DETAILED IMPROVEMENT PLAN

Road Name BARAGOI-MASIKITA-SEREOLIPI **County** SAMBURU **From:** 40+000 **To:** 41+000

Chain-age (kilometres) (metres)	40 + 0				40 + 100				40 + 200				40 + 300				40 + 400				40 + 500				40 + 600				40 + 700				40 + 800				40 + 900			41 + 0
Road form. Subgrade	BG	BG	BG	BG					BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG
Road form. Cross section	E	E	E	E	Drift				F	F	F	F	E	E	E	E	E	E	E	E	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	A	A	A	A
Earth-works Method: RES, ETL or FILL	RES	RES	RES	RES					RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES
Earth-works Choice of reshaping: L, T or E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
Earth-works Volume of ETL or Fill (m3/m)																																								
Gra-vel Total Thickness (cm,comp.)																																								
Gra-vel Source (quarry No.)																																								
Longitudinal gradient (in %)	-7				-5				5				-1				0				-1				-2				2				-3				-5			
Mitre drains Total 2 Number left =		1																																						
Mitre drains Number right =		1																																						
Catch water Total 0 Length of drain left =																																								
Catch water Length of drain right =																																								
Culverts Chainage (m) N = New line, Ex = Existing line														40+300 N										40+500 N				40+630 N														
Culverts CD = Cross drainage														CD										CD				CD														
Culverts AC/D = Access culvert/ drift																																								
Culverts L/R = Left/ right																																								
Culverts Length (m) Ø 450mm																																								
Culverts Length (m) Ø 600mm																																								
Culverts Length (m) Ø 900mm														8										8				16														
Culverts Ramp Earth fill (m3)																																								
Culverts Ramp H. Concrete (m3)														IV										IV				IV														
Head-walls Inlet (Material/Type)														I										I				I														
Head-walls Outlet (Material/Type)														I										I				I														
Scour Checks HC = Material this sheet/ Spacing left (m) =	15				20				20																												20			
Scour Checks 43 Spacing right (m) = =Total No. this sheet	15				20				20																												20			
Additional Instruction as per Reference							100m Concrete Road																																	

Chainage:	40+000	40+200	40+400	40+600	40+800	41+000

Input Measurements: — **Free Clearance Width for Calculating areas**

	40+000 Aver. (m)	40+000 1 to 4 readings*)	40+200	40+400	40+600	40+800 Aver. (m)	40+800 1 to 4 readings
Bush Clearing	6	6 0 0 0	6	6	6	4	4 0 0 0
Grass Cutting							
Grubbing	6	6 0 0 0	6	6	6	4	4 0 0 0
Tree and stump removal	0		0	0	0	3	2 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).

Cross Section Sketch

Measurements for small cut to fill: — **Height of Cut / Differences in Levels for calculating volumes**

	40+000 Aver. (m)	40+000 1 to 4 readings*)	40+200	40+400	40+600	40+800 Aver. (m)	40+800 1 to 4 readings*)
Height of cut < 0.25m	0	0	0	0 0	0	0	0 0
Height of cut > 0.25m	0	0	0	0 0	0	0	0 0

For Reshaping : — **Difference in Level between Exist. Camber and Side Drain for calculating volumes**

	40+000 Aver. (m)	40+000 1 to 4 readings*)	40+200	40+400	40+600	40+800 Aver. (m)	40+800 1 to 4 readings*)
Existing Roads	0	0	0	0	0	0	
Sloping							

*) 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**

	40+000	40+200	40+400	40+600	40+800	Total this page
Bush Clearing	1,400 m2	1,400 m2	1,400 m2	1,400 m2	1,800	**7,400**
Grass Cutting	m2	m2	m2	m2		
Grubbing	1,400 m2	1,400 m2	1,400 m2	1,400 m2	1,800	**7,400**
Tree and stump removal	0 No.	0 No.	0 No.	0 No.	3	**3**

Quantities

	40+000	40+200	40+400	40+600	40+800	Total this page
Height of cut < 0.25m	0 m3 (insitu)	0 m3 (insitu)	0 m3 (insitu)	0 m3 (insitu)	0	**0**
Height of cut > 0.25m	0 m3 (insitu)	0 m3 (insitu)	0 m3 (insitu)	0 m3 (insitu)	0	**0**
Embankment	m3 (insitu)	m3 (insitu)	m3 (insitu)	m3 (insitu)		**0**
Drains full re-construction	121 m3 (insitu)	208 m3 (insitu)	208 m3 (insitu)	175 m3 (insitu)	208	**920**
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 **From:** 41+000 **To:** 42+000

Chain-age (kilometres) (metres)	41 + 0				41 + 100				41 + 200				41 + 300				41 + 400				41 + 500				41 + 600				41 + 700				41 + 800				41 + 900			42 + 0
Road form. Subgrade	QG	QG	QG	QG	QG	QG	QG	QG	QG	QG	QG	QG	QG	QG	QG	QG	QG	QG	QG	QG	QG	QG	QG	QG					QG	QG	QG	QG	QG	QG	QG	QG	QG	QG	QG	QG
Road form. Cross section	A	A	A	A	A	A	A	A	G	G	G	G	G	G	G	G	F	F	F	F	E	E	E	E	Drift				G	G	G	G	G	G	G	G	G	G	G	G
Earth-works Method: RES, ETL or FILL	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES					RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES
Earth-works Choice of reshaping: L, T or E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
Earth-works Volume of ETL or Fill (m3/m)																																								
Gra-vel Total Thickness (cm,comp.)																																								
Gra-vel Source (quarry No.)																																								
Longitudinal gradient (in %)	-2				-3				-5				-7				8				7				10				10				2				2			
Mitre drains Total 15 Number left =		1				1				1																				1				1				1		
Mitre drains Number right =		1				1				1				1				1				1								1				1				1		
Catch water Total 0 Length of drain left =																																								
Catch water Length of drain right =																																								
Culverts Chainage (m) N = New line, Ex = Existing line																		41+410 N									41+680 N													
Culverts CD = Cross drainage																		CD										CD													
Culverts AC/D = Access culvert/ drift																																								
Culverts L/R = Left/ right																																								
Culverts Length (m) Ø 450mm																																								
Culverts Length (m) Ø 600mm																																								
Culverts Length (m) Ø 900mm																		8										8													
Culverts Ramp Earth fill (m3)																																								
Culverts Ramp H. Concrete (m3)																		IV										IV													
Head-walls Inlet (Material/Type)																		I										I													
Head-walls Outlet (Material/Type)																		I										I													
Scour Checks HC = Material this sheet/ Spacing left (m) =									20				15				10				15				5				5											
Scour Checks 137 Spacing right (m) = =Total No. this sheet									20				15				10				15				5				5											
Additional Instruction as per Reference																											100m Concrete Road													

Chainage:	41+000	41+200	41+400	41+600	41+800	42+000

Free Clearance Width for Calculating areas

Input Measurements:	Aver. (m)	1 to 4 readings*)	41+000	41+200	41+400	41+600	41+800	Aver. (m)	1 to 4 readings
Bush Clearing	6	6 0 0 0	6 m	6 6 0 0 0 m	6 6 0 0 0 m	6 6 0 0 0 m	6 6 0 0 0 m	6	6 0 0 0 m
Grass Cutting			m	m	m	m	m		m
Grubbing	6	6 0 0 0	6 m	6 6 0 0 0 m	6 6 0 0 0 m	6 6 0 0 0 m	6 6 0 0 0 m	6	6 0 0 0 m
Tree and stump removal	0		0 m	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).

Cross Section Sketch	-	-	-	-	-

Height of Cut / Differences in Levels for calculating volumes

Measurements for small cut to fill:	Aver. (m)	1 to 4 readings*)	41+000	41+200	41+400	41+600	41+800	Aver. (m)	1 to 4 readings*)
Height of cut < 0.25m	0	0	0 cm	0 cm	0 0 cm	0 0 cm	0 0 cm	0	0 0 cm
Height of cut > 0.25m	0	0	0 cm	0 cm	0 0 cm	0 0 cm	0 0 cm	0	0 0 cm
For Reshaping :			**Difference in Level between Exist. Camber and Side Drain for calculating volumes**						
Existing Roads	0	0	0 cm	0 0 cm	0 cm	0 cm	0 cm	0	cm
Sloping			cm	cm	cm	cm	cm		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:	41+000		41+200		41+400		41+600		41+800	Total this page
Bush Clearing	1,400	m2	1,400	m2	1,400	m2	1,400	m2	1,400	**7,000**
Grass Cutting		m2		m2		m2		m2		
Grubbing	1,000	m2	1,000	m2	1,000	m2	1,000	m2	1,000	**5,000**
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	**0**

Quantities

	41+000		41+200		41+400		41+600		41+800	Total this page
Height of cut < 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	**0**
Height of cut > 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	**0**
Embankment		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		
Drains full re-construction	242	m3 (insitu)	108	m3 (insitu)	208	m3 (insitu)	54	m3 (insitu)	108	**720**
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 **From:** 42+000 **To:** 43+000

Chain-age (kilometres) (metres)	42+0				42+100				42+200				42+300				42+400				42+500				42+600				42+700				42+800				42+900			43+0
Road form. Subgrade	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG
Road form. Cross section	F	F	F	F	F	F	F	F	F	F	F	F	G	G	G	G	E	E	E	E	E	E	E	E	G	G	G	G	G	G	G	G	F	F	F	F	G	G	G	G
Earth-works Method: RES, ETL or FILL	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES
Earth-works Choice of reshaping: L, T or E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
Earth-works Volume of ETL or Fill (m3/m)																																								
Gra-vel Total Thickness (cm,comp.)																																								
Gra-vel Source (quarry No.)																																								
Longitudinal gradient (in %)	12				4				4				4				-4				-2				-4				-6				-2				-2			
Mitre drains Total 9 Number left =		1								1								1								1				1										
Mitre drains Number right =										1								1								1				1										
Catch water Total 0 Length of drain left =																																								
Catch water Length of drain right =																																								
Culverts Chainage (m) = N New line / Ex = Existing line										42+200 N																								42+800 N						
Culverts CD = Cross drainage										CD																								CD						
Culverts AC/D = Access culvert/ drift																																								
Culverts L/R = Left/ right																																								
Culverts Length (m) Ø 450mm																																								
Culverts Length (m) Ø 600mm																																								
Culverts Length (m) Ø 900mm										8																								8						
Culverts Ramp Earth fill (m3)																																								
Culverts Ramp H. Concrete (m3)										IV																								IV						
Head-walls Inlet (Material/Type)										I																								I						
Head-walls Outlet (Material/Type)										I																								I						
Scour Checks HC = Material this sheet/ Spacing left (m) =	8																												15											
Scour Checks 38 Spacing right (m) = =Total No. this sheet	8																												15											
Additional Instruction as per Reference																																								

Chainage:	42+000	42+200	42+400	42+600	42+800	43+000

Free Clearance Width for Calculating areas

Input Measurements:	Aver. (m)	1 to 4 readings*)	42+000	42+200	42+400	42+600	42+800	Aver. (m)	1 to 4 readings
Bush Clearing	6	6 0 0 0	6	6 0 0 0	6	6 0 0 0	6 0 0 0	6	6 0 0 0
Grass Cutting									
Grubbing	6	6 0 0 0	6	6 0 0 0	6	6 0 0 0	6 0 0 0	6	6 0 0 0
Tree and stump removal	0		0		0			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).

Cross Section Sketch - - - - -

Height of Cut / Differences in Levels for calculating volumes

Measurements for small cut to fill:	Aver. (m)	1 to 4 readings*)	42+000	42+200	42+400	42+600	42+800	Aver. (m)	1 to 4 readings*)
Height of cut < 0.25m	0	0	0	0	0 0 0	0 0 0	0	0	0 0 0
Height of cut > 0.25m	0	0	0	0	0 0 0	0 0 0	0	0	0 0 0
For Reshaping :									
Existing Roads	0	0	0	0	0	0	0	0	
Sloping									

*) 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:	42+000	42+200	42+400	42+600	42+800	Total this page
Bush Clearing	1,400 m2	1,400 m2	1,400 m2	1,400 m2	1,400	**7,000**
Grass Cutting	m2	m2	m2	m2		
Grubbing	1,000 m2	1,000 m2	1,000 m2	1,000 m2	1,000	**5,000**
Tree and stump removal	0 No.	0 No.	0 No.	0 No.	0	**0**

Quantities

	42+000	42+200	42+400	42+600	42+800	Total this page
Height of cut < 0.25m	0 m3 (insitu)	0 m3 (insitu)	0 m3 (insitu)	0 m3 (insitu)	0	**0**
Height of cut > 0.25m	0 m3 (insitu)	0 m3 (insitu)	0 m3 (insitu)	0 m3 (insitu)	0	**0**
Embankment	m3 (insitu)	m3 (insitu)	m3 (insitu)	m3 (insitu)		
Drains full re-construction	175 m3 (insitu)	141 m3 (insitu)	242 m3 (insitu)	108 m3 (insitu)	141	**807**
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 **From:** 43+000 **To:** 44+000

Chain-age	(kilometres)		43 + 0				43 + 100				43 + 200				43 + 300				43 + 400				43 + 500				43 + 600				43 + 700				43 + 800				43 + 900				44 + 0
	(metres)																																									
Road form.	Subgrade		BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG	BG
	Cross section		G	G	G	G	E	E	E	E	G	G	G	G	F	F	F	F	F	F	F	F	F	F	F	F	E	E	E	E	E	E	E	E	E	E	E	E	E
Earth-works	Method: RES, ETL or FILL		RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	RES	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL
	Choice of reshaping: L, T or E		E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
	Volume of ETL or Fill (m3/m)																																						
Gra-vel	Total	Thickness (cm,comp.)																																					
		Source (quarry No.)																																					
Longitudinal gradient (in %)			-4				-1				-7				-7				-7				-7				-7				-7				-1				-1			
Mitre drains	Total	Number left =										1				1																								
	6	Number right =										1				1				1								1												
Catch water	Total	Length of drain left =																																					
	0	Length of drain right =																																					
Culverts	N	Chainage (m) = New line		43+070 N												43+350 N				43+400 N				43+500 N								43+700 N						43+840 N	43+870 N				
	Ex	= Existing line																																					
	CD	= Cross drainage		CD												CD				CD				CD								CD						CD	CD				
	AC/D	= Access culvert/ drift																																					
	L/R	= Left/ right																																					
	Length (m)	Ø 450mm																																					
		Ø 600mm																																					
		Ø 900mm		8												8				8				8								8						8	8				
	Ramp	Earth fill (m3)																																					
		H. Concrete (m3)		IV												IV				IV				IV								IV						IV	IV				
Head-walls	Inlet (Material/Type)			I												I				I				I								I						I	I				
	Outlet (Material/Type)			I												I				I				I								I						I	I				
Scour Checks	HC	= Material this sheet/ Spacing left (m) =									15				15				15				15				15				15											
	80	Spacing right (m) = =Total No. this sheet									15				15				15				15				15				15											
Additional Instruction as per Reference																																									

Chainage:	43+000						43+200						43+400						43+600						43+800						44+000
Input Measurements:	Aver. (m)	1 to 4 readings*)											**Free Clearance Width for Calculating areas**												Aver. (m)	1 to 4 readings					
Bush Clearing	6	6	0	0	0	m	6	6	0	0	0	m	4	4	0	0	0	m	4	4	0	0	0	m	4	4	0	0	0	m	
Grass Cutting						m						m						m						m						m	
Grubbing	6	6	0	0	0	m	6	6	0	0	0	m	4	4	0	0	0	m	4	4	0	0	0	m	4	4	0	0	0	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).																															
Cross Section Sketch	-						-						-						-						5.40						
Measurements for small cut to fill:	Aver. (m)	1 to 4 readings*)											**Height of Cut / Differences in Levels for calculating volumes**												Aver. (m)	1 to 4 readings*)					
Height of cut < 0.25m	0	0				cm	0					cm	0		0		0	cm	0		0		0	cm	7.5		5		10	cm	
Height of cut > 0.25m	0	0				cm	0					cm	0		0		0	cm	0		0		0	cm	7.5		5		10	cm	
For Reshaping :	**Difference in Level between Exist. Camber and Side Drain for calculating volumes**																														
Existing Roads	0	0				cm	0	0				cm	0					cm	0					cm	0					cm	
Sloping						cm						cm						cm						cm						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	1,400	m2	1,400	m2	1,800	m2	1,800	m2	1,800	**8,200**
Grass Cutting		m2		m2		m2		m2		
Grubbing	1,000	m2	1,000	m2	1,400	m2	1,400	m2	1,400	**6,200**
Tree and stump removal	0	No.	0	No.	0	No.	0	No.	0	**0**

	Quantities									Total this page
Height of cut < 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	81	**81**
Height of cut > 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	81	**81**
Embankment		m3 (insitu)	189	m3 (insitu)	378	m3 (insitu)	378	m3 (insitu)	378	**1,323**
Drains full re-construction	175	m3 (insitu)	141	m3 (insitu)	175	m3 (insitu)	242	m3 (insitu)	242	**974**
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 **From:** 43+000 **To:** 44+000

