

Quantity Assessment	#	#	#	#	SAMBURU NORTH/EAST	#	#	#	#	-
----------------------------	---	---	---	---	---------------------------	---	---	---	---	---

Chainage:	20.0	20.2	20.4	20.6	20.8	21.0
------------------	------	------	------	------	------	------

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		13	12	m	12.5		13	12	m	12		13	11	m	12		13	11	m
Grass Cutting					m					m					m					m					m
Grubbing	10.5		11	10	m	10.5		11	10	m	10.5		11	10	m	10.5		11	10	m	10.5		11	10	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	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	200	m2	200	m2	700
Grass Cutting		m2		m2		m2		m2		m2	
Grubbing	100	m2	100	m2	100	m2	100	m2	100	m2	500
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	No.	0

Quantities	Quantities										Total this page
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 NORTH/EAST	#	#	#	#	-
----------------------------	---	---	---	-----------------------------	---	---	---	---	---

Chainage:	21.0	21.2	21.4	21.6	21.8	22.0
------------------	------	------	------	------	------	------

Input Measurements:	Free Clearance Width for Calculating areas												Aver. (m) 1 to 4 readings ^{*)}							
Bush Clearing	12.5	13	12	m	12	13	11	m	12.5	13	12	m	12.5	13	12	m	12.5	13	12	m
Grass Cutting				m				m				m				m				m
Grubbing	10.5	11	10	m	10.5	11	10	m	10	10	10	m	10.5	11	10	m	10.5	11	10	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	200	m2	100	m2	100	m2	100	m2	600
Grass Cutting		m2		m2		m2		m2		m2	
Grubbing	100	m2	100	m2	200	m2	100	m2	100	m2	600
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)		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: 22+000 To: 23+000

Chain-age	(kilometres)	22 + 0	22 + 100	22 + 200	22 + 300	22 + 400	22 + 500	22 + 600	22 + 700	22 + 800	22 + 900	23 + 0	
	(metres)	0	100	200	300	400	500	600	700	800	900	0	
Road form.	Subgrade	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS	RS	
	Cross section	A	A	A	A	A	A	A	A	A	A	A	
Earth-works	Method: RES, ETL or FILL	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	
	Choice of reshaping: L, T or E	L/E	L/E	L/E	L/E	L/E	L/E	L/E	L/E	L/E	L/E	L/E	
	Volume of ETL or Fill (m3/m)												
Gra-vel	Total	15	15	15	15	15	15	15	15	15	15	1	
	Thickness (cm,comp.)	1	1	1	1	1	1	1	1	1	1	1	
	825	1	1	1	1	1	1	1	1	1	1	1	
	Source (quarry No.)												
Longitudinal gradient (in %)			0		5	0	2	-2	0	5	1	0	
Mitre drains	Total												
	5			1	1	1				1		1	
CATCH water	Total												
	0												
Culverts	N		22+100N						22+700N				
	Ex				22+300N								
	CD												
	AC/D												
	L/R												
	Length (m)	Ø 450mm											
		Ø 600mm											
Ø 900mm					8			8					
Ramp	Earth fill (m3)												
	H. Concrete (m3)					IV		IV					
Head-walls	Inlet (Material/Type)					1		1					
	Outlet (Material/Type)					1		1					
Scour Checks	HC			20						20			
	5	= Material this sheet/ Spacing left (m) =		20							20		
		= Spacing right (m) =			20								
Additional Instruction as per Reference			PROVIDE 15M LONG DRIFT ON CROSSING						PROVIDE 40M LONG DRIFT ON CROSSING				

Quantity Assessment	#	#	#	#	SAMBURU NORTH/EAST	#	#	#	#	#
----------------------------	---	---	---	---	---------------------------	---	---	---	---	---

Chainage:	22.0	22.2	22.4	22.6	22.8	23.0
------------------	------	------	------	------	------	------

Input Measurements:	Free Clearance Width for Calculating areas												Aver. (m) 1 to 4 readings ¹⁾							
Bush Clearing	12.5	13	12	m	12.5	12	13	m	12.5	13	12	m	12.5	12	13	m	12.5	12	13	m
Grass Cutting				m				m				m				m				m
Grubbing	10.5	11	10	m	10.5	10	11	m	10.5	11	10	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

