

	QUANTITIES SUMMARY(WIDE CROSS-SECTION)																			BABITO - SOLIO VILLAGE ROAD - BATCH 1										Apr-23	
KM	BUSH LIGHT	BUSH HEAVY	GRUB	TREES	ETL	FILL	DRAINS (SOFT)	DRAINS (HARD)	CUL.900 MM	CUL600 MM.	CD	AC	AD	T1	T2	T4	MITRES	C/W	S/C	CHECK DAMS	GABIONS	GRAVEL									
	M2	M3	M2	No	M3		M3		M	M	No.	No.	No.	M3	M3	M3	M3	M2	No.			M3									
1	0	3,995	5,570		1,409	0	1,538			25.8	1	3	0	1	1	6			76			1485									
2	0	4,900	5,525	32	362		976		8	5.5	4	0	0	6	2	0			50			1485									
3	0		5,260	34	0		1,015		0	20.3	3	11	0	5	1	22			74		20	1485									
4	0		6,400	50	838		1,434			0	0	16	0	0	0	32			88			1485									
5	0		4,850		0	0	1,015			0	1	4	0	1	1	8	30	100	28			1485									
6	0	1,800	3,700	13	275	0	1,084			104	0	17	0	0	0	34			50			1485									
7	0		3,000	1	0	0	1,015			14	1	12	0	1	1	24	30	200	30			1485									
8	0		3,100		0		203	203	0	8	2	6	0	4	0	12			130			254									
9																															
<u>TOTAL</u>	0	10,695	37,405	130	2,883	0	8,280	203	8	178	12	69	0	18	6	138	60	300	526	0	20	10,649									

Road Improvement Plan										Road No.:		Babito - Solio Village		Region:		LAIKIPIA		From:		0+000		To:		1+000		Page:		1				
Chain- age	Road form.	(kilometres)		(metres)		0+000		0+100		0+200		0+300		0+400		0+500		0+600		0+700		0+800		0+900		1+000						
		Subgrade		Cross section		RS/G		RS/G		RS/G		RS/G		RS/G		RS/G		RS/G		RS/G		RS/G		RS/G		RS/G						
		Method: RES, ETL or Fill		Choice of reshaping: L, T or E		A		A		A		A		A		A		A		A		A		A		A						
Earthworks / Reshaping	Volume of ETL or Fill (m3/m)		ETL		U/E		U/E		U/E		U/E		U/E		U/E		U/E		U/E		U/E		U/E		U/E		U/E					
	Total		Thickness (cm,comp.)		27.5		27.5		27.5		27.5		27.5		27.5		27.5		27.5		27.5		27.5		27.5		27.5					
	1		Source (quarry No.)		1		1,485																									
Longitudinal gradient (in %)		2		2		3		3		4		4		4		4		4		4		4		4		4						
Mitre drains	Total		Number left =		0		Number right =0		ACCESS JUNCTION		ACCESS JUNCTION		ACCESS JUNCTION		ACCESS JUNCTION		ACCESS JUNCTION		ACCESS JUNCTION		ACCESS JUNCTION		ACCESS JUNCTION		ACCESS JUNCTION		ACCESS JUNCTION					
	Total		Length of drain left =		Length of drain right =		Length of drain left =		Length of drain right =		Length of drain left =		Length of drain right =		Length of drain left =		Length of drain right =		Length of drain left =		Length of drain right =		Length of drain left =		Length of drain right =		Length of drain left =					
Culverts	N/Ex		Chainage (m)		= New / Existing line		Chainage (m)		= New / Existing line		Chainage (m)		= New / Existing line		Chainage (m)		= New / Existing line		Chainage (m)		= New / Existing line		Chainage (m)		= New / Existing line		Chainage (m)		= New / Existing line			
	CD		1		= Cross drainage		CD		1		= Cross drainage		CD		1		= Cross drainage		CD		1		= Cross drainage		CD		1		= Cross drainage			
	AC/D		AC=3		= Access culvert/drift		AC/D		AC=3		= Access culvert/drift		AC/D		AC=3		= Access culvert/drift		AC/D		AC=3		= Access culvert/drift		AC/D		AC=3		= Access culvert/drift			
	LR		AD=0		= Left/right		LR		AD=0		= Left/right		LR		AD=0		= Left/right		LR		AD=0		= Left/right		LR		AD=0		= Left/right			
