



|                                                                                                                                        |  |                                                                                  |             |   |       |         |             |          |       |        |             |        |       |        |             |        |                                         |        |       |                 |   |        |   |   |    |   |   |   |   |   |    |
|----------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------|-------------|---|-------|---------|-------------|----------|-------|--------|-------------|--------|-------|--------|-------------|--------|-----------------------------------------|--------|-------|-----------------|---|--------|---|---|----|---|---|---|---|---|----|
| Quantity Assessment                                                                                                                    |  | LOGLOGO-KORR                                                                     |             | - | -     | County: |             | MARSABIT |       | From:  |             | 30+000 |       | To:    |             | 31+000 |                                         | pg     | 7     |                 |   |        |   |   |    |   |   |   |   |   |    |
| Chainage:                                                                                                                              |  | 30+000                                                                           |             |   |       | 30+200  |             |          |       | 30+400 |             |        |       | 30+600 |             |        |                                         | 30+800 |       |                 |   | 31+000 |   |   |    |   |   |   |   |   |    |
| Input Measurements:                                                                                                                    |  | Free Clearance Width for Calculating areas                                       |             |   |       |         |             |          |       |        |             |        |       |        |             |        |                                         |        |       |                 |   |        |   |   |    |   |   |   |   |   |    |
|                                                                                                                                        |  | Aver. (m) 1 to 4 readings <sup>*)</sup>                                          |             |   |       |         |             |          |       |        |             |        |       |        |             |        | Aver. (m) 1 to 4 readings               |        |       |                 |   |        |   |   |    |   |   |   |   |   |    |
| Bush Clearing                                                                                                                          |  | 8                                                                                | 8           | 0 | 0     | 0       | m           | 8        | 8     | 0      | 0           | 0      | m     | 8      | 8           | 0      | 0                                       | 0      | m     | 0               | 0 | 0      | 0 | 0 | m  | 0 | 0 | 0 | 0 | 0 | m  |
| Grass Cutting                                                                                                                          |  |                                                                                  |             |   |       |         | m           |          |       |        |             |        | m     |        |             |        |                                         |        | m     |                 |   |        |   |   | m  |   |   |   |   |   | m  |
| Grubbing                                                                                                                               |  | 8                                                                                | 8           | 0 | 0     | 0       | m           | 8        | 8     | 0      | 0           | 0      | m     | 8      | 8           | 0      | 0                                       | 0      | m     | 0               | 0 | 0      | 0 | 0 | m  | 0 | 0 | 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                                                                                                                   |  |                                                                                  |             |   |       |         |             |          |       |        |             |        |       |        |             |        |                                         |        |       |                 |   |        |   |   |    |   |   |   |   |   |    |
| Measurements for small cut to fill:                                                                                                    |  | Height of Cut / Differences in Levels for calculating volumes                    |             |   |       |         |             |          |       |        |             |        |       |        |             |        |                                         |        |       |                 |   |        |   |   |    |   |   |   |   |   |    |
|                                                                                                                                        |  | Aver. (m) 1 to 4 readings <sup>*)</sup>                                          |             |   |       |         |             |          |       |        |             |        |       |        |             |        | Aver. (m) 1 to 4 readings <sup>*)</sup> |        |       |                 |   |        |   |   |    |   |   |   |   |   |    |
| Height of cut < 0.25m                                                                                                                  |  | 0                                                                                | 0           |   |       |         | cm          | 0        |       |        |             |        | cm    | 0      |             | 0      |                                         | 0      | cm    | 0               |   | 0      |   | 0 | cm | 0 |   | 0 |   | 0 | cm |
| Height of cut > 0.25m                                                                                                                  |  | 0                                                                                | 0           |   |       |         | cm          | 0        |       |        |             |        | cm    | 0      |             | 0      |                                         | 0      | cm    | 0               |   | 0      |   | 0 | cm | 0 |   | 0 |   | 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 |
| 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                                                                                                                          |  | 1,000                                                                            | m2          |   | 1,000 |         | m2          |          | 1,000 |        | m2          |        | 2,600 |        | m2          |        | 2,600                                   |        | 8,200 |                 |   |        |   |   |    |   |   |   |   |   |    |
| Grass Cutting                                                                                                                          |  |                                                                                  | m2          |   |       |         | m2          |          |       |        | m2          |        |       |        | m2          |        |                                         |        |       |                 |   |        |   |   |    |   |   |   |   |   |    |
| Grubbing                                                                                                                               |  | 600                                                                              | m2          |   | 600   |         | m2          |          | 600   |        | m2          |        | 2,200 |        | m2          |        | 2,200                                   |        | 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) |        | 0                                       |        | 0     |                 |   |        |   |   |    |   |   |   |   |   |    |
| Height of cut > 0.25m                                                                                                                  |  | 0                                                                                | m3 (insitu) |   | 0     |         | m3 (insitu) |          | 0     |        | m3 (insitu) |        | 162   |        | m3 (insitu) |        | 324                                     |        | 486   |                 |   |        |   |   |    |   |   |   |   |   |    |
| Embankment/Fill                                                                                                                        |  | 1,242                                                                            | m3 (insitu) |   | 621   |         | m3 (insitu) |          |       |        | m3 (insitu) |        |       |        | m3 (insitu) |        |                                         |        | 1,863 |                 |   |        |   |   |    |   |   |   |   |   |    |
| Drains full re-construction                                                                                                            |  | 242                                                                              | m3 (insitu) |   | 242   |         | m3 (insitu) |          | 242   |        | m3 (insitu) |        | 242   |        | m3 (insitu) |        | 242                                     |        | 1,208 |                 |   |        |   |   |    |   |   |   |   |   |    |
| 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               |                                |                                              |                                    |                  |     |     |          |     |     |          |          |     |     |              |          |     |     |            |          |     |     |     |          |     |     |     |          |     |     |     |          |     |     | Page: | 7        |     |     |     |          |     |     |     |        |     |   |  |
|-----------------------------------------|--------------------------------|----------------------------------------------|------------------------------------|------------------|-----|-----|----------|-----|-----|----------|----------|-----|-----|--------------|----------|-----|-----|------------|----------|-----|-----|-----|----------|-----|-----|-----|----------|-----|-----|-----|----------|-----|-----|-------|----------|-----|-----|-----|----------|-----|-----|-----|--------|-----|---|--|
| Road Name: LOGLOGO-KORR                 |                                |                                              |                                    | County: MARSABIT |     |     |          |     |     |          |          |     |     | From: 31+000 |          |     |     | To: 32+000 |          |     |     |     |          |     |     |     |          |     |     |     |          |     |     |       |          |     |     |     |          |     |     |     |        |     |   |  |
| Chain-age                               | (kilometres)                   |                                              | 31 + 0                             |                  |     |     | 31 + 100 |     |     |          | 31 + 200 |     |     |              | 31 + 300 |     |     |            | 31 + 400 |     |     |     | 31 + 500 |     |     |     | 31 + 600 |     |     |     | 31 + 700 |     |     |       | 31 + 800 |     |     |     | 31 + 900 |     |     |     | 32 + 0 |     |   |  |
|                                         | (metres)                       |                                              | 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    | SS       | SS  | SS  |     |          |     |     |     |        |     |   |  |
| 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    | SS       | SS  | SS  | SS  | SS       | SS  | SS  | SS  |        |     |   |  |
|                                         | Cross section                  |                                              | A                                  | A                | A   | A   | A        | A   | A   | A        | A        | A   | A   | A            | A        | A   | A   | A          | A        | A   | A   | A   | A        | A   | A   | A   | A        | A   | A   | A   | A        | A   | A   | A     | A        | A   | A   | A   | A        | A   | A   | A   |        |     |   |  |
| Earth-works                             | Method: RES, ETL or FILL       |                                              | ETL                                | ETL              | ETL | ETL | ETL      | ETL | ETL | ETL      | ETL      | ETL | ETL | ETL          | ETL      | ETL | ETL | ETL        | ETL      | ETL | ETL | ETL | ETL      | ETL | ETL | ETL | ETL      | ETL | ETL | ETL | ETL      | ETL | ETL | ETL   | ETL      | ETL | ETL | ETL | ETL      | ETL | ETL | ETL | ETL    | ETL |   |  |
|                                         | 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   | E      | E   | E |  |
|                                         | Volume of ETL or Fill (m3/m)   |                                              |                                    |                  |     |     |          |     |     |          |          |     |     |              |          |     |     |            |          |     |     |     |          |     |     |     |          |     |     |     |          |     |     |       |          |     |     |     |          |     |     |     |        |     |   |  |
| Gra-vel                                 | Total                          | Thickness (cm,comp.)                         |                                    |                  |     |     |          |     |     |          |          |     |     |              |          |     |     |            |          |     |     |     |          |     |     |     |          |     |     |     |          |     |     |       |          |     |     |     |          |     |     |     |        |     |   |  |
|                                         |                                | Source (quarry No.)                          |                                    |                  |     |     |          |     |     |          |          |     |     |              |          |     |     |            |          |     |     |     |          |     |     |     |          |     |     |     |          |     |     |       |          |     |     |     |          |     |     |     |        |     |   |  |
| Longitudinal gradient (in %)            |                                |                                              | 0                                  |                  |     |     | 0        |     |     |          | 0        |     |     |              | 0        |     |     |            | 0        |     |     |     | 0        |     |     |     | 0        |     |     |     | 0        |     |     |       | 0        |     |     |     | 0        |     |     |     |        |     |   |  |
| Mitre drains                            | Total                          | Number left =                                | 1                                  |                  |     |     |          |     |     | 1        |          |     |     |              | 1        |     |     |            |          |     |     | 1   |          |     |     |     |          |     |     | 1   |          |     |     |       |          |     |     |     |          |     |     |     |        |     |   |  |
|                                         | 10                             | Number right =                               |                                    |                  |     |     | 1        |     |     |          |          |     | 1   |              |          |     |     |            | 1        |     |     |     |          |     |     | 1   |          |     |     |     |          |     |     | 1     |          |     |     |     |          |     |     |     |        |     |   |  |
| Catch water                             | Total                          | Length of drain left =                       | 100                                |                  |     |     | 100      |     |     |          |          | 100 |     |              |          |     |     | 100        |          |     |     |     |          |     | 100 |     |          |     |     | 100 |          |     |     |       |          |     |     |     |          |     |     |     |        |     |   |  |
|                                         | 1,400                          | Length of drain right =                      |                                    |                  |     |     |          |     |     |          |          |     |     |              |          |     |     |            |          |     |     |     |          |     | 100 |     |          |     | 100 |     |          |     |     |       |          |     |     |     |          |     |     |     |        |     |   |  |
| Culverts                                | N Ex                           | Chainage (m) = New line                      | 31+000 N                           |                  |     |     |          |     |     | 31+200 N |          |     |     |              |          |     |     |            |          |     |     |     |          |     |     |     |          |     |     |     |          |     |     |       |          |     |     |     |          |     |     |     |        |     |   |  |
|                                         |                                | = Existing line                              |                                    |                  |     |     |          |     |     |          |          |     |     |              |          |     |     |            |          |     |     |     |          |     |     |     |          |     |     |     |          |     |     |       |          |     |     |     |          |     |     |     |        |     |   |  |
|                                         |                                | = Cross drainage                             | CD                                 |                  |     |     |          |     |     | CD       |          |     |     |              |          |     |     |            |          |     |     |     |          |     |     |     |          |     |     |     |          |     |     |       |          |     |     |     |          |     |     |     |        |     |   |  |
|                                         |                                | = Access culvert/ drift                      |                                    |                  |     |     |          |     |     |          |          |     |     |              |          |     |     |            |          |     |     |     |          |     |     |     |          |     |     |     |          |     |     |       |          |     |     |     |          |     |     |     |        |     |   |  |
|                                         | 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) =<br>=Total No. this sheet |                                    |                  |     |     |          |     |     |          |          |     |     |              |          |     |     |            |          |     |     |     |          |     |     |     |          |     |     |     |          |     |     |       |          |     |     |     |          |     |     |     |        |     |   |  |
| Additional Instruction as per Reference |                                |                                              | End of Realigned section KM 31+600 |                  |     |     |          |     |     |          |          |     |     |              |          |     |     |            |          |     |     |     |          |     |     |     |          |     |     |     |          |     |     | drift |          |     |     |     |          |     |     |     |        |     |   |  |





|                                                                                                                                        |  |                                                                                  |             |   |     |             |        |     |             |   |     |             |    |     |             |         |        |             |    |       |             |                                         |     |             |    |        |             |    |       |                 |    |
|----------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------|-------------|---|-----|-------------|--------|-----|-------------|---|-----|-------------|----|-----|-------------|---------|--------|-------------|----|-------|-------------|-----------------------------------------|-----|-------------|----|--------|-------------|----|-------|-----------------|----|
| Quantity Assessment                                                                                                                    |  | LOGLOGO-KORR                                                                     |             |   |     |             |        |     |             |   |     | -           |    | -   |             | County: |        | MARSABIT    |    | From: |             | 32+000                                  |     | To:         |    | 33+000 |             | pg |       | 9               |    |
| Chainage:                                                                                                                              |  | 32+000                                                                           |             |   |     |             | 32+200 |     |             |   |     | 32+400      |    |     |             |         | 32+600 |             |    |       |             | 32+800                                  |     |             |    |        | 33+000      |    |       |                 |    |
| Input Measurements:                                                                                                                    |  | Free Clearance Width for Calculating areas                                       |             |   |     |             |        |     |             |   |     |             |    |     |             |         |        |             |    |       |             |                                         |     |             |    |        |             |    |       |                 |    |
|                                                                                                                                        |  | Aver. (m) 1 to 4 readings <sup>*)</sup>                                          |             |   |     |             |        |     |             |   |     |             |    |     |             |         |        |             |    |       |             | Aver. (m) 1 to 4 readings               |     |             |    |        |             |    |       |                 |    |
| Bush Clearing                                                                                                                          |  | 10                                                                               | 10          | 0 | 0   | 0           | m      | 10  | 10          | 0 | 0   | 0           | m  | 10  | 10          | 0       | 0      | 0           | m  | 10    | 10          | 0                                       | 0   | 0           | m  | 10     | 10          | 0  | 0     | 0               | m  |
| Grass Cutting                                                                                                                          |  |                                                                                  |             |   |     |             | m      |     |             |   |     |             | m  |     |             |         |        |             | m  |       |             |                                         |     |             | m  |        |             |    |       |                 | m  |
| Grubbing                                                                                                                               |  | 10                                                                               | 10          | 0 | 0   | 0           | m      | 10  | 10          | 0 | 0   | 0           | m  | 10  | 10          | 0       | 0      | 0           | m  | 10    | 10          | 0                                       | 0   | 0           | m  | 10     | 10          | 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                                                                                                                   |  |                                                                                  |             |   |     |             |        |     |             |   |     |             |    |     |             |         |        |             |    |       |             |                                         |     |             |    |        |             |    |       |                 |    |
| Measurements for small cut to fill:                                                                                                    |  | Height of Cut / Differences in Levels for calculating volumes                    |             |   |     |             |        |     |             |   |     |             |    |     |             |         |        |             |    |       |             |                                         |     |             |    |        |             |    |       |                 |    |
|                                                                                                                                        |  | Aver. (m) 1 to 4 readings <sup>*)</sup>                                          |             |   |     |             |        |     |             |   |     |             |    |     |             |         |        |             |    |       |             | Aver. (m) 1 to 4 readings <sup>*)</sup> |     |             |    |        |             |    |       |                 |    |
| Height of cut < 0.25m                                                                                                                  |  | 0                                                                                | 0           |   |     |             | cm     | 0   |             |   |     |             | cm | 0   |             | 0       |        | 0           | cm | 0     |             | 0                                       |     | 0           | cm | 0      |             | 0  |       | 0               | cm |
| Height of cut > 0.25m                                                                                                                  |  | 0                                                                                | 0           |   |     |             | cm     | 0   |             |   |     |             | cm | 0   |             | 0       |        | 0           | cm | 0     |             | 0                                       |     | 0           | cm | 0      |             | 0  |       | 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 |
| 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                                                                                                                          |  | 600                                                                              | m2          |   | 600 | m2          |        | 600 | m2          |   | 600 | m2          |    | 600 | m2          |         | 600    | m2          |    | 600   | m2          |                                         | 600 | m2          |    | 600    | m2          |    | 3,000 |                 |    |
| Grass Cutting                                                                                                                          |  |                                                                                  | m2          |   |     | m2          |        |     | m2          |   |     | m2          |    |     | m2          |         |        | m2          |    |       | m2          |                                         |     | m2          |    |        | m2          |    |       |                 |    |
| Grubbing                                                                                                                               |  | 200                                                                              | m2          |   | 200 | m2          |        | 200 | m2          |   | 200 | m2          |    | 200 | m2          |         | 200    | m2          |    | 200   | m2          |                                         | 200 | m2          |    | 200    | m2          |    | 1,000 |                 |    |
| Tree and stump removal                                                                                                                 |  | 0                                                                                | No.         |   | 0   | No.         |        | 0   | No.         |   | 0   | No.         |    | 0   | No.         |         | 0      | No.         |    | 0     | No.         |                                         | 0   | No.         |    | 0      | No.         |    | 0     |                 |    |
|                                                                                                                                        |  |                                                                                  |             |   |     |             |        |     |             |   |     |             |    |     |             |         |        |             |    |       |             |                                         |     |             |    |        |             |    |       |                 |    |
|                                                                                                                                        |  | Quantities                                                                       |             |   |     |             |        |     |             |   |     |             |    |     |             |         |        |             |    |       |             |                                         |     |             |    |        |             |    |       | Total this page |    |
| 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     |                 |    |
| 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     |                 |    |
| Embankment/Fill                                                                                                                        |  | 162                                                                              | m3 (insitu) |   | 162 | m3 (insitu) |        | 162 | m3 (insitu) |   | 162 | m3 (insitu) |    | 162 | m3 (insitu) |         | 162    | m3 (insitu) |    | 162   | m3 (insitu) |                                         | 162 | m3 (insitu) |    | 162    | m3 (insitu) |    | 810   |                 |    |
| Drains full re-construction                                                                                                            |  | 242                                                                              | m3 (insitu) |   | 242 | m3 (insitu) |        | 242 | m3 (insitu) |   | 242 | m3 (insitu) |    | 242 | m3 (insitu) |         | 242    | m3 (insitu) |    | 242   | m3 (insitu) |                                         | 242 | m3 (insitu) |    | 242    | m3 (insitu) |    | 1,208 |                 |    |
| 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 Method                                                                                                              |  |                                                                                  | m3 (insitu) |   |     | m3 (insitu) |        |     | m3 (insitu) |   |     | m3 (insitu) |    |     | m3 (insitu) |         |        | m3 (insitu) |    |       | m3 (insitu) |                                         |     | m3 (insitu) |    |        | m3 (insitu) |    |       |                 |    |
| Data Collected by: Name: ..... Date: ..... Signature: .....                                                                            |  |                                                                                  |             |   |     |             |        |     |             |   |     |             |    |     |             |         |        |             |    |       |             |                                         |     |             |    |        |             |    |       |                 |    |



|                                                                                                                                        |  |                                                                                  |             |   |       |         |             |          |       |        |             |        |       |        |             |        |                                         |        |             |   |       |                 |             |   |       |   |       |   |   |   |    |
|----------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------|-------------|---|-------|---------|-------------|----------|-------|--------|-------------|--------|-------|--------|-------------|--------|-----------------------------------------|--------|-------------|---|-------|-----------------|-------------|---|-------|---|-------|---|---|---|----|
| Quantity Assessment                                                                                                                    |  | LOGLOGO-KORR                                                                     |             | - | -     | County: |             | MARSABIT |       | From:  |             | 33+000 |       | To:    |             | 34+000 |                                         | pg     | 10          |   |       |                 |             |   |       |   |       |   |   |   |    |
| Chainage:                                                                                                                              |  | 33+000                                                                           |             |   |       | 33+200  |             |          |       | 33+400 |             |        |       | 33+600 |             |        |                                         | 33+800 |             |   |       | 34+000          |             |   |       |   |       |   |   |   |    |
| Input Measurements:                                                                                                                    |  | Free Clearance Width for Calculating areas                                       |             |   |       |         |             |          |       |        |             |        |       |        |             |        |                                         |        |             |   |       |                 |             |   |       |   |       |   |   |   |    |
|                                                                                                                                        |  | Aver. (m) 1 to 4 readings <sup>*)</sup>                                          |             |   |       |         |             |          |       |        |             |        |       |        |             |        | Aver. (m) 1 to 4 readings               |        |             |   |       |                 |             |   |       |   |       |   |   |   |    |
| Bush Clearing                                                                                                                          |  | 8                                                                                | 8           | 0 | 0     | 0       | m           | 8        | 8     | 0      | 0           | 0      | m     | 8      | 8           | 0      | 0                                       | 0      | m           | 8 | 8     | 0               | 0           | 0 | m     | 8 | 8     | 0 | 0 | 0 | m  |
| Grass Cutting                                                                                                                          |  |                                                                                  |             |   |       |         | m           |          |       |        |             |        | m     |        |             |        |                                         |        | m           |   |       |                 |             |   | m     |   |       |   |   |   | m  |
| Grubbing                                                                                                                               |  | 8                                                                                | 8           | 0 | 0     | 0       | m           | 8        | 8     | 0      | 0           | 0      | m     | 8      | 8           | 0      | 0                                       | 0      | m           | 8 | 8     | 0               | 0           | 0 | m     | 8 | 8     | 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                                                                                                                   |  |                                                                                  |             |   |       |         |             |          |       |        |             |        |       |        |             |        |                                         |        |             |   |       |                 |             |   |       |   |       |   |   |   |    |
| Measurements for small cut to fill:                                                                                                    |  | Height of Cut / Differences in Levels for calculating volumes                    |             |   |       |         |             |          |       |        |             |        |       |        |             |        |                                         |        |             |   |       |                 |             |   |       |   |       |   |   |   |    |
|                                                                                                                                        |  | Aver. (m) 1 to 4 readings <sup>*)</sup>                                          |             |   |       |         |             |          |       |        |             |        |       |        |             |        | Aver. (m) 1 to 4 readings <sup>*)</sup> |        |             |   |       |                 |             |   |       |   |       |   |   |   |    |
| Height of cut < 0.25m                                                                                                                  |  | 0                                                                                | 0           |   |       |         | cm          | 0        |       |        |             |        | cm    | 0      |             | 0      |                                         | 0      | cm          | 0 |       | 0               |             | 0 | cm    | 0 |       | 0 |   | 0 | cm |
| Height of cut > 0.25m                                                                                                                  |  | 0                                                                                | 0           |   |       |         | cm          | 0        |       |        |             |        | cm    | 0      |             | 0      |                                         | 0      | cm          | 0 |       | 0               |             | 0 | cm    | 0 |       | 0 |   | 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 |
| 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                                                                                                                          |  | 1,000                                                                            | m2          |   | 1,000 |         | m2          |          | 1,000 |        | m2          |        | 1,000 |        | m2          |        | 1,000                                   |        | m2          |   | 1,000 |                 | m2          |   | 1,000 |   | 5,000 |   |   |   |    |
| Grass Cutting                                                                                                                          |  |                                                                                  | m2          |   |       |         | m2          |          |       |        | m2          |        |       |        | m2          |        |                                         |        | m2          |   |       |                 | m2          |   |       |   |       |   |   |   |    |
| Grubbing                                                                                                                               |  | 600                                                                              | m2          |   | 600   |         | m2          |          | 600   |        | m2          |        | 600   |        | m2          |        | 600                                     |        | m2          |   | 600   |                 | m2          |   | 600   |   | 3,000 |   |   |   |    |
| Tree and stump removal                                                                                                                 |  | 0                                                                                | No.         |   | 0     |         | No.         |          | 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) |        | 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                                       |        | m3 (insitu) |   | 0     |                 | m3 (insitu) |   | 0     |   |       |   |   |   |    |
| Embankment/Fill                                                                                                                        |  | 162                                                                              | m3 (insitu) |   | 162   |         | m3 (insitu) |          | 162   |        | m3 (insitu) |        | 162   |        | m3 (insitu) |        | 162                                     |        | m3 (insitu) |   | 162   |                 | m3 (insitu) |   | 162   |   | 810   |   |   |   |    |
| Drains full re-construction                                                                                                            |  | 242                                                                              | m3 (insitu) |   | 242   |         | m3 (insitu) |          | 242   |        | m3 (insitu) |        | 242   |        | m3 (insitu) |        | 242                                     |        | m3 (insitu) |   | 242   |                 | m3 (insitu) |   | 242   |   | 1,208 |   |   |   |    |
| Reshaping by Labour                                                                                                                    |  |                                                                                  | 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) |   |       |   |       |   |   |   |    |
| By Equipment Based Method                                                                                                              |  |                                                                                  | m3 (insitu) |   |       |         | m3 (insitu) |          |       |        | m3 (insitu) |        |       |        | m3 (insitu) |        |                                         |        | m3 (insitu) |   |       |                 | m3 (insitu) |   |       |   |       |   |   |   |    |
| Data Collected by: Name: ..... Date: ..... Signature: .....                                                                            |  |                                                                                  |             |   |       |         |             |          |       |        |             |        |       |        |             |        |                                         |        |             |   |       |                 |             |   |       |   |       |   |   |   |    |



|                                                                                                                                        |  |                                                                                  |             |   |       |         |             |          |       |        |             |        |       |        |             |        |       |        |             |                 |       |                                         |       |   |    |   |   |   |   |   |    |
|----------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------|-------------|---|-------|---------|-------------|----------|-------|--------|-------------|--------|-------|--------|-------------|--------|-------|--------|-------------|-----------------|-------|-----------------------------------------|-------|---|----|---|---|---|---|---|----|
| Quantity Assessment                                                                                                                    |  | LOGLOGO-KORR                                                                     |             | - | -     | County: |             | MARSABIT |       | From:  |             | 34+000 |       | To:    |             | 35+000 |       | pg     | 11          |                 |       |                                         |       |   |    |   |   |   |   |   |    |
| Chainage:                                                                                                                              |  | 34+000                                                                           |             |   |       | 34+200  |             |          |       | 34+400 |             |        |       | 34+600 |             |        |       | 34+800 |             |                 |       | 35+000                                  |       |   |    |   |   |   |   |   |    |
| Input Measurements:                                                                                                                    |  | Free Clearance Width for Calculating areas                                       |             |   |       |         |             |          |       |        |             |        |       |        |             |        |       |        |             |                 |       |                                         |       |   |    |   |   |   |   |   |    |
|                                                                                                                                        |  | Aver. (m) 1 to 4 readings <sup>*)</sup>                                          |             |   |       |         |             |          |       |        |             |        |       |        |             |        |       |        |             |                 |       | Aver. (m) 1 to 4 readings               |       |   |    |   |   |   |   |   |    |
| Bush Clearing                                                                                                                          |  | 8                                                                                | 8           | 0 | 0     | 0       | m           | 8        | 8     | 0      | 0           | 0      | m     | 8      | 8           | 0      | 0     | 0      | m           | 8               | 8     | 0                                       | 0     | 0 | m  | 8 | 8 | 0 | 0 | 0 | m  |
| Grass Cutting                                                                                                                          |  |                                                                                  |             |   |       |         | m           |          |       |        |             |        | m     |        |             |        |       |        | m           |                 |       |                                         |       |   | m  |   |   |   |   |   | m  |
| Grubbing                                                                                                                               |  | 8                                                                                | 8           | 0 | 0     | 0       | m           | 8        | 8     | 0      | 0           | 0      | m     | 8      | 8           | 0      | 0     | 0      | m           | 8               | 8     | 0                                       | 0     | 0 | m  | 8 | 8 | 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                                                                                                                   |  |                                                                                  |             |   |       |         |             |          |       |        |             |        |       |        |             |        |       |        |             |                 |       |                                         |       |   |    |   |   |   |   |   |    |
| Measurements for small cut to fill:                                                                                                    |  | Height of Cut / Differences in Levels for calculating volumes                    |             |   |       |         |             |          |       |        |             |        |       |        |             |        |       |        |             |                 |       |                                         |       |   |    |   |   |   |   |   |    |
|                                                                                                                                        |  | Aver. (m) 1 to 4 readings <sup>*)</sup>                                          |             |   |       |         |             |          |       |        |             |        |       |        |             |        |       |        |             |                 |       | Aver. (m) 1 to 4 readings <sup>*)</sup> |       |   |    |   |   |   |   |   |    |
| Height of cut < 0.25m                                                                                                                  |  | 0                                                                                | 0           |   |       |         | cm          | 0        |       |        |             |        | cm    | 0      |             | 0      |       | 0      | cm          | 0               |       | 0                                       |       | 0 | cm | 0 |   | 0 |   | 0 | cm |
| Height of cut > 0.25m                                                                                                                  |  | 0                                                                                | 0           |   |       |         | cm          | 0        |       |        |             |        | cm    | 0      |             | 0      |       | 0      | cm          | 0               |       | 0                                       |       | 0 | cm | 0 |   | 0 |   | 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 |
| 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                                                                                                                          |  | 1,000                                                                            | m2          |   | 1,000 |         | m2          |          | 1,000 |        | m2          |        | 1,000 |        | m2          |        | 1,000 |        | m2          |                 | 1,000 |                                         | 5,000 |   |    |   |   |   |   |   |    |
| Grass Cutting                                                                                                                          |  |                                                                                  | m2          |   |       |         | m2          |          |       |        | m2          |        |       |        | m2          |        |       |        | m2          |                 |       |                                         |       |   |    |   |   |   |   |   |    |
| Grubbing                                                                                                                               |  | 600                                                                              | m2          |   | 600   |         | m2          |          | 600   |        | m2          |        | 600   |        | m2          |        | 600   |        | m2          |                 | 600   |                                         | 3,000 |   |    |   |   |   |   |   |    |
| Tree and stump removal                                                                                                                 |  | 0                                                                                | No.         |   | 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) |        | 0     |        | m3 (insitu) |                 | 0     |                                         | 0     |   |    |   |   |   |   |   |    |
| Height of cut > 0.25m                                                                                                                  |  | 0                                                                                | m3 (insitu) |   | 0     |         | m3 (insitu) |          | 0     |        | m3 (insitu) |        | 0     |        | m3 (insitu) |        | 0     |        | m3 (insitu) |                 | 0     |                                         |       |   |    |   |   |   |   |   |    |
| Embankment/Fill                                                                                                                        |  | 162                                                                              | m3 (insitu) |   | 162   |         | m3 (insitu) |          | 162   |        | m3 (insitu) |        | 162   |        | m3 (insitu) |        | 162   |        | m3 (insitu) |                 | 162   |                                         | 810   |   |    |   |   |   |   |   |    |
| Drains full re-construction                                                                                                            |  | 242                                                                              | m3 (insitu) |   | 242   |         | m3 (insitu) |          | 242   |        | m3 (insitu) |        | 242   |        | m3 (insitu) |        | 242   |        | m3 (insitu) |                 | 242   |                                         | 1,208 |   |    |   |   |   |   |   |    |
| 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                                                                                                                    |  | LOGLOGO-KORR                                                                     |             | - | -     | County: |             | MARSABIT |       | From:  |             | 35+000 |     | To:    |             | 36+000 |                                         | pg     | 12    |   |   |        |   |   |    |                 |   |   |   |   |    |
| Chainage:                                                                                                                              |  | 35+000                                                                           |             |   |       | 35+200  |             |          |       | 35+400 |             |        |     | 35+600 |             |        |                                         | 35+800 |       |   |   | 36+000 |   |   |    |                 |   |   |   |   |    |
| Input Measurements:                                                                                                                    |  | Free Clearance Width for Calculating areas                                       |             |   |       |         |             |          |       |        |             |        |     |        |             |        |                                         |        |       |   |   |        |   |   |    |                 |   |   |   |   |    |
|                                                                                                                                        |  | Aver. (m) 1 to 4 readings <sup>*)</sup>                                          |             |   |       |         |             |          |       |        |             |        |     |        |             |        | Aver. (m) 1 to 4 readings               |        |       |   |   |        |   |   |    |                 |   |   |   |   |    |
| Bush Clearing                                                                                                                          |  | 8                                                                                | 8           | 0 | 0     | 0       | m           | 8        | 8     | 0      | 0           | 0      | m   | 8      | 8           | 0      | 0                                       | 0      | m     | 9 | 9 | 0      | 0 | 0 | m  | 9               | 9 | 0 | 0 | 0 | m  |
| Grass Cutting                                                                                                                          |  |                                                                                  |             |   |       |         | m           |          |       |        |             |        | m   |        |             |        |                                         |        | m     |   |   |        |   |   | m  |                 |   |   |   |   | m  |
| Grubbing                                                                                                                               |  | 8                                                                                | 8           | 0 | 0     | 0       | m           | 8        | 8     | 0      | 0           | 0      | m   | 8      | 8           | 0      | 0                                       | 0      | m     | 9 | 9 | 0      | 0 | 0 | m  | 9               | 9 | 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                                                                                                                   |  |                                                                                  |             |   |       |         |             |          |       |        |             |        |     |        |             |        |                                         |        |       |   |   |        |   |   |    |                 |   |   |   |   |    |
| Measurements for small cut to fill:                                                                                                    |  | Height of Cut / Differences in Levels for calculating volumes                    |             |   |       |         |             |          |       |        |             |        |     |        |             |        |                                         |        |       |   |   |        |   |   |    |                 |   |   |   |   |    |
|                                                                                                                                        |  | Aver. (m) 1 to 4 readings <sup>*)</sup>                                          |             |   |       |         |             |          |       |        |             |        |     |        |             |        | Aver. (m) 1 to 4 readings <sup>*)</sup> |        |       |   |   |        |   |   |    |                 |   |   |   |   |    |
| Height of cut < 0.25m                                                                                                                  |  | 0                                                                                | 0           |   |       |         | cm          | 0        |       |        |             |        | cm  | 0      |             | 0      |                                         | 0      | cm    | 0 |   | 0      |   | 0 | cm | 0               |   | 0 |   | 0 | cm |
| Height of cut > 0.25m                                                                                                                  |  | 0                                                                                | 0           |   |       |         | cm          | 0        |       |        |             |        | cm  | 0      |             | 0      |                                         | 0      | cm    | 0 |   | 0      |   | 0 | cm | 0               |   | 0 |   | 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 |
| 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                                                                                                                          |  | 1,000                                                                            | m2          |   | 1,000 |         | m2          |          | 1,000 |        | m2          |        | 800 |        | m2          |        | 800                                     |        | 4,600 |   |   |        |   |   |    |                 |   |   |   |   |    |
| Grass Cutting                                                                                                                          |  |                                                                                  | m2          |   |       |         | m2          |          |       |        | m2          |        |     |        | m2          |        |                                         |        |       |   |   |        |   |   |    |                 |   |   |   |   |    |
| Grubbing                                                                                                                               |  | 600                                                                              | m2          |   | 600   |         | m2          |          | 600   |        | m2          |        | 400 |        | m2          |        | 400                                     |        | 2,600 |   |   |        |   |   |    |                 |   |   |   |   |    |
| 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) |        | 0                                       |        | 0     |   |   |        |   |   |    |                 |   |   |   |   |    |
| Height of cut > 0.25m                                                                                                                  |  | 0                                                                                | m3 (insitu) |   | 0     |         | m3 (insitu) |          | 0     |        | m3 (insitu) |        |     |        | m3 (insitu) |        | 0                                       |        |       |   |   |        |   |   |    |                 |   |   |   |   |    |
| Embankment/Fill                                                                                                                        |  | 162                                                                              | m3 (insitu) |   | 162   |         | m3 (insitu) |          | 162   |        | m3 (insitu) |        | 162 |        | m3 (insitu) |        | 162                                     |        | 810   |   |   |        |   |   |    |                 |   |   |   |   |    |
| Drains full re-construction                                                                                                            |  | 242                                                                              | m3 (insitu) |   | 242   |         | m3 (insitu) |          | 242   |        | m3 (insitu) |        | 242 |        | m3 (insitu) |        | 242                                     |        | 1,208 |   |   |        |   |   |    |                 |   |   |   |   |    |
| 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                                                                                                                    |  | LOGLOGO-KORR                                                                     |             |   |       |   |             |     |       |   |             | -      |       | -   |             | County: |        | MARSABIT |             |     |       |        |             |   |       |     |                                         | From: |   | 36+000          |    | To: |  | 37+000 |  | pg |  | 13 |  |
| Chainage:                                                                                                                              |  | 36+000                                                                           |             |   |       |   | 36+200      |     |       |   |             | 36+400 |       |     |             |         | 36+600 |          |             |     |       | 36+800 |             |   |       |     | 37+000                                  |       |   |                 |    |     |  |        |  |    |  |    |  |
| Input Measurements:                                                                                                                    |  | Free Clearance Width for Calculating areas                                       |             |   |       |   |             |     |       |   |             |        |       |     |             |         |        |          |             |     |       |        |             |   |       |     |                                         |       |   |                 |    |     |  |        |  |    |  |    |  |
|                                                                                                                                        |  | Aver. (m) 1 to 4 readings <sup>*)</sup>                                          |             |   |       |   |             |     |       |   |             |        |       |     |             |         |        |          |             |     |       |        |             |   |       |     | Aver. (m) 1 to 4 readings               |       |   |                 |    |     |  |        |  |    |  |    |  |
| Bush Clearing                                                                                                                          |  | 2.5                                                                              | 2.5         | 0 | 0     | 0 | m           | 2.5 | 2.5   | 0 | 0           | 0      | m     | 2.5 | 2.5         | 0       | 0      | 0        | m           | 2.5 | 2.5   | 0      | 0           | 0 | m     | 2.5 | 2.5                                     | 0     | 0 | 0               | m  |     |  |        |  |    |  |    |  |
| Grass Cutting                                                                                                                          |  |                                                                                  |             |   |       |   | m           |     |       |   |             |        | m     |     |             |         |        |          | m           |     |       |        |             |   | m     |     |                                         |       |   |                 | m  |     |  |        |  |    |  |    |  |
| Grubbing                                                                                                                               |  | 2.5                                                                              | 2.5         | 0 | 0     | 0 | m           | 2.5 | 2.5   | 0 | 0           | 0      | m     | 2.5 | 2.5         | 0       | 0      | 0        | m           | 2.5 | 2.5   | 0      | 0           | 0 | m     | 2.5 | 2.5                                     | 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                                                                                                                   |  |                                                                                  |             |   |       |   |             |     |       |   |             |        |       |     |             |         |        |          |             |     |       |        |             |   |       |     |                                         |       |   |                 |    |     |  |        |  |    |  |    |  |
| Measurements for small cut to fill:                                                                                                    |  | Height of Cut / Differences in Levels for calculating volumes                    |             |   |       |   |             |     |       |   |             |        |       |     |             |         |        |          |             |     |       |        |             |   |       |     |                                         |       |   |                 |    |     |  |        |  |    |  |    |  |
|                                                                                                                                        |  | Aver. (m) 1 to 4 readings <sup>*)</sup>                                          |             |   |       |   |             |     |       |   |             |        |       |     |             |         |        |          |             |     |       |        |             |   |       |     | Aver. (m) 1 to 4 readings <sup>*)</sup> |       |   |                 |    |     |  |        |  |    |  |    |  |
| Height of cut < 0.25m                                                                                                                  |  | 0                                                                                | 0           |   |       |   | cm          | 0   |       |   |             |        | cm    | 0   |             | 0       |        | 0        | cm          | 0   |       | 0      |             | 0 | cm    | 0   |                                         | 0     |   | 0               | cm |     |  |        |  |    |  |    |  |
| Height of cut > 0.25m                                                                                                                  |  | 0                                                                                | 0           |   |       |   | cm          | 0   |       |   |             |        | cm    | 0   |             | 0       |        | 0        | cm          | 0   |       | 0      |             | 0 | cm    | 0   |                                         | 0     |   | 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 |     |  |        |  |    |  |    |  |
| 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                                                                                                                          |  | 2,100                                                                            | m2          |   | 2,100 |   | m2          |     | 2,100 |   | m2          |        | 2,100 |     | m2          |         | 2,100  |          | m2          |     | 2,100 |        | m2          |   | 2,100 |     | 10,500                                  |       |   |                 |    |     |  |        |  |    |  |    |  |
| Grass Cutting                                                                                                                          |  |                                                                                  | m2          |   |       |   | m2          |     |       |   | m2          |        |       |     | m2          |         |        |          | m2          |     |       |        | m2          |   |       |     |                                         |       |   |                 |    |     |  |        |  |    |  |    |  |
| Grubbing                                                                                                                               |  | 1,700                                                                            | m2          |   | 1,700 |   | m2          |     | 1,700 |   | m2          |        | 1,700 |     | m2          |         | 1,700  |          | m2          |     | 1,700 |        | m2          |   | 1,700 |     | 8,500                                   |       |   |                 |    |     |  |        |  |    |  |    |  |
| Tree and stump removal                                                                                                                 |  | 0                                                                                | No.         |   | 0     |   | No.         |     | 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) |         | 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      |          | m3 (insitu) |     | 0     |        | m3 (insitu) |   | 0     |     |                                         |       |   |                 |    |     |  |        |  |    |  |    |  |
| Embankment/Fill                                                                                                                        |  | 162                                                                              | m3 (insitu) |   | 162   |   | m3 (insitu) |     | 162   |   | m3 (insitu) |        | 162   |     | m3 (insitu) |         | 162    |          | m3 (insitu) |     | 162   |        | m3 (insitu) |   | 162   |     | 810                                     |       |   |                 |    |     |  |        |  |    |  |    |  |
| Drains full re-construction                                                                                                            |  | 242                                                                              | m3 (insitu) |   | 242   |   | m3 (insitu) |     | 242   |   | m3 (insitu) |        | 242   |     | m3 (insitu) |         | 242    |          | m3 (insitu) |     | 242   |        | m3 (insitu) |   | 242   |     | 1,208                                   |       |   |                 |    |     |  |        |  |    |  |    |  |
| Reshaping by Labour                                                                                                                    |  |                                                                                  | 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) |   |       |     |                                         |       |   |                 |    |     |  |        |  |    |  |    |  |
| By Equipment Based Method                                                                                                              |  |                                                                                  | m3 (insitu) |   |       |   | m3 (insitu) |     |       |   | m3 (insitu) |        |       |     | m3 (insitu) |         |        |          | m3 (insitu) |     |       |        | m3 (insitu) |   |       |     |                                         |       |   |                 |    |     |  |        |  |    |  |    |  |
| Data Collected by: Name: ..... Date: ..... Signature: .....                                                                            |  |                                                                                  |             |   |       |   |             |     |       |   |             |        |       |     |             |         |        |          |             |     |       |        |             |   |       |     |                                         |       |   |                 |    |     |  |        |  |    |  |    |  |



|                                                                                                                                        |                                                                                  |              |   |       |   |             |     |       |   |             |        |       |     |             |   |                  |   |              |     |            |                 |        |   |    |                                         |        |   |   |   |    |
|----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|--------------|---|-------|---|-------------|-----|-------|---|-------------|--------|-------|-----|-------------|---|------------------|---|--------------|-----|------------|-----------------|--------|---|----|-----------------------------------------|--------|---|---|---|----|
| Quantity Assessment                                                                                                                    |                                                                                  | LOGLOGO-KORR |   |       |   |             |     |       |   |             |        | -     |     | -           |   | County: MARSABIT |   | From: 37+000 |     | To: 38+000 |                 | pg 14  |   |    |                                         |        |   |   |   |    |
| Chainage:                                                                                                                              | 37+000                                                                           |              |   |       |   | 37+200      |     |       |   |             | 37+400 |       |     |             |   | 37+600           |   |              |     |            | 37+800          |        |   |    |                                         | 38+000 |   |   |   |    |
| Input Measurements:                                                                                                                    | Free Clearance Width for Calculating areas                                       |              |   |       |   |             |     |       |   |             |        |       |     |             |   |                  |   |              |     |            |                 |        |   |    |                                         |        |   |   |   |    |
|                                                                                                                                        | Aver. (m) 1 to 4 readings <sup>*)</sup>                                          |              |   |       |   |             |     |       |   |             |        |       |     |             |   |                  |   |              |     |            |                 |        |   |    | Aver. (m) 1 to 4 readings               |        |   |   |   |    |
| Bush Clearing                                                                                                                          | 2.5                                                                              | 2.5          | 0 | 0     | 0 | m           | 2.5 | 2.5   | 0 | 0           | 0      | m     | 2.5 | 2.5         | 0 | 0                | 0 | m            | 2.5 | 2.5        | 0               | 0      | 0 | m  | 2.5                                     | 2.5    | 0 | 0 | 0 | m  |
| Grass Cutting                                                                                                                          |                                                                                  |              |   |       |   | m           |     |       |   |             |        | m     |     |             |   |                  |   | m            |     |            |                 |        |   | m  |                                         |        |   |   |   | m  |
| Grubbing                                                                                                                               | 2.5                                                                              | 2.5          | 0 | 0     | 0 | m           | 2.5 | 2.5   | 0 | 0           | 0      | m     | 2.5 | 2.5         | 0 | 0                | 0 | m            | 2.5 | 2.5        | 0               | 0      | 0 | m  | 2.5                                     | 2.5    | 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                                                                                                                   |                                                                                  |              |   |       |   |             |     |       |   |             |        |       |     |             |   |                  |   |              |     |            |                 |        |   |    |                                         |        |   |   |   |    |
| Measurements for small cut to fill:                                                                                                    | Height of Cut / Differences in Levels for calculating volumes                    |              |   |       |   |             |     |       |   |             |        |       |     |             |   |                  |   |              |     |            |                 |        |   |    |                                         |        |   |   |   |    |
|                                                                                                                                        | Aver. (m) 1 to 4 readings <sup>*)</sup>                                          |              |   |       |   |             |     |       |   |             |        |       |     |             |   |                  |   |              |     |            |                 |        |   |    | Aver. (m) 1 to 4 readings <sup>*)</sup> |        |   |   |   |    |
| Height of cut < 0.25m                                                                                                                  | 0                                                                                | 0            |   |       |   | cm          | 0   |       |   |             |        | cm    | 0   |             | 0 |                  | 0 | cm           | 0   |            | 0               |        | 0 | cm | 0                                       |        | 0 |   | 0 | cm |
| Height of cut > 0.25m                                                                                                                  | 0                                                                                | 0            |   |       |   | cm          | 0   |       |   |             |        | cm    | 0   |             | 0 |                  | 0 | cm           | 0   |            | 0               |        | 0 | cm | 0                                       |        | 0 |   | 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 |
| 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                                                                                                                          | 2,100                                                                            | m2           |   | 2,100 |   | m2          |     | 2,100 |   | m2          |        | 2,100 |     | m2          |   | 2,100            |   | m2           |     | 2,100      |                 | 10,500 |   |    |                                         |        |   |   |   |    |
| Grass Cutting                                                                                                                          |                                                                                  | m2           |   |       |   | m2          |     |       |   | m2          |        |       |     | m2          |   |                  |   | m2           |     |            |                 |        |   |    |                                         |        |   |   |   |    |
| Grubbing                                                                                                                               | 1,700                                                                            | m2           |   | 1,700 |   | m2          |     | 1,700 |   | m2          |        | 1,700 |     | m2          |   | 1,700            |   | m2           |     | 1,700      |                 | 8,500  |   |    |                                         |        |   |   |   |    |
| Tree and stump removal                                                                                                                 | 0                                                                                | No.          |   | 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) |   | 0                |   | m3 (insitu)  |     | 0          |                 | 0      |   |    |                                         |        |   |   |   |    |
| Height of cut > 0.25m                                                                                                                  | 0                                                                                | m3 (insitu)  |   | 0     |   | m3 (insitu) |     | 0     |   | m3 (insitu) |        | 0     |     | m3 (insitu) |   | 0                |   | m3 (insitu)  |     | 0          |                 |        |   |    |                                         |        |   |   |   |    |
| Embankment/Fill                                                                                                                        | 162                                                                              | m3 (insitu)  |   | 162   |   | m3 (insitu) |     | 162   |   | m3 (insitu) |        | 162   |     | m3 (insitu) |   | 162              |   | m3 (insitu)  |     | 162        |                 | 810    |   |    |                                         |        |   |   |   |    |
| Drains full re-construction                                                                                                            | 242                                                                              | m3 (insitu)  |   | 242   |   | m3 (insitu) |     | 242   |   | m3 (insitu) |        | 242   |     | m3 (insitu) |   | 242              |   | m3 (insitu)  |     | 242        |                 | 1,208  |   |    |                                         |        |   |   |   |    |
| 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                                                                                                                    |                                                                                  | LOGLOGO-KORR |   |       |   |             |     |       |   |             |        | -     |     | -           |   | County: MARSABIT |   | From: 38+000 |     | To: 39+000 |                 | pg 15  |   |    |                                         |        |   |   |   |    |
| Chainage:                                                                                                                              | 38+000                                                                           |              |   |       |   | 38+200      |     |       |   |             | 38+400 |       |     |             |   | 38+600           |   |              |     |            | 38+800          |        |   |    |                                         | 39+000 |   |   |   |    |
| Input Measurements:                                                                                                                    | Free Clearance Width for Calculating areas                                       |              |   |       |   |             |     |       |   |             |        |       |     |             |   |                  |   |              |     |            |                 |        |   |    |                                         |        |   |   |   |    |
|                                                                                                                                        | Aver. (m) 1 to 4 readings <sup>*)</sup>                                          |              |   |       |   |             |     |       |   |             |        |       |     |             |   |                  |   |              |     |            |                 |        |   |    | Aver. (m) 1 to 4 readings               |        |   |   |   |    |
| Bush Clearing                                                                                                                          | 2.5                                                                              | 2.5          | 0 | 0     | 0 | m           | 2.5 | 2.5   | 0 | 0           | 0      | m     | 2.5 | 2.5         | 0 | 0                | 0 | m            | 2.5 | 2.5        | 0               | 0      | 0 | m  | 2.5                                     | 2.5    | 0 | 0 | 0 | m  |
| Grass Cutting                                                                                                                          |                                                                                  |              |   |       |   | m           |     |       |   |             |        | m     |     |             |   |                  |   | m            |     |            |                 |        |   | m  |                                         |        |   |   |   | m  |
| Grubbing                                                                                                                               | 2.5                                                                              | 2.5          | 0 | 0     | 0 | m           | 2.5 | 2.5   | 0 | 0           | 0      | m     | 2.5 | 2.5         | 0 | 0                | 0 | m            | 2.5 | 2.5        | 0               | 0      | 0 | m  | 2.5                                     | 2.5    | 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                                                                                                                   |                                                                                  |              |   |       |   |             |     |       |   |             |        |       |     |             |   |                  |   |              |     |            |                 |        |   |    |                                         |        |   |   |   |    |
| Measurements for small cut to fill:                                                                                                    | Height of Cut / Differences in Levels for calculating volumes                    |              |   |       |   |             |     |       |   |             |        |       |     |             |   |                  |   |              |     |            |                 |        |   |    |                                         |        |   |   |   |    |
|                                                                                                                                        | Aver. (m) 1 to 4 readings <sup>*)</sup>                                          |              |   |       |   |             |     |       |   |             |        |       |     |             |   |                  |   |              |     |            |                 |        |   |    | Aver. (m) 1 to 4 readings <sup>*)</sup> |        |   |   |   |    |
| Height of cut < 0.25m                                                                                                                  | 0                                                                                | 0            |   |       |   | cm          | 0   |       |   |             |        | cm    | 0   |             | 0 |                  | 0 | cm           | 0   |            | 0               |        | 0 | cm | 0                                       |        | 0 |   | 0 | cm |
| Height of cut > 0.25m                                                                                                                  | 0                                                                                | 0            |   |       |   | cm          | 0   |       |   |             |        | cm    | 0   |             | 0 |                  | 0 | cm           | 0   |            | 0               |        | 0 | cm | 0                                       |        | 0 |   | 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 |
| 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                                                                                                                          | 2,100                                                                            | m2           |   | 2,100 |   | m2          |     | 2,100 |   | m2          |        | 2,100 |     | m2          |   | 2,100            |   | m2           |     | 2,100      |                 | 10,500 |   |    |                                         |        |   |   |   |    |
| Grass Cutting                                                                                                                          |                                                                                  | m2           |   |       |   | m2          |     |       |   | m2          |        |       |     | m2          |   |                  |   | m2           |     |            |                 |        |   |    |                                         |        |   |   |   |    |
| Grubbing                                                                                                                               | 1,700                                                                            | m2           |   | 1,700 |   | m2          |     | 1,700 |   | m2          |        | 1,700 |     | m2          |   | 1,700            |   | m2           |     | 1,700      |                 | 8,500  |   |    |                                         |        |   |   |   |    |
| Tree and stump removal                                                                                                                 | 0                                                                                | No.          |   | 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) |   | 0                |   | m3 (insitu)  |     | 0          |                 | 0      |   |    |                                         |        |   |   |   |    |
| Height of cut > 0.25m                                                                                                                  | 0                                                                                | m3 (insitu)  |   | 0     |   | m3 (insitu) |     | 0     |   | m3 (insitu) |        | 0     |     | m3 (insitu) |   | 0                |   | m3 (insitu)  |     | 0          |                 |        |   |    |                                         |        |   |   |   |    |
| Embankment/Fill                                                                                                                        | 162                                                                              | m3 (insitu)  |   | 162   |   | m3 (insitu) |     | 162   |   | m3 (insitu) |        | 162   |     | m3 (insitu) |   | 162              |   | m3 (insitu)  |     | 162        |                 | 810    |   |    |                                         |        |   |   |   |    |
| Drains full re-construction                                                                                                            | 242                                                                              | m3 (insitu)  |   | 242   |   | m3 (insitu) |     | 242   |   | m3 (insitu) |        | 242   |     | m3 (insitu) |   | 242              |   | m3 (insitu)  |     | 242        |                 | 1,208  |   |    |                                         |        |   |   |   |    |
| 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                                                                                                                    |                                                                                  | LOGLOGO-KORR |   | -     | -      | County:     |     | MARSABIT |        | From:       | 39+000 |       | To:    | 40+000      |   | pg    | 16     |       |                                         |                 |        |   |   |    |   |   |   |   |   |    |
| Chainage:                                                                                                                              | 39+000                                                                           |              |   |       | 39+200 |             |     |          | 39+400 |             |        |       | 39+600 |             |   |       | 39+800 |       |                                         |                 | 40+000 |   |   |    |   |   |   |   |   |    |
| Input Measurements:                                                                                                                    | Free Clearance Width for Calculating areas                                       |              |   |       |        |             |     |          |        |             |        |       |        |             |   |       |        |       |                                         |                 |        |   |   |    |   |   |   |   |   |    |
|                                                                                                                                        | Aver. (m) 1 to 4 readings <sup>*)</sup>                                          |              |   |       |        |             |     |          |        |             |        |       |        |             |   |       |        |       | Aver. (m) 1 to 4 readings               |                 |        |   |   |    |   |   |   |   |   |    |
| Bush Clearing                                                                                                                          | 2.5                                                                              | 2.5          | 0 | 0     | 0      | m           | 2.5 | 2.5      | 0      | 0           | 0      | m     | 8      | 8           | 0 | 0     | 0      | m     | 8                                       | 8               | 0      | 0 | 0 | m  | 8 | 8 | 0 | 0 | 0 | m  |
| Grass Cutting                                                                                                                          |                                                                                  |              |   |       |        | m           |     |          |        |             |        | m     |        |             |   |       |        | m     |                                         |                 |        |   |   | m  |   |   |   |   |   | m  |
| Grubbing                                                                                                                               | 2.5                                                                              | 2.5          | 0 | 0     | 0      | m           | 2.5 | 2.5      | 0      | 0           | 0      | m     | 8      | 8           | 0 | 0     | 0      | m     | 8                                       | 8               | 0      | 0 | 0 | m  | 8 | 8 | 0 | 0 | 0 | m  |
| Tree and stump removal                                                                                                                 | 1                                                                                | 1            |   |       |        | 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                                                                                                                   |                                                                                  |              |   |       |        |             |     |          |        |             |        |       |        |             |   |       |        |       |                                         |                 |        |   |   |    |   |   |   |   |   |    |
| Measurements for small cut to fill:                                                                                                    | Height of Cut / Differences in Levels for calculating volumes                    |              |   |       |        |             |     |          |        |             |        |       |        |             |   |       |        |       |                                         |                 |        |   |   |    |   |   |   |   |   |    |
|                                                                                                                                        | Aver. (m) 1 to 4 readings <sup>*)</sup>                                          |              |   |       |        |             |     |          |        |             |        |       |        |             |   |       |        |       | Aver. (m) 1 to 4 readings <sup>*)</sup> |                 |        |   |   |    |   |   |   |   |   |    |
| Height of cut < 0.25m                                                                                                                  | 0                                                                                | 0            |   |       |        | cm          | 0   |          |        |             |        | cm    | 0      |             | 0 |       | 0      | cm    | 0                                       |                 | 0      |   | 0 | cm | 0 |   | 0 |   | 0 | cm |
| Height of cut > 0.25m                                                                                                                  | 0                                                                                | 0            |   |       |        | cm          | 0   |          |        |             |        | cm    | 0      |             | 0 |       | 0      | cm    | 0                                       |                 | 0      |   | 0 | cm | 0 |   | 0 |   | 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 |
| 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                                                                                                                          | 2,100                                                                            | m2           |   | 2,100 |        | m2          |     | 1,000    |        | m2          |        | 1,000 |        | m2          |   | 1,000 |        | 7,200 |                                         |                 |        |   |   |    |   |   |   |   |   |    |
| Grass Cutting                                                                                                                          |                                                                                  | m2           |   |       |        | m2          |     |          |        | m2          |        |       |        | m2          |   |       |        |       |                                         |                 |        |   |   |    |   |   |   |   |   |    |
| Grubbing                                                                                                                               | 1,700                                                                            | m2           |   | 1,700 |        | m2          |     | 600      |        | m2          |        | 600   |        | m2          |   | 600   |        | 5,200 |                                         |                 |        |   |   |    |   |   |   |   |   |    |
| Tree and stump removal                                                                                                                 | 1                                                                                | No.          |   | 0     |        | No.         |     | 0        |        | No.         |        | 0     |        | No.         |   | 0     |        | 1     |                                         |                 |        |   |   |    |   |   |   |   |   |    |
|                                                                                                                                        |                                                                                  |              |   |       |        |             |     |          |        |             |        |       |        |             |   |       |        |       |                                         |                 |        |   |   |    |   |   |   |   |   |    |
|                                                                                                                                        | Quantities                                                                       |              |   |       |        |             |     |          |        |             |        |       |        |             |   |       |        |       |                                         | 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     |        |       |                                         |                 |        |   |   |    |   |   |   |   |   |    |
| Embankment/Fill                                                                                                                        | 162                                                                              | m3 (insitu)  |   | 162   |        | m3 (insitu) |     | 162      |        | m3 (insitu) |        | 162   |        | m3 (insitu) |   | 162   |        | 810   |                                         |                 |        |   |   |    |   |   |   |   |   |    |
| Drains full re-construction                                                                                                            | 242                                                                              | m3 (insitu)  |   | 242   |        | m3 (insitu) |     | 242      |        | m3 (insitu) |        | 242   |        | m3 (insitu) |   | 242   |        | 1,208 |                                         |                 |        |   |   |    |   |   |   |   |   |    |
| 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: .....                                                                            |                                                                                  |              |   |       |        |             |     |          |        |             |        |       |        |             |   |       |        |       |                                         |                 |        |   |   |    |   |   |   |   |   |    |