

**REPUBLIC OF KENYA**

**MINISTRY OF ROADS AND TRANSPORT**

**STATE DEPARTMENT OF ROADS**

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Ref No. M.128/35/L/10 Date: 25th July, 2023

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| **Laboratory Test Report** |

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| **1. Customer’s Details:** COUNTY GOVERNMENT OF KIAMBU  **E-mail:** Not provided  **Address:** P.O BOX 21344-00900 NRB Phone: 0722742062  **2. Customer Contact:** 0722742062 6. Job Card No. 137/S/2023  **3. Sample Description:** Gravel &Alignment Soils 7. Date fee paid: 17/07/2023  **4. Sampled by:** Client. 8. GOK MR No.4052850  **5. Date Sample received:** 17/07/2023 9. Date Analysis started:17/07/2023  **10. Additional information provided by the customer: Construction and Upgrading of Kikuyu Lower Bus Park.**     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | TEST RESULTS | | | | | | | | | | | | | | | | | | | | | **Sample No.** | **Reference** | **Grading** | | | | | | **Atterberg Limits** | | | | | | | | | **Compaction T99** | | **CBR** | | | % Passing BS Sieve Size (mm) | | | | | | LL | | PL | | PI | | LS | | PM |  | OMC( % ) | 4days Soak  (%) | Swell(%) | | 20 | 10 | 5 | 2 | 0.425 | 0.075 | % | | % | | % | | % | |  | MDD Kg/m3 | | 087/S/23 | Entrance Native | 100 | 100 | 100 | 97 | 95 | 92 | 57 | | 27 | | 30 | | 15 | | 2880 | 1367 | 29.1 | 5 | 1.1 | | **SOIL COMPOSITION: Gravel = 3%, Sand = 5%, Silt/clay =92%** | | | | | | | | | | | | | | | | | | | | 088/S/23 | Kikuyu road 1 pit 2 | 100 | 100 | 100 | 89 | 79 | 73 | 55 | | 25 | | 30 | | 15 | | 2370 | 1364 | 32.3 | 5 | 1.3 | | **SOIL COMPOSITION: Gravel = 11%, Sand = 16%, Silt/clay =73%** | | | | | | | | | | | | | | | | | | | | 089/S/23 | Kikuyu police road 1 | 100 | 100 | 100 | 90 | 88 | 68 | 50 | 21 | | 29 | | 14 | | 2552 | | 1418 | 29.0 | 5 | 1.4 | | **SOIL COMPOSITION: Gravel = 10%, Sand =22 %, Silt/clay =68%** | | | | | | | | | | | | | | | | | | | | 090/S/23 | Point B Baraka Hotel Native | 100 | 100 | 100 | 93 | 90 | 88 | 57 | | 27 | | 30 | | 15 | | 2700 | 1372 | 33.1 | 5 | 1.5 | | **SOIL COMPOSITION: Gravel = 7%, Sand = 5%, Silt/clay =88%** | | | | | | | | | | | | | | | | | | | | 091/S/23 | Point C Native | 100 | 100 | 100 | 99 | 97 | 96 | 59 | | 29 | | 30 | | 15 | | 2910 | 1362 | 28.9 | 5 | 1.6 | | **SOIL COMPOSITION: Gravel = 1%, Sand = 3%, Silt/clay =96%** | | | | | | | | | | | | | | | | | | | |

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|  | TEST RESULTS | | | | | | | | | | | | | | | |
| **Sample No.** | **Reference** | **Grading** | | | | | | **Atterberg Limits** | | | | | **Compaction T180** | | **CBR** | |
| % Passing BS Sieve Size (mm) | | | | | | LL | PL | PI | LS | PM |  | OMC( % ) | 4days Soak  (%) | Swell(%) |
| 20 | 10 | 5 | 2 | 0.425 | 0.075 | % | % | % | % |  | MDD Kg/m3 |
| 092/S/23 | Entrance existing Gravel | 100 | 90 | 81 | 71 | 54 | 44 | 37 | 20 | 17 | 9 | 918 | 1724 | 15.9 | 30 | 0.3 |
| **SOIL COMPOSITION: Gravel = 29%, Sand = 27%, Silt/clay =44%** | | | | | | | | | | | | | | |

**Eng. J. M. Mbarua**

**For: CHIEF ENGINEER (MATERIALS)**

**OiC Soils Laboratory CSE Soils Laboratory**

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