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	100	m2	100	m2	100	m2	100	500
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	
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	#	#	#	#	-
---------------------	---	---	---	----------------------	---	---	---	---	---

Chainage:	23.0	23.2	23.4	23.6	23.8	24.0
------------------	------	------	------	------	------	------

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	12.5	13	12	m	12.5	12	13	m	12.5	12	13	m
Grass Cutting				m				m				m				m				m
Grubbing	10.5	11	10	m	10.5	11	10	m	10	10	10	m	10	10	10	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 ^{*)}							
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	m2	500
Grass Cutting		m2		m2		m2		m2		m2	
Grubbing	100	m2	100	m2	200	m2	200	m2	100	m2	700
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	No.	0

Quantities:	Quantities									Total this page	
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 NORTH/EAST	#	#	#	#	-
----------------------------	---	---	---	---	---------------------------	---	---	---	---	---

Chainage:	24.0	24.2	24.4	24.6	24.8	25.0
------------------	------	------	------	------	------	------

Input Measurements:	Free Clearance Width for Calculating areas												Aver. (m) 1 to 4 readings ^{*)}																																			
	12.5			13			12			12.5			12			13			12			13			11																							
Bush Clearing	12.5			13			12			m			12.5			12			13			m			12.5			12			13			m			12			13			11			m		
Grass Cutting										m												m																								m		
Grubbing	10.5			11			10			m			10.5			11			10			m			9			9			9			9			9			9			9			m		
Tree and stump removal	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			30			30			30			30			30			0																													
Height of cut < 0.25m	0			cm			30			cm			30			cm			30			cm			30			cm			30			cm			0									cm		

For Reshaping :	Difference in Level between Exist. Camber and Side Drain for calculating volumes																																															
	0			0			0			0			0			0																																
Existing Roads	0			cm			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		100		100		200	
Bush Clearing	100	m2	100	m2	100	m2	100	m2	200	600
Grass Cutting		m2		m2		m2		m2		
Grubbing	100	m2	100	m2	400	m2	400	m2	400	1,400
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	0

	Quantities								Total this page	
	0		120		150		120		0	
Height of cut < 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
Height of cut > 0.25m	0	m3 (insitu)	120	m3 (insitu)	150	m3 (insitu)	120	m3 (insitu)	0	390
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	#	#	#	#	-
----------------------------	---	---	---	---	---------------------------	---	---	---	---	---

Chainage:	25.0	25.2	25.4	25.6	25.8	26.0
------------------	------	------	------	------	------	------

Input Measurements:	Aver. (m)	Free Clearance Width for Calculating areas												Aver. (m)						
	1 to 4 readings ¹⁾													1 to 4 readings						
Bush Clearing	12.5	13	12	m	12.5	13	12	m	12	13	11	m	12	13	11	m	12.5	13	12	m
Grass Cutting				m				m				m				m				m
Grubbing	10.5	11	10	m	9.5	10	9	m	10.5	11	10	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

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:	Aver. (m)	Height of Cut / Differences in Levels for calculating volumes												Aver. (m)						
	1 to 4 readings ¹⁾													1 to 4 readings ¹⁾						
Height of cut < 0.25m	0			cm	0			cm	0			cm	50	50	50	cm	50	50	50	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	100	m2	200	m2	200	m2	100	700	
Grass Cutting		m2		m2		m2		m2			
Grubbing	100	m2	300	m2	100	m2	100	m2	100	700	
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	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	200	m3 (insitu)	200	400	
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: 26+000 To: 27+000

