

## **1.2.2**

**Detail of Quantity for**

**Interchange(IC) & Junction(JCT)**

10/10/10

10/10/10

## (INTERCHANGE &amp; JUNCTION)

Tab.A.1.12.1 Total Length

## PART1(SOUTHERN HIGHWAY)

## (1)INTERCHANGE AT ROAD B84

TOTAL LENGTH = 999.0 (m)						
	SECTION(NOSE)				LENGTH(m)	REMARKS
A-RAMP	NO. 0 +	0.0 ~	NO. 16 +	5.0	325.0	
B-RAMP	NO. 0 +	0.0 ~	NO. 16 +	6.0	326.0	
C-RAMP	NO. 0 +	0.0 ~	NO. 8 +	13.0	173.0	
D-RAMP	NO. 0 +	0.0 ~	NO. 8 +	15.0	175.0	

## (2)INTERCHANGE AT ROAD A8

TOTAL LENGTH = 965.0 (m)						
	SECTION(NOSE)				LENGTH(m)	REMARKS
A-RAMP	NO. 0 +	0.0 ~	NO. 12 +	17.0	257.0	
B-RAMP	NO. 0 +	0.0 ~	NO. 13 +	5.0	265.0	
C-RAMP	NO. 0 +	0.0 ~	NO. 11 +	8.0	228.0	
D-RAMP	NO. 0 +	0.0 ~	NO. 10 +	15.0	215.0	

## PART2(OUTER CIRCULAR HIGHWAY)

## (3)INTERCHANGE AT ROAD A1

TOTAL LENGTH = 1,356.0 (m)						
	SECTION(NOSE)				LENGTH(m)	REMARKS
A-RAMP	NO. 0 +	0.0 ~	NO. 19 +	16.0	396.0	
B-RAMP	NO. 0 +	0.0 ~	NO. 17 +	5.0	345.0	
C-RAMP	NO. 0 +	0.0 ~	NO. 17 +	10.0	350.0	
D-RAMP	NO. 0 +	0.0 ~	NO. 13 +	5.0	265.0	

## (4)INTERCHANGE AT ROAD B214

TOTAL LENGTH = 287.0 (m)						
	SECTION(NOSE)				LENGTH(m)	REMARKS
A-RAMP	NO. 0 +	0.0 ~	NO. 7 +	7.0	147.0	
B-RAMP	NO. 0 +	0.0 ~	NO. 7 +	0.0	140.0	

## (5)INTERCHANGE AT ROAD A110

TOTAL LENGTH = 403.0 (m)						
	SECTION(NOSE)				LENGTH(m)	REMARKS
C-RAMP	NO. 0 +	0.0 ~	NO. 10 +	10.0	210.0	
D-RAMP	NO. 0 +	0.0 ~	NO. 9 +	13.0	193.0	

## (6)INTERCHANGE AT ROAD A4

TOTAL LENGTH = 1,095.0 (m)						
	SECTION(NOSE)				LENGTH(m)	REMARKS
A-RAMP	NO. 0 +	0.0 ~	NO. 4 +	10.0	410.0	
B-RAMP	NO. 2 +	25.0 ~	NO. 3 +	90.0	165.0	
C-RAMP	NO. 0 +	0.0 ~	NO. 3 +	60.0	360.0	
D-RAMP	NO. 1 +	40.0 ~	NO. 3 +	0.0	160.0	

## (INTERCHANGE &amp; JUNCTION)

## Tab.A.1.12.2 Total Length

**PART3(OUTER CIRCULAR HIGHWAY)****(7)JUNCTION AT COLOMBO KATUNAYAKE EXPRESSWAY-2**

TOTAL LENGTH = 1,222.3 (m)				
	SECTION(NOSE)		LENGTH(m)	REMARKS
A-RAMP	NO. 23 +	0.0 ~ NO. 29 +	4.0	124.0
B-RAMP	NO. 4 +	8.0 ~ NO. 16 +	0.0	232.0
C-RAMP	NO. 0 +	-25.3 ~ NO. 28 +	16.0	601.3
D-RAMP	NO. 4 +	8.0 ~ NO. 17 +	13.0	265.0

**(8)INTERCHANGE AT ROAD A3**

TOTAL LENGTH = 782.0 (m)				
	SECTION(NOSE)		LENGTH(m)	REMARKS
A-RAMP	NO. 0 +	0.0 ~ NO. 12 +	0.0	240.0
B-RAMP	NO. 0 +	0.0 ~ NO. 10 +	8.0	208.0
C-RAMP	NO. 0 +	0.0 ~ NO. 16 +	14.0	334.0
D-RAMP	NO. 0 +	0.0 ~ NO. 0 +	0.0	0.0
E-RAMP	NO. 0 +	0.0 ~ NO. 0 +	0.0	0.0

**PART4(OUTER CIRCULAR HIGHWAY)****(9)JUNCTION AT SOUTHERN HIGHWAY**

TOTAL LENGTH = 2,198.0 (m)				
	SECTION(NOSE)		LENGTH(m)	REMARKS
A-RAMP	NO. 7 +	13.0 ~ NO. 37 +	15.0	602.0
B-RAMP	NO. 12 +	5.0 ~ NO. 24 +	0.0	235.0
C-RAMP	NO. 0 +	0.0 ~ NO. 42 +	8.0	848.0
D-RAMP	NO. 0 +	0.0 ~ NO. 25 +	13.0	513.0

**COLOMBO KATUNAYAKE EXPRESSWAY PORTION****(\*)JUNCTION AT COLOMBO KATUNAYAKE EXPRESSWAY-1**

TOTAL LENGTH = 1,165.7 (m)				
	SECTION(NOSE)		LENGTH(m)	REMARKS
A-RAMP	NO. 20 +	14.0 ~ NO. 29 +	5.0	171.0
B-RAMP	NO. 3 +	15.0 ~ NO. 15 +	8.0	233.0
C-RAMP	NO. 0 +	25.3 ~ NO. 26 +	15.0	509.7
D-RAMP	NO. 3 +	15.0 ~ NO. 16 +	7.0	252.0
E-RAMP	NO. 0 +	0.0 ~ NO. 0 +	0.0	0.0

**(INTERCHANGE & JUNCTION)**  
**Tab.A.1.13.1 Quantities of Earth Works**

**(I) INTERCHANGE AT ROAD B81**  
**<EMBANKMENT>**

BASIC FREEWAY SEGMENT								
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)	AVE.H (m)	AVE.AREA (m <sup>2</sup> )	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERED VOLUME (m <sup>3</sup> )
A-RAMP	NO. 0 + 0.0 ~ NO. 16 + 5.0	325.0	8.75	4.0		11,375.0	0.9	12,638.9
B-RAMP	NO. 0 + 0.0 ~ NO. 16 + 6.0	326.0	8.75	4.0		11,410.0	0.9	12,677.8
C-RAMP	NO. 0 + 0.0 ~ NO. 8 + 13.0	173.0	8.75	2.0		3,027.5	0.9	3,363.9
D-RAMP	NO. 0 + 0.0 ~ NO. 8 + 15.0	175.0	8.75	2.0		3,062.5	0.9	3,402.8
SUB TOTAL								32,083.3
SPEED CHANGE LANE								
		LENGTH (m)	WIDTH(NOSE) (m)	HEIGHT (m)	AVE.AREA (m <sup>2</sup> )	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERED VOLUME (m <sup>3</sup> )
A-RAMP	DECELERATION LANE	165.0	8.95	6.0	26.85	4,430.3	0.9	4,922.5
B-RAMP	ACCELERATION LANE	210.0	8.95	5.5	24.61	5,168.6	0.9	5,742.9
C-RAMP	ACCELERATION LANE	210.0	8.95	4.0	17.90	3,759.0	0.9	4,176.7
D-RAMP	DECELERATION LANE	165.0	8.95	4.0	17.90	2,953.5	0.9	3,281.7
SUB TOTAL								18,123.8
TOTAL								(A) 50,207.1

## PAVEMENT PART

BASIC FREEWAY SEGMENT								
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)	AREA (m <sup>2</sup> )	THICKNESS (m)	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERED VOLUME (m <sup>3</sup> )
A-RAMP	NO. 0 + 0.0 ~ NO. 16 + 5.0	325.0	7.00	2,275.0	0.45	1,023.8	0.9	1,137.5
B-RAMP	NO. 0 + 0.0 ~ NO. 16 + 6.0	326.0	7.00	2,282.0	0.45	1,026.9	0.9	1,141.0
C-RAMP	NO. 0 + 0.0 ~ NO. 8 + 13.0	173.0	7.00	1,211.0	0.45	545.0	0.9	605.5
D-RAMP	NO. 0 + 0.0 ~ NO. 8 + 15.0	175.0	7.00	1,225.0	0.45	551.3	0.9	612.5
SUB TOTAL								3,496.5
SPEED CHANGE LANE								
		LENGTH (m)	AVE.WIDTH (m)	AVE.AREA (m <sup>2</sup> )	THICKNESS (m)	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERED VOLUME (m <sup>3</sup> )
A-RAMP	DECELERATION LANE	165.0	4.10	676.5	0.45	304.4	0.9	338.3
B-RAMP	ACCELERATION LANE	210.0	4.10	861.0	0.45	387.5	0.9	430.5
C-RAMP	ACCELERATION LANE	210.0	4.10	861.0	0.45	387.5	0.9	430.5
D-RAMP	DECELERATION LANE	165.0	4.10	676.5	0.45	304.4	0.9	338.3
SUB TOTAL								1,537.5
TOTAL								(B) 5,034.0

GRAND TOTAL	(m <sup>3</sup> )
(A)-(B)=	45,173.1

**(INTERCHANGE & JUNCTION)**  
**Tab.A.1.13.2 Quantities of Earth Works**

**(2) INTERCHANGE AT ROAD A8**  
**<EMBANKMENT>**

BASIC FREEWAY SEGMENT								
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)	AVB II (m)		VOLUME (m3)	COEFFICIENT	COVERTED VOLUME (m3)
A-RAMP	NO 0 + 0.0 ~ NO 12 + 17.0	257.0	8.75	4.0		8,995.0	0.9	9,594.4
B-RAMP	NO 0 + 0.0 ~ NO 13 + 5.0	265.0	8.75	4.5		10,434.4	0.9	11,593.8
C-RAMP	NO 0 + 0.0 ~ NO 11 + 8.0	228.0	8.75	3.0		5,985.0	0.9	6,650.0
D-RAMP	NO 0 + 0.0 ~ NO 10 + 15.0	215.0	8.75	3.0		5,643.8	0.9	6,270.8
<b>SUB TOTAL</b>								<b>34,509.0</b>
SPEED CHANGE LANE								
		LENGTH (m)	WIDTH(NOSE) (m)	HEIGHT (m)	AVB AREA (m2)	VOLUME (m3)	COEFFICIENT	COVERTED VOLUME (m3)
A-RAMP	DECELERATION LANE	165.0	8.95	8.5	38.04	6,276.2	0.9	6,973.5
B-RAMP	ACCELERATION LANE	210.0	8.95	8.5	38.04	7,987.9	0.9	8,875.4
C-RAMP	ACCELERATION LANE	210.0	8.95	5.0	22.38	4,698.8	0.9	5,220.8
D-RAMP	DECELERATION LANE	165.0	8.95	5.0	22.38	3,691.9	0.9	4,102.1
<b>SUB TOTAL</b>								<b>25,171.9</b>
<b>TOTAL</b>								<b>(A) 59,680.9</b>

## PAVEMENT PART

BASIC FREEWAY SEGMENT								
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)	AREA (m2)	THICKNESS (m)	VOLUME (m3)	COEFFICIENT	COVERTED VOLUME (m3)
A-RAMP	NO 0 + 0.0 ~ NO 12 + 17.0	257.0	7.00	1,799.0	0.45	809.6	0.9	899.5
B-RAMP	NO 0 + 0.0 ~ NO 13 + 5.0	265.0	7.00	1,855.0	0.45	834.8	0.9	927.5
C-RAMP	NO 0 + 0.0 ~ NO 11 + 8.0	228.0	7.00	1,596.0	0.45	718.2	0.9	798.0
D-RAMP	NO 0 + 0.0 ~ NO 10 + 15.0	215.0	7.00	1,505.0	0.45	677.3	0.9	752.5
<b>SUB TOTAL</b>								<b>3,377.5</b>
SPEED CHANGE LANE								
		LENGTH (m)	AVE.WIDTH (m)	AVE.AREA (m2)	THICKNESS (m)	VOLUME (m3)	COEFFICIENT	COVERTED VOLUME (m3)
A-RAMP	DECELERATION LANE	165.0	4.10	676.5	0.45	304.4	0.9	338.3
B-RAMP	ACCELERATION LANE	210.0	4.10	861.0	0.45	387.5	0.9	430.5
C-RAMP	ACCELERATION LANE	210.0	4.10	861.0	0.45	387.5	0.9	430.5
D-RAMP	DECELERATION LANE	165.0	4.10	676.5	0.45	304.4	0.9	338.3
<b>SUB TOTAL</b>								<b>1,537.5</b>
<b>TOTAL</b>								<b>(B) 4,915.0</b>

<b>GRAND TOTAL</b>	<b>(m3)</b>
<b>(A)-(B)=</b>	<b>54,765.9</b>

**(INTERCHANGE & JUNCTION)**  
**Tab.A.1.13.3 Quantities of Earth Works**

**(3) INTERCHANGE AT ROAD A1**  
**<EMBANKMENT>**

BASIC FREEWAY SEGMENT								
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)	AVE H (m)	AVE AREA (m <sup>2</sup> )	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERTED VOLUME (m <sup>3</sup> )
A-RAMP	NO 0 + 0.0 ~ NO 19 + 16.0	396.0	8.75	5.0		17,325.0	0.9	19,250.0
B-RAMP	NO 0 + 0.0 ~ NO 17 + 5.0	345.0	8.75	5.0		15,093.8	0.9	16,770.8
C-RAMP	NO 0 + 0.0 ~ NO 17 + 10.0	350.0	8.75	5.5		16,843.8	0.9	18,715.3
D-RAMP	NO 0 + 0.0 ~ NO 13 + 5.0	265.0	8.75	5.5		12,753.1	0.9	14,170.1
SUB TOTAL								68,906.3
SPEED CHANGE LANE								
		LENGTH (m)	WIDTH(NOSE) (m)	HEIGHT (m)	AVE AREA (m <sup>2</sup> )	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERTED VOLUME (m <sup>3</sup> )
A-RAMP	DECELERATION LANE	165.0	8.95	7.0	31.33	5,168.6	0.9	5,742.9
B-RAMP	ACCELERATION LANE	210.0	8.95	7.0	31.33	6,578.3	0.9	7,309.2
C-RAMP	ACCELERATION LANE	210.0	8.95	11.0	49.23	10,337.3	0.9	11,485.8
D-RAMP	DECELERATION LANE	165.0	8.95	11.0	49.23	8,122.1	0.9	9,024.6
SUB TOTAL								33,562.5
TOTAL								(A) 102,468.8

## PAVEMENT PART

BASIC FREEWAY SEGMENT								
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)	AREA (m <sup>2</sup> )	THICKNESS (m)	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERTED VOLUME (m <sup>3</sup> )
A-RAMP	NO 0 + 0.0 ~ NO 19 + 16.0	396.0	7.00	2,772.0	0.45	1,247.4	0.9	1,386.0
B-RAMP	NO 0 + 0.0 ~ NO 17 + 5.0	345.0	7.00	2,415.0	0.45	1,086.8	0.9	1,207.5
C-RAMP	NO 0 + 0.0 ~ NO 17 + 10.0	350.0	7.00	2,450.0	0.45	1,102.5	0.9	1,225.0
D-RAMP	NO 0 + 0.0 ~ NO 13 + 5.0	265.0	7.00	1,855.0	0.45	834.8	0.9	927.5
SUB TOTAL								4,746.0
SPEED CHANGE LANE								
		LENGTH (m)	WIDTH(NOSE) (m)	AREA (m <sup>2</sup> )	THICKNESS (m)	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERTED VOLUME (m <sup>3</sup> )
A-RAMP	DECELERATION LANE	165.0	4.10	676.5	0.45	304.4	0.9	338.3
B-RAMP	ACCELERATION LANE	210.0	4.10	861.0	0.45	387.5	0.9	430.5
C-RAMP	ACCELERATION LANE	210.0	4.10	861.0	0.45	387.5	0.9	430.5
D-RAMP	DECELERATION LANE	165.0	4.10	676.5	0.45	304.4	0.9	338.3
SUB TOTAL								1,537.5
TOTAL								(B) 6,283.5

<b>GRAND TOTAL</b>	<b>(m<sup>3</sup>)</b>
(A)-(B)=	96,185.3

**(INTERCHANGE & JUNCTION)**  
**Tab.A.1.13.4 Quantities of Earth Works**

**(4) INTERCHANGE AT ROAD B214**  
**<EMBANKMENT>**

BASIC FREEWAY SEGMENT								
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)	AVE H (m)		VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERTED VOLUME (m <sup>3</sup> )
A-RAMP	NO. 0 + 0.0 ~ NO. 7 + 7.0	147.0	8.75	4.0		5,145.0	0.9	5,716.7
B-RAMP	NO. 0 + 0.0 ~ NO. 7 + 0.0	140.0	8.75	4.0		4,900.0	0.9	5,444.4
SUB TOTAL								11,161.1
SPEED CHANGE LANE								
		LENGTH (m)	WIDTH(NOSE) (m)	HEIGHT (m)	AVE AREA (m <sup>2</sup> )	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERTED VOLUME (m <sup>3</sup> )
A-RAMP	DECELERATION LANE	165.0	8.95	7.5	33.56	5,537.8	0.9	6,153.1
B-RAMP	ACCELERATION LANE	210.0	8.95	7.5	33.56	7,048.1	0.9	7,831.3
SUB TOTAL								13,984.4
TOTAL						(A)		25,145.5

