

Quantity Assessment	#	#	#	#	SAMBURU NORTH/EAST	#	#	#	#	-
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Chainage:	10.0	10.2	10.4	10.6	10.8	11.0
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Input Measurements:	Free Clearance Width for Calculating areas												Aver. (m) 1 to 4 readings ^{*)}													
	12.5			13			12			12.5			13			11			12.5			13			12	
Bush Clearing	12.5	13	12	m	12.5	12	13	m	12	13	11	m	12.5	13	12	m	12.5	12	13	m						
Grass Cutting				m				m				m				m				m						
Grubbing	4	4	4	m	4	4	4	m	4	4	4	m	4	4	4	m	4	4	4	m						
Tree and stump removal	0			m	0			m	0			m	0			m	0			m						

^{*)} Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Measurements for small cut to fill:	Height of Cut / Differences in Levels for calculating volumes												Aver. (m) 1 to 4 readings ^{*)}							
	0			0			0			0			0			0				
Height of cut < 0.25m	0			cm	0			cm	0			cm	0			cm	0			cm

For Reshaping :	Difference in Level between Exist. Camber and Side Drain for calculating volumes																			
	0			0			0			0			0							
Existing Roads	0			cm	0			cm	0			cm	0			cm	0			cm

^{*)} Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Quantities:	Quantities									Total this page					
	100			100			200				100				
Bush Clearing	100	m2		100	m2		200	m2		100	m2		100		600
Grass Cutting		m2			m2			m2			m2				
Grubbing	1,400	m2		1,400	m2		1,400	m2		1,400	m2		1,400		7,000
Tree and stump removal	0	No.		0	No.		0	No.		0	No.		0		0

	Quantities									Total this page	
	m3 (insitu)			m3 (insitu)			m3 (insitu)				
Height of cut < 0.25m		m3 (insitu)			m3 (insitu)			m3 (insitu)			
Height of cut > 0.25m		m3 (insitu)			m3 (insitu)			m3 (insitu)		0	
Embankment		m3 (insitu)			m3 (insitu)			m3 (insitu)			
Drains full re-construction	238	m3 (insitu)	238	238	m3 (insitu)	238	238	m3 (insitu)	238	238	1,190
Reshaping by Labour		m3 (insitu)			m3 (insitu)			m3 (insitu)			
By Towed Grader/Labour		m3 (insitu)			m3 (insitu)			m3 (insitu)			
By Equipment Based Method		m3 (insitu)			m3 (insitu)			m3 (insitu)			

Data Collected by: Name: Date: Signature:

Quantity Assessment	#	#	#	SAMBURU NO	#	#	#	#	#	-
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Chainage:	11.0	11.2	11.4	11.6	11.8	12.0
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Input Measurements:	Free Clearance Width for Calculating areas												Aver. (m) 1 to 4 readings ^{*)}							
	Aver. (m) 1 to 4 readings ^{*)}			Aver. (m) 1 to 4 readings ^{*)}			Aver. (m) 1 to 4 readings ^{*)}			Aver. (m) 1 to 4 readings ^{*)}			Aver. (m) 1 to 4 readings ^{*)}							
Bush Clearing	12.5	13	12	m	12.5	12	13	m	12.5	13	12	m	12.5	13	12	m	12.5	13	12	m
Grass Cutting				m				m				m				m				m
Grubbing	6	6	6	m	7	7	7	m	6	6	6	m	5.5	5	6	m	6	6	6	m
Tree and stump removal	0			m	0			m	0			m	0			m	0			m

^{*)} Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Measurements for small cut to fill:	Height of Cut / Differences in Levels for calculating volumes												Aver. (m) 1 to 4 readings ^{*)}							
	Aver. (m) 1 to 4 readings ^{*)}			Aver. (m) 1 to 4 readings ^{*)}			Aver. (m) 1 to 4 readings ^{*)}			Aver. (m) 1 to 4 readings ^{*)}			Aver. (m) 1 to 4 readings ^{*)}							
Height of cut < 0.25m	0			cm	0			cm	0			cm	0			cm	0			cm