Chain-age	(kilometres)		(metres)		Road form.	Earth-works	Gra-vel	Mitre drains	Catch water	Culverts	Head-walls	Scour Checks	Additional Instruction as per Reference
	26 + 0	26 + 100	26 + 200	26 + 300									
	Subgrade	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
	Cross section	A	A	A	A	A	A	A	A	A	A	A	A
	Method: RES, ETL or FILL	ETL	ETL	ETL	RES	RES	RES	RES	RES	RES	RES	RES	RES
	Choice of reshaping: L, T or E	VE	VE	VE	VE	VE	VE	VE	VE	VE	VE	VE	VE
	Volume of ETL or Fill (m3/m)												
	Total	15	15	15	15	15	15	15	15	15	15	15	15
	Thickness (cm, comp.)	1	1	1	1	1	1	1	1	1	1	1	1
	825	1	1	1	1	1	1	1	1	1	1	1	1
	Source (quarry No.)												
	Longitudinal gradient (in %)												
			-4	4	3	4	4	5	0	-4	2	2	
	Total												
	5												
	Number left =												
	Number right =												
	Total												
	0												
	Length of drain left =												
	Length of drain right =												
	N												
	Ex												
	CD												
	AC/D												
	L/R												
	Length (m)												
	Ø 450mm												
	Ø 600mm												
	Ø 900mm												
	Ramp												
	Earth fill (m3)												
	H. Concrete (m3)												
	Inlet (Material/Type)												
	Outlet (Material/Type)												
	HC												
	3												
	= Material this sheet/ Spacing left (m) =												
	= Spacing right (m) =												
	= Total No. this sheet												
	Additional Instruction as per Reference												

Quantity Assessment	#	#	#	#	SAMBURU NORTH/EAST	#	#	#	#	-
---------------------	---	---	---	---	--------------------	---	---	---	---	---

Chainage:	26.0	26.2	26.4	26.6	26.8	27.0
-----------	------	------	------	------	------	------

Input Measurements:	Free Clearance Width for Calculating areas												Aver. (m) 1 to 4 readings ^{*)}							
Bush Clearing	12.5	13	12	m	11.5	12	11	m	12	13	11	m	12.5	12	13	m	12.5	12	13	m
Grass Cutting				m				m				m				m				m
Grubbing	10	10	10	m	10	11	9	m	10.5	11	10	m	10.5	10	11	m	10.5	11	10	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	50	50	50	cm	50	50	50	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	300	m2	200	m2	100	m2	100	800
Grass Cutting		m2		m2		m2		m2		
Grubbing	200	m2	200	m2	100	m2	100	m2	100	700
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	250	m3 (insitu)	250	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	500
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	#	#	#	#	-
---------------------	---	---	---	---	--------------------	---	---	---	---	---

Chainage:	27.0	27.2	27.4	27.6	27.8	28.0
-----------	------	------	------	------	------	------

Input Measurements:	Free Clearance Width for Calculating areas												Aver. (m) 1 to 4 readings ¹⁾							
	Aver. (m) 1 to 4 readings ¹⁾			Aver. (m) 1 to 4 readings ¹⁾			Aver. (m) 1 to 4 readings ¹⁾			Aver. (m) 1 to 4 readings ¹⁾			Aver. (m) 1 to 4 readings ¹⁾							
Bush Clearing	12.5	13	12	m	11.5	10	13	m	12.5	13	12	m	12	11	13	m	12.5	13	12	m
Grass Cutting				m				m				m				m				m
Grubbing	10.5	11	10	m	10.5	11	10	m	10.5	11	10	m	10	10	10	m	10.5	10	11	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⁾							
	Aver. (m) 1 to 4 readings ¹⁾			Aver. (m) 1 to 4 readings ¹⁾			Aver. (m) 1 to 4 readings ¹⁾			Aver. (m) 1 to 4 readings ¹⁾			Aver. (m) 1 to 4 readings ¹⁾							
Height of cut < 0.25m	0			cm	50	50	50	cm	80	80	80	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 ¹⁾							
	Aver. (m) 1 to 4 readings ¹⁾			Aver. (m) 1 to 4 readings ¹⁾			Aver. (m) 1 to 4 readings ¹⁾			Aver. (m) 1 to 4 readings ¹⁾			Aver. (m) 1 to 4 readings ¹⁾							
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	
	Aver. (m) 1 to 4 readings ¹⁾		Aver. (m) 1 to 4 readings ¹⁾		Aver. (m) 1 to 4 readings ¹⁾		Aver. (m) 1 to 4 readings ¹⁾			
Bush Clearing	100	m2	300	m2	100	m2	200	m2	100	800
Grass Cutting		m2		m2		m2		m2		
Grubbing	100	m2	100	m2	100	m2	200	m2	100	600
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	0