## PAVEMENT PART

BASIC FREEWAY SEGMENT								
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)	AREA (m <sup>2</sup> )	THICKNESS (m)	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERTED VOLUME (m <sup>3</sup> )
A-RAMP	NO. 0 + 0.0 ~ NO. 7 + 7.0	147.0	7.00	1,029.0	0.45	463.1	0.9	514.5
B-RAMP	NO. 0 + 0.0 ~ NO. 7 + 0.0	140.0	7.00	980.0	0.45	441.0	0.9	490.0
SUB TOTAL								1,004.5
SPEED CHANGE LANE								
		LENGTH (m)	WIDTH(NOSE) (m)	AREA (m <sup>2</sup> )	THICKNESS (m)	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERTED VOLUME (m <sup>3</sup> )
A-RAMP	DECELERATION LANE	165.0	4.10	676.5	0.45	304.4	0.9	338.3
B-RAMP	ACCELERATION LANE	210.0	4.10	861.0	0.45	387.5	0.9	430.5
SUB TOTAL								768.8
TOTAL						(B)		1,773.3

<b>GRAND TOTAL</b>	<b>(m<sup>3</sup>)</b>
<b>(A)-(B)=</b>	<b>23,372.2</b>



**(INTERCHANGE & JUNCTION)**  
**Tab.A.1.13.5 Quantities of Earth Works**

**(S)INTERCHANGE AT ROAD A110**  
**<EMBANKMENT>**

BASIC FREEWAY SEGMENT								
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)	AVE H (m)		VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERTED VOLUME (m <sup>3</sup> )
C-RAMP	NO 0 + 0.0 ~ NO 10 + 10.0	210.0	8.75	2.0		3,675.0	0.9	4,083.3
D-RAMP	NO 0 + 0.0 ~ NO 9 + 13.0	193.0	8.75	2.0		3,377.5	0.9	3,752.8
SUB TOTAL								7,836.1
SPEED CHANGE LANE								
		LENGTH (m)	WIDTH(NOSE) (m)	HEIGHT (m)	AVE AREA (m <sup>2</sup> )	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERTED VOLUME (m <sup>3</sup> )
C-RAMP	ACCELERATION LANE	210.0	8.95	6.0	26.85	5,638.5	0.9	6,265.0
D-RAMP	DECELERATION LANE	165.0	8.95	5.0	22.38	3,691.9	0.9	4,102.1
SUB TOTAL								10,367.1
TOTAL								(A) 18,203.2

## PAVEMENT PART

BASIC FREEWAY SEGMENT								
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)	AREA (m <sup>2</sup> )	THICKNESS (m)	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERTED VOLUME (m <sup>3</sup> )
A-RAMP	NO 0 + 0.0 ~ NO 10 + 10.0	210.0	7.00	1,470.0	0.45	661.5	0.9	735.0
B-RAMP	NO 0 + 0.0 ~ NO 9 + 13.0	193.0	7.00	1,351.0	0.45	608.0	0.9	675.5
SUB TOTAL								1,410.5
SPEED CHANGE LANE								
		LENGTH (m)	AVE H (m)	AVE AREA (m <sup>2</sup> )	THICKNESS (m)	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERTED VOLUME (m <sup>3</sup> )
A-RAMP	ACCELERATION LANE	210.0	4.10	861.0	0.45	387.5	0.9	430.5
B-RAMP	DECELERATION LANE	165.0	4.10	676.5	0.45	304.4	0.9	338.3
SUB TOTAL								768.8
TOTAL								(B) 2,179.3

<b>GRAND TOTAL</b>	<b>(m<sup>3</sup>)</b>
(A)-(B)=	16,023.9

**(INTERCHANGE & JUNCTION)**  
**Tab.A.1.13.6 Quantities of Earth Works**

**(6) INTERCHANGE AT ROAD A4**  
**<EMBANKMENT>**

BASIC FREEWAY SEGMENT								
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)	AVE.H (m)	AVE.AREA (m <sup>2</sup> )	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERED VOLUME (m <sup>3</sup> )
<b>1 LANE IN 1 DIRECTION</b>								
A-RAMP	NO. 2 + 25.0 ~ NO. 4 + 10.0	185.0	8.50	8.0	180.00	37,000.0	0.9	33,300.0
B-RAMP	NO. 2 + 25.0 ~ NO. 3 + 90.0	165.0	8.50	8.0	180.00	33,000.0	0.9	29,700.0
C-RAMP	NO. 1 + 40.0 ~ NO. 3 + 60.0	220.0	8.50	6.0	115.00	28,111.1	0.9	25,300.0
D-RAMP	NO. 1 + 40.0 ~ NO. 3 + 0.0	160.0	8.50	6.0	115.00	20,444.4	0.9	18,400.0
<b>2 LANE IN 2 DIRECTION WITH SEPARATION</b>								
A-RAMP	NO. 0 + 0.0 ~ NO. 2 + 25.0	225.0	16.00	4.0	90.00	22,500.0	0.9	20,250.0
C-RAMP	NO. 0 + 0.0 ~ NO. 1 + 40.0	140.0	15.00	4.0	90.00	14,000.0	0.9	12,600.0
<b>4 LANE IN 2 DIRECTION WITH SEPARATION</b>								
SUB TOTAL								139,550.0
SPEED CHANGE LANE								
		LENGTH (m)	WIDTH(NOSE) (m)	HEIGHT (m)	AVE.AREA (m <sup>2</sup> )	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERED VOLUME (m <sup>3</sup> )
A-RAMP	DECELERATION LANE	165.0	8.95	13.0	116.35	21,340.0	0.9	19,206.0
B-RAMP	ACCELERATION LANE	210.0	8.95	12.0	107.40	25,060.0	0.9	22,554.0
C-RAMP	DECELERATION LANE	165.0	8.95	7.0	62.65	11,476.7	0.9	10,329.0
D-RAMP	ACCELERATION LANE	210.0	8.95	8.0	71.60	16,706.7	0.9	15,036.0
SUB TOTAL								67,125.0
TOTAL								(A) 213,413.8

## PAVEMENT PART

BASIC FREEWAY SEGMENT								
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)	AREA (m <sup>2</sup> )	THICKNESS (m)	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERED VOLUME (m <sup>3</sup> )
<b>1 LANE IN 1 DIRECTION</b>								
A-RAMP	NO. 2 + 25.0 ~ NO. 4 + 10.0	185.0	7.00	1,295.0	0.45	582.8	0.9	647.5
B-RAMP	NO. 2 + 25.0 ~ NO. 3 + 90.0	165.0	7.00	1,155.0	0.45	519.8	0.9	577.5
C-RAMP	NO. 1 + 40.0 ~ NO. 3 + 60.0	220.0	7.00	1,540.0	0.45	693.0	0.9	770.0
D-RAMP	NO. 1 + 40.0 ~ NO. 3 + 0.0	160.0	7.00	1,120.0	0.45	504.0	0.9	560.0
<b>2 LANE IN 2 DIRECTION WITH SEPARATION</b>								
A-RAMP	NO. 0 + 0.0 ~ NO. 2 + 25.0	225.0	14.50	3,262.5	0.45	1,468.1	0.9	1,631.3
C-RAMP	NO. 0 + 0.0 ~ NO. 1 + 40.0	140.0	14.50	2,030.0	0.45	913.5	0.9	1,015.0
<b>TOLL GATE ~ CONNECTING POINT (B.D)</b>								
SUB TOTAL								5,201.3
SPEED CHANGE LANE								
		LENGTH (m)	WIDTH(NOSE) (m)	AREA (m <sup>2</sup> )	THICKNESS (m)	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERED VOLUME (m <sup>3</sup> )
A-RAMP	DECELERATION LANE	165.0	8.20	676.5	0.45	304.4	0.9	338.3
B-RAMP	ACCELERATION LANE	210.0	8.20	851.0	0.45	387.5	0.9	430.5
C-RAMP	DECELERATION LANE	165.0	8.20	676.5	0.45	304.4	0.9	338.3
D-RAMP	ACCELERATION LANE	210.0	8.20	851.0	0.45	387.5	0.9	430.5
SUB TOTAL								1,537.5
TOTAL								(B) 6,738.8

<b>GRAND TOTAL</b>	(m <sup>3</sup> )
(A)-(B)=	206,675.0

**(INTERCHANGE & JUNCTION)**  
**Tab.A.1.13.7 Quantities of Earth Works**

**(7) JUNCTION AT COLOMBO KATUNAYAKE EXPRESSWAY-2**  
**<EMBANKMENT>**

BASIC FREEWAY SEGMENT								
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)	AVE.H (m)	AVE.AREA (m <sup>2</sup> )	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERED VOLUME (m <sup>3</sup> )
<b>1 LANE IN 1 DIRECTION</b>								
A-RAMP	NO. 20 + 14.0 ~ NO. 29 + 5.0	171.0	8.50	9.2	230.55	39,424.4	0.9	43,804.9
B-RAMP	NO. 3 + 15.0 ~ NO. 15 + 8.0	233.0	8.50	7.8	175.81	40,964.2	0.9	45,515.8
C-RAMP	NO. 20 + 14.0 ~ NO. 26 + 15.0	121.0	8.50	9.4	238.95	28,912.7	0.9	32,125.2
D-RAMP	NO. 3 + 15.0 ~ NO. 16 + 7.0	252.0	8.50	9.3	234.73	59,152.5	0.9	65,725.0
<b>2 LANE IN 2 DIRECTION WITH SEPARATION</b>								
C-RAMP	NO. 3 + 15.0 ~ NO. 20 + 14.0	339.0	16.00	5.3	135.36	45,887.7	0.9	50,986.4
<b>TOLL GATE ~ CONNECTING POINT (B,D)</b>								
D-RAMP	NO. 0 + 25.3 ~ NO. 3 + 15.0	49.7	27.00	4.5	157.95	7,850.1	0.9	8,722.4
<b>SUB TOTAL</b>								246,879.5
SPEED CHANGE LANE								
		LENGTH (m)	WIDTH(NOSE) (m)	HEIGHT (m)	AVE.AREA (m <sup>2</sup> )	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERED VOLUME (m <sup>3</sup> )
A-RAMP	DECELERATION LANE	165.0	8.95	9.0	40.28	6,645.4	0.9	7,383.8
B-RAMP	ACCELERATION LANE	210.0	8.95	9.0	40.28	8,457.8	0.9	9,397.5
C-RAMP	ACCELERATION LANE	210.0	8.95	13.0	58.18	12,216.8	0.9	13,574.2
D-RAMP	DECELERATION LANE	165.0	8.95	8.0	35.80	5,907.0	0.9	6,563.3
<b>SUB TOTAL</b>								36,918.8
<b>TOTAL</b>								(A) 283,798.3

## PAVEMENT PART

BASIC FREEWAY SEGMENT								
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)	AREA (m <sup>2</sup> )	THICKNESS (m)	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERED VOLUME (m <sup>3</sup> )
<b>1 LANE IN 1 DIRECTION</b>								
A-RAMP	NO. 20 + 14.0 ~ NO. 29 + 5.0	171.0	7.00	1,197.0	0.45	538.7	0.9	598.5
B-RAMP	NO. 3 + 15.0 ~ NO. 15 + 8.0	233.0	7.00	1,631.0	0.45	734.0	0.9	815.5
C-RAMP	NO. 20 + 14.0 ~ NO. 26 + 15.0	121.0	7.00	847.0	0.45	381.2	0.9	423.5
D-RAMP	NO. 3 + 15.0 ~ NO. 16 + 7.0	252.0	7.00	1,764.0	0.45	793.8	0.9	882.0
<b>2 LANE IN 2 DIRECTION WITH SEPARATION</b>								
C-RAMP	NO. 3 + 15.0 ~ NO. 20 + 14.0	339.0	14.50	4,915.5	0.45	2,212.0	0.9	2,457.8
<b>TOLL GATE ~ CONNECTING POINT (B,D)</b>								
C-RAMP	NO. 0 + 25.3 ~ NO. 3 + 15.0	49.7	25.50	1,267.4	0.45	570.3	0.9	633.7
<b>SUB TOTAL</b>								5,810.9
SPEED CHANGE LANE								
		LENGTH (m)	WIDTH(NOSE) (m)	AREA (m <sup>2</sup> )	THICKNESS (m)	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERED VOLUME (m <sup>3</sup> )
A-RAMP	DECELERATION LANE	165.0	8.20	676.5	0.45	304.4	0.9	338.3
B-RAMP	ACCELERATION LANE	210.0	8.20	861.0	0.45	387.5	0.9	430.5
C-RAMP	ACCELERATION LANE	210.0	8.20	861.0	0.45	387.5	0.9	430.5
D-RAMP	DECELERATION LANE	165.0	8.20	676.5	0.45	304.4	0.9	338.3
<b>SUB TOTAL</b>								1,537.5
<b>TOTAL</b>								(B) 7,348.4

<b>GRAND TOTAL</b>	(m <sup>3</sup> )
(A)-(B)=	276,449.9

**(INTERCHANGE & JUNCTION)**  
**Tab.A.1.13.8 Quantities of Earth Works**

**(8) INTERCHANGE AT ROAD A3**  
**<EMBANKMENT>**

**BASIC FREEWAY SEGMENT**

	SECTION(NOSE)	LENGTH (m)	WIDTH (m)	AVE.H (m)	AVE.AREA (m <sup>2</sup> )	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERTED VOLUME (m <sup>3</sup> )
DIAMOND								
A-RAMP	NO. 0 + 0.0 ~ NO. 12 + 0.0	240.0	8.75	4.0	35.00	8,400.0	0.9	9,333.3
B-RAMP	NO. 0 + 0.0 ~ NO. 10 + 8.0	208.0	8.75	4.0	35.00	7,280.0	0.9	8,068.9
ROOF								
C-RAMP	NO. 0 + 0.0 ~ NO. 16 + 14.0	334.0	8.50	4.0	62.80	20,975.2	0.9	23,305.8
<b>SUB TOTAL</b>								<b>40,728.0</b>
<b>SPEED CHANGE LANE</b>								
		LENGTH (m)	WIDTH(NOSE) (m)	HEIGHT (m)	AVE.AREA (m <sup>2</sup> )	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERTED VOLUME (m <sup>3</sup> )
DIAMOND								
A-RAMP	ACCELERATION LANE	210.0	8.95	8.0	35.80	7,518.0	0.9	8,353.3
B-RAMP	DECELERATION LANE	165.0	8.95	8.0	35.80	5,907.0	0.9	6,563.3
ROOF								
C-RAMP	DECELERATION LANE	165.0	8.95	8.0	35.80	5,907.0	0.9	6,563.3
<b>SUB TOTAL</b>								<b>21,480.0</b>
<b>TOTAL</b>								<b>(A) 62,208.0</b>

**PAVEMENT PART**

**BASIC FREEWAY SEGMENT**

	SECTION(NOSE)	LENGTH (m)	WIDTH (m)	AREA (m <sup>2</sup> )	THICKNESS (m)	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERTED VOLUME (m <sup>3</sup> )
DIAMOND								
A-RAMP	NO. 0 + 0.0 ~ NO. 12 + 0.0	240.0	7.00	1,680.0	0.45	756.0	0.9	840.0
B-RAMP	NO. 0 + 0.0 ~ NO. 10 + 8.0	208.0	7.00	1,456.0	0.45	655.2	0.9	728.0
ROOF								
C-RAMP	NO. 0 + 0.0 ~ NO. 16 + 14.0	334.0	7.00	2,338.0	0.45	1,052.1	0.9	1,169.0
<b>SUB TOTAL</b>								<b>2,737.0</b>
<b>SPEED CHANGE LANE</b>								
		LENGTH (m)	WIDTH(NOSE) (m)	AREA (m <sup>2</sup> )	THICKNESS (m)	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERTED VOLUME (m <sup>3</sup> )
DIAMOND								
A-RAMP	ACCELERATION LANE	210.0	8.20	861.0	0.45	387.5	0.9	430.5
B-RAMP	DECELERATION LANE	165.0	8.20	676.5	0.45	304.4	0.9	338.3
ROOF								
C-RAMP	DECELERATION LANE	165.0	8.20	676.5	0.45	304.4	0.9	338.3
<b>SUB TOTAL</b>								<b>1,107.0</b>
<b>TOTAL</b>								<b>(B) 3,844.0</b>

<b>GRAND TOTAL</b>	<b>(m<sup>3</sup>)</b>
<b>(A)-(B)=</b>	<b>58,364.0</b>

**(INTERCHANGE & JUNCTION)**  
**Tab.A.1.13.9 Quantities of Earth Works**

**(9) JUNCTION AT SOUTHERN HIGHWAY**  
**< EMBANKMENT >**

BASIC FREEWAY SEGMENT								
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)	AVE.H (m)	AVE.AREA (m <sup>2</sup> )	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERTED VOLUME (m <sup>3</sup> )
<b>1 LANE IN 1 DIRECTION</b>								
A-RAMP	NO. 7 + 13.0 ~ NO. 19 + 18.0	245.0	8.50	4.5	74.70	18,301.5	0.9	20,335.0
A-RAMP	NO. 22 + 5.0 ~ NO. 37 + 15.0	310.0	8.50	4.5	74.70	23,157.0	0.9	25,730.0
B-RAMP	NO. 12 + 5.0 ~ NO. 24 + 0.0	235.0	8.50	3.5	51.80	12,173.0	0.9	13,525.6
C-RAMP	NO. 12 + 5.0 ~ NO. 19 + 16.0	151.0	8.50	6.5	131.30	19,826.3	0.9	22,029.2
C-RAMP	NO. 24 + 6.0 ~ NO. 42 + 8.0	362.0	8.50	4.0	62.80	22,733.6	0.9	25,259.6
D-RAMP	NO. 7 + 13.0 ~ NO. 25 + 13.0	360.0	8.50	1.0	10.30	3,708.0	0.9	4,120.0
<b>1 LANE IN 2 DIRECTION WITH SEPARATION</b>								
C-RAMP	NO. 0 + 0.0 ~ NO. 12 + 5.0	245.0	12.25	3.5	64.93	15,906.6	0.9	17,674.0
D-RAMP	NO. 0 + 0.0 ~ NO. 7 + 13.0	153.0	12.25	2.0	31.70	4,850.1	0.9	5,389.0
<b>SUB TOTAL</b>								134,062.4
SPEED CHANGE LANE								
		LENGTH (m)	WIDTH(NOSE) (m)	HEIGHT (m)	AVE.AREA (m <sup>2</sup> )	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERTED VOLUME (m <sup>3</sup> )
A-RAMP	DECELERATION LANE	165.0	8.95	2.0	8.95	1,476.8	0.9	1,640.8
B-RAMP	ACCELERATION LANE	210.0	8.95	2.0	8.95	1,879.5	0.9	2,083.3
<b>SUB TOTAL</b>								3,729.2
<b>TOTAL</b>								(A) 137,791.5