	Length (m)		Ø 450 mm		Ø 600mm		Ø 900 mm		Length (m)		Ø 450 mm		Ø 600mm		Ø 900 mm		Length (m)		Ø 450 mm		Ø 600mm		Ø 900 mm		Length (m)		Ø 450 mm		Ø 600mm		Ø 900 mm	
	Ramp		Earth fill (m3)		Earth fill (m3)		Ramp		Earth fill (m3)		Earth fill (m3)		Ramp		Earth fill (m3)		Earth fill (m3)		Ramp		Earth fill (m3)		Earth fill (m3)		Ramp		Earth fill (m3)		Earth fill (m3)			
	Haunch Type		Haunch Type		Haunch Type		Haunch Type		Haunch Type		Haunch Type		Haunch Type		Haunch Type		Haunch Type		Haunch Type		Haunch Type		Haunch Type		Haunch Type		Haunch Type		Haunch Type			
	T4=6		T3=0		Inlet (Material/Type)		T4=6		T3=0		Inlet (Material/Type)		T4=6		T3=0		Inlet (Material/Type)		T4=6		T3=0		Inlet (Material/Type)		T4=6		T3=0		Inlet (Material/Type)			
	T2=1		T1= 1		Outlet (Material/Type)		T2=1		T1= 1		Outlet (Material/Type)		T2=1		T1= 1		Outlet (Material/Type)		T2=1		T1= 1		Outlet (Material/Type)		T2=1		T1= 1		Outlet (Material/Type)			
Scour Checks	SM=38		= Material this sheet/ Spacing left (m) =		SM=38		= Material this sheet/ Spacing left (m) =		SM=38		= Material this sheet/ Spacing left (m) =		SM=38		= Material this sheet/ Spacing left (m) =		SM=38		= Material this sheet/ Spacing left (m) =		SM=38		= Material this sheet/ Spacing left (m) =		SM=38		= Material this sheet/ Spacing left (m) =					
	76		Spacing right (m) = =Total No. this sheet		76		Spacing right (m) = =Total No. this sheet		76		Spacing right (m) = =Total No. this sheet		76		Spacing right (m) = =Total No. this sheet		76		Spacing right (m) = =Total No. this sheet		76		Spacing right (m) = =Total No. this sheet		76		Spacing right (m) = =Total No. this sheet					
Additional Instruction as per Reference		Additional Instruction as per Reference		Additional Instruction as per Reference		Additional Instruction as per Reference		Additional Instruction as per Reference		Additional Instruction as per Reference		Additional Instruction as per Reference		Additional Instruction as per Reference		Additional Instruction as per Reference		Additional Instruction as per Reference		Additional Instruction as per Reference		Additional Instruction as per Reference		Additional Instruction as per Reference		Additional Instruction as per Reference		Additional Instruction as per Reference				

Quantity Assessment	Road No.:	Babito - Solio Village	Region:	LAIKIPIA	From:	0+000	To:	1+000	Page:	1																				
Chainage:																														
0+000		0+200		0+400		0+600		0+800		1+000																				
Measurements for Clearing:																														
Free Clearance Width for Calculating areas																														
Aver. (m) 1 to 4 readings*)																														
Bush Clearing (Light)	7.2	6.5	7.9	7.5	7	m	6.4	6	5.5	6.5	7.6	m	13.0	13				m	13.0	13				m						
Bush Clearing (Heavy)						m						m	6.7	6	7.8	6.6	6.2	m	7.3	7.9	7	6.8	7.3	m						
Grubbing	6.5	6.5	6.9	6.5	6	m	6.0	6	5.5	6.0	6.6	m	5.3	6	5.6	5	4.4	m	4.8	5.4	4.2	4.4	5	m						
Tree and Stump Removal						m						m						m						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).																														