For Reshaping :	Difference in Level between Exist. Camber and Side Drain for calculating volumes												Aver. (m) 1 to 4 readings ^{*)}							
	Aver. (m) 1 to 4 readings ^{*)}			Aver. (m) 1 to 4 readings ^{*)}			Aver. (m) 1 to 4 readings ^{*)}			Aver. (m) 1 to 4 readings ^{*)}			Aver. (m) 1 to 4 readings ^{*)}							
Existing Roads	0			cm	0			cm	0			cm	0			cm	0			cm

^{*)} Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Quantities:	Quantities										Total this page
	Aver. (m) 1 to 4 readings ^{*)}		Aver. (m) 1 to 4 readings ^{*)}		Aver. (m) 1 to 4 readings ^{*)}		Aver. (m) 1 to 4 readings ^{*)}		Aver. (m) 1 to 4 readings ^{*)}		
Bush Clearing	100	m2	100	m2	100	m2	100	m2	100	m2	500
Grass Cutting		m2		m2		m2		m2		m2	
Grubbing	1,000	m2	800	m2	1,000	m2	1,100	m2	1,000	m2	4,900
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	No.	0

	Quantities										Total this page
	Aver. (m) 1 to 4 readings ^{*)}		Aver. (m) 1 to 4 readings ^{*)}		Aver. (m) 1 to 4 readings ^{*)}		Aver. (m) 1 to 4 readings ^{*)}		Aver. (m) 1 to 4 readings ^{*)}		
Height of cut < 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	
Height of cut > 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	0
Embankment		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	
Drains full re-construction	238	m3 (insitu)	238	m3 (insitu)	238	m3 (insitu)	238	m3 (insitu)	238	m3 (insitu)	1,190
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	
By Towed Grader/Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	
By Equipment Based Method		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	

Data Collected by: Name: Date: Signature:

Quantity Assessment # # # # **SAMBURU N** # # # # -

Chainage: 12.0 12.2 12.4 12.6 12.8 13.0

Input Measurements:	Free Clearance Width for Calculating areas												Aver. (m) 1 to 4 readings ^{*)}							
	12.0			12.2			12.4			12.6			12.8							
Bush Clearing	12.5	13	12	m	12.5	12	13	m	12.5	13	12	m	12.5	13	12	m	12.5	13	12	m
Grass Cutting				m				m				m				m				m
Grubbing	6	6	6	m	6	6	6	m	7	7	7	m	6	6	6	m	6	6	6	m
Tree and stump removal	0			m	0			m	0			m	0			m	0			m

^{*)} Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Measurements for small cut to fill:	Height of Cut / Differences in Levels for calculating volumes												Aver. (m) 1 to 4 readings ^{*)}							
	Height of cut < 0.25m	0			cm	0			cm	0			cm	0			cm	0		

For Reshaping :	Difference in Level between Exist. Camber and Side Drain for calculating volumes																			
	Existing Roads	0			cm	0			cm	0			cm	0			cm	0		

^{*)} Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Quantities:	Quantities									Total this page	
	Bush Clearing	100	m2	100	m2	100	m2	100	m2		100
Grass Cutting		m2		m2		m2		m2		m2	
Grubbing	1,000	m2	1,000	m2	800	m2	1,000	m2	1,000	m2	4,800
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	No.	0

	Quantities									Total this page	
	Height of cut < 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
Height of cut > 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	0
Embankment		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	
Drains full re-construction	238	m3 (insitu)	238	m3 (insitu)	238	m3 (insitu)	238	m3 (insitu)	238	m3 (insitu)	1,190
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	
By Towed Grader/Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	
By Equipment Based Method		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	

Data Collected by: Name: Date: Signature:

DETAILED IMPROVEMENT PLAN

Road Name: **BARAGOI-MASIKITA-SEREOLIPI** County **SAMBURU NORTH/EAST** From: **13+000** To: **14+000**

Chain-age	(Kilometres)		(metres)		
	13 + 0	13 + 100	13 + 200	13 + 300	
Road form.	Subgrade		RS	RS	
	Cross section		A	A	
Earth-works	Method: RES, ETL or FILL		RES	RES	
	Choice of reshaping: L, T or E		L/E	L/E	
	Volume of ETL or Fill (m3/m)				
Gra-vel	Total	Thickness (cm, comp.)	28	1	
	825	Source (quarry No.)	1	1	
Longitudinal gradient (in %)			-2		
Mitre drains	Total	Number left =			
	2	Number right =			
Catch water	Total	Length of drain left =			
	0	Length of drain right =			
Culverts	N	Chainage (m) = New line			
	Ex	= Existing line	13+110N		
	CD	= Cross drainage	CD		
	AC/D	= Access culvert/ drift			
	L/R	= Left/ right			
	Length (m)	Ø 450mm			
		Ø 600mm			
Ø 900mm		20			
Ramp	Earth fill (m3)				
	H. Concrete (m3)	IV			
Head-walls	Inlet (Material/Type)		1	1	
	Outlet (Material/Type)		1	1	
Scour Checks	HC	= Material this sheet/ Spacing left (m) =			
	7	= Spacing right (m) = =Total No. this sheet		15 15	
Additional Instruction as per Reference					

Quantity Assessment	#	#	#	#	SAMBURU NORTH/EAST	#	#	#	#	-
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Chainage:	13.0	13.2	13.4	13.6	13.8	14.0
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Input Measurements:	Free Clearance Width for Calculating areas												Aver. (m) 1 to 4 readings ¹⁾							
Bush Clearing	12.5	13	12	m	12	12	12	m	12	12	12	m	12	12	12	m	12.5	13	12	m
Grass Cutting				m				m				m				m				m
Grubbing	6	6	6	m	6.5	6	7	m	6	6	6	m	6	6	6	m	6.5	7	6	m
Tree and stump removal	0			m	0			m	0			m	0			m	0			m

¹⁾ Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Measurements for small cut to fill:	Height of Cut / Differences in Levels for calculating volumes												Aver. (m) 1 to 4 readings ¹⁾							
Height of cut < 0.25m	0			cm	0			cm	0			cm	0			cm	0			cm

For Reshaping :	Difference in Level between Exist. Camber and Side Drain for calculating volumes																			
Existing Roads	0			cm	0			cm	0			cm	0			cm	0			cm

¹⁾ Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Quantities:	Quantities									Total this page
Bush Clearing	100	m2	200	m2	200	m2	200	m2	100	800
Grass Cutting		m2		m2		m2		m2		
Grubbing	1,000	m2	900	m2	1,000	m2	1,000	m2	900	4,800
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	0

	Quantities									Total this page
Height of cut < 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
Height of cut > 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		0
Embankment		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
Drains full re-construction	238	m3 (insitu)	238	m3 (insitu)	238	m3 (insitu)	238	m3 (insitu)	238	1,190
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Towed Grader/Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Equipment Based Method		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		

Data Collected by: Name: Date: Signature:

DETAILED IMPROVEMENT PLAN

Road Name: BARAGOI-MASIKITA-SEREOLIPI

County SAMBURU NORTH/EAST From: 14+000 To: 15+000

Table with columns for Chain-age, Road form., Earth-works, Gra-vel, Mitre drains, Catch water, Culverts, Head-walls, and Scour Checks. Includes rows for subgrade and cross-section details, method (RES, ETL or FILL), choice of reshaping (L, T or E), volume of ETL or Fill (m3/m), longitudinal gradient (in %), and drainage details.

Quantity Assessment	#	#	#	#	SAMBURU NORTH/EAST	#	#	#	#	#
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Chainage:	14.0		14.2		14.4		14.6		14.8	15.0
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Input Measurements:	Free Clearance Width for Calculating areas												Aver. (m) 1 to 4 readings ^{*)}							
Bush Clearing	12.5	13	12	m	12.5	12	13	m	12.5	12	13	m	12.5	13	12	m	12.5	12	13	m
Grass Cutting				m				m				m				m				m
Grubbing	6	6	6	m	7	7	7	m	7	7	7	m	7	7	7	m	7	7	7	m
Tree and stump removal	0			m	0			m	0			m	0			m	0			m

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Measurements for small cut to fill:	Height of Cut / Differences in Levels for calculating volumes												Aver. (m) 1 to 4 readings ^{*)}							
Height of cut < 0.25m	0			cm	0			cm	0			cm	0			cm	0			cm

For Reshaping :	Difference in Level between Exist. Camber and Side Drain for calculating volumes												Aver. (m) 1 to 4 readings ^{*)}							
Existing Roads	0			cm	0			cm	0			cm	0			cm	0			cm

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Quantities:	Quantities								Total this page	
Bush Clearing	100	m2	100	m2	100	m2	100	m2	100	500
Grass Cutting		m2		m2		m2		m2		
Grubbing	1,000	m2	800	m2	800	m2	800	m2	800	4,200
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	0

	Quantities								Total this page	
Height of cut < 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
Height of cut > 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	0	
Embankment		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
Drains full re-construction	238	m3 (insitu)	238	m3 (insitu)	238	m3 (insitu)	238	m3 (insitu)	238	1,190
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Towed Grader/Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Equipment Based Method		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		

Data Collected by: Name: Date: Signature:

Quantity Assessment	#	#	SAMBURU NORTH/EAST	#	#	#	#	-
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Chainage:	15.0	15.2	15.4	15.6	15.8	16.0
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Input Measurements:	Aver. (m)	Free Clearance Width for Calculating areas												Aver. (m)						
		1 to 4 readings ^{*)}																		
Bush Clearing	12.5	13	12	m	12.5	12	13	m	12	11	13	m	12	13	11	m	12.5	12	13	m
Grass Cutting				m				m				m				m				m
Grubbing	6.5	6	7	m	6.5	6	7	m	6.5	7	6	m	6.5	7	6	m	7	7	7	m
Tree and stump removal	0			m	0			m	0			m	0			m	0			m

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Measurements for small cut to fill:	Aver. (m)	Height of Cut / Differences in Levels for calculating volumes												Aver. (m)						
		1 to 4 readings ^{*)}																		
Height of cut < 0.25m	0			cm	0			cm	0			cm	0			cm	0			cm

For Reshaping :	Difference in Level between Exist. Camber and Side Drain for calculating volumes																			
Existing Roads	0			cm	0			cm	0			cm	0			cm	0			cm

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Quantities:	Quantities								Total this page	
Bush Clearing	100	m2	100	m2	200	m2	200	m2	100	700
Grass Cutting		m2		m2		m2		m2		
Grubbing	900	m2	900	m2	900	m2	900	m2	800	4,400
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	0

Quantities	Quantities								Total this page	
Height of cut < 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
Height of cut > 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		0
Embankment		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
Drains full re-construction	238	m3 (insitu)	238	m3 (insitu)	238	m3 (insitu)	238	m3 (insitu)	238	1,190
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Towed Grader/Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Equipment Based Method		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		

Data Collected by: Name: Date: Signature:

Quantity Assessment	#	#	#	SAMBURU NORTH/EAST	#	#	#	#	-
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Chainage:	16.0	16.2	16.4	16.6	16.8	17.0
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Input Measurements:	Free Clearance Width for Calculating areas												Aver. (m) 1 to 4 readings ^{*)}													
	12.5			13			12			12.5			12			13			12.5			13			12	
Bush Clearing	12.5	13	12	m	12	13	11	m	12.5	12	13	m	12.5	13	12	m	12.5	13	12	m						
Grass Cutting				m				m				m				m				m						
Grubbing	6	6	6	m	6	6	6	m	11	11	11	m	11	11	11	m	11	11	11	m						
Tree and stump removal	0			m	0			m	0			m	0			m	0			m						