Chain-age		(kilometres)	44 +				44 + 100				44 + 200				44 + 300				44 + 400				44 + 500				44 + 600				44 + 700				44 + 800				44 + 900			45 + 0
		(metres)	0																																						
Road form.		Subgrade	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS							
		Cross section	G	G	G	G		Drift		Drift			Drift			Channel			G	G	G	G	E	E	E	E	E	E	E	E	Concrete Road				Drift							
Earth-works		Method: RES, ETL or FILL	FILL	FILL	FILL	FILL													FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL											
		Choice of reshaping: L, T or E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
		Volume of ETL or Fill (m3/m)																																							
Gra-vel	Total	Thickness (cm,comp.)																																							
		Source (quarry No.)																																							
		Longitudinal gradient (in %)	-2				-1				-1				0				1				1				1				0				0				0			
Mitre drains	Total	Number left =																																							
	0	Number right =																																							
Catch water	Total	Length of drain left =																																							
	0	Length of drain right =																																							
Culverts		Chainage (m) = New line	44+020	44+020																																					
	N		N	N																																					
	Ex	= Existing line																																							
	CD	= Cross drainage	CD	CD																																					
	AC/D	= Access culvert/ drift																																							
	L/R	= Left/ right																																							
	Length (m)	Ø 450mm																																							
		Ø 600mm																																							
		Ø 900mm	8	8																																					
	Ramp	Earth fill (m3)																																							
		H. Concrete (m3)	IV	IV																																					
Head-walls		Inlet (Material/Type)	I	I																																					
		Outlet (Material/Type)	I	I																																					
Scour Checks	HC	= Material this sheet/ Spacing left (m) =																																							
	0	Spacing right (m) = =Total No. this sheet																																							
Additional Instruction as per Reference																																								

Quantity Assessment	BARAGOI-MASIKITA-SEREOLIPI	County:	SAMBURU	From:	43+000	To:	44+000	pg	14

Chainage:	43+000	43+200	43+400	43+600	43+800	44+000

Input Measurements: — **Free Clearance Width for Calculating areas**

	43+000 Aver. (m)	43+000 1 to 4 readings*)	43+200 Aver. (m)	43+200 1 to 4 readings	43+400 Aver. (m)	43+400 1 to 4 readings	43+600 Aver. (m)	43+600 1 to 4 readings	43+800 Aver. (m)	43+800 1 to 4 readings
Bush Clearing	6	6 0 0 0	6	6 0 0 0	4	4 0 0 0	6	6 0 0 0	6	6 0 0 0
Grass Cutting										
Grubbing	6	6 0 0 0	6	6 0 0 0	4	4 0 0 0	6	6 0 0 0	6	6 0 0 0
Tree and stump removal	0		0		0		4	4	2	2

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

Cross Section Sketch

Measurements for small cut to fill: — **Height of Cut / Differences in Levels for calculating volumes**

	43+000 Aver. (m)	43+000 1 to 4 readings*)	43+200 Aver. (m)	43+200 1 to 4 readings	43+400 Aver. (m)	43+400 1 to 4 readings	43+600 Aver. (m)	43+600 1 to 4 readings	43+800 Aver. (m)	43+800 1 to 4 readings
Height of cut < 0.25m	0	0	0		0	0 0	0	0 0	0	0 0
Height of cut > 0.25m	0	0	0		0	0 0	0	0 0	0	0 0

For Reshaping : — **Difference in Level between Exist. Camber and Side Drain for calculating volumes**

	43+000 Aver. (m)	43+000 1 to 4 readings*)	43+200 Aver. (m)	43+200 1 to 4 readings	43+400 Aver. (m)	43+400 1 to 4 readings	43+600 Aver. (m)	43+600 1 to 4 readings	43+800 Aver. (m)	43+800 1 to 4 readings
Existing Roads	0	0	0		0		0		0	
Sloping										

*) 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:

	43+000	43+200	43+400	43+600	43+800	Total this page
Bush Clearing	1,400 m2	1,400 m2	1,800 m2	1,400 m2	1,400	**7,400**
Grass Cutting	m2	m2	m2	m2		
Grubbing	1,000 m2	1,000 m2	1,400 m2	1,000 m2	1,000	**5,400**
Tree and stump removal	0 No.	0 No.	0 No.	4 No.	2	**6**

Quantities

	43+000	43+200	43+400	43+600	43+800	Total this page
Height of cut < 0.25m	0 m3 (insitu)	0 m3 (insitu)	0 m3 (insitu)	0 m3 (insitu)	0	**0**
Height of cut > 0.25m	0 m3 (insitu)	0 m3 (insitu)	0 m3 (insitu)	0 m3 (insitu)	0	**0**
Embankment	189 m3 (insitu)	m3 (insitu)	162 m3 (insitu)	81 m3 (insitu)		**432**
Drains full re-construction	54 m3 (insitu)	m3 (insitu)	175 m3 (insitu)	121 m3 (insitu)		**350**
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)		

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