Estimated measurements for small cut to fill:																														
Height of Cut for calculating volumes																														
Height of cut < 0.25m (ETL BOTH SIDES)	0.0	0.9	1.1	1.2	1.2	m	0.6	0.8		0.4		m	1.0	0.4	1	1.2	1.5	m	1.7	1.6	1.7	1.7	1.8	m	0.0	0	0	0	0	m
Clear Width (9m)	0	6	6	6	6	m	6	6	6	6	6	m	6.0	6	6	6	6	m	7.7	8.3	7.7	7.2	7.7	m	0.0	0	0	0	0	m
Height of cut < 0.25m (ETL ONE SIDE)	0					m	0.0		0.3			m	0					m	0					m	0					m
Clear Width (9m)	0					m	0.0		9			m	0					m	0					m	0					m
For Reshaping:																														
Difference in Level between Exist. Camber and Side Drain for calculating volumes																														
Existing Roads	#DIV/0!					m	0.43				0.43	m	0					m	0					m	0					m
Existing Road Width	#DIV/0!					m	6				6	m	0					m	0					m	0					m
Quantities																														
										Total this page																				
Bush Clearing (Light)	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2
Bush Clearing (Heavy)		m2		m2		m2		m2		m2		m2		m2		m2		m2		m2		m2		m2		m2		m2		m2
Grubbing	905	m2	995	m2	1,150	m2	1,150	m2	1,250	m2	1,250	m2	1,250	m2	1,250	m2	1,250	m2	1,250	m2	1,250	m2	1,250	m2	1,250	m2	1,250	m2	1,250	m2
Tree and Stump Removal		No.		No.		No.		No.		No.		No.		No.		No.		No.		No.		No.		No.		No.		No.		No.
										Total this page																				
Height of cut < 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)
Height of cut > 0.25m	0	m3 (insitu)	360	m3 (insitu)	615	m3 (insitu)	615	m3 (insitu)	434	m3 (insitu)	434	m3 (insitu)	434	m3 (insitu)	434	m3 (insitu)	434	m3 (insitu)	434	m3 (insitu)	434	m3 (insitu)	434	m3 (insitu)	434	m3 (insitu)	434	m3 (insitu)	434	m3 (insitu)
Embankment		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)
Drains full re-construction	280	m3 (insitu)	248	m3 (insitu)	280	m3 (insitu)	280	m3 (insitu)	450	m3 (insitu)	450	m3 (insitu)	450	m3 (insitu)	450	m3 (insitu)	450	m3 (insitu)	450	m3 (insitu)	450	m3 (insitu)	450	m3 (insitu)	450	m3 (insitu)	450	m3 (insitu)	450	m3 (insitu)
Drains Partial construction		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)
By Towed Grader / Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)
By Equipment Based Meth.		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)
Quantities verified and accepted by the Contractor											Name:	Date:	Signature:																	
For the Employer											Name:	Date:	Signature:																	

Road Improvement Plan			Road No.:	Babito - Solio Village	Region:	LAIKIPIA	From:	1+000	To:	2+000	Page:	2
Chain- age	Road form.	(kilometres) (metres)	1+1000	1+100	1+200	1+300	1+400	1+500	1+600	1+700	1+800	2+000
			G	G	G	G	G	G	G	G	G	G
Earthworks / Reshaping	Method: RES, ETL or Fill											
	Choice of reshaping: L, T or E											
Gra-vel	Volume of ETL or Fill (m3/m)											
	Total	Thickness (cm,comp.)										
Mitre drains	Source (quarry No.)											
	Longitudinal gradient (in %)											
Catch water	Number left =											
	Number right =											
Culverts	Length of drain left =											
	Length of drain right =											
Head- walls	Chainage (m) New / Existing line											
	CD = Cross drainage											
Scour Checks	AC/D = Access culvert/drift											
	AD=0 Left/right											
Additional Instruction as per Reference	Ø 450 mm											
	6 Ø 600mm											
	8 Ø 900 mm											
	Earth fill (m3)											
	Ramp											
	Haunch Type											
	T4=0 T3=0 Inlet (Material/Type)											
	T2=2 T1 =4 Outlet (Material/Type)											
	SM=25 = Material this sheet/ Spacing left (m) =											
	SM=25 Spacing right (m) = =Total No. this sheet											

Quantity Assessment	Road No.:	Babito - Solio Village	Region:	LAIKIPIA	From:	1+000	To:	2+000	Page:	2																				
Chainage: 1+000 1+200 1+400 1+600 1+800 2+000																														
Measurements for Clearing: Aver. (m) 1 to 4 readings*) Free Clearance Width for Calculating areas Aver. (m) 1 to 4 readings*)																														
Bush Clearing (Light)	#DIV/0!						#DIV/0!						#DIV/0!						#DIV/0!						m					
Bush Clearing (Heavy)	7.5	7.5	8.5	8	6	m	7.5	9	7.5	6.5	7	m	7.2	7.5	7.2	6.5	7.5	7.50	9.9	13	9	9.5	8	m	8.5	8	8	8.5	9.3	m
Grubbing	5.4	5	5.5	5	6	m	4.5	6	4	3.5	4.5	m	4.8	5.5	5	4.3	4.2	m	6.3	10	4.5	5	5.5	m	6.5	6	6.5	6.5	7	m
Tree and Stump Removal	13		8	5		m	19	12	6	1		m						m						m						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).																														
Estimated measurements for small cut to fill: Height of Cut for calculating volumes																														
Height of cut < 0.25m (ETL BOTH SIDES)	0		1.1	1.2		m	1		1.4	1.3		m	1	0.5	1.3	1.7		m	#DIV/0!					m	#DIV/0!					m
Clear Width (9m)	0		9	8		m	8		8.7	7.4		m	8	7.5	7.2	8.3		m	#DIV/0!					m	#DIV/0!					m
Height of cut < 0.25m (ETL ONE SIDE)	0	1			1.1	m	0	1.1				m	0					m	0	0.8	0.8			m	0	1.8	1.8	2.5	2	m
Clear Width (9m)	0	9			9	m	0	9				m	0					m	0	9	9			m	0	9	9	9	9	m
For Reshaping: Difference in Level between Exist. Camber and Side Drain for calculating volumes																														
Existing Roads						m						m	0					m	0					m	0					m
Existing Road Width						m						m	0					m	0					m	0					m
Quantities																														
Bush Clearing (Light)	0	m2		0	m2		0	m2		0	m2		0	m2		0	m2		0	m2		0	m2		0	m2				Total this page
Bush Clearing (Heavy)	1,100	m2		1,100	m2		1,165	m2		625	m2		625	m2		910	m2		910	m2		900	m2		900	m2				4,900
Grubbing	1,125	m2		1,300	m2		1,250	m2		950	m2		950	m2		900	m2		900	m2		900	m2		900	m2				5,525
Tree and Stump Removal	13	No.		19	No.			No.			No.			No.			No.			No.			No.			No.				32
Total this page																														
Height of cut < 0.25m		m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)				
Height of cut > 0.25m	0	m3 (insitu)		128	m3 (insitu)		233	m3 (insitu)		0	m3 (insitu)		0	m3 (insitu)		0	m3 (insitu)		0	m3 (insitu)		0	m3 (insitu)		0	m3 (insitu)				362
Embankment		m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)				
Drains full re-construction	161	m3 (insitu)		317	m3 (insitu)		320	m3 (insitu)		60	m3 (insitu)		60	m3 (insitu)		119	m3 (insitu)		119	m3 (insitu)		119	m3 (insitu)		119	m3 (insitu)				976
Reshaping by Labour		m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)				
By Towed Grader / Labour		m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)				
By Equipment Based Meth.		m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)			m3 (insitu)				
Quantities verified and accepted by the Contractor											Name: Date: Signature:																			
For the Employer											Name: Date: Signature:																			

[illegible]

Quantity Assessment	Road No.:	Babito - Solio Village	Region:	LAIKIPIA	From:	2+000	To:	3+000	Page:	3																																	
Chainage:																																											
2+000		2+200			2+400			2+600			2+800		3+000																														
Measurements for Clearing:											Free Clearance Width for Calculating areas																																
Aver. (m)1 to 4 readings*)											Aver. (m)1 to 4 readings*)																																
Bush Clearing (Light)	7.8	7.5	7.5	8	8	m	8.4	9.5	8	9	7	m	8.1	7.5	9	8	7.7	m	7.8	8.5	7	7.8	8	m	6.3	6.3	6.5	6.5	6	m													
Bush Clearing (Heavy)						m						m						m						m						m													
Grubbing	6.0	6	6	6	6	m	6.5	7	6	8	5	m	6.0	5.5	7	6	5.5	m	5.6	6	5	5.5	6	m	4.6	5	5	4.8	3.5	m													
Tree and Stump Removal						m						m	6			2	4	m						m	28			6	22	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).																																											
Estimated measurements for small cut to fill:											Height of Cut for calculating volumes																																
Height of cut < 0.25m (ETL BOTH SIDES)	0		0			m	0		0			m	0	0	0	0		m	0		0	0	0	m	0	0	0	0	0	m													
Clear Width (13m)	0		9			m	9		9			m	9	9	9	9		m	9		9	9	9	m	9	9	9	9	9	m													
Height of cut < 0.25m (ETL ONE SIDE)	0	0				m	0				0	m	0				0	m	0					m	0					m													
Clear Width (10.5m)	0	8.5				m	0				8.8	m	0				9	m	0					m	0					m													
For Reshaping:											Difference in Level between Exist. Camber and Side Drain for calculating volumes																																
Existing Roads						m						m	0					m	0					m	0					m													
Existing Road Width						m						m	0					m	0					m	0					m													
Quantities																														Total this page													
Bush Clearing (Light)	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0												
Bush Clearing (Heavy)		m2		m2		m2		m2		m2		m2		m2		m2		m2		m2		m2		m2		m2		m2		m2													
Grubbing	1,000	m2	900	m2	1,000	m2	1,075	m2	1,285	m2	1,400	m2	1,515	m2	1,630	m2	1,745	m2	1,860	m2	1,975	m2	2,090	m2	2,205	m2	2,320	m2	2,435	m2	2,550												
Tree and Stump Removal		No.		No.	6	No.		No.		No.		No.		No.		No.		No.		No.		No.		No.		No.		No.		No.													
																														Total this page													
Height of cut < 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)													
Height of cut > 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0												
Embankment		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)													
Drains full re-construction	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203												
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)													
By Towed Grader / Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)													
By Equipment Based Meth.		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)													
Quantities verified and accepted by the Contractor											Name:											Date:											Signature:										
For the Employer											Name:											Date:											Signature:										

Road Improvement Plan				Road No.:	Babito - Solio Village	Region:	LAIKIPIA	From:	3+000	To:	4+000	Page:	4	
Chain- age	Road form:	(kilometres) (metres)		3+000	3+100	3+200	3+300	3+400	3+500	3+600	3+700	3+800	3+900	4+000
		Subgrade	Cross section											
Earthworks / Reshaping	Method: RES, ETL or Fill													
	Choice of reshaping: L, T or E													
Gra-vel	Volume of ETL or Fill (m3/m)													
	Total	Thickness (cm,comp.)												
Mitre drains	Total	Source (quarry No.)												
		Longitudinal gradient (in %)												
Catch water	Total	Number left =												
		Number right =												
Culverts	N/Ex	Chainage (m) = New / Existing line												
		CD	CD=0	= Cross drainage										
Head- walls	T4=32 T2=0	AC/D	AC=16	= Access culvert/drift										
		L/R	AD=0	= Left/right										
Scour Checks	88	Length (m)	Ø 450 mm											
			Ø 600mm											
Additional Instruction as per Reference		Ramp	Ø 900 mm											
			Earth fill (m3)											
		Inlet (Material/Type)												
			Haunch Type											
		Inlet (Material/Type)												
		Outlet (Material/Type)												
		= Material this sheet/ Spacing left (m) =												
		Spacing right (m) = =Total No. this sheet												

Quantity Assessment	Road No.:	Babito - Solio Village	Region:	LAIKIPIA	From:	3+000	To:	4+000	Page:	4																																	
Chainage:																																											
3+000			3+200			3+400			3+600			3+800			4+000																												
Measurements for Clearing:											Free Clearance Width for Calculating areas																																
Aver. (m)1 to 4 readings*)											Aver. (m)1 to 4 readings*)																																
Bush Clearing (Light)	6.7	6	6.8	7	7	m	7.4	7	8	7.5	7	m	6.6	7	6	7	6.5	m	6.4	6.5	7	6	6	m	6.6	7	6.5	6	7	m													
Bush Clearing (Heavy)						m						m						m						m						m													
Grubbing	4.4	4.5	4.5	4.5	4	m	5.1	5	5.5	5	5	m	4.9	5	4.5	5	5	m	4.4	4.5	5	4	4	m	4.3	5	4	4	4	m													
Tree and Stump Removal	15	6		5	4	no	6			6		no.	0					no.	28	5		12	11	no	1		1			no.													
Note: The user is free to select the number of reading required according to the site conditions. (min. 1 max. 4 for each section).																																											
Estimated measurements for small cut to fill:											Height of Cut for calculating volumes																																
Height of cut < 0.25m (ETL BOTH SIDES)	0	1.1	1	1.15	1.3	m	1	1.4	1.25	1.35	1.25	m	1	0.85		0.8	1.2	m	1	1.15	1.1	1.26	1.14	m	1	0.6	0.46	0.95	1.05	m													
Clear Width (13m)	0	8	8	8	8	m	8	8	8	8	8	m	8	8	8	8	8	m	8	8	8	8	8	m	8	8	8	8	8	m													
Height of cut < 0.25m (ETL ONE SIDE)	0					m	0					m	0		0.65			m	0					m	0					m													
Clear Width (10.5m)	0					m	0					m	0		9			m	0					m	0					m													
For Reshaping:											Difference in Level between Exist. Camber and Side Drain for calculating volumes																																
Existing Roads						m						m	0					m	0					m	0					m													
Existing Road Width						m						m	0					m	0					m	0					m													
Quantities																															Total this page												
Bush Clearing (Light)	0	m2				0	m2				0	m2				0	m2				0	m2				0	m2				0	m2											
Bush Clearing (Heavy)		m2					m2					m2					m2					m2					m2					m2											
Grubbing	1,325	m2				1,175	m2				1,225	m2				1,325	m2				1,350	m2				1,350	m2				6,400	m2											
Tree and Stump Removal	15	No.				6	No.					No.				28	No.				1	No.				1	No.				50	No.											
Total this page																																											
Height of cut < 0.25m		m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)											
Height of cut > 0.25m	0	m3 (insitu)				263	m3 (insitu)				190	m3 (insitu)				233	m3 (insitu)				153	m3 (insitu)				838	m3 (insitu)																
Embankment		m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)											
Drains full re-construction	203	m3 (insitu)				334	m3 (insitu)				298	m3 (insitu)				319	m3 (insitu)				280	m3 (insitu)				1,434	m3 (insitu)																
Reshaping by Labour		m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)											
By Towed Grader / Labour		m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)											
By Equipment Based Meth.		m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)											
Quantities verified and accepted by the Contractor											Name:											Date:											Signature:										
For the Employer											Name:											Date:											Signature:										

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Quantity Assessment	Road No.:	Babito - Solio Village	Region:	LAIKIPIA	From:	4+000	To:	5+000	Page:	5																														
Chainage:																																								
4+000		4+200				4+400				4+600				4+800				5+000																						
Measurements for Clearing:											Free Clearance Width for Calculating areas																													
Aver. (m) 1 to 4 readings*)											Aver. (m) 1 to 4 readings*)																													
Bush Clearing (Light)	6.9	7	6.5	8	6	m	6.4	6	6.5	7	6	m	7.8	6.7	7	8	9.5	m	9.9	9.5	10	10.5	9.5	m	10.6	9	11	11.5	11	m										
Bush Clearing (Heavy)						m						m						m						m						m										
Grubbing	4.9	4.5	4.5	6	4.5	m	4.5	4	4.5	5.5	4	m	5.5	4	5	6	7	m	7.3	6.5	8	8	6.5	m	8.6	7	9.5	9.5	8.5	m										
Tree and Stump Removal						m						m						m						m						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).																																								
Estimated measurements for small cut to fill:											Height of Cut for calculating volumes																													
Height of cut < 0.25m (ETL BOTH SIDES)	0	0	0	0	0	m	0	0	0	0	0	m	0	0	0	0	0	m	0	0				m	0	0				m										
Clear Width (13m)	0	9	9	9	9	m	9	9	9	9	9	m	9	9	9	9	9	m	9	9				m	9	9				m										
Height of cut < 0.25m (ETL ONE SIDE)	0					m	0					m	0					m	0					m	0					m										
Clear Width (10.5m)	0					m	0					m	0					m	0					m	0					m										
For Reshaping:											Difference in Level between Exist. Camber and Side Drain for calculating volumes																													
Existing Roads						m						m	0					m	0			0.2		m	0	0.2				m										
Existing Road Width						m						m	0					m	0			6.5		m	0	7				m										
Quantities																															Total this page									
Bush Clearing (Light)	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0									
Bush Clearing (Heavy)		m2		m2		m2		m2		m2		m2		m2		m2		m2		m2		m2		m2		m2		m2		m2										
Grubbing	1,225	m2	1,300	m2	1,100	m2	750	m2	475	m2	4,850	m2		m2		m2		m2		m2		m2		m2		m2		m2		m2										
Tree and Stump Removal		No.		No.		No.		No.		No.		No.		No.		No.		No.		No.		No.		No.		No.		No.		No.										
Total this page																																								
Height of cut < 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)										
Height of cut > 0.25m	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0									
Embankment		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)										
Drains full re-construction	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203									
Drains Partial construction		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)										
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)										
By Towed Grader / Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)										
By Equipment Based Meth.		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)										
Quantities verified and accepted by the Contractor											Name:										Date:										Signature:									
For the Employer											Name:										Date:										Signature:									

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Quantity Assessment	Road No.:	Babito - Solio Village	Region:	LAIKIPIA	From:	5+000	To:	6+000	Page:	6																					
Chainage: 5+000 5+200 5+400 5+600 5+800 6+000																															
Measurements for Clearing: Free Clearance Width for Calculating areas																															
	Aver. (m)	1 to 4 readings*)							Aver. (m)	1 to 4 readings*)																					
Bush Clearing (Light)	10.1	10	10	10.3	10	m	9.5	9.5	9	9.5	10	m	9.3	10	9.5	8.5		m	4.5	0			9	m	8.9	9	9	9	8.5	m	
Bush Clearing (Heavy)						m						m	8.5				8.5	m	8.5	8.5	8	9		m						m	
Grubbing	8.3	8	8.5	8.5	8	m	7.5	7.0	7.5	8	7.5	m	7.0	8	7	6	7	m	7.0	7	7	7	7	m	6.8	7	7	7	6	m	
Tree and Stump Removal						m	3	3				m						m	10	10				m						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).																															
Estimated measurements for small cut to fill: Height of Cut for calculating volumes																															
Height of cut < 0.25m (ETL BOTH SIDES)	0.0	0.3	0.3	0.6	0.7	m	1	0.6	0.5	1.15	0.5	m	0				0	m	0	0	0	0	0	m	0	0	0	0	0	m	
Clear Width (13m)	0	7	7	7	7	m	7	7	7	7	7	m	0				0	m	0	0	0	0	0	m	0	0	0	0	0	m	
Height of cut < 0.25m (ETL ONE SIDE)	0					m	0					m	0			0.6		m	0					m	0					m	
Clear Width (10.5m)	0					m	0					m	0			9		m	0					m	0					m	
For Reshaping: Difference in Level between Exist. Camber and Side Drain for calculating volumes																															
Existing Roads						m						m	0		0.2			m	0					m	0					m	
Existing Road Width						m						m	0		7			m	0					m	0					m	
Quantities											Total this page																				
Bush Clearing (Light)	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0	m2	0						0						0
Bush Clearing (Heavy)		m2		m2		m2		m2		m2		m2		m2		m2		m2													1,800
Grubbing	550	m2	700	m2	800	m2	800	m2	800	m2	800	m2	800	m2	800	m2	800	m2	800						850						3,700
Tree and Stump Removal		No.	3	No.		No.		No.		No.		No.		No.		No.		No.													13
											Total this page																				
Height of cut < 0.25m		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)													
Height of cut > 0.25m	0	m3 (insitu)	275	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0	m3 (insitu)	0						0						275
Embankment		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)													
Drains full re-construction	203	m3 (insitu)	272	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203	m3 (insitu)	203						203						1,084
Drains Partial construction		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)													0
Reshaping by Labour		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)													0
By Equipment Based Meth.		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)													
Quantities verified and accepted by the Contractor											Name:		Date:		Signature:																
For the Employer											Name:		Date:		Signature:																

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Quantity Assessment		Road No.:	Babito - Solio Village		Region:	LAIKIPIA		From:	6+000		To:	7+000		Page:	7																
Chainage:		6+000				6+200				6+400				6+600				6+800				7+000									
Measurements for Clearing:		Aver. (m)1 to 4 readings*)					Free Clearance Width for Calculating areas															Aver. (m)1 to 4 readings*)									
Bush Clearing (Light)	9.1	8.5	8	10	10	m	10.4	11	10	9.5	11	m	13.0	13	13	13	13	m	9.8	10	10	10	9	m	8.8	9.5	8.5	8.5	8.5	m	
Bush Clearing (Heavy)						m						m						m						m						m	
Grubbing	7.8	7	8	8	8	m	8.0	9	8	7	8	m	11.0	11	11	11	11	m	7.0	7.5	7	7	6.5	m	6.3	7	6	6	6	m	
Tree and Stump Removal						m						m	1	1				m						m						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).																															
Estimated measurements for small cut to fill:		Height of Cut for calculating volumes																													
Height of cut < 0.25m (ETL BOTH SIDES)	0					m	0.0		0	0		m	0.0			0.0		m	0.0	0.0	0.0	0.0	0.0	m	0.0	0.0				m	
Clear Width (13m)	0					m	9		9	9		m	9.0			9.0		m	9.0	9.0	9.0	9.0	9.0	m	9.0	9.0				m	
Height of cut < 0.25m (ETL ONE SIDE)	0					m	0					m	0					m	0					m	0		0	0	0	m	
Clear Width (10.5m)	0					m	0					m	0					m	0					m	0		9	9	9	m	
For Reshaping:		Difference in Level between Exist. Camber and Side Drain for calculating volumes																													
Existing Roads	0.2	0.3	0.2	0.2	0.2	m	0.2	0.2			0.2	m	0.0	0.3	0.3		0.2	m	0					m	0					m	
Existing Road Width	7.8	7	8	8	8	m	8.5	9			8	m	0.0	7	8		10	m	0					m	0					m	
Quantities																															Total this page
Bush Clearing (Light)	0	m2				0	m2				0	m2				0	m2				0	m2				0	m2				0
Bush Clearing (Heavy)		m2					m2					m2					m2					m2					m2				
Grubbing	650	m2				600	m2				0	m2				800	m2				950	m2				3,000					
Tree and Stump Removal		No.					No.				1	No.					No.					No.				1					
Height of cut < 0.25m		m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)				
Height of cut > 0.25m		m3 (insitu)				0	m3 (insitu)				0	m3 (insitu)				0	m3 (insitu)				0	m3 (insitu)				0					
Embankment		m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)									
Drains full re-construction	203	m3 (insitu)				203	m3 (insitu)				203	m3 (insitu)				203	m3 (insitu)				203	m3 (insitu)				203	m3 (insitu)				1,015
Drains Partial construction		m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)				0
Reshaping by Labour		m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)				0
By Equipment Based Meth.		m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)					m3 (insitu)				
Quantities verified and accepted by the Contractor																Name:				Date:				Signature:							
For the Employer																Name:				Date:				Signature:							

[illegible]

Quantity Assessment		Road No.:		E532		Region:		MURANG'A		From:		7+000		To:		8+000		Page:		8	
Chainage:		7+000		7+200		7+400		7+600		7+800		8+000									
Measurements for Clearing:		Aver. (m)		1 to 4 readings*)				Free Clearance Width for Calculating areas		Aver. (m)		1 to 4 readings*)									
Bush Clearing (Light)	8.8	8.5	9.5	8.5	8.5	m										m					
Bush Clearing (Heavy)						m										m					
Grubbing	6.5	6.5	7	6	6.5	m										m					
Tree and Stump Removal						m										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).																					
Estimated measurements for small cut to fill:																					
Height of cut < 0.25m (ETL BOTH SIDES)	0	0	0			m										m					
Clear Width (13m)	0	9	9			m										m					
Height of cut < 0.25m (ETL ONE SIDE)	0					m	0				0				0	m					
Clear Width (10.5m)	0					m	0				0				0	m					
For Reshaping:																					
Existing Roads						m					0				0	m					
Existing Road Width						m					0				0	m					
Quantities																	Total this page				
Bush Clearing (Light)	0	m2		0	m2		0		0		0		0								
Bush Clearing (Heavy)		m2			m2																
Grubbing	900	m2		2,200	m2									3,100							
Tree and Stump Removal		No.			No.																
																	Total this page				
Height of cut < 0.25m		m3 (insitu)			m3 (insitu)		m3 (insitu)		m3 (insitu)		m3 (insitu)										
Height of cut > 0.25m	0	m3 (insitu)		0	m3 (insitu)								0								
Embankment		m3 (insitu)			m3 (insitu)																
Drains full re-construction	203	m3 (insitu)		203	m3 (insitu)								406								
Reshaping by Labour		m3 (insitu)			m3 (insitu)																
By Towed Grader / Labour		m3 (insitu)			m3 (insitu)																
By Equipment Based Meth.		m3 (insitu)			m3 (insitu)																
Quantities verified and accepted by the Contractor																	Name:	Date:	Signature:		
For the Employer																	Name:	Date:	Signature:		