^{*)} Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Measurements for small cut to fill:	Height of Cut / Differences in Levels for calculating volumes												Aver. (m) 1 to 4 readings ^{*)}							
	0			0			0			0			0			0				
Height of cut < 0.25m	0			cm	0			cm	0			cm	0			cm	0			cm

For Reshaping :	Difference in Level between Exist. Camber and Side Drain for calculating volumes																			
	0			0			0			0			0							
Existing Roads	0			cm	0			cm	0			cm	0			cm	0			cm

^{*)} Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Quantities:	Quantities									Total this page
	100		200		100		100		100	
Bush Clearing	100	m2	200	m2	100	m2	100	m2	100	600
Grass Cutting		m2		m2		m2		m2		
Grubbing	1,000	m2	1,000	m2	0	m2	0	m2	0	2,000
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	0

	Quantities								Total this page
	m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
Height of cut < 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	
Height of cut > 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	0
Embankment		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	
Drains full re-construction	238	m3 (insitu)	238	m3 (insitu)	238	m3 (insitu)	238	m3 (insitu)	1,190
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	
By Towed Grader/Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	
By Equipment Based Method		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	

Data Collected by: Name: Date: Signature:

DETAILED IMPROVEMENT PLAN

Road Name: BARAGOI-MASIKITA-SEREOLIPI

CountySAMBURU NORTH/EAST From: 17+000 To: 18+000

Chain-age (kilometres) (metres)	Road form.	Subgrade		Earth-works		Gra- vel	Longitudinal gradient (in %)	Mitre drains	Catch water	Culverts					Head- walls	Scour Checks				
		Method: RES, ETL or FILL	Choice of reshaping: L, T or E	Volume of ETL or Fill (m3/m)	Total					Thickness (cm,comp.)	N	Ex	CD	AC/D			L/R	Ramp	Inlet (Material/Type)	Outlet (Material/Type)
17 + 0	NG	A	RES	L/E	28	28	0	0	0	17+000N										
	NG	A	RES	L/E																
	NG	A	RES	L/E																
	NG	A	RES	L/E																
17 + 100	NG	A	RES	L/E		28	0													
	NG	A	RES	L/E																
	NG	A	RES	L/E																
	NG	A	RES	L/E																
17 + 200	NG	A	RES	L/E		28	0				17+200N						10	IV	1	1
	NG	A	RES	L/E							CD									
	NG	A	RES	L/E																
	NG	A	RES	L/E																
17 + 300	NG	A	RES	L/E		28	3													
	NG	A	RES	L/E																
	NG	A	RES	L/E																
	NG	A	RES	L/E																
17 + 400	NG	A	RES	L/E		28	0					17+600N					10	IV	1	1
	NG	A	RES	L/E							CD									
	NG	A	RES	L/E																
	NG	A	RES	L/E																
	NG	A	RES	L/E																
17 + 500	NG	A	RES	L/E		23	8													
	NG	A	RES	L/E																
	NG	A	RES	L/E																
	NG	A	RES	L/E																
17 + 600	NG	A	RES	L/E		23	0													
	NG	A	RES	L/E																
	NG	A	RES	L/E																
	NG	A	RES	L/E																
	NG	A	RES	L/E																
17 + 700	NG	A	RES	L/E		23	8													
	NG	A	RES	L/E																
	NG	A	RES	L/E																
	NG	A	RES	L/E																
17 + 800	NG	A	RES	L/E		23	0													
	NG	A	RES	L/E																
	NG	A	RES	L/E																
	NG	A	RES	L/E																
17 + 900	NG	A	RES	L/E		23	-2				17+900N						10	IV	2	1
	NG	A	RES	L/E							CD									
	NG	A	RES	L/E																
	NG	A	RES	L/E																
18 + 0	NG	A	RES	L/E		23	0				18+000						10	IV	2	1
	NG	A	RES	L/E							CD									
	NG	A	RES	L/E																
	NG	A	RES	L/E																
	NG	A	RES	L/E																

Y JUNCTION

PROVIDE 10 NO. GABIONS

PROVIDE 25 NO. GABIONS ON RIGHT HAND SID

PROVIDE 20M DRIFT ON RIVER CROSSING

Additional Instruction as per Reference

Quantity Assessment	#	#	#	SAMBURU NORTH/EAST	#	#	#	#	#	-
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Chainage:	17.0	17.2	17.4	17.6	17.8	18.0
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Input Measurements:	Free Clearance Width for Calculating areas												Aver. (m) 1 to 4 readings ^{*)}							
	Aver. (m)	1	2	3	4	1	2	3	4	1	2	3	4	Aver. (m)	1	2	3	4		
Bush Clearing	12.5	13	12	m	12.5	13	12	m	12.5	13	12	m	12.5	13	12	m	12	11	13	m
Grass Cutting				m				m				m				m				m
Grubbing	10.5	10	11	m	10.5	10	11	m	10.5	10	11	m	10.5	10	11	m	10.5	10	11	m
Tree and stump removal	0			m	0			m	0			m	0			m	0			m

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Measurements for small cut to fill:	Height of Cut / Differences in Levels for calculating volumes												Aver. (m) 1 to 4 readings ^{*)}							
	Aver. (m)	1	2	3	4	1	2	3	4	1	2	3	4	Aver. (m)	1	2	3	4		
Height of cut < 0.25m	0			cm	0			cm	0			cm	0			cm	0			cm

For Reshaping :	Difference in Level between Exist. Camber and Side Drain for calculating volumes												Aver. (m) 1 to 4 readings ^{*)}							
	Aver. (m)	1	2	3	4	1	2	3	4	1	2	3	4	Aver. (m)	1	2	3	4		
Existing Roads	0			cm	0			cm	0			cm	0			cm	0			cm

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Quantities:	Quantities										Total this page
	1	2	3	4	1	2	3	4	1	2	
Bush Clearing	100	m2	100	m2	100	m2	100	m2	200	600	
Grass Cutting		m2		m2		m2		m2			
Grubbing	100	m2	100	m2	100	m2	100	m2	100	500	
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	0	

	Quantities										Total this page
	1	2	3	4	1	2	3	4	1	2	
Height of cut < 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)			
Height of cut > 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		0	
Embankment		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)			
Drains full re-construction	238	m3 (insitu)	238	m3 (insitu)	238	m3 (insitu)	238	m3 (insitu)	238	1,190	
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)			
By Towed Grader/Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)			
By Equipment Based Method		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)			

Data Collected by: Name: Date: Signature:

DETAILED IMPROVEMENT PLAN

Road Name: BARAGOI-MASIKITA-SEREOLIPI

CountySAMBURU NORTH/EAST From: 18+000 To: 19+000

Chain-age	(kilometres)		Road form.	Subgrade	Cross section	Method: RES, ETL or FILL	Choice of reshaping: L, T or E	Volume of ETL or Fill (m3/m)	Gra-vel	Longitudinal gradient (in %)	Mitre drains	Catch water	Culverts	Head-walls	Scour Checks
	(metres)														
19 + 0	18 + 0		NG	A	RES	RES	LE	23	1	6	6	0			15
	0														
18 + 100	18 + 100		NG	A	RES	RES	LE	23	1	-3					15
	100														
18 + 200	18 + 200		NG	A	RES	RES	LE	23	1	-3	1				15
	200														
18 + 300	18 + 300		NG	A	RES	RES	LE	23	1	-2					20
	300														
18 + 400	18 + 400		NG	A	RES	RES	LE	23	1	-5	1	1	18+400	10	20
	400														
18 + 500	18 + 500		NG	A	RES	RES	LE	23	1	-5	1	1			20
	500														
18 + 600	18 + 600		NG	A	RES	RES	LE	23	1	-6	1	1			15
	600														
18 + 700	18 + 700		NG	A	RES	RES	LE	23	1	0	0	18+690	CD	20	15
	700														
18 + 800	18 + 800		NG	A	RES	RES	LE	23	1	0	0	18+800	PROVIDE 20M DERIFT ON RIVER CROSSING		15
	800														
18 + 900	18 + 900		NG	A	RES	RES	LE	23	1	6	6	18+900	CD	20	15
	900														
19 + 0	19 + 0		NG	A	RES	RES	LE	23	1	6	6				15
	0														
Additional Instruction as per Reference															

Quantity Assessment	#	#	#	# SAMBURU NORTH/EAST	#	#	#	#	-
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Chainage:	18.0	18.2	18.4	18.6	18.8	19.0
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Input Measurements:	Free Clearance Width for Calculating areas												Aver. (m) 1 to 4 readings ^{*)}							
Bush Clearing	12.5	13	12	m	12.5	13	12	m	12	11	13	m	12.5	13	12	m	11.5	12	11	m
Grass Cutting				m				m				m				m				m
Grubbing	7	7	7	m	8	8	8	m	11	11	11	m	11	11	11	m	11	11	11	m
Tree and stump removal	0			m	0			m	0			m	0			m	0			m

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Measurements for small cut to fill:	Height of Cut / Differences in Levels for calculating volumes												Aver. (m) 1 to 4 readings ^{*)}							
Height of cut < 0.25m	0			cm	0			cm	0			cm	0			cm	0			cm

For Reshaping :	Difference in Level between Exist. Camber and Side Drain for calculating volumes																			
Existing Roads	0			cm	0			cm	0			cm	0			cm	0			cm

*) Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Quantities:	Quantities								Total this page	
Bush Clearing	100	m2	100	m2	200	m2	100	m2	300	800
Grass Cutting		m2		m2		m2		m2		
Grubbing	800	m2	600	m2	0	m2	0	m2	0	1,400
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	0

	Quantities								Total this page	
Height of cut < 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
Height of cut > 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		0
Embankment		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
Drains full re-construction	238	m3 (insitu)	238	m3 (insitu)	238	m3 (insitu)	238	m3 (insitu)	238	1,190
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Towed Grader/Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Equipment Based Method		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		

Data Collected by: Name: **Date:** **Signature:**

Quantity Assessment	#	#	#	#	SAMBURU NORTH/EAST	#	#	#	#	-
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Chainage:	19.0	19.2	19.4	19.6	19.8	20.0
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Input Measurements:	Free Clearance Width for Calculating areas												Aver. (m) 1 to 4 readings ¹⁾							
Bush Clearing	11.5	11	12	m	12.5	12	13	m	11	11	11	m	12	12	12	m	12.5	12	13	m
Grass Cutting				m				m				m				m				m
Grubbing	10.5	11	10	m	10.5	11	10	m	9.5	9	10	m	10.5	11	10	m	10	10	10	m
Tree and stump removal	0			m	0			m	0			m	0			m	0			m

¹⁾ Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Measurements for small cut to fill:	Height of Cut / Differences in Levels for calculating volumes												Aver. (m) 1 to 4 readings ¹⁾							
Height of cut < 0.25m	0			cm	0			cm	0			cm	0			cm	0			cm

For Reshaping :	Difference in Level between Exist. Camber and Side Drain for calculating volumes																			
Existing Roads	0			cm	0			cm	0			cm	0			cm	0			cm

¹⁾ Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).

Quantities:	Quantities								Total this page	
Bush Clearing	300	m2	100	m2	400	m2	200	m2	100	1,100
Grass Cutting		m2		m2		m2		m2		
Grubbing	100	m2	100	m2	300	m2	100	m2	200	800
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	0

	Quantities								Total this page	
Height of cut < 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
Height of cut > 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)	0	
Embankment		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
Drains full re-construction	238	m3 (insitu)	238	m3 (insitu)		m3 (insitu)	238	m3 (insitu)	238	952
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Towed Grader/Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
By Equipment Based Method		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		

Data Collected by: Name: **Date:** **Signature:**