## PAVEMENT PART

BASIC FREEWAY SEGMENT								
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)	AREA (m <sup>2</sup> )	THICKNESS (m)	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERTED VOLUME (m <sup>3</sup> )
<b>1 LANE IN 1 DIRECTION</b>								
A-RAMP	NO. 7 + 13.0 ~ NO. 19 + 18.0	245.0	7.00	1,715.0	0.45	771.8	0.9	857.5
A-RAMP	NO. 22 + 5.0 ~ NO. 37 + 15.0	310.0	7.00	2,170.0	0.45	976.5	0.9	1,085.0
B-RAMP	NO. 12 + 5.0 ~ NO. 24 + 0.0	235.0	7.00	1,645.0	0.45	740.3	0.9	822.5
C-RAMP	NO. 12 + 5.0 ~ NO. 19 + 16.0	151.0	7.00	1,057.0	0.45	475.7	0.9	528.5
C-RAMP	NO. 24 + 6.0 ~ NO. 42 + 8.0	362.0	7.00	2,534.0	0.45	1,140.3	0.9	1,267.0
D-RAMP	NO. 7 + 13.0 ~ NO. 25 + 13.0	360.0	7.00	2,520.0	0.45	1,134.0	0.9	1,260.0
<b>2 LANE IN 1 DIRECTION</b>								
C-RAMP	NO. 0 + 0.0 ~ NO. 12 + 5.0	245.0	10.75	2,633.8	0.45	1,185.2	0.9	1,316.9
C-RAMP	NO. 0 + 0.0 ~ NO. 7 + 13.0	153.0	10.75	1,644.8	0.45	740.1	0.9	822.4
<b>SUB TOTAL</b>								7,959.8
SPEED CHANGE LANE								
		LENGTH (m)	WIDTH(NOSE) (m)	AREA (m <sup>2</sup> )	THICKNESS (m)	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERTED VOLUME (m <sup>3</sup> )
A-RAMP	DECELERATION LANE	165.0	8.20	676.5	0.45	304.4	0.9	338.3
B-RAMP	ACCELERATION LANE	210.0	8.20	861.0	0.45	387.5	0.9	430.5
<b>SUB TOTAL</b>								768.8
<b>TOTAL</b>								(B) 8,728.5

<b>GRAND TOTAL</b>	<b>(m<sup>3</sup>)</b>
<b>(A)-(B)=</b>	<b>129,063.0</b>

**(INTERCHANGE & JUNCTION)**  
**Tab.A.1.13.10 Quantities of Earth Works**

**(\*) JUNCTION AT COLOMBO KATUNAYAKE EXPRESSWAY-1**

**< EMBANKMENT >**

**BASIC FREEWAY SEGMENT**

	SECTION(NOSE)	LENGTH (m)	WIDTH (m)	AVE.H (m)	AVE.AREA (m <sup>2</sup> )	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERED VOLUME (m <sup>3</sup> )
<b>1 LANE IN 1 DIRECTION</b>								
A-RAMP	NO. 23 + 0.0 ~ NO. 29 + 4.0	124.0	8.50	3.0	41.70	5,170.8	0.9	5,745.3
B-RAMP	NO. 4 + 8.0 ~ NO. 16 + 0.0	232.0	8.50	4.4	72.25	16,761.5	0.9	18,623.9
C-RAMP	NO. 23 + 0.0 ~ NO. 28 + 16.0	76.0	8.50	3.0	41.70	3,169.2	0.9	3,521.3
D-RAMP	NO. 4 + 8.0 ~ NO. 17 + 13.0	265.0	8.50	4.3	69.83	18,505.5	0.9	20,561.6
<b>2 LANE IN 2 DIRECTION WITH SEPARATION</b>								
C-RAMP	NO. 4 + 8.0 ~ NO. 10 + 13.0	125.0	16.00	7.8	234.31	29,289.0	0.9	32,543.3
C-RAMP	NO. 12 + 13.0 ~ NO. 23 + 0.0	207.0	16.00	6.3	172.24	35,654.1	0.9	39,615.7
<b>TOLL GATE ~ CONNECTING POINT (B,D)</b>								
C-RAMP	NO. 0 + 25.3 ~ NO. 4 + 8.0	113.3	27.00	4.3	149.38	16,925.0	0.9	18,805.5
<b>TOLL GATE</b>								
		80.0	50.00	1.5	75.00	6,000.0	0.9	6,666.7
<b>SUB TOTAL</b>								146,083.4
<b>SPEED CHANGE LANE</b>								
		LENGTH (m)	WIDTH(NOSE) (m)	HEIGHT (m)	AVE.AREA (m <sup>2</sup> )	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERED VOLUME (m <sup>3</sup> )
A-RAMP	DECELERATION LANE	165.0	8.95	2.0	8.95	1,476.8	0.9	1,640.8
B-RAMP	ACCELERATION LANE	210.0	8.95	2.0	8.95	1,879.5	0.9	2,088.3
C-RAMP	ACCELERATION LANE	210.0	8.95	2.0	8.95	1,879.5	0.9	2,088.3
D-RAMP	DECELERATION LANE	165.0	8.95	1.5	6.71	1,107.6	0.9	1,230.6
<b>SUB TOTAL</b>								7,048.1
<b>TOTAL</b>								(A) 153,131.6

**PAVEMENT PART**

**BASIC FREEWAY SEGMENT**

	SECTION(NOSE)	LENGTH (m)	WIDTH (m)	AREA (m <sup>2</sup> )	THICKNESS (m)	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERED VOLUME (m <sup>3</sup> )
<b>1 LANE IN 1 DIRECTION</b>								
A-RAMP	NO. 23 + 0.0 ~ NO. 29 + 4.0	124.0	7.00	868.0	0.45	390.6	0.9	434.0
B-RAMP	NO. 4 + 8.0 ~ NO. 16 + 0.0	232.0	7.00	1,624.0	0.45	730.8	0.9	812.0
C-RAMP	NO. 23 + 0.0 ~ NO. 28 + 16.0	116.0	7.00	812.0	0.45	365.4	0.9	406.0
D-RAMP	NO. 4 + 8.0 ~ NO. 17 + 13.0	265.0	7.00	1,855.0	0.45	834.8	0.9	927.5
<b>2 LANE IN 2 DIRECTION WITH SEPARATION</b>								
C-RAMP	NO. 4 + 8.0 ~ NO. 10 + 13.0	125.0	14.50	1,812.5	0.45	815.6	0.9	906.3
C-RAMP	NO. 12 + 13.0 ~ NO. 23 + 0.0	207.0	14.50	3,001.5	0.45	1,350.7	0.9	1,500.8
<b>TOLL GATE ~ CONNECTING POINT (B,D)</b>								
C-RAMP	NO. 0 + 25.3 ~ NO. 4 + 8.0	113.3	25.50	2,889.2	0.45	1,300.1	0.9	1,444.6
<b>TOLL GATE</b>								
		80.0	50.00	4,000.0	0.45	1,800.0	0.9	2,000.0
<b>SUB TOTAL</b>								8,431.1
<b>SPEED CHANGE LANE</b>								
		LENGTH (m)	WIDTH(NOSE) (m)	AREA (m <sup>2</sup> )	THICKNESS (m)	VOLUME (m <sup>3</sup> )	COEFFICIENT	COVERED VOLUME (m <sup>3</sup> )
A-RAMP	DECELERATION LANE	165.0	8.20	676.5	0.45	304.4	0.9	338.3
B-RAMP	ACCELERATION LANE	210.0	8.20	861.0	0.45	387.5	0.9	430.5
C-RAMP	ACCELERATION LANE	210.0	8.20	861.0	0.45	387.5	0.9	430.5
D-RAMP	DECELERATION LANE	165.0	8.20	676.5	0.45	304.4	0.9	338.3
<b>SUB TOTAL</b>								1,537.5
<b>TOTAL</b>								(B) 9,968.6

<b>GRAND TOTAL</b>	<b>(m<sup>3</sup>)</b>
(A)-(B)=	143,163.0

## (INTERCHANGE &amp; JUNCTION)

Tab.A.1.14.1 Quantities of Slope Protection

**PART2(OUTER CIRCULAR HIGHWAY)****(6)INTERCHANGE AT ROAD A4****<EMBANKMENT>**

BASIC FREEWAY SEGMENT					
	SECTION(NOSE)	LENGTH (m)	AVE.H (m)	AVEL. (SLOPE) (m)	AREA (m2)
<b>1 LANE IN 1 DIRECTION</b>					
A1-RAMP	NO. 0 + 0.0 ~ NO. 2 + 25.0	225.0	4.0	8.2	3,706.5
A2-RAMP	NO. 2 + 25.0 ~ NO. 4 + 10.0	185.0	8.0	16.5	3,047.6
B-RAMP	NO. 2 + 25.0 ~ NO. 3 + 90.0	165.0	8.0	16.5	2,718.1
C1-RAMP	NO. 0 + 0.0 ~ NO. 1 + 40.0	140.0	4.0	8.2	1,153.2
C2-RAMP	NO. 1 + 40.0 ~ NO. 3 + 60.0	220.0	6.0	12.4	2,718.1
D-RAMP	NO. 1 + 40.0 ~ NO. 3 + 0.0	160.0	6.0	12.4	1,976.8
<b>2 LANE IN 2 DIRECTION WITH SEPARATION</b>					
D-RAMP	NO. 0 + 0.0 ~ NO. 0 + 0.0	0.0	0.0	0.0	0.0
<b>4 LANE IN 2 DIRECTION WITH SEPARATION</b>					
D-RAMP	NO. 0 + 0.0 ~ NO. 0 + 0.0	0.0	0.0	0.0	0.0
<b>SUB TOTAL</b>					<b>15,320.3</b>
<b>SPBED CHANGE LANE</b>					
<b>TOTAL</b>					<b>15,320.3</b>

## (INTERCHANGE &amp; JUNCTION)

## Tab.A.1.14.2 Quantities of Slope Protection

## PART3(OUTER CIRCULAR HIGHWAY)

## (7)JUNCTION AT COLOMBO KATUNAYAKE EXPRESSWAY-2

&lt;EMBANKMENT&gt;

BASIC FREEWAY SEGMENT					
	SECTION(NOSE)	LENGTH (m)	AVE.H (m)	AVE.L (SLOPE) (m)	AREA (m2)
1 LANE IN 1 DIRECTION					
A-RAMP	NO. 23 + 0.0 ~ NO. 29 + 4.0	124.0	3.0	6.2	1,532.0
B-RAMP	NO. 4 + 8.0 ~ NO. 16 + 0.0	232.0	4.4	9.1	4,203.9
C-RAMP	NO. 23 + 0.0 ~ NO. 28 + 16.0	116.0	3.0	6.2	1,433.2
D-RAMP	NO. 4 + 8.0 ~ NO. 17 + 13.0	265.0	4.3	8.9	4,692.7
2 LANE IN 2 DIRECTION WITH SEPARATION					
C-RAMP	NO. 4 + 8.0 ~ NO. 10 + 13.0	125.0	7.8	16.1	4,015.3
C-RAMP	NO. 12 + 13.0 ~ NO. 23 + 0.0	207.0	6.3	13.0	5,370.6
TOLL GATE ~ CONNECTING POINT (B.D)					
C-RAMP	NO. 0 + -25.3 ~ NO. 4 + 8.0	113.3	4.3	8.9	2,006.4
SUB TOTAL					23,254.1
SPEED CHANGE LANE					
TOTAL					23,254.1

## (8)INTERCHANGE AT ROAD A3

&lt;EMBANKMENT&gt;

BASIC FREEWAY SEGMENT					
	SECTION(NOSE)	LENGTH (m)	AVE.H (m)	AVE.L (SLOPE) (m)	AREA (m2)
ROOP					
C-RAMP	NO. 0 + 0.0 ~ NO. 16 + 14.0	334.0	5.0	10.3	6,877.5
SUB TOTAL					6,877.5
SPEED CHANGE LANE					
TOTAL					6,877.5



**(INTERCHANGE & JUNCTION)**  
**Tab.A.1.14.3 Quantities of Slope Protection**

**PART4(OUTER CIRCULAR HIGHWAY)**

**(9)JUNCTION AT SOUTHERN HIGHWAY**  
**<EMBANKMENT>**

BASIC FREEWAY SEGMENT					
	SECTION(NOSE)	LENGTH (m)	AVE.H (m)	AVE.L (SLOPE) (m)	AREA (m2)
<b>1 LANE IN 1 DIRECTION</b>					
A-RAMP	NO. 7 + 13.0 ~ NO. 19 + 18.0	245.0	4.5	9.3	4,540.4
A-RAMP	NO. 22 + 5.0 ~ NO. 37 + 15.0	310.0	4.5	9.3	5,745.0
B-RAMP	NO. 12 + 5.0 ~ NO. 24 + 0.0	235.0	3.5	7.2	3,387.3
C-RAMP	NO. 12 + 5.0 ~ NO. 19 + 16.0	151.0	6.5	13.4	4,042.1
C-RAMP	NO. 24 + 6.0 ~ NO. 42 + 8.0	362.0	4.0	8.2	5,963.2
D-RAMP	NO. 7 + 13.0 ~ NO. 25 + 13.0	360.0	1.0	2.1	1,482.6
<b>2 LANE IN 2 DIRECTION WITH SEPARATION</b>					
D-RAMP	NO. 0 + 0.0 ~ NO. 12 + 5.0	245.0	3.5	7.2	3,531.4
D-RAMP	NO. 0 + 0.0 ~ NO. 7 + 13.0	153.0	2.0	4.1	1,260.2
<b>SUB TOTAL</b>					<b>29,952.0</b>
<b>SPEED CHANGE LANE</b>					
<b>TOTAL</b>					<b>29,952.0</b>

**COLOMBO KATUNAYAKE EXPRESSWAY PORTION**

**(\*)JUNCTION AT COLOMBO KATUNAYAKE EXPRESSWAY-1**  
**<EMBANKMENT>**

BASIC FREEWAY SEGMENT					
	SECTION(NOSE)	LENGTH (m)	AVE.H (m)	VE.L.(SLO) (m)	AREA (m2)
<b>1 LANE IN 1 DIRECTION</b>					
A-RAMP	NO. 20 + 14.0 ~ NO. 29 + 5.0	171.0	9.2	18.9	6,478.8
B-RAMP	NO. 3 + 15.0 ~ NO. 15 + 8.0	233.0	7.8	16.1	7,484.5
C-RAMP	NO. 20 + 14.0 ~ NO. 26 + 15.0	121.0	9.4	19.4	4,684.1
D-RAMP	NO. 3 + 15.0 ~ NO. 16 + 7.0	252.0	9.3	19.1	9,651.5
<b>2 LANE IN 2 DIRECTION WITH SEPARATION</b>					
C-RAMP	NO. 3 + 15.0 ~ NO. 20 + 14.0	339.0	5.3	10.9	7,399.3
<b>TOLL GATE ~ CONNECTING POINT (B,D)</b>					
C-RAMP	NO. 0 + 25.3 ~ NO. 3 + 15.0	49.7	4.5	9.3	921.0
<b>TOLL GATE</b>				refer to C-RAMP	
<b>SUB TOTAL</b>					<b>36,619.3</b>
<b>SPEED CHANGE LANE</b>					
<b>TOTAL</b>					<b>36,619.3</b>

## (INTERCHANGE &amp; JUNCTION)

## Tab.A.1.15 Quantities of Retaining Wall

PART3(OUTER CIRCULAR HIGHWAY)(8)INTERCHANGE AT ROAD A3

TYPE	STATION				LENGTH m	L-R	AVE.H m	
GRAVITY TYPE	NO.	10 +	20 ~	NO. 10 +	80	60.0	R	2.0
	NO.	13 +	0 ~	NO. 13 +	60	60.0	R	2.0
	NO.	+	~	NO. +				
	NO.	+	~	NO. +				
	NO.	+	~	NO. +				
	SUB TOTAL				120.0			
INVERSED TYPE	NO.	10 +	80 ~	NO. 13 +	0	220.0	R	5.0
	NO.	+	~	NO. +				
	NO.	+	~	NO. +				
	NO.	+	~	NO. +				
	NO.	+	~	NO. +				
	SUB TOTAL				220.0			
EARTH REINFORCEMENT	NO.	1 +	0 ~	NO. 3 +	0	200.0		5.0
	NO.	+	~	NO. +				
	NO.	+	~	NO. +				
	NO.	+	~	NO. +				
	NO.	+	~	NO. +				
	SUB TOTAL				200.0			
	TOTAL				540.0			

PART4(OUTER CIRCULAR HIGHWAY)(9)JUNCTION AT SOUTHERN HIGHWAY

		STATION				LENGTH m	L-R	AVE.H m
EARTH REINFORCEMENT	C	NO. 24 +	6 ~	NO. 27 +	6	60.0	R	4.0
		NO.	+	~	NO. +			
		NO.	+	~	NO. +			
		NO.	+	~	NO. +			
		NO.	+	~	NO. +			
	SUB TOTAL				60.0			
	TOTAL				60.0			

**(INTERCHANGE & JUNCTION)**  
**Tab.A.1.16.1 Quantities of Pavement**

**PART I (SOUTHERN HIGHWAY)****(1) INTERCHANGE AT ROAD B84**

BASIC FREEWAY SEGMENT					
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)		AREA (m <sup>2</sup> )
A-RAMP	NO. 0 + 0.0 ~ NO. 16 + 5.0	325.0	7.0		2,275.0
B-RAMP	NO. 0 + 0.0 ~ NO. 16 + 6.0	326.0	7.0		2,282.0
C-RAMP	NO. 0 + 0.0 ~ NO. 8 + 13.0	173.0	7.0		1,211.0
D-RAMP	NO. 0 + 0.0 ~ NO. 8 + 15.0	175.0	7.0		1,225.0
SUB TOTAL					6,993.0
SPEED CHANGE LANE					
		LENGTH (m)	WIDTH( NOSE) (m)	AVE. WIDTH (m)	AREA (m <sup>2</sup> )
A-RAMP	DECELERATION LANE	165.0	8.2	4.1	676.5
B-RAMP	ACCELERATION LANE	210.0	8.2	4.1	861.0
C-RAMP	ACCELERATION LANE	210.0	8.2	4.1	861.0
D-RAMP	DECELERATION LANE	165.0	8.2	4.1	676.5
SUB TOTAL					3,075.0
<b>TOTAL</b>					<b>10,068.0</b>

**(2) INTERCHANGE AT ROAD A8**

BASIC FREEWAY SEGMENT					
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)		AREA (m <sup>2</sup> )
A-RAMP	NO. 0 + 0.0 ~ NO. 12 + 17.0	257.0	7.0		1,799.0
B-RAMP	NO. 0 + 0.0 ~ NO. 13 + 5.0	265.0	7.0		1,855.0
C-RAMP	NO. 0 + 0.0 ~ NO. 11 + 8.0	228.0	7.0		1,596.0
D-RAMP	NO. 0 + 0.0 ~ NO. 10 + 15.0	215.0	7.0		1,505.0
SUB TOTAL					6,755.0
SPEED CHANGE LANE					
		LENGTH (m)	WIDTH( NOSE) (m)	AVE. WIDTH (m)	AREA (m <sup>2</sup> )
A-RAMP	DECELERATION LANE	165.0	8.2	4.1	676.5
B-RAMP	ACCELERATION LANE	210.0	8.2	4.1	861.0
C-RAMP	ACCELERATION LANE	210.0	8.2	4.1	861.0
D-RAMP	DECELERATION LANE	165.0	8.2	4.1	676.5
SUB TOTAL					3,075.0
<b>TOTAL</b>					<b>9,830.0</b>

## (INTERCHANGE &amp; JUNCTION)

## Tab.A.1.16.2 Quantities of Pavement

**PART2(OUTER CIRCULAR HIGHWAY)****(3)INTERCHANGE AT ROAD A1**

BASIC FREEWAY SEGMENT					
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)		AREA (m <sup>2</sup> )
A-RAMP	NO. 0 + 0.0 ~ NO. 19 + 16.0	396.0	7.0		2,772.0
B-RAMP	NO. 0 + 0.0 ~ NO. 17 + 5.0	345.0	7.0		2,415.0
C-RAMP	NO. 0 + 0.0 ~ NO. 17 + 10.0	350.0	7.0		2,450.0
D-RAMP	NO. 0 + 0.0 ~ NO. 13 + 5.0	265.0	7.0		1,855.0
SUB TOTAL					9,492.0
SPEED CHANGE LANE					
		LENGTH (m)	WIDTH(NOSE) (m)	AVE.WIDTH (m)	AREA (m <sup>2</sup> )
A-RAMP	DECELERATION LANE	165.0	8.2	4.1	676.5
B-RAMP	ACCELERATION LANE	210.0	8.2	4.1	861.0
C-RAMP	ACCELERATION LANE	210.0	8.2	4.1	861.0
D-RAMP	DECELERATION LANE	165.0	8.2	4.1	676.5
SUB TOTAL					3,075.0
<b>TOTAL</b>					<b>12,567.0</b>

**(4)INTERCHANGE AT ROAD B214**

BASIC FREEWAY SEGMENT					
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)		AREA (m <sup>2</sup> )
A-RAMP	NO. 0 + 0.0 ~ NO. 7 + 7.0	147.0	7.0		1,029.0
B-RAMP	NO. 0 + 0.0 ~ NO. 7 + 0.0	140.0	7.0		980.0
SUB TOTAL					2,009.0
SPEED CHANGE LANE					
		LENGTH (m)	WIDTH(NOSE) (m)	AVE.WIDTH (m)	AREA (m <sup>2</sup> )
A-RAMP	DECELERATION LANE	165.0	8.2	4.1	676.5
B-RAMP	ACCELERATION LANE	210.0	8.2	4.1	861.0
SUB TOTAL					1,537.5
<b>TOTAL</b>					<b>3,546.5</b>

## (INTERCHANGE &amp; JUNCTION)

## Tab.A.1.16.3 Quantities of Pavement

## (5) INTERCHANGE AT ROAD A110

BASIC FREEWAY SEGMENT					
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)		AREA (m <sup>2</sup> )
C-RAMP	NO. 0 + 0.0 ~ NO. 10 + 10.0	210.0	7.0		1,470.0
D-RAMP	NO. 0 + 0.0 ~ NO. 9 + 13.0	193.0	7.0		1,351.0
SUB TOTAL					2,821.0
SPEED CHANGE LANE					
		LENGTH (m)	WIDTH(NOSE) (m)	AVE.WIDTH (m)	AREA (m <sup>2</sup> )
C-RAMP	ACCELERATION LANE	210.0	8.2	4.1	861.0
D-RAMP	DECELERATION LANE	165.0	8.2	4.1	676.5
SUB TOTAL					1,537.5
<b>TOTAL</b>					<b>4,358.5</b>

## (6) INTERCHANGE AT ROAD A4

BASIC FREEWAY SEGMENT					
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)		AREA (m <sup>2</sup> )
1 LANE IN 1 DIRECTION					
A-RAMP	NO. 2 + 25.0 ~ NO. 4 + 10.0	185.0	7.0		1,295.0
B-RAMP	NO. 2 + 25.0 ~ NO. 3 + 90.0	165.0	7.0		1,155.0
C-RAMP	NO. 1 + 40.0 ~ NO. 3 + 60.0	220.0	7.0		1,540.0
D-RAMP	NO. 1 + 40.0 ~ NO. 3 + 0.0	160.0	7.0		1,120.0
2 LANE IN 2 DIRECTION WITH SEPARATION					
A-RAMP	NO. 0 + 0.0 ~ NO. 2 + 25.0	225.0	14.5		3,262.5
C-RAMP	NO. 0 + 0.0 ~ NO. 1 + 40.0	140.0	14.5		2,030.0
4 LANE IN 2 DIRECTION WITH SEPARATION					
D-RAMP	NO. 0 + 0.0 ~ NO. 0 + 0.0	0.0	0.0		0.0
SUB TOTAL					10,402.5
SPEED CHANGE LANE					
		LENGTH (m)	WIDTH(NOSE) (m)	AVE.WIDTH (m)	AREA (m <sup>2</sup> )
A-RAMP	DECELERATION LANE	165.0	8.2	4.1	676.5
B-RAMP	ACCELERATION LANE	210.0	8.2	4.1	861.0
C-RAMP	ACCELERATION LANE	210.0	8.2	4.1	861.0
D-RAMP	DECELERATION LANE	165.0	8.2	4.1	676.5
SUB TOTAL					3,075.0
<b>TOTAL</b>					<b>13,477.5</b>

## (INTERCHANGE &amp; JUNCTION)

## Tab.A.1.16.4 Quantities of Pavement

## PART3(OUTER CIRCULAR HIGHWAY)

## (7)JUNCTION AT COLOMBO KATUNAYAKE EXPRESSWAY-2

BASIC FREEWAY SEGMENT					
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)		AREA (m <sup>2</sup> )
1 LANE IN 1 DIRECTION					
A-RAMP	NO. 20 + 14.0 ~ NO. 29 + 5.0	171.0	7.0		1,197.0
B-RAMP	NO. 3 + 15.0 ~ NO. 15 + 8.0	233.0	7.0		1,631.0
C-RAMP	NO. 20 + 14.0 ~ NO. 26 + 15.0	121.0	7.0		847.0
D-RAMP	NO. 3 + 15.0 ~ NO. 16 + 7.0	252.0	7.0		1,764.0
2 LANE IN 2 DIRECTION WITH SEPARATION					
C-RAMP	NO. 3 + 15.0 ~ NO. 20 + 14.0	339.0	14.5		4,915.5
TOLL GATE ~ CONNECTING POINT (B,D)					
D-RAMP	NO. 0 + 25.3 ~ NO. 3 + 15.0	49.7	25.5		1,267.4
SUB TOTAL					11,621.9
SPEED CHANGE LANE					
		LENGTH (m)	WIDTH(NOSE) (m)	AVE.WIDTH (m)	AREA (m <sup>2</sup> )
A-RAMP	DECELERATION LANE	165.0	8.2	4.1	676.5
B-RAMP	ACCELERATION LANE	210.0	8.2	4.1	861.0
C-RAMP	ACCELERATION LANE	210.0	8.2	4.1	861.0
D-RAMP	DECELERATION LANE	165.0	8.2	4.1	676.5
SUB TOTAL					3,075.0
TOTAL					14,696.9

**(INTERCHANGE & JUNCTION)**  
**Tab.A.1.16.5 Quantities of Pavement**

**(8) INTERCHANGE AT ROAD A3**

BASIC FREEWAY SEGMENT					
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)		AREA (m <sup>2</sup> )
DIAMOND					
A-RAMP	NO. 0 + 0.0 ~ NO. 12 + 0.0	240.0	7.0		1,680.0
B-RAMP	NO. 0 + 0.0 ~ NO. 10 + 8.0	208.0	7.0		1,456.0
ROOP					
C-RAMP	NO. 0 + 0.0 ~ NO. 16 + 14.0	334.0	7.0		2,338.0
SUB TOTAL					5,474.0
SPEED CHANGE LANE					
		LENGTH (m)	WIDTH(NOSE) (m)	AVE.WIDTH (m)	AREA (m <sup>2</sup> )
DIAMOND					
A-RAMP	ACCELERATION LANE	210.0	8.2	4.1	861.0
B-RAMP	DECELERATION LANE	165.0	8.2	4.1	676.5
ROOP					
C-RAMP	DECELERATION LANE	165.0	8.2	4.1	676.5
SUB TOTAL					2,214.0
TOTAL					7,688.0

**PART4(OUTER CIRCULAR HIGHWAY)****(9) JUNCTION AT SOUTHERN HIGHWAY**

BASIC FREEWAY SEGMENT					
	SECTION(NOSE)	LENGTH (m)	WIDTH (m)		AREA (m <sup>2</sup> )
1 LANE IN 1 DIRECTION					
A-RAMP	NO. 7 + 13.0 ~ NO. 19 + 18.0	245.0	7.0		1,715.0
A-RAMP	NO. 22 + 5.0 ~ NO. 37 + 15.0	310.0	7.0		2,170.0
B-RAMP	NO. 12 + 5.0 ~ NO. 24 + 0.0	235.0	7.0		1,645.0
C-RAMP	NO. 12 + 5.0 ~ NO. 19 + 16.0	151.0	7.0		1,057.0
C-RAMP	NO. 24 + 6.0 ~ NO. 42 + 8.0	362.0	7.0		2,534.0
D-RAMP	NO. 7 + 13.0 ~ NO. 25 + 13.0	360.0	7.0		2,520.0
2 LANE IN 2 DIRECTION WITH SEPARATION					
D-RAMP	NO. 0 + 0.0 ~ NO. 12 + 5.0	245.0	10.8		2,633.8
D-RAMP	NO. 0 + 0.0 ~ NO. 7 + 13.0	153.0	10.8		1,644.8
SUB TOTAL					15,919.6
SPEED CHANGE LANE					
		LENGTH (m)	WIDTH(NOSE) (m)	AVE.WIDTH (m)	AREA (m <sup>2</sup> )
A-RAMP	DECELERATION LANE	165.0	8.2	4.1	676.5
B-RAMP	ACCELERATION LANE	210.0	8.2	4.1	861.0
C-RAMP	ACCELERATION LANE	210.0	8.2	4.1	861.0
D-RAMP	DECELERATION LANE	165.0	8.2	4.1	676.5
SUB TOTAL					3,075.0
TOTAL					18,994.6

## (INTERCHANGE &amp; JUNCTION)

## Tab.A.1.16.6 Quantities of Pavement

## COLOMBO KATUNAYAKE EXPRESSWAY PORTION

## (\*)JUNCTION AT COLOMBO KATUNAYAKE EXPRESSWAY-1

BASIC FREEWAY SEGMENT					
	SECTION(NOS)	LENGTH (m)	WIDTH (m)		AREA (m <sup>2</sup> )
1 LANE IN 1 DIRECTION					
A-RAMP	NO. 23 + 0.0 ~ NO. 29 + 4.0	124.0	7.0		868.0
B-RAMP	NO. 4 + 8.0 ~ NO. 16 + 0.0	232.0	7.0		1,624.0
C-RAMP	NO. 23 + 0.0 ~ NO. 28 + 16.0	116.0	7.0		812.0
D-RAMP	NO. 4 + 8.0 ~ NO. 17 + 13.0	265.0	7.0		1,855.0
2 LANE IN 2 DIRECTION WITH SEPARATION					
C-RAMP	NO. 4 + 8.0 ~ NO. 10 + 13.0	125.0	14.5		1,812.5
C-RAMP	NO. 12 + 13.0 ~ NO. 23 + 0.0	207.0	14.5		3,001.5
TOLL GATE ~ CONNECTING POINT (B.D)					
D-RAMP	NO. 0 + -25.3 ~ NO. 4 + 8.0	113.3	25.5		2,889.2
TOLL GATE		80.0	50.0		4,000.0
SUB TOTAL					16,862.2
SPEED CHANGE LANE					
		LENGTH (m)	WIDTH(NOSE) (m)	AVE. WIDTH (m)	AREA (m <sup>2</sup> )
A-RAMP	DECELERATION LANE	165.0	8.2	4.1	676.5
B-RAMP	ACCELERATION LANE	210.0	8.2	4.1	861.0
C-RAMP	ACCELERATION LANE	210.0	8.2	4.1	861.0
D-RAMP	DECELERATION LANE	165.0	8.2	4.1	676.5
SUB TOTAL					3,075.0
TOTAL					19,937.2



Tab.A.1.17 Quantities of Bridge and Viaduct (INTERCHANGE & JUNCTION)

PART	IC & JCT	STATION	TYPE	WIDTH(m)		AREA	NO. OF SPAN	SUPERSTRUCTURE			SUBSTRUCTURE							TOTAL COST		UNIT COST (m <sup>2</sup> )				
				LENGTH(m)	TYPE			UNIT COST (Rs./m)	COST (x10 <sup>3</sup> Rs.)	ABUTMENT		PIER		CONCRETE BLOCK PITCHING (x10 <sup>3</sup> Rs.)	TOTAL (x10 <sup>3</sup> Rs.)	ACTUAL (x10 <sup>3</sup> Rs.)	INCL. OVERHEAD (x10 <sup>3</sup> Rs.)							
										FOUNDATION	TOTAL	FOUNDATION	TOTAL					FOUNDATION	TOTAL		FOUNDATION	TOTAL		
								TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE					
1	CKE1	10 +13.000	VIADUCT	14.5 /	40.0	580.0	2	PC	33,276	19,300	3,876	Φ600	Pile	1,620	Φ600	5,700	7,320	3,030	26,766	46,066	52,976	79,424		
		12 +13.000	VIADUCT	5.0 /	80.0	400.0																		
3	CKE2	-1 +40.000	BRIDGE	3.0 /	80.0	240.0																		
		0 +20.000	BRIDGE	6.9 /	30.0	207.0																		
2	A4	9 +10.000	VIADUCT	2.0 /	45.0	90.0																		
		276 +15.000	BRIDGE	7.0 /	47.0	329.0	2	PC	33,276	10,948	1,809	Φ600	Pile	756	Φ600	2,660	3,416	1,420	12,505	23,453	26,971	71,285		
4	SHK1	19 +18.000	VIADUCT	7.0 /	90.0	630.0	4	PC	33,276	20,964	1,809	Φ600	Pile	2,268	Φ600	7,980	10,248	1,420	19,337	40,301	46,346	63,970		
		24 +6.000	VIADUCT																					
		TOTAL																			167,624	192,767		

PART I (SOUTHERN HIGHWAY) PART II (OUTER CIRCULAR HIGHWAY) PART III (KATUNAYAKE EXPRESSWAY)  
 NO. OF BRIDGE : 0 NO. OF BRIDGE : 3 NO. OF BRIDGE : 0  
 NO. OF VIADUCT : 0 NO. OF VIADUCT : 3 NO. OF VIADUCT : 1

Tab.A.1.18 Quantities of Box Culvert (INTERCHANGE & JUNCTION)

PART	IC & JCT	STATION		SHAPE		LENGTH(m)	RATE(Rs.)	COST (x10 <sup>3</sup> Rs.)	REMARKS
				W(m)* H(m)	INNER SECTION(m <sup>2</sup> )				
CKE		C RAMP	3 +15.000	6.00 * 6.00	36.00	35.00	30,000	37,800.00	UNDERPASS
3	CKE2	MAIN PART	3 +00.000	16.00 * 5.50	88.00	30.00	30,000	79,200.00	UNDERPASS
TOTAL	CKE					35.00		37,800.00	
	OCH					30.00		79,200.00	

(INTERCHANGE & JUNCTION)  
 Tab.A.1.19 Interchange at Road A2

BRIDGE	L = 0.0 m	①
	W = 0.0 m	②
	A = 0.0 m <sup>2</sup>	① x ②
RETAINING WALL	H = 0.0 m	③
	L = 0.0 m	④
EMBANKMENT	V = 0.0 m <sup>3</sup>	③ x ④ x ② / 2
PAVEMENT	A = 24,200.0 m <sup>2</sup>	improving section

## **APPENDIX A2**

### **BREAKDOWN OF CONSTRUCTION COST & ENGINEERING COST**

## APPENDIX A2 BREAKDOWN OF CONSTRUCTION COST & ENGINEERING COST

### 1.1 Summary of Project Cost

#### 1.1.1 Main Part

Tab.A.2.1 and Tab.A.2.2 show the summary of project cost for main part at initial and final stages. That tables show the Southern Highway(SH) portion and the Outer Circular Highway(OCH) Project Portion.

List

Tab.A.2.1 : SUMMARY OF PROJECT COST (INITIAL STAGE)  
Tab.A.2.2 : SUMMARY OF PROJECT COST (FINAL STAGE)

#### 1.1.2 Interchange (IC) and Junction (JCT)

Tab.A.2.3~Tab.A.2.6 show the cost break down for the interchange and junction That tables show the SH portion, the OCH portion and the Colombo Katunayake Expressway (CKE) portion.

List

Tab.A.2.3~Tab.A.2.6 : COST BREAK DOWN FOR INTERCHANGE & JUNCTION  
(PART1~PART4)

# **ANNEX I**

## **TRAFFIC SURVEY DATA & TRAFFIC MODEL RESULTS**

# Contents

## 1. Traffic Survey Data

1.1 OD, Traffic Volume and Bus Passenger Volume Surveys .....	2
1.2 Turning Movement Survey .....	84
1.3 Travel Speed Survey .....	88
1.4 Bus Passenger Interview Survey .....	91

## 2. Traffic Model Results

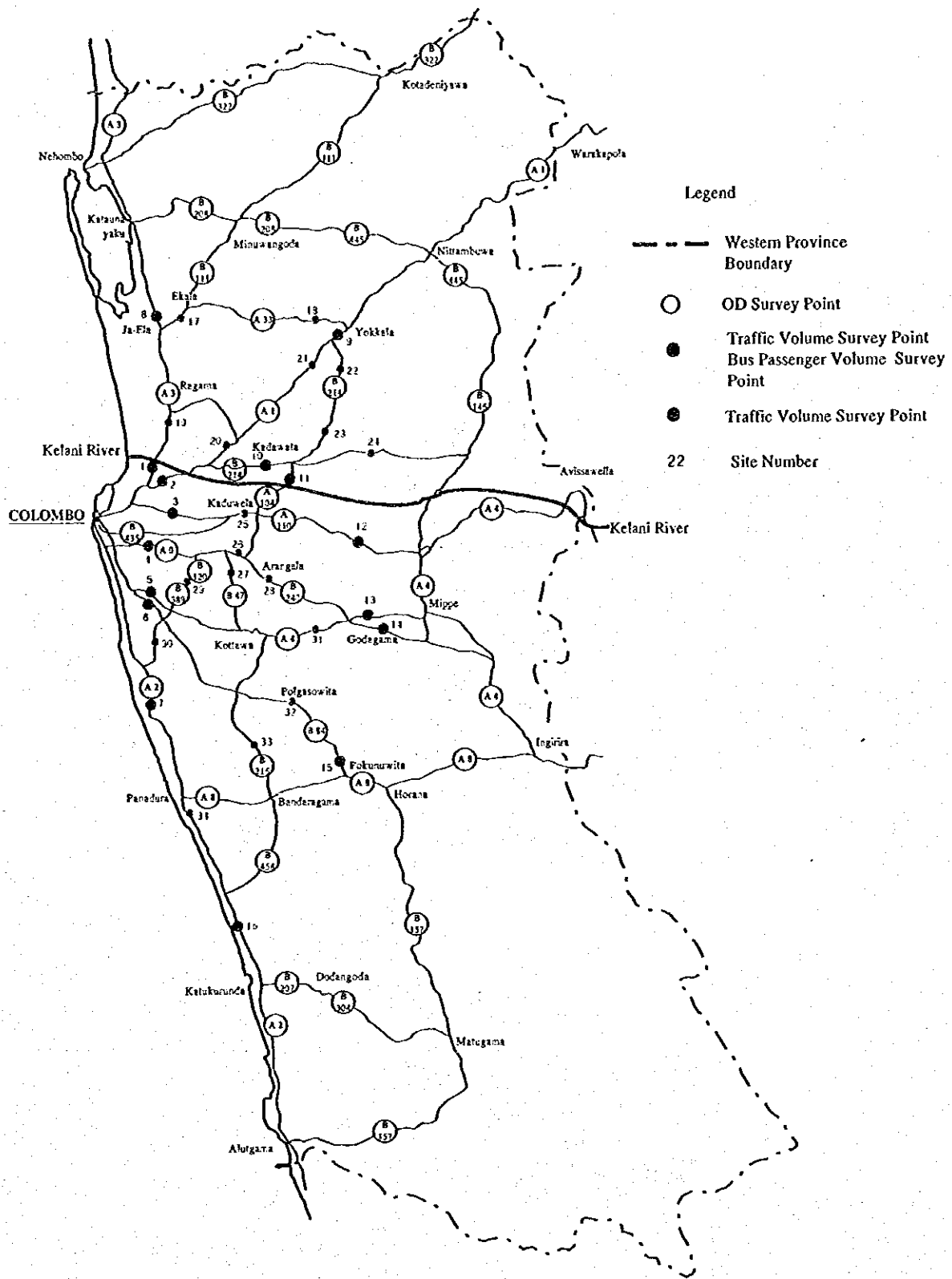
2.1 Calibration Results .....	98
2.2 Forecast Results .....	107





# 1. Traffic Survey Data

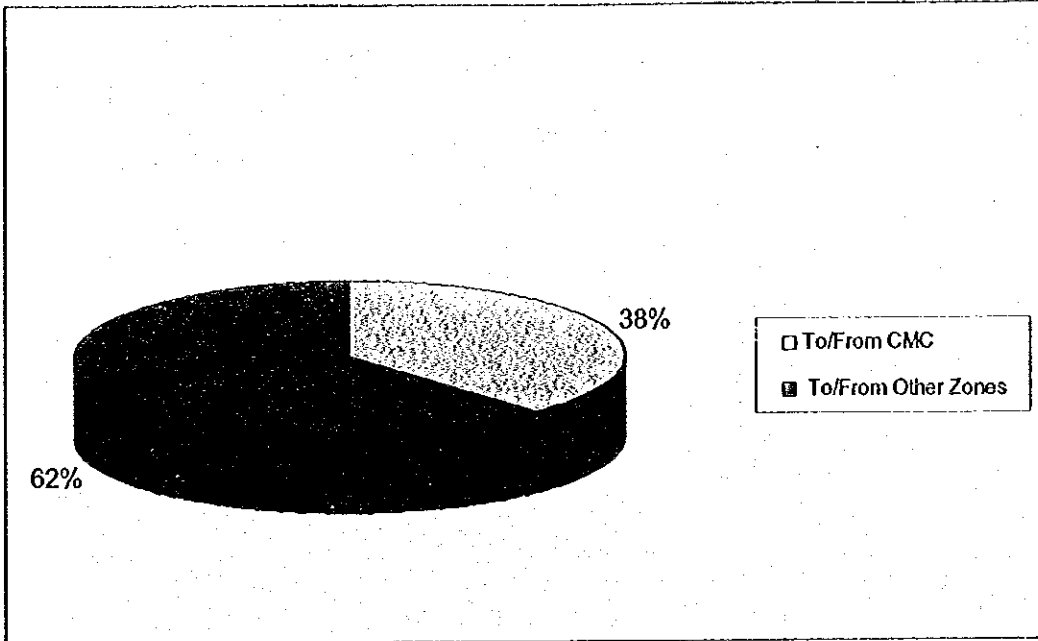
**1.1 OD, Traffic Volume,  
&  
Bus Passenger Volume Surveys**



**Locations for OD Survey, Traffic Volume Survey & Bus Passenger Volume Survey**

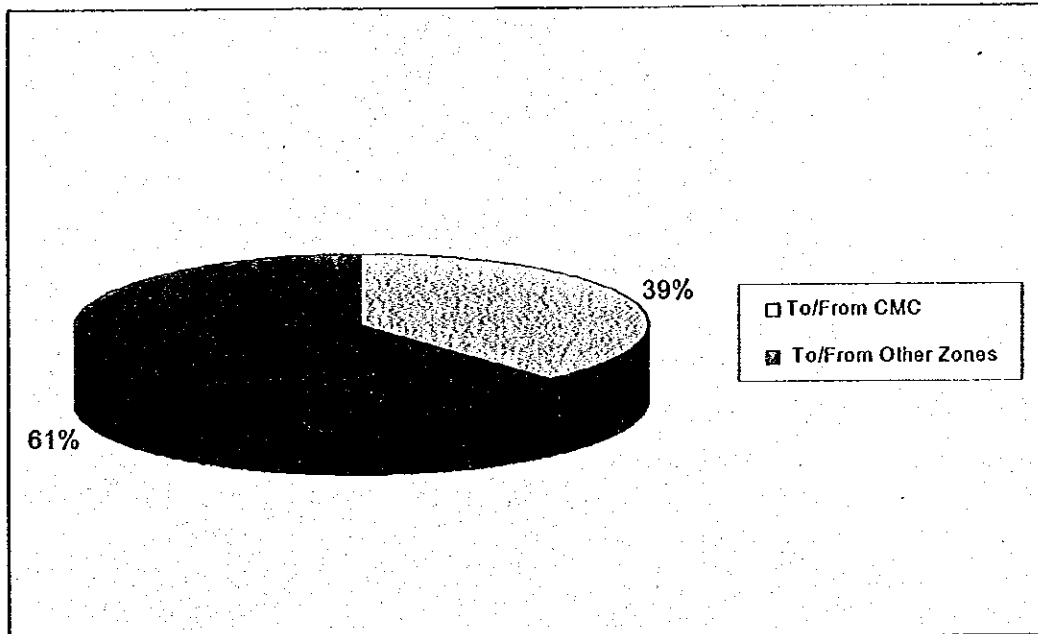
# Site # 1

### Passenger Vehicle Trip Generation/Attraction



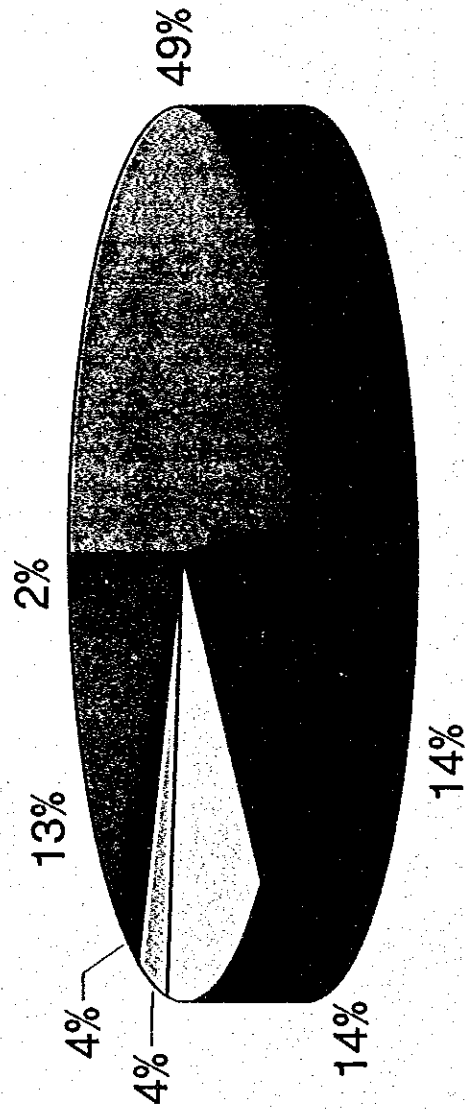
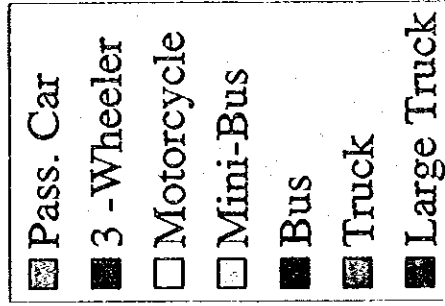
Number Of Samples : 1035  
Sampling Rate : 3.1%  
Avg Veh. Occupancy : 1.5

### Freight Vehicle Trip Generation/Attraction



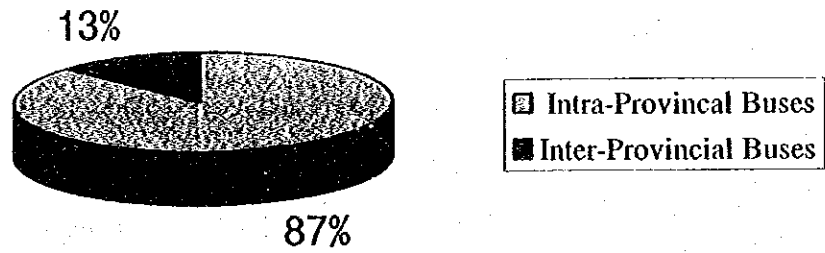
Number Of Samples : 742  
Sampling Rate : 11.5%  
Avg Veh. Occupancy : 1.7

# Road Vehicle Composition



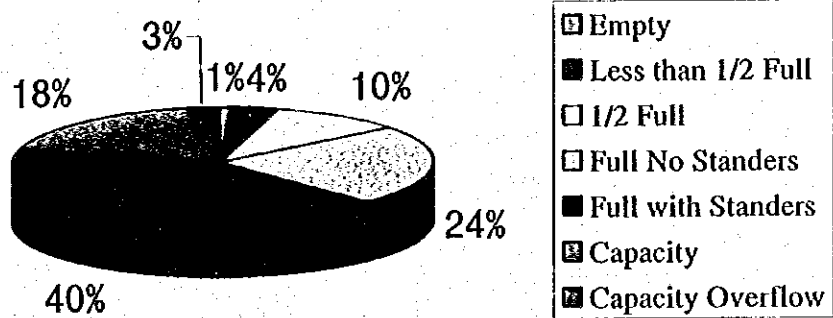
12-Hour Traffic Volume = 43,444  
(7am to 7pm)

### Intra-Provincial & Inter-Provincial Bus Travel



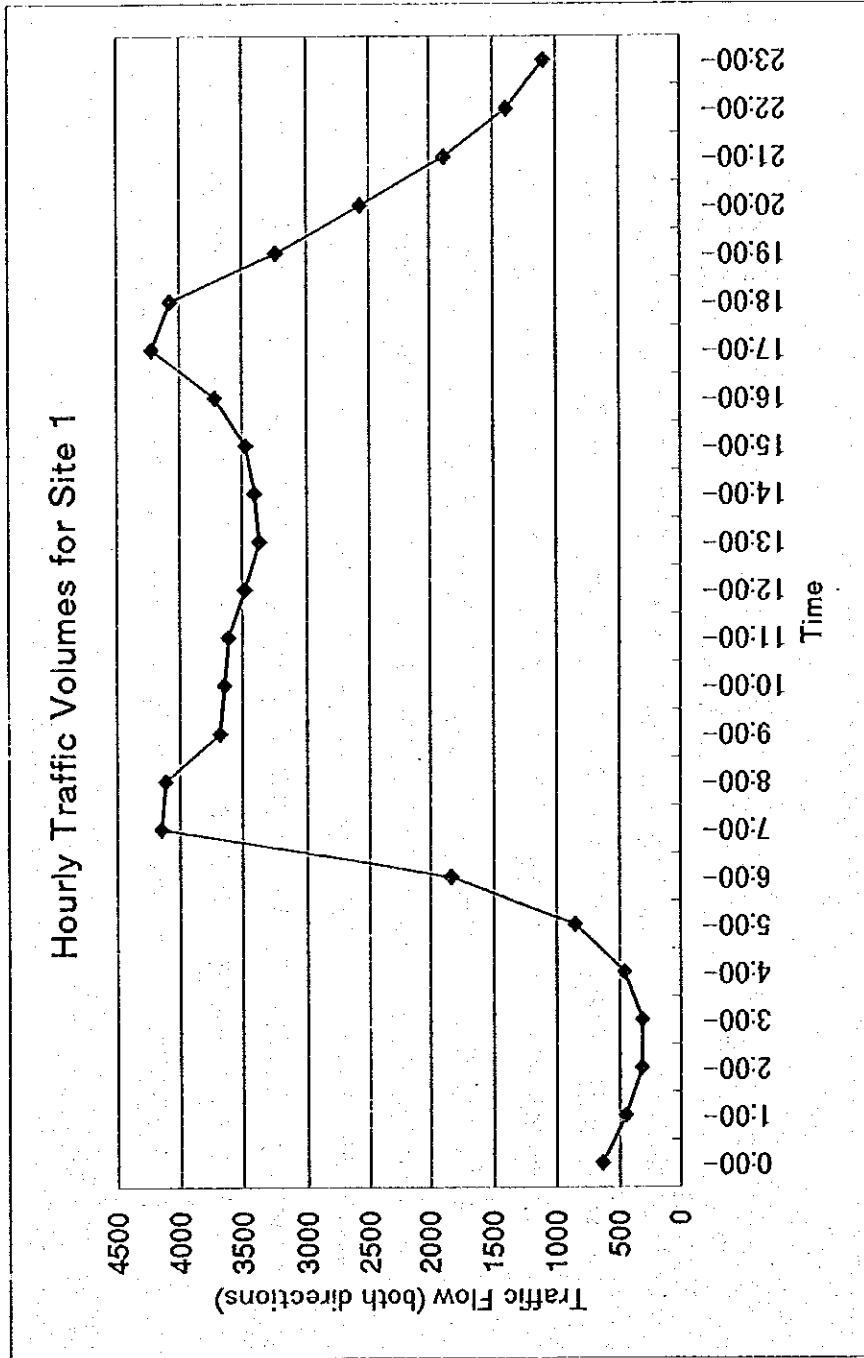
12-Hour (7am to 7pm) Sample

### Bus Passenger Load Status



12-Hour (7am to 7pm)

Traffic Volume Survey Extract

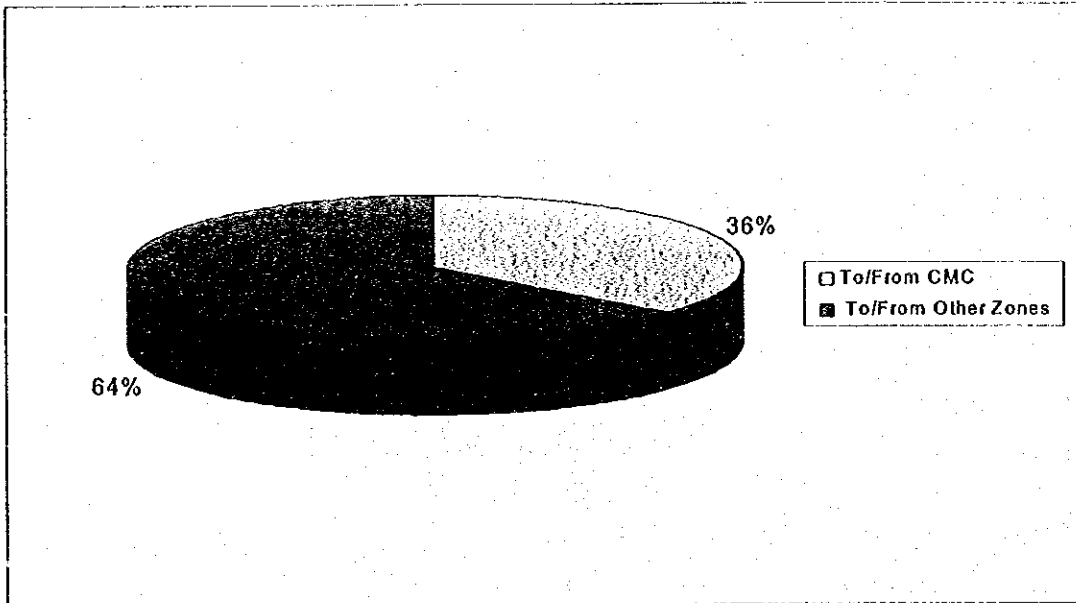




## **Site # 2**

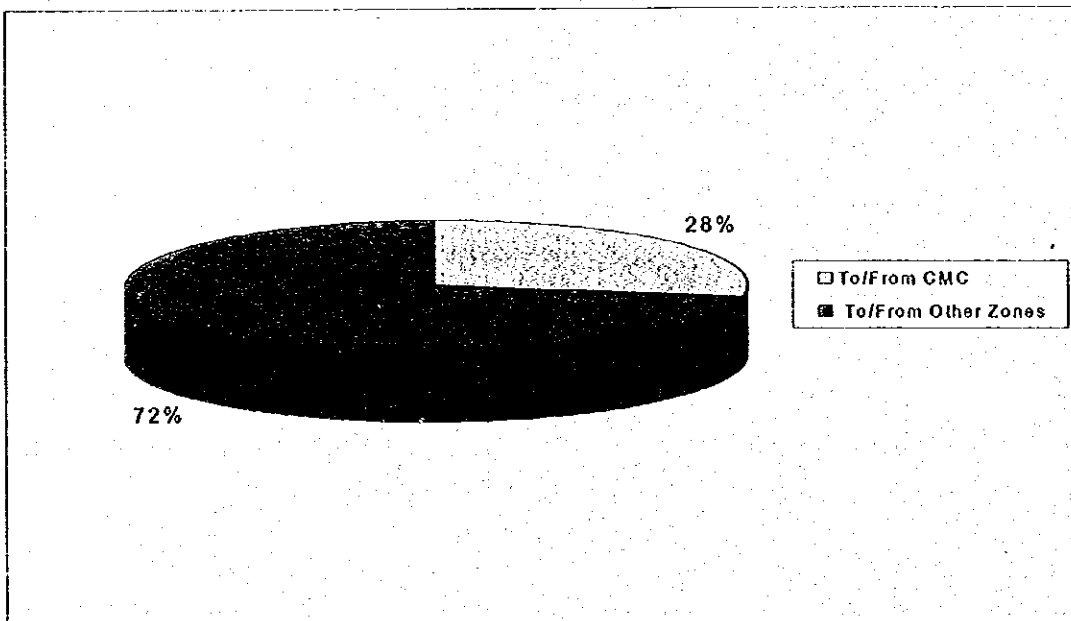
OD Survey Extract

Passenger Vehicle Trip Generation/Attraction



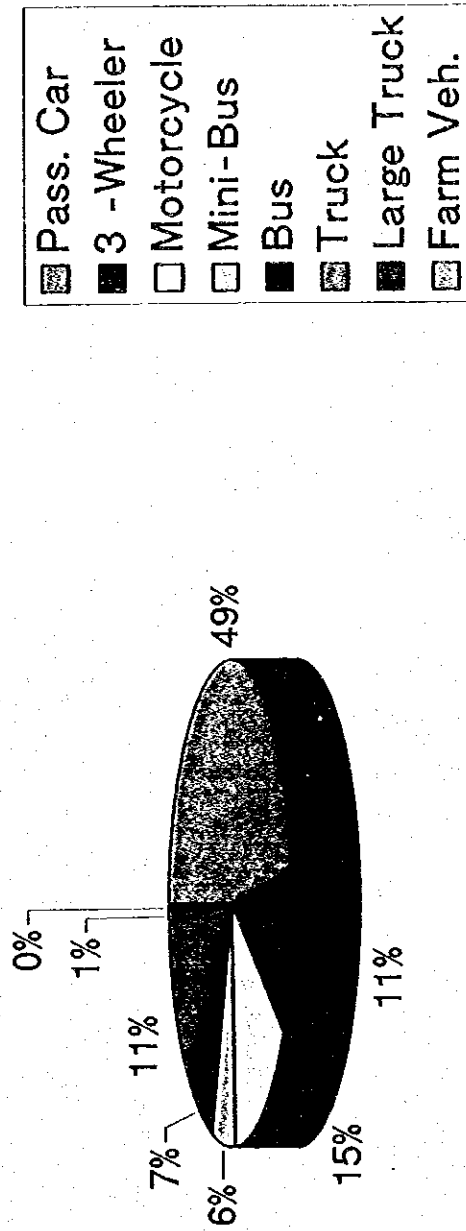
Number of Samples : 892  
Sampling Rate : 4.4%  
Avg Veh. Occupancy : 2.5

Freight Vehicle Trip Generation/Attraction



Number of Samples : 324  
Sampling Rate : 9.5%  
Avg Veh. Occupancy : 2.5

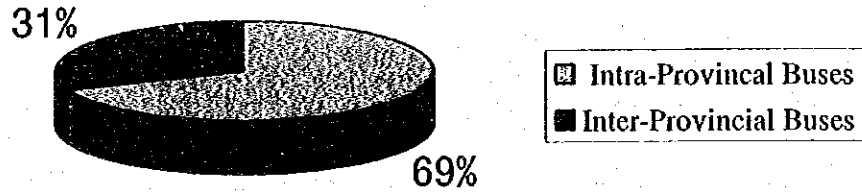
# Road Vehicle Composition



12-Hour Traffic Volume = 27,514  
(7am to 7pm)

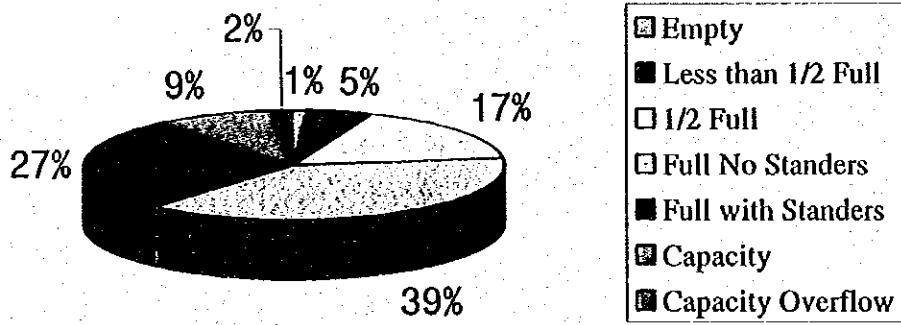
Bus Passenger Volume Survey Extract

Intra-Provincial & Inter-Provincial Bus Travel



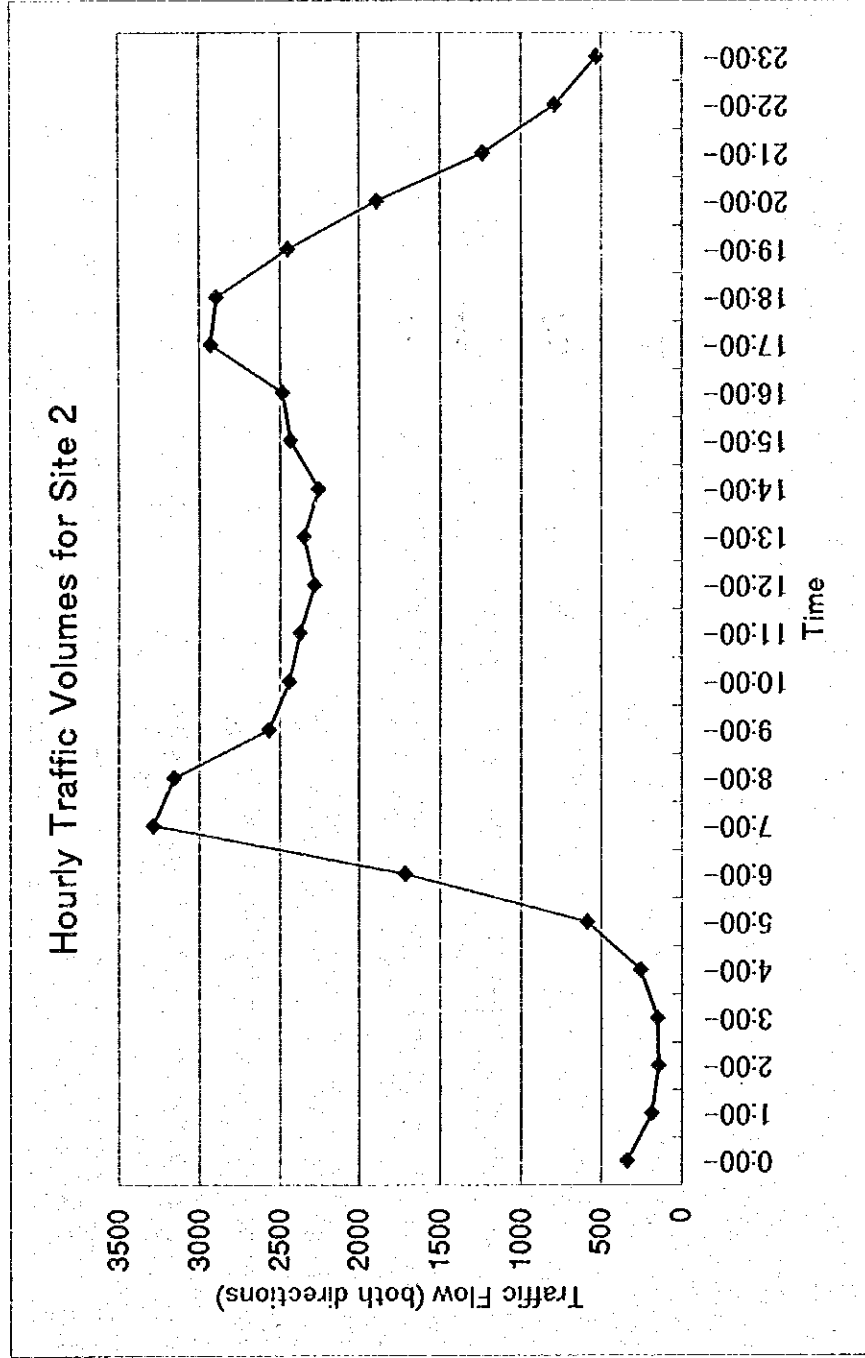
12-Hour (7am to 7pm) Sample

Bus Passenger Load Status



12-Hour (7am to 7pm)

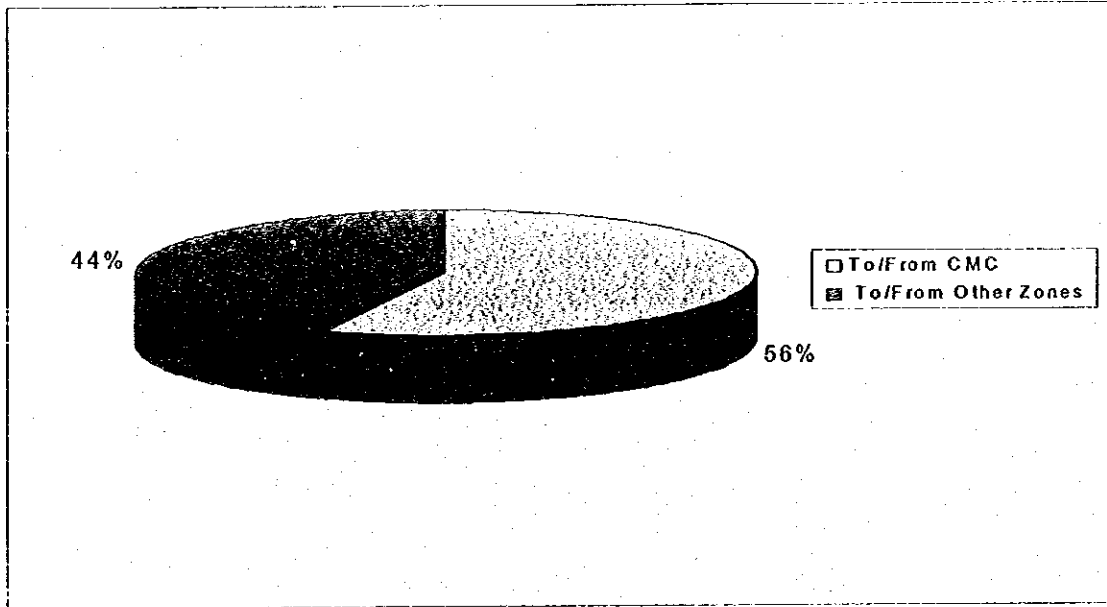
Traffic Volume Survey Extract



## Site # 3

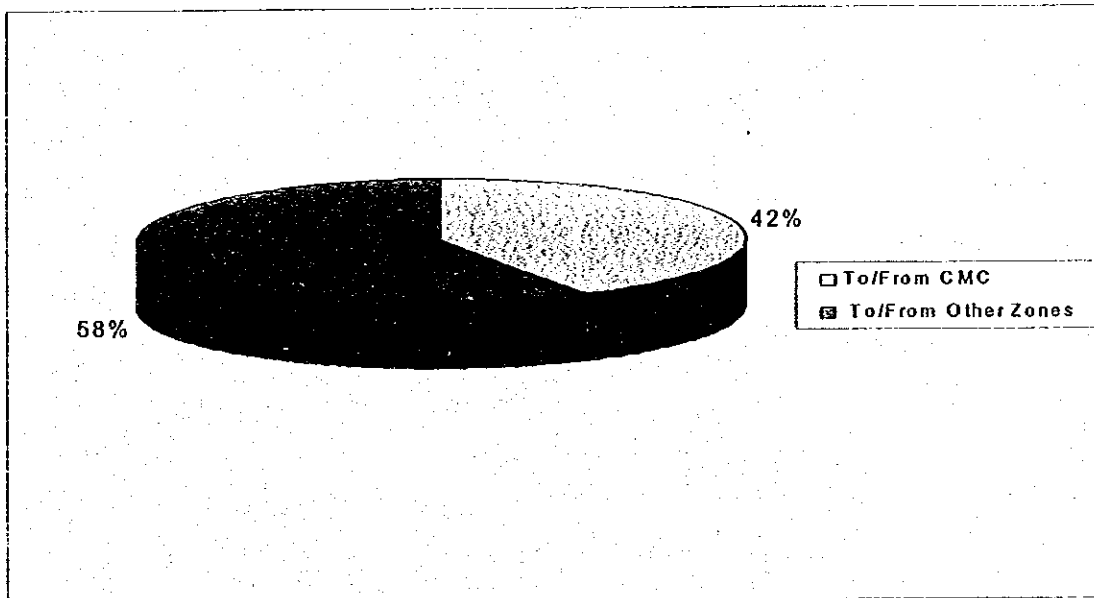
# OD Survey Extract

## Passenger Vehicle Trip Generation/Attraction



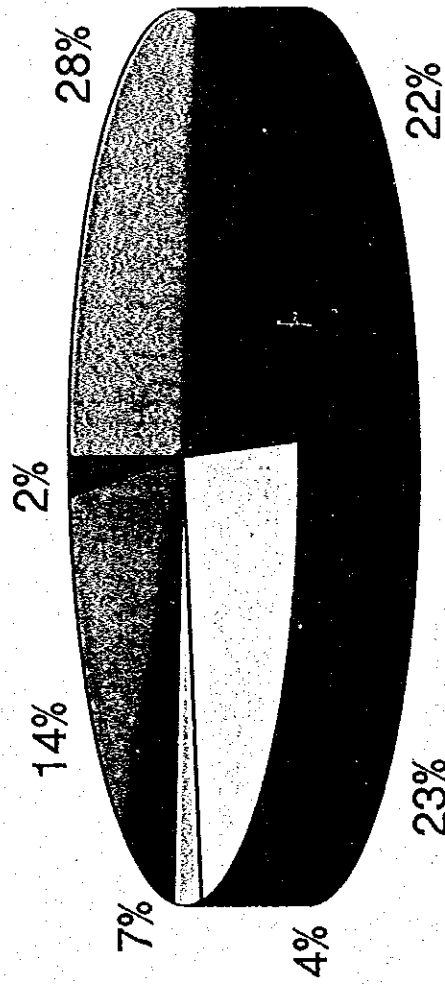
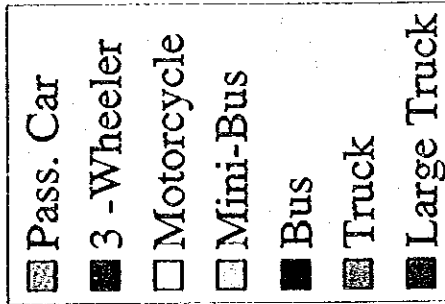
Number of Samples : 712  
Sampling Rate : 8.7%  
Avg Veh. Occupancy : 2.5

## Freight Vehicle Trip Generation/Attraction



Number of Samples : 489  
Sampling Rate : 26.9%  
Avg Veh. Occupancy : 1.78

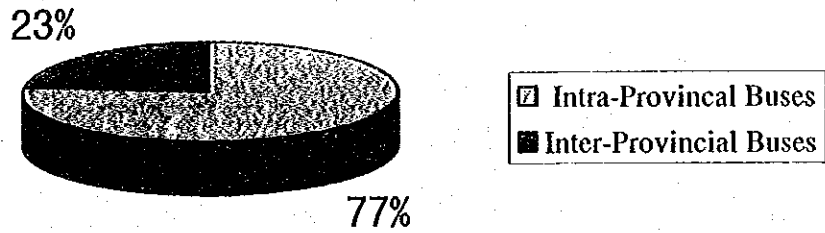
# Road Vehicle Composition



12-Hour Traffic Volume = 11,319  
(7am to 7pm)

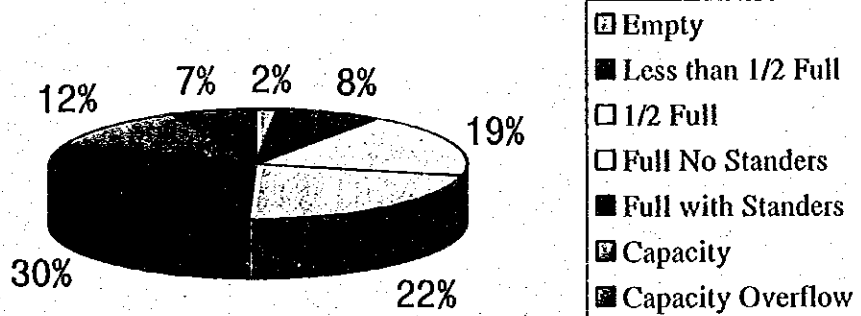


### Intra-Provincial & Inter-Provincial Bus Travel



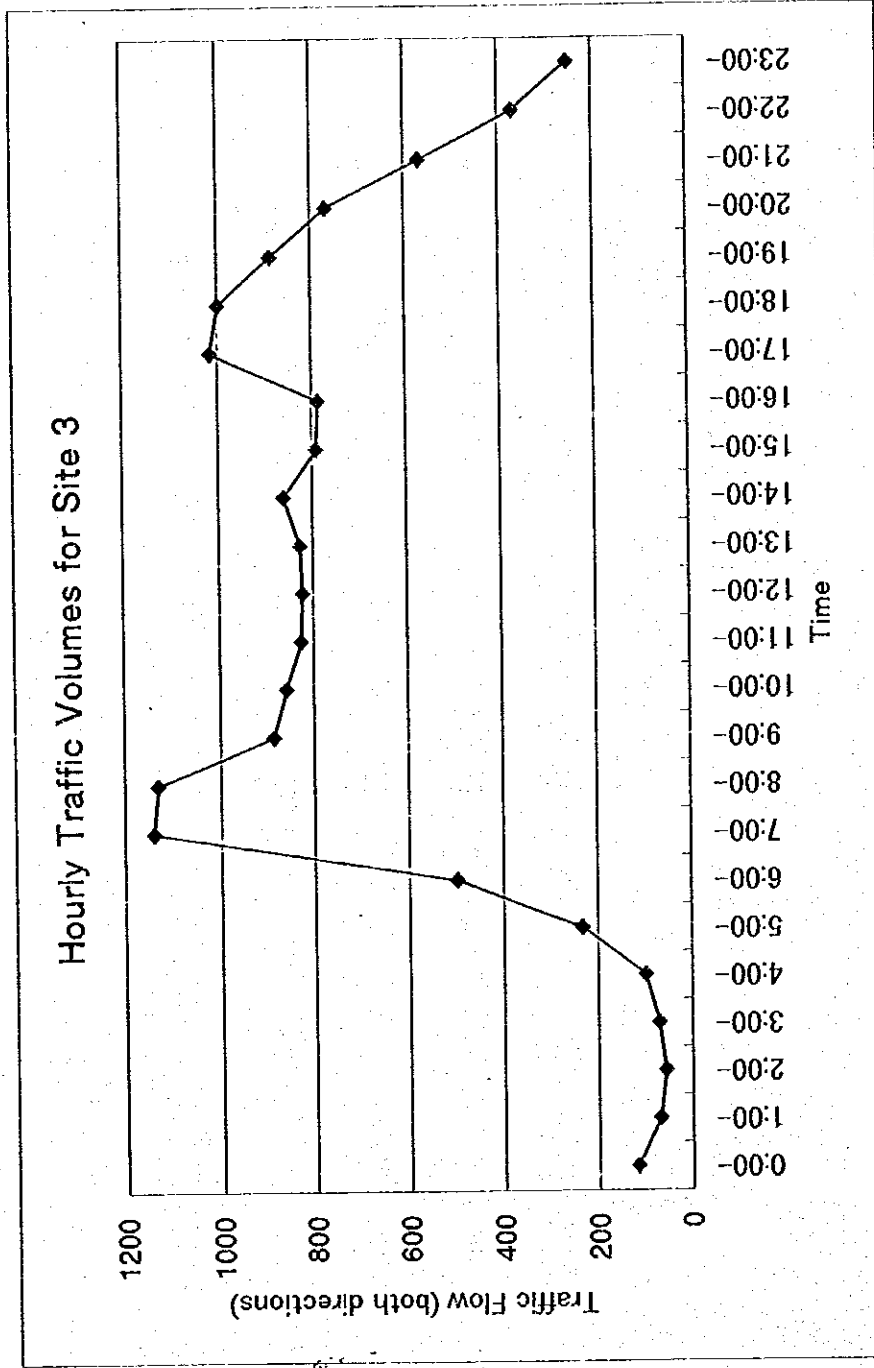
12-Hour (7am to 7pm) Sample

### Bus Passenger Load Status



12-Hour (7am to 7pm)

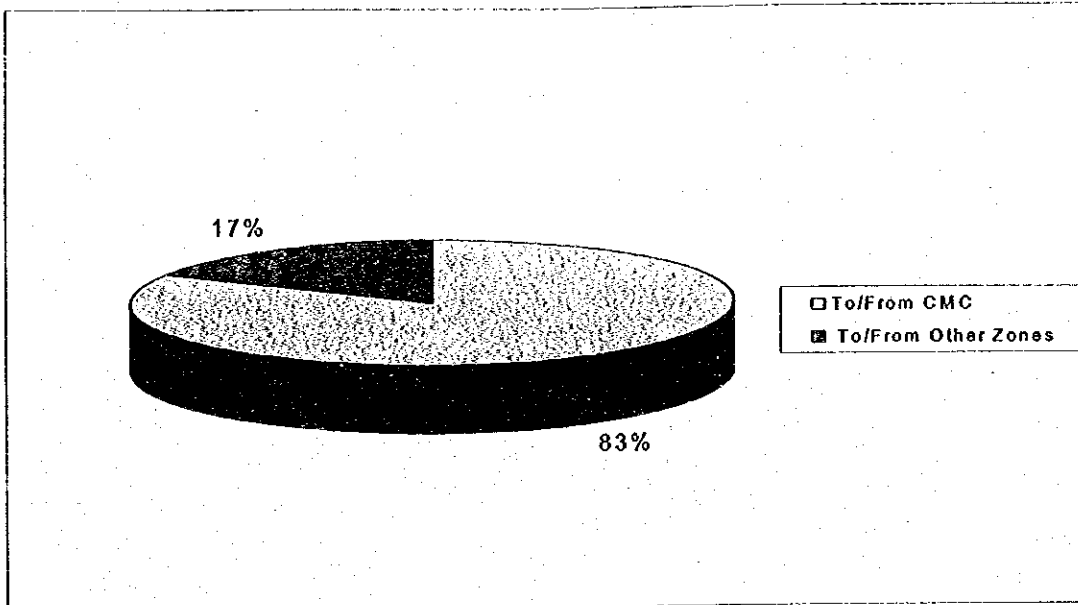
Traffic Volume Survey Extract



## **Site # 4**

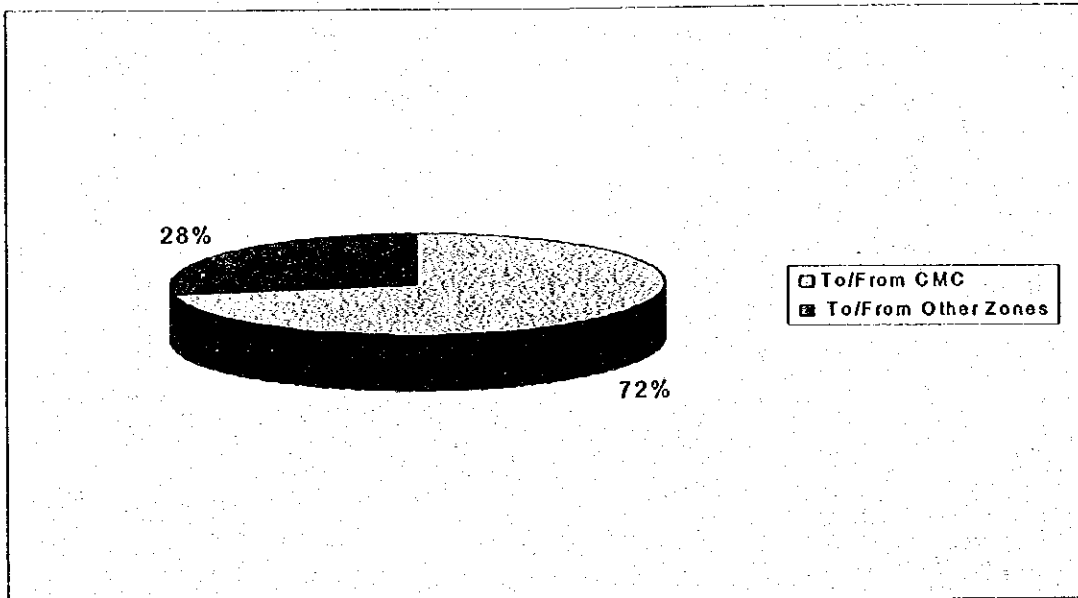
OD Survey Extract

Passenger Vehicle Trip Generation/Attraction



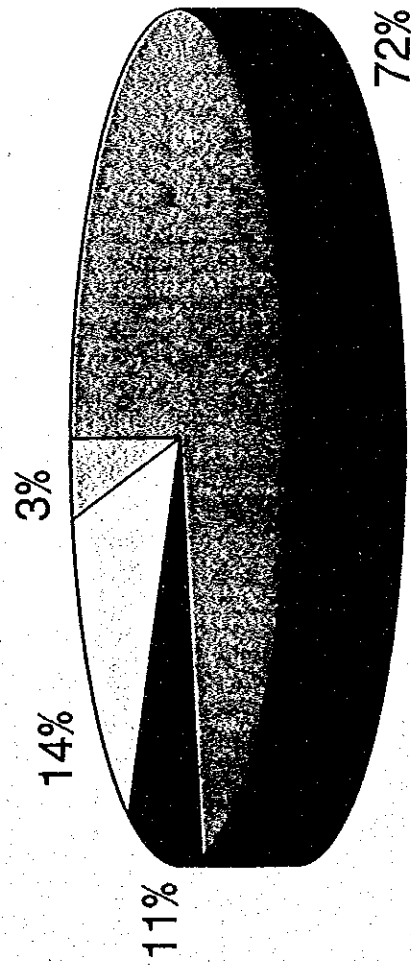
Number of Samples : 916  
Sampling Rate : 2.2%  
Avg Veh. Occupancy : 2.2

Freight Vehicle Trip Generation/Attraction



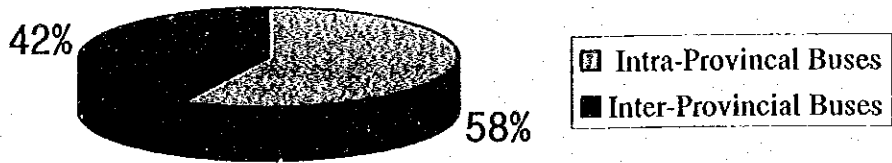
Number of Samples : 281  
Sampling Rate : 19.7%  
Avg Veh. Occupancy : 2.3

# Road Vehicle Composition



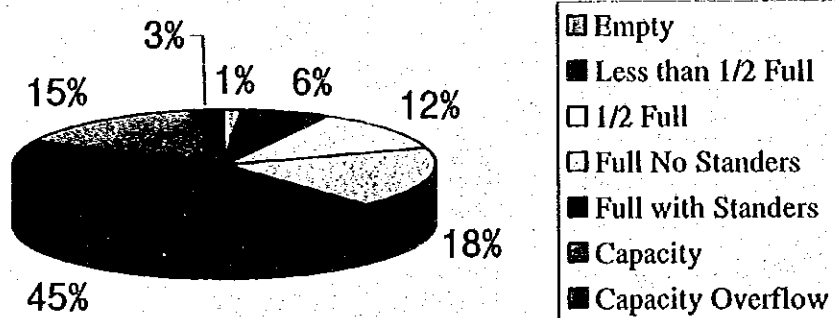
12-hour Traffic Volume = 43,417  
(7am to 7pm)

### Intra-Provincial & Inter-Provincial Bus Travel



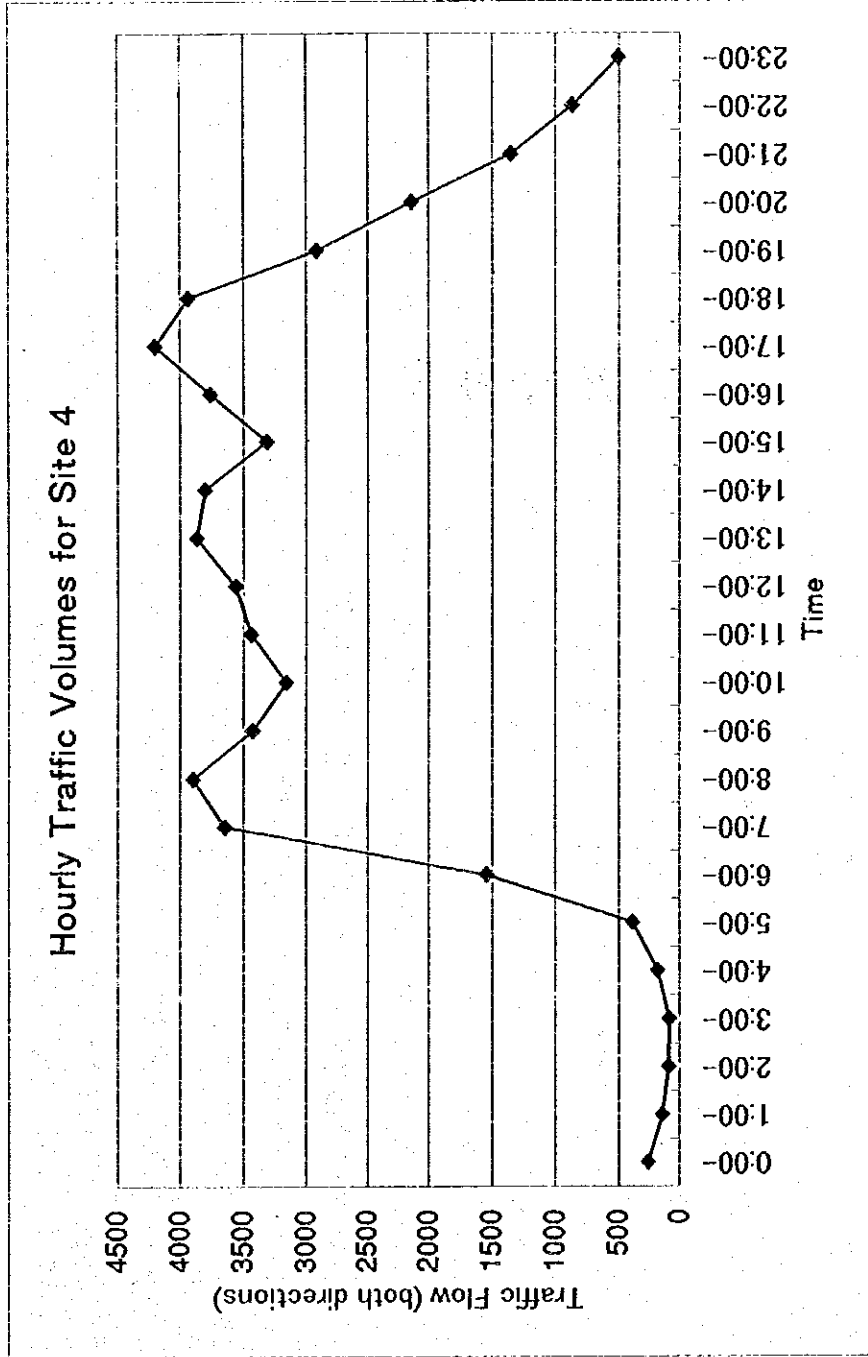
12-Hour (7am to 7pm) Sample

### Bus Passenger Load Status



12-Hour (7am to 7pm)

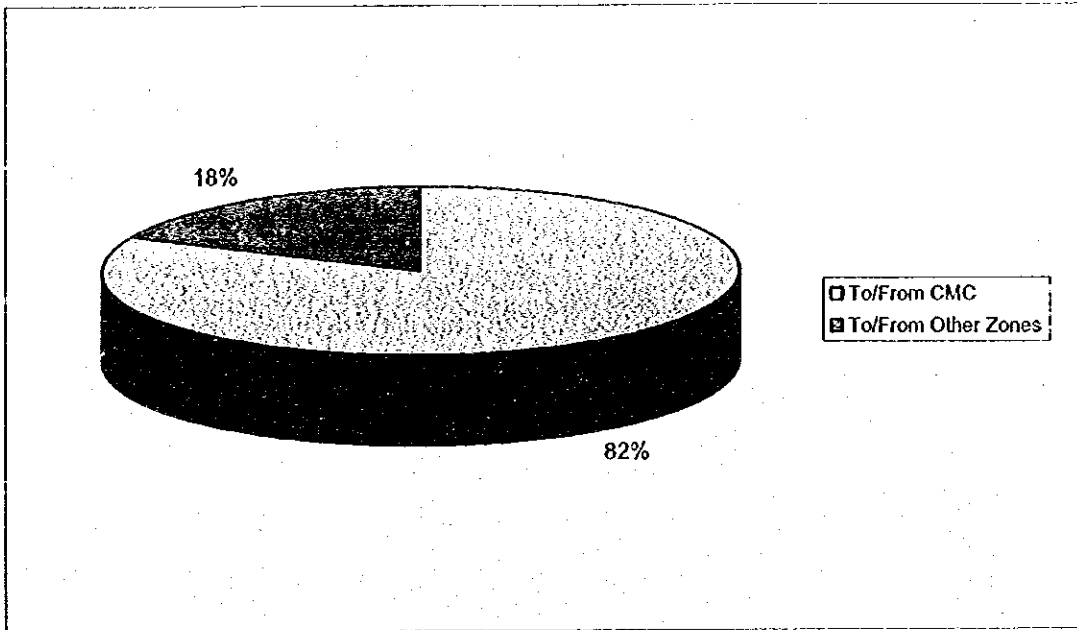
Traffic Volume Survey Extract



## Site # 5

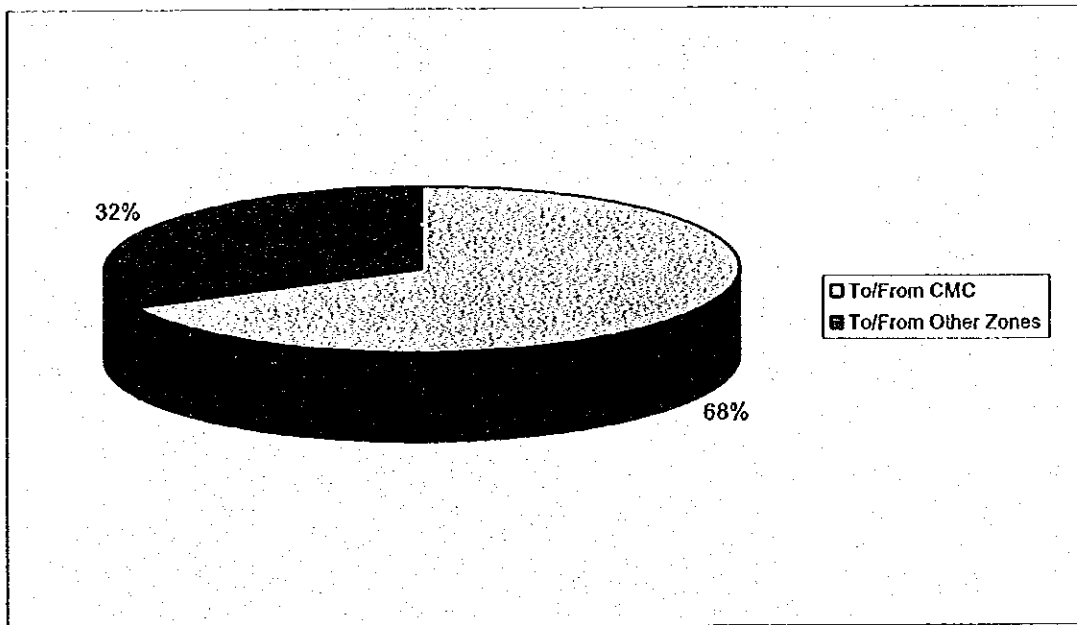


**Passenger Vehicle Trip Generation/Attraction**



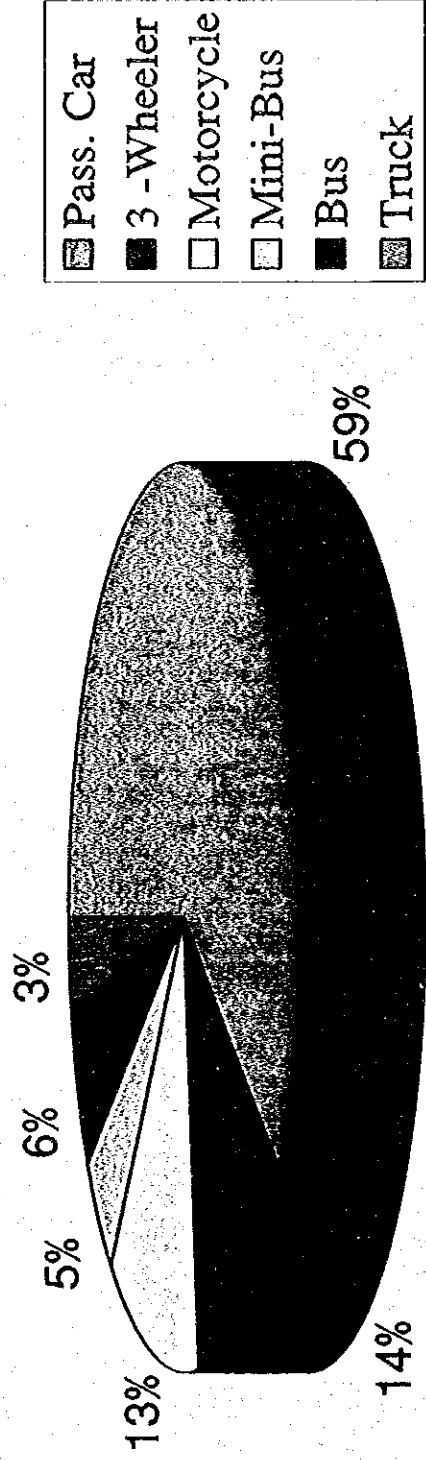
Number Of Samples : 1345  
Sampling Rate : 6.0%  
Avg Veh. Occupancy : 2.0

**Freight Vehicle Trip Generation/Attraction**



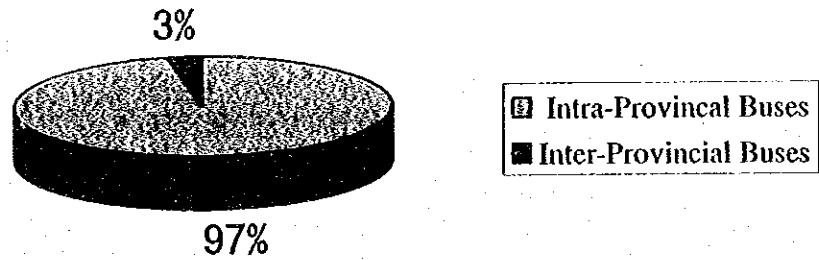
Number Of Samples : 438  
Sampling Rate : 47.5%  
Avg Veh. Occupancy : 2.3

# Road Vehicle Composition



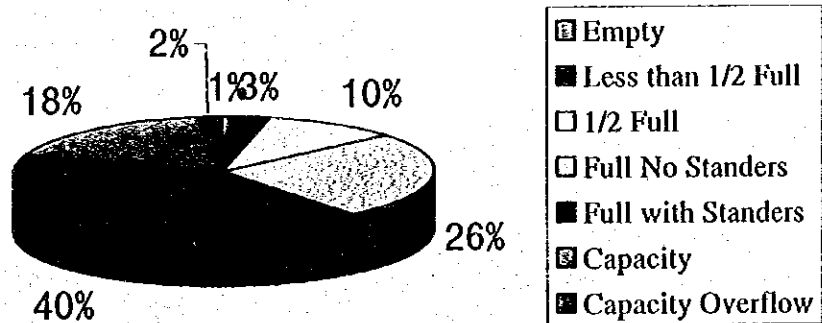
12-Hour Traffic Volume Data = 25,952  
(7am to 7pm)

### Intra-Provincial & Inter-Provincial Bus Travel



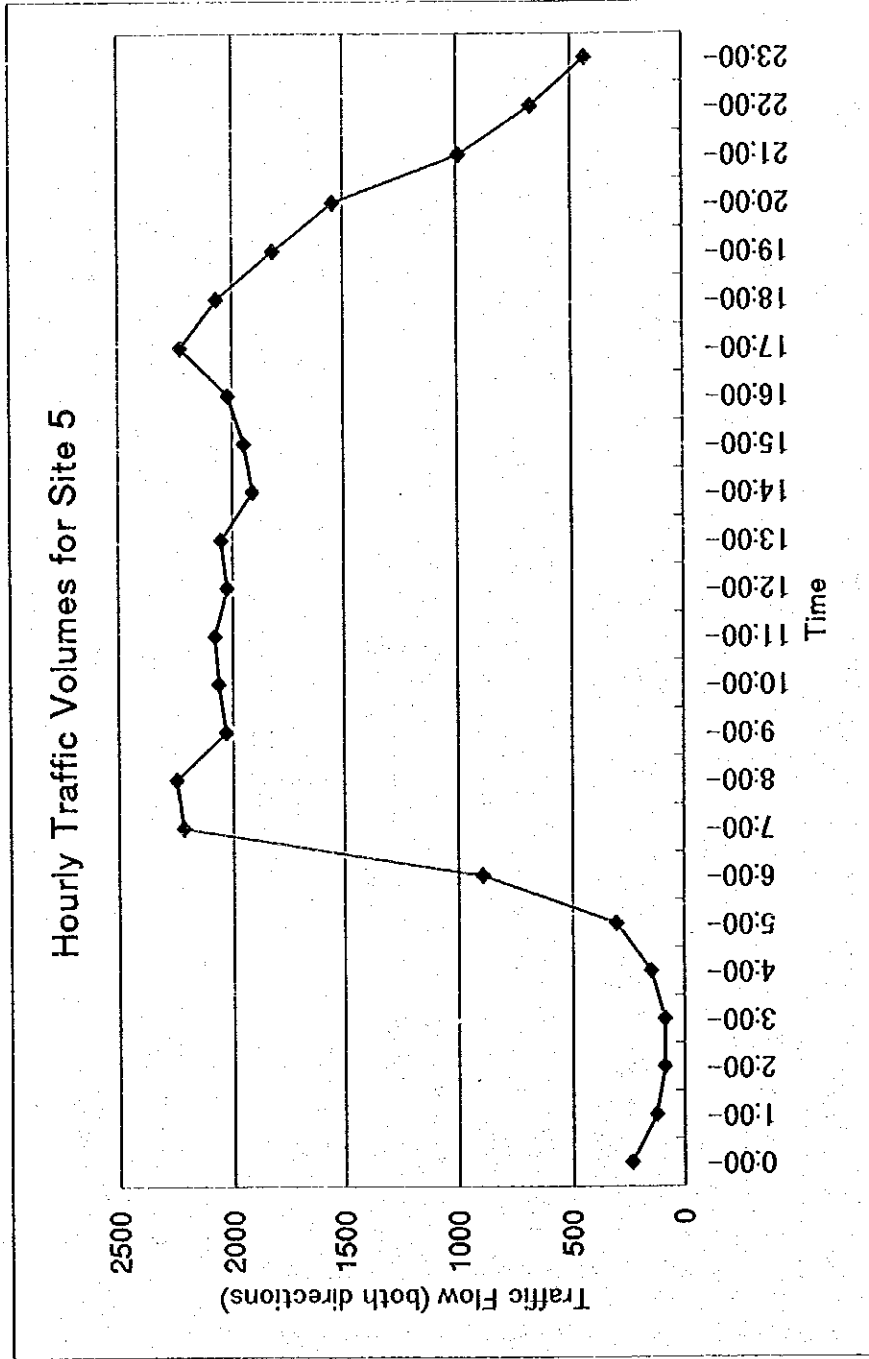
12-Hour (7am to 7pm) Sample

### Bus Passenger Load Status



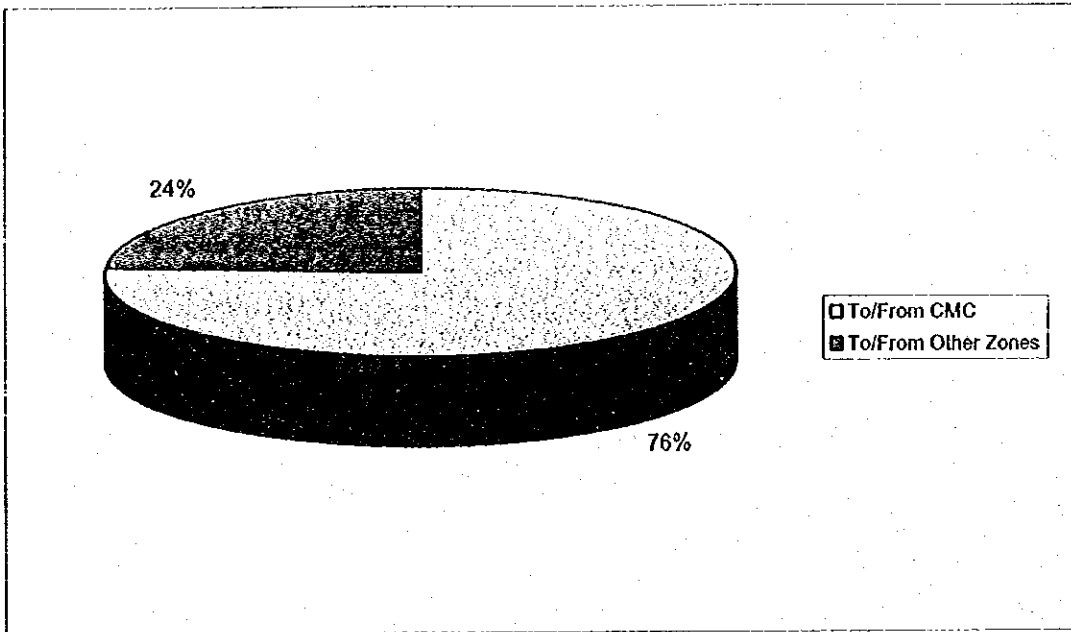
12-Hour (7am to 7pm)

Traffic Volume Survey Extract



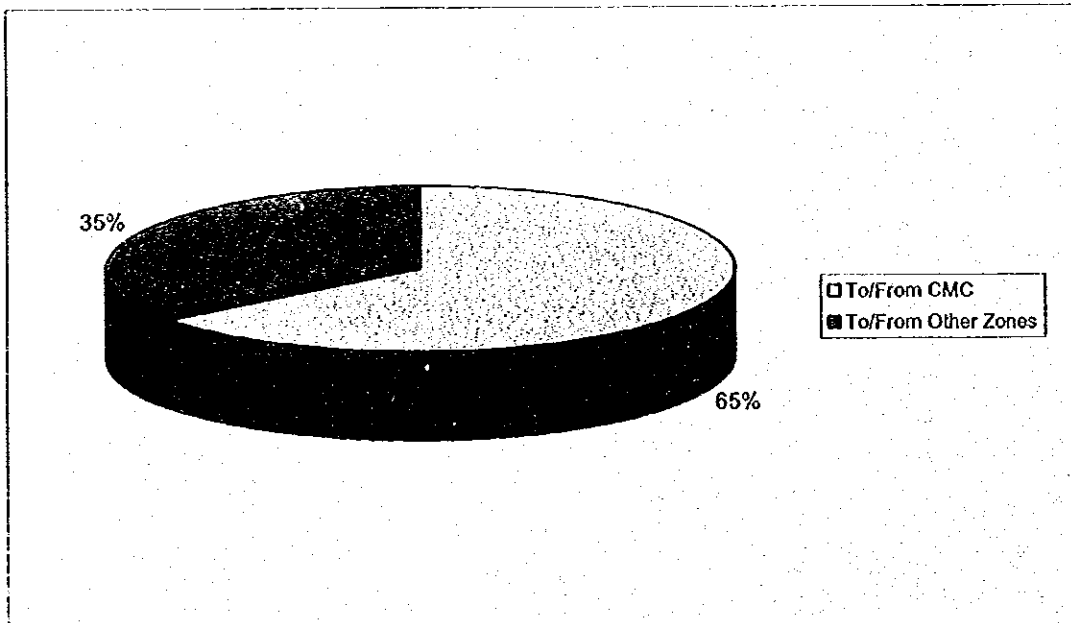
## **Site # 6**

### Passenger Vehicle Trip Generation/Attraction



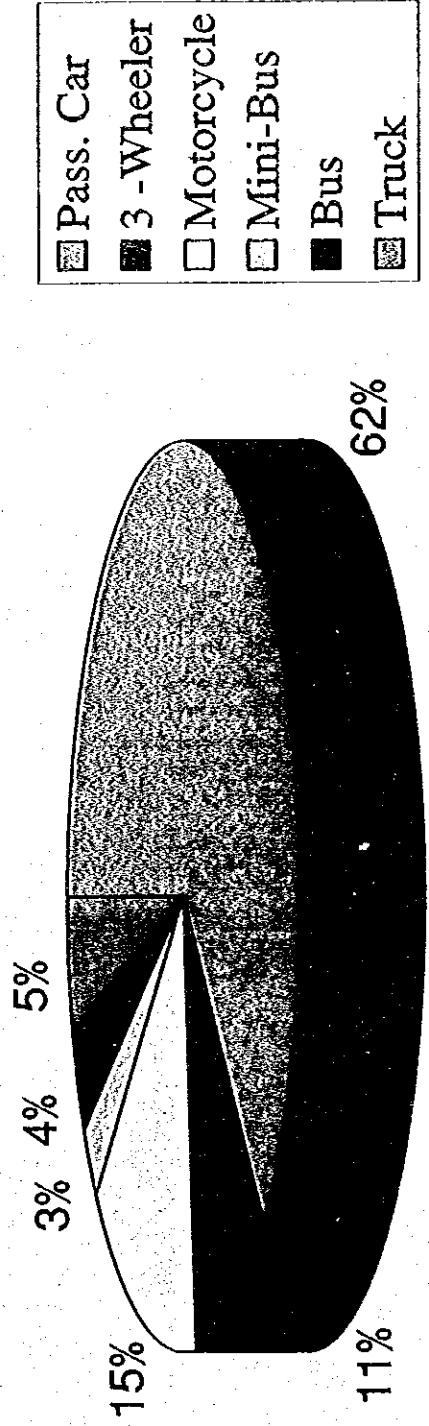
Number Of Samples : 1345  
Sampling Rate : 8.0%  
Avg Veh. Occupancy : 2.4

### Freight Vehicle Trip Generation/Attraction



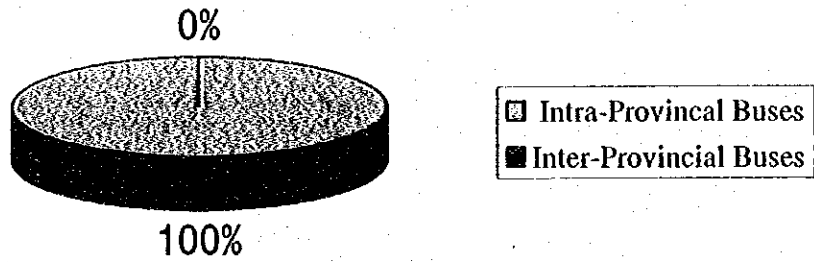
Number Of Samples : 366  
Sampling Rate : 43.5%  
Avg Veh. Occupancy : 2.3

# Road Vehicle Composition



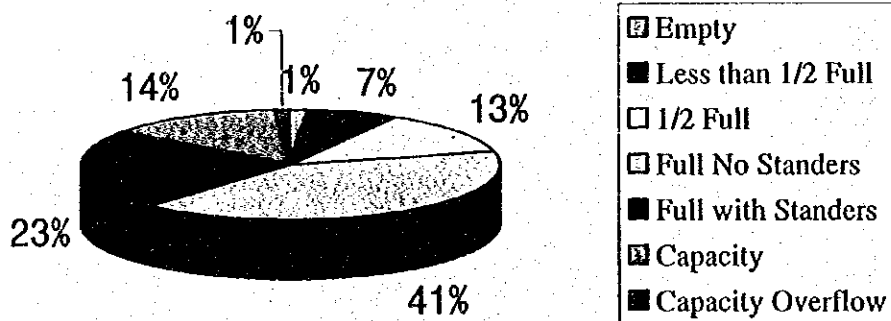
12-Hour Traffic Volume = 16,795  
(7am to 7pm)

### Intra-Provincial & Inter-Provincial Bus Travel



12-Hour (7am to 7pm) Sample

### Bus Passenger Load Status



12-Hour (7am to 7pm)



Traffic Volume Survey Extract

