

| LEPELLE-NKUMPI  | DOLMEN ENGINEERS | CONTRACT NUMBER: LNM002/2019/20                    | SHEET 3 of 3             |
|---|------------------|--|--------------------------|
| LOCAL MUNICIPALITY  | P.O. BOX 1200    | PROJECT NAME: UPGRADING OF ACCESS ROAD FROM GRAVEL | SCALE: AS SHOWN          |
| PRIVATE BAG X07<br>CHUENESPOORT<br>0745<br>Tel: 015 633 4500<br>Fax: 015 633 6896 |                  | TO TAR - KLIPHUIWEL - WARD 01 - PHASE 2            | CLIENT DRAWING NO:       |
|   | Tel: 015 295 4   | 385 INTