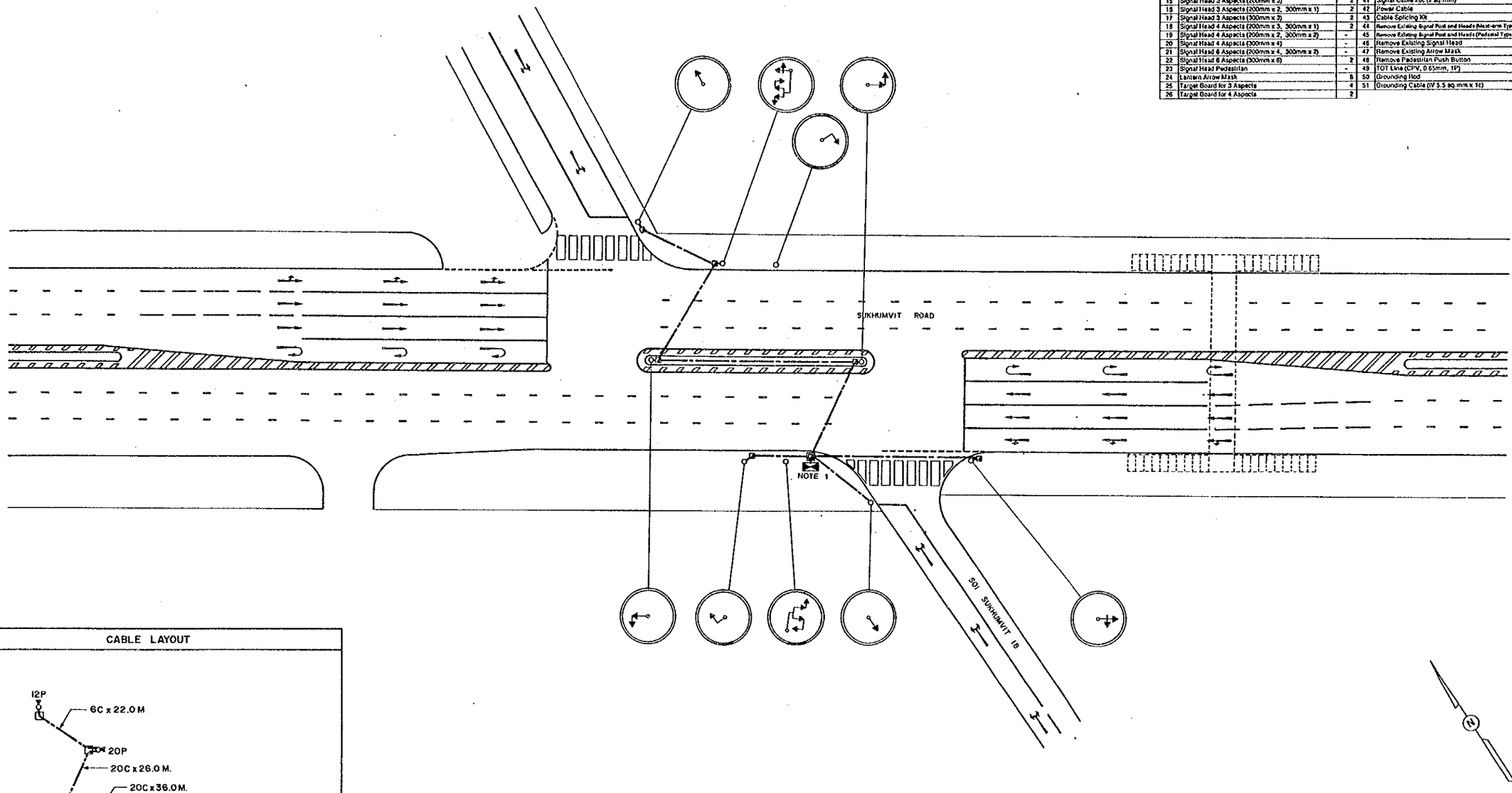
PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				

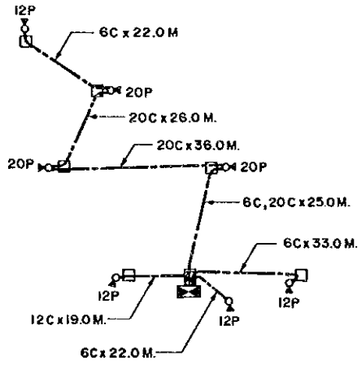
Intersection Equipments List

Intersection No. 804

ITEM	Name of Equipment	Qty.	ITEM	Name of Equipment	Qty.
1	Local Controller	1	27	Target Board for 6 Aspects	-
2	Railroad Pre-emption Control Unit	-	28	PVC Conduit 100 mm (4")	105
3	Pedestrian Push Button Interface Unit	-	29	Steel Conduit 100 mm (4")	-
4	Solid State Relay Unit	3	30	Steel Conduit 39 mm	5
5	Pre-Processor of Detector Pulse	1	31	Steel Conduit 28 mm	5
6	Supply Power Switch Box with Power Breaker	1	32	Install Conduit under Asphalt Pavement	-
7	TOT Line Box	1	33	Install Conduit under Concrete Pavement or Sidewalk	105
8	Remove Existing Controller	-	34	Install Conduit under Rail	-
9	Signal Pole Type A	-	35	Install Conduit on Riser Support Pole	10
10	Signal Pole Type B	5	36	Handhole Type C	6
11	Signal Pole Type C		37	Handhole Type D	1
12	Signal Pole Type D	-	38	Signal Cable 6c (2 sq.mm)	102
13	Terminal 12 p	4	39	Signal Cable 6c (2 sq.mm)	-
14	Terminal 20 p	3	40	Signal Cable 12c (2 sq. mm)	18
15	Signal Head 3 Aspects (200mm x 3)	2	41	Signal Cable 20c (2 sq.mm)	87
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	2	42	Power Cable	20
17	Signal Head 3 Aspects (300mm x 3)	2	43	Cable Splicing Kit	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	2	44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-	45	Remove Existing Signal Post and Heads (Pedestal Type)	-
20	Signal Head 4 Aspects (300mm x 4)	-	46	Remove Existing Signal Head	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-	47	Remove Existing Arrow Mask	-
22	Signal Head 6 Aspects (300mm x 6)	2	48	Remove Pedestrian Push Button	-
23	Signal Head Pedestrian	-	49	TOT Line (CPV, 0.65mm, 1P)	20
24	Lantern Arrow Mask	8	50	Grounding Rod	1
25	Target Board for 3 Aspects	4	51	Grounding Cable (IV 5.5 sq.mm x 1c)	5
26	Target Board for 4 Aspects	2			



CABLE LAYOUT



Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

U-TURN AT SUKHUMVIT (NEAR SOI SUKHUMVIT 18)

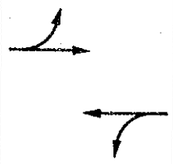
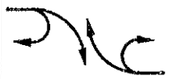
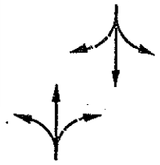
INTERSECTION Nº 804

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

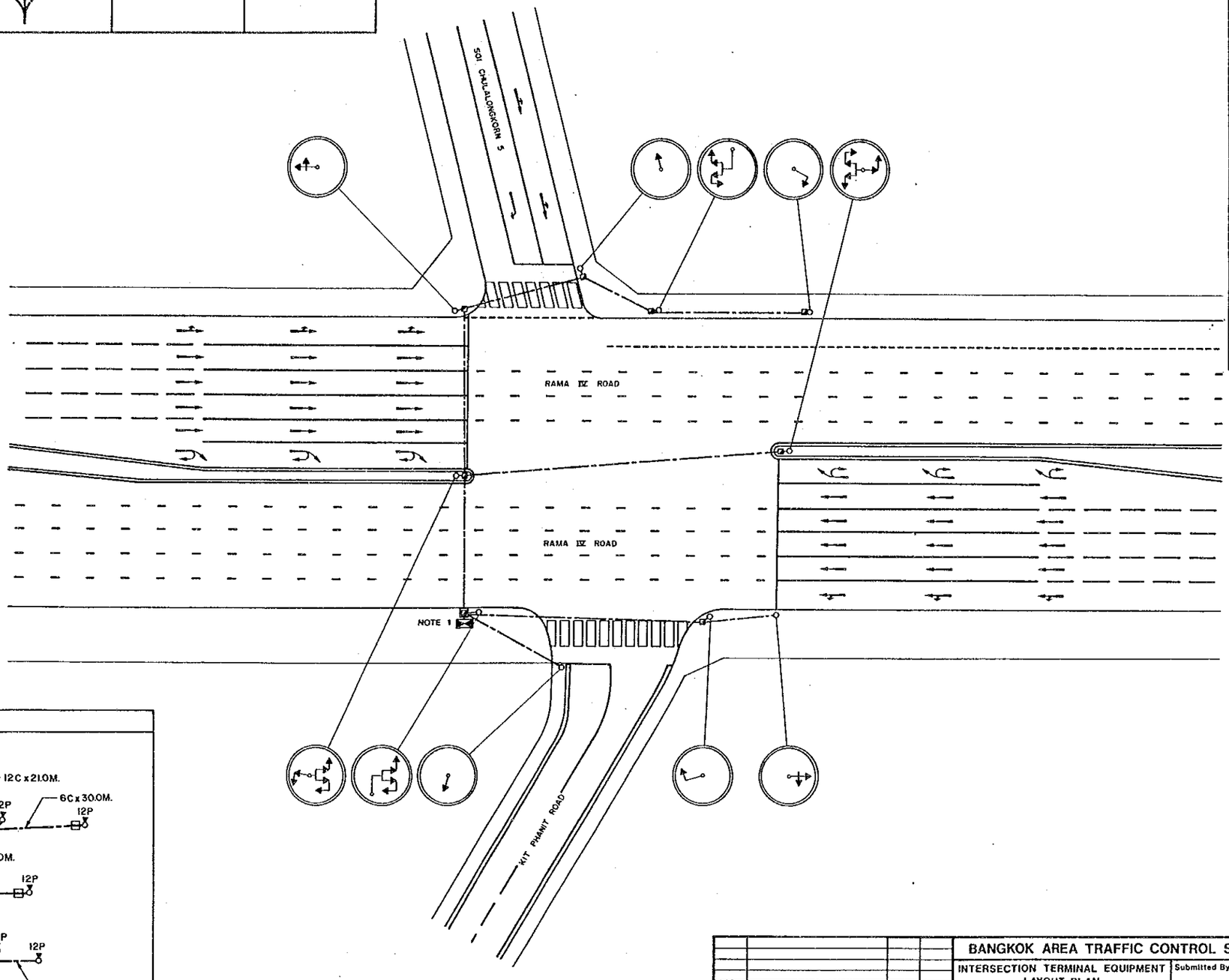
Submitted By : Juro Kudara, JICA Study Team Leader	Approved By : Boonyawat Tiptus, BMA Study Team Leader
Designed By : Yasuo Nabeshima, JICA Study Member	Checked By : TEO., BMA
Scale 1 / 250	Drawing Nº 2804
Date SEPTEMBER '90	Total 136 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

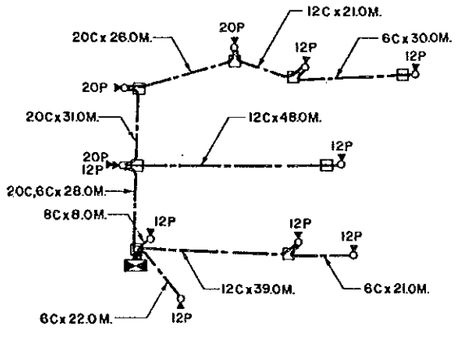
1	2	3	4	5
				

Intersection Equipments List
Intersection No. 805

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	3
5	Pre-Processor of Detector Pulse	-
6	Supply Power Switch Box with Power Breaker	1
7	TOT Line Box	1
8	Remove Existing Controller	-
9	Signal Pole Type A	4
10	Signal Pole Type B	8
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	8
14	Terminal 20 p	3
15	Signal Head 3 Aspects (200mm x 3)	2
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	2
17	Signal Head 3 Aspects (300mm x 3)	2
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	2
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	2
22	Signal Head 6 Aspects (300mm x 6)	2
23	Signal Head Pedestrian	
24	Lantern Arrow Mask	12
25	Target Board for 3 Aspects	4
26	Target Board for 4 Aspects	2
27	Target Board for 6 Aspects	2
28	PVC Conduit 100 mm (4")	179
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	5
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	179
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	10
36	Handhole Type C	7
37	Handhole Type D	1
38	Signal Cable 6c (2 sq.mm)	101
39	Signal Cable 8c (2 sq.mm)	8
40	Signal Cable 12c (2 sq.mm)	108
41	Signal Cable 20c (2 sq.mm)	85
42	Power Cable	20
43	Cable Splicing Kit	-
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5



CABLE LAYOUT



Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

U-TURN AT RAMA IV

INTERSECTION Nº 805

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Juro Kodera, JICA Study Team Leader

Approved By : Boonyawat Tiptus, BMA Study Team Leader

Designed By : Yasuo Nabeshima, JICA Study Member

Checked By : TED., BMA

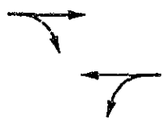
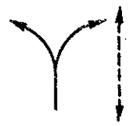
Scale 1 / 250

Drawing Nº 2805

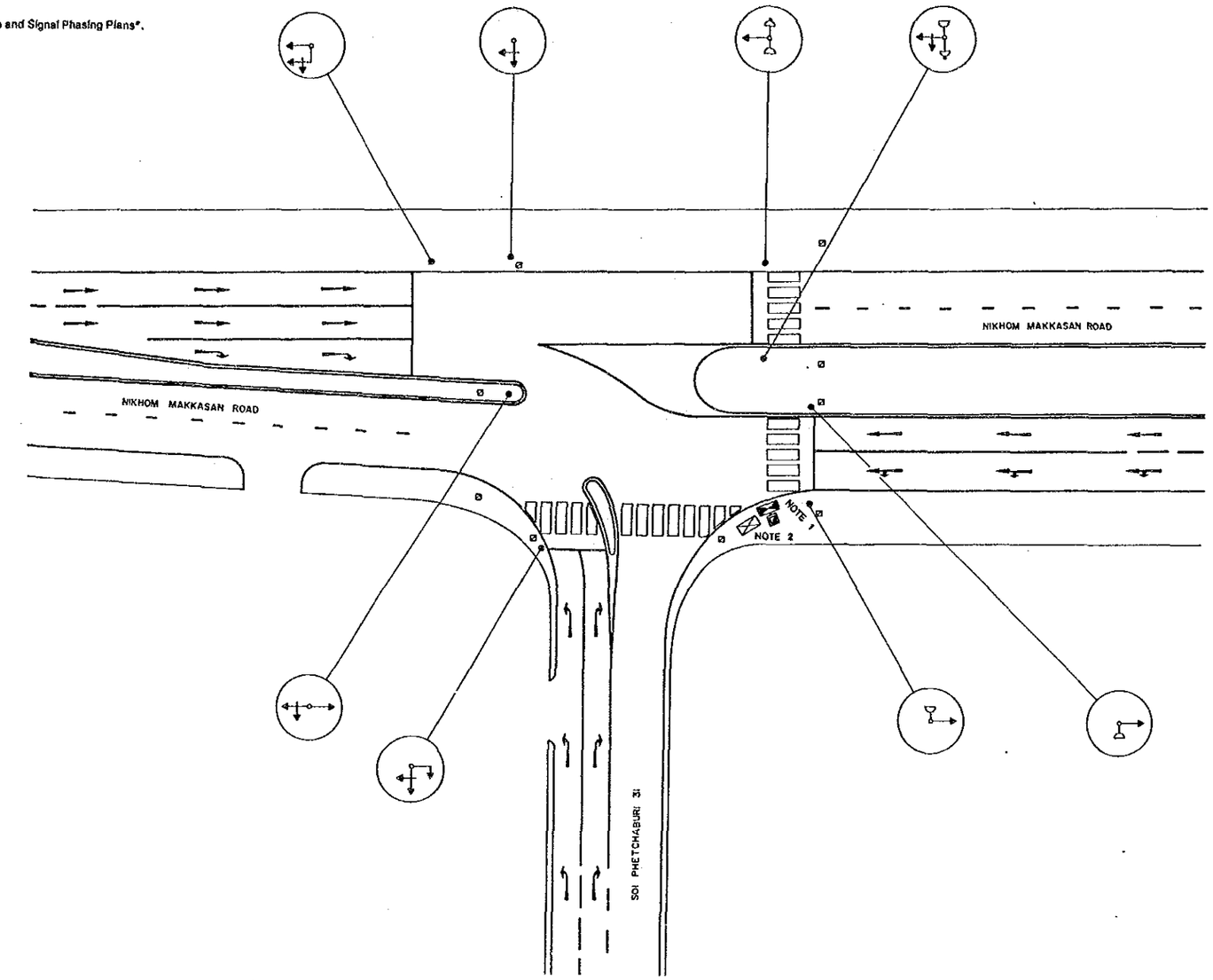
Date SEPTEMBER '90

Total 137 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				

NOTE : Signal Phasing shown here is for the Morning Peak only.
For evening peak and off-peak, please refer to "Design Volume and Signal Phasing Plans".



Intersection Equipments List
Intersection No. 904

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	2
5	Pre-Processor of Detector Pulse	1
6	Supply Power Switch Box with Power Breaker	-
7	TOT Line Box	1
8	Remove Existing Controller	1
9	Signal Pole Type A	-
10	Signal Pole Type B	-
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	-
14	Terminal 20 p	-
15	Signal Head 3 Aspects (200mm x 3)	-
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 6 Aspects (300mm x 6)	-
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	-
25	Target Board for 3 Aspects	-
26	Target Board for 4 Aspects	-
27	Target Board for 6 Aspects	-
28	PVC Conduit 100 mm (4")	6
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 39 mm	-
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	6
34	Install Conduit under R&R	-
35	Install Conduit on Riser Support Pole	5
36	Handhole Type C	-
37	Handhole Type D	1
38	Signal Cable 6c (2 sq.mm)	-
39	Signal Cable 8c (2 sq.mm)	-
40	Signal Cable 12c (2 sq.mm)	-
41	Signal Cable 20c (2 sq.mm)	6
42	Power Cable	5
43	Cable Splicing Kit	1
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5

Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

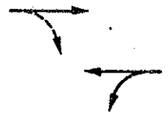
INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN
NIKHOM MAKKASAN – SOI PHETCHABURI 31

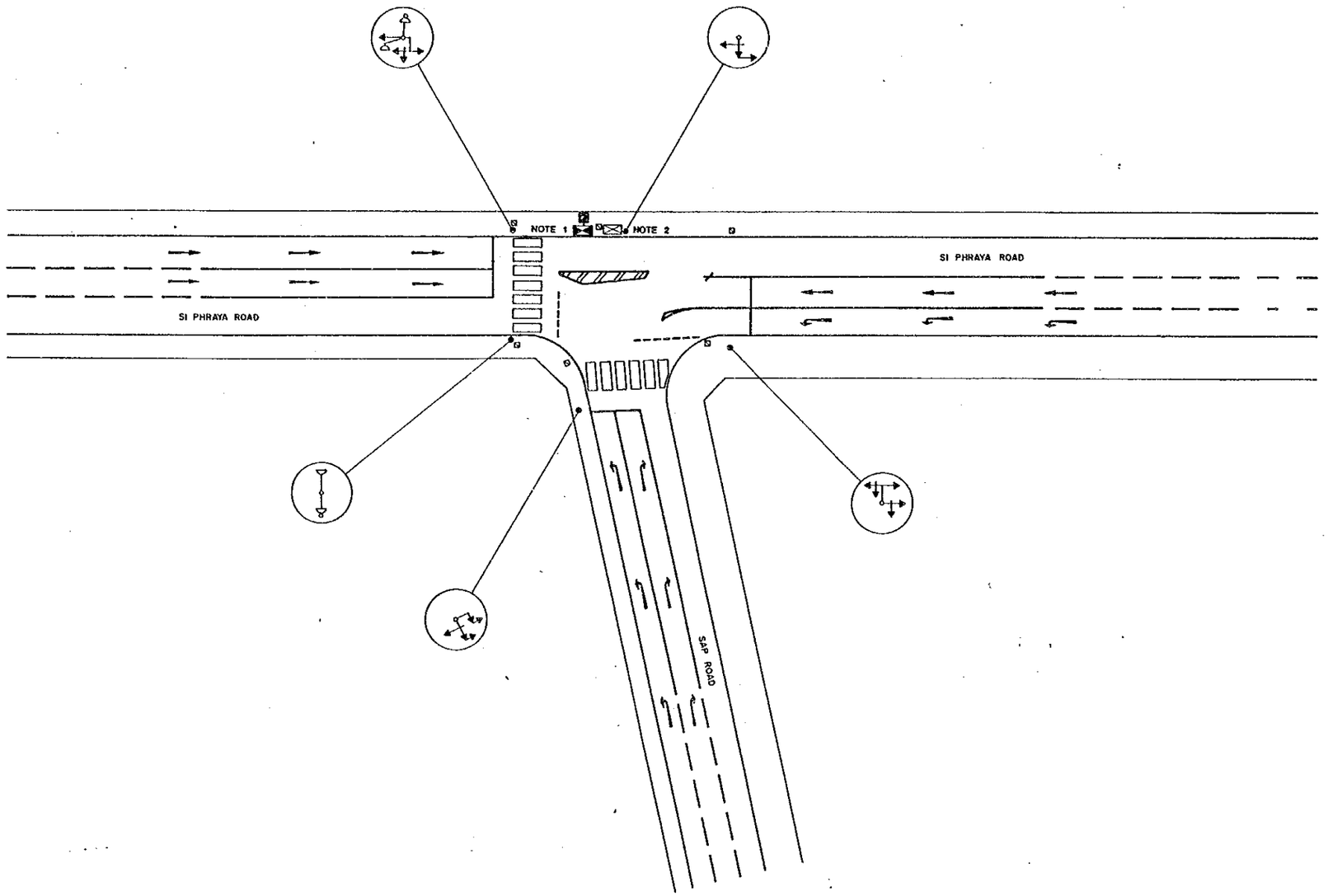
INTERSECTION NO. 904

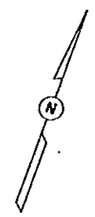
JICA Japan International Cooperation Agency
BMA Bangkok Metropolitan Administration

Submitted By : Juro Kodera, JICA Study Team Leader	Approved By : Boonyawat Tipkus, BMA Study Team Leader
Designed By : Yasuo Kobashima, JICA Study Member	Checked By : TED, BMA
Scale 1 / 250	Drawing NO. 2904
Date SEPTEMBER '90	Total 138 / 139

PHASE PLAN FOR AUTOMATIC SEQUENCE

1	2	3	4	5
				





Intersection Equipments List
Intersection No. 905

ITEM	Name of Equipment	Qty.
1	Local Controller	1
2	Railroad Pre-emption Control Unit	-
3	Pedestrian Push Button Interface Unit	-
4	Solid State Relay Unit	2
5	Pre-Processor of Detector Pulse	1
6	Supply Power Switch Box with Power Breaker	-
7	TOT Line Box	1
8	Remove Existing Controller	1
9	Signal Pole Type A	-
10	Signal Pole Type B	-
11	Signal Pole Type C	-
12	Signal Pole Type D	-
13	Terminal 12 p	-
14	Terminal 20 p	-
15	Signal Head 3 Aspects (200mm x 3)	-
16	Signal Head 3 Aspects (200mm x 2, 300mm x 1)	-
17	Signal Head 3 Aspects (300mm x 3)	-
18	Signal Head 4 Aspects (200mm x 3, 300mm x 1)	-
19	Signal Head 4 Aspects (200mm x 2, 300mm x 2)	-
20	Signal Head 4 Aspects (300mm x 4)	-
21	Signal Head 6 Aspects (200mm x 4, 300mm x 2)	-
22	Signal Head 6 Aspects (300mm x 6)	-
23	Signal Head Pedestrian	-
24	Lantern Arrow Mask	-
25	Target Board for 3 Aspects	-
26	Target Board for 4 Aspects	-
27	Target Board for 6 Aspects	-
28	PVC Conduit 100 mm (4")	6
29	Steel Conduit 100 mm (4")	-
30	Steel Conduit 33 mm	-
31	Steel Conduit 28 mm	5
32	Install Conduit under Asphalt Pavement	-
33	Install Conduit under Concrete Pavement or Sidewalk	6
34	Install Conduit under Rail	-
35	Install Conduit on Riser Support Pole	5
36	Handhole Type C	-
37	Handhole Type D	1
38	Signal Cable 6c (2 sq.mm)	-
39	Signal Cable 8c (2 sq.mm)	-
40	Signal Cable 12c (2 sq.mm)	-
41	Signal Cable 20c (2 sq.mm)	5
42	Power Cable	5
43	Cable Splicing Kit	1
44	Remove Existing Signal Post and Heads (Mast-arm Type)	-
45	Remove Existing Signal Post and Heads (Pedestal Type)	-
46	Remove Existing Signal Head	-
47	Remove Existing Arrow Mask	-
48	Remove Pedestrian Push Button	-
49	TOT Line (CPV, 0.65mm, 1P)	20
50	Grounding Rod	1
51	Grounding Cable (IV 5.5 sq.mm x 1c)	5

Code	Revision	Date	Initial

Associated Plan No. :

BANGKOK AREA TRAFFIC CONTROL SYSTEM PROJECT : STAGE I

INTERSECTION TERMINAL EQUIPMENT LAYOUT PLAN

SI PHRAYA – SAP

INTERSECTION Nº 905

JICA Japan International Cooperation Agency

BMA Bangkok Metropolitan Administration

Submitted By : Jure Kodera, JICA Study Team Leader

Approved By : Boonyawat Tiptus, BMA Study Team Leader

Designed By : Yasuo Nabeshima, JICA Study Member

Checked By : TED, BMA

Scale 1 / 250

Drawing Nº 2905

Date SEPTEMBER '90

Total 139 / 139