	Quantities								Total this page	
	Aver. (m) 1 to 4 readings ¹⁾		Aver. (m) 1 to 4 readings ¹⁾		Aver. (m) 1 to 4 readings ¹⁾		Aver. (m) 1 to 4 readings ¹⁾			
Height of cut < 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
Height of cut > 0.25m	0	m3 (insitu)	200	m3 (insitu)	320	m3 (insitu)	0	m3 (insitu)	0	520
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	#	#	#	#	-
---------------------	---	---	---	---	--------------------	---	---	---	---	---

Chainage:	28.0	28.2	28.4	28.6	28.8	29.0
-----------	------	------	------	------	------	------

Input Measurements:	Free Clearance Width for Calculating areas												Aver. (m) 1 to 4 readings ¹⁾							
Bush Clearing	12	12	12	m	12.5	12	13	m	12.5	12	13	m	12.5	12	13	m	12	12	12	m
Grass Cutting				m				m				m				m				m
Grubbing	10.5	11	10	m	10.5	11	10	m	10.5	11	10	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

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	200	m2	100	m2	100	m2	100	m2	200	700
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
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: 29+000 To: 30+000

Chain-age	(kilometres)		Road Form.	Subgrade	Cross section	Earth-works	Gra-vel	Mitre drains	Catch water	Culverts	Head-walls	Scour Checks	Additional Instruction as per Reference
	(metres)												
30 + 0	29 + 0	0	NG A	RES	RES	RES	1	1	0	CD	IV	1	1
29 + 900	29 + 100	100	NG A	RES	RES	RES	1	1	5	CD	IV	1	1
29 + 200	29 + 200	200	NG A	RES	RES	RES	1	1	-3	CD	IV	1	1
29 + 300	29 + 300	300	NG A	RES	RES	RES	1	1	-3	CD	IV	1	1
29 + 400	29 + 400	400	NG A	RES	RES	RES	1	1	-4	CD	IV	1	1
29 + 500	29 + 500	500	NG A	RES	RES	RES	1	1	-4	CD	IV	1	1
29 + 600	29 + 600	600	NG A	RES	RES	RES	1	1	-4	CD	IV	1	1
29 + 700	29 + 700	700	NG A	RES	RES	RES	1	1	-2	CD	IV	1	1
29 + 800	29 + 800	800	NG A	RES	RES	RES	1	1	0	CD	IV	1	1
29 + 900	29 + 900	900	NG A	RES	RES	RES	1	1	5	CD	IV	1	1
30 + 0	30 + 0	0	NG A	RES	RES	RES	1	1	0	CD	IV	1	1
PROVIDE A 15M LONG DRIFT													

Quantity Assessment	#	#	#	#	SAMBURU NORTH/EAST	#	#	#	#	-
---------------------	---	---	---	---	--------------------	---	---	---	---	---

Chainage:	29.0	29.2	29.4	29.6	29.8	30.0
-----------	------	------	------	------	------	------

Input Measurements:	Free Clearance Width for Calculating areas												Aver. (m) 1 to 4 readings ¹⁾							
	Aver. (m) 1 to 4 readings ¹⁾			m			m			m			m			m				
Bush Clearing	12	12	12	m	12.5	12	13	m	12.5	12	13	m	12.5	12	13	m	12.5	13	12	m
Grass Cutting				m				m				m				m				m
Grubbing	10.5	11	10	m	10.5	11	10	m	10.5	10	11	m	10.5	11	10	m	10.5	10	11	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⁾							
	Aver. (m) 1 to 4 readings ¹⁾			cm			cm			cm			cm							
Height of cut < 0.25m	80	80	80	cm	0			cm	0			cm	50	50	50	cm	0			cm

For Reshaping :	Difference in Level between Exist. Camber and Side Drain for calculating volumes												Aver. (m) 1 to 4 readings ¹⁾							
	cm			cm			cm			cm			cm							
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
	m2		m2		m2		m2		
Bush Clearing	200		100		100		100		600
Grass Cutting									
Grubbing	100		100		100		100		500
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0

	Quantities								Total this page
	m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
Height of cut < 0.25m									
Height of cut > 0.25m	320		0		0		250		570
Embankment									
Drains full re-construction	238		238		238		238		1,190
Reshaping by Labour									
By Towed Grader/Labour									
By Equipment Based Method									

Data Collected by: Name: Date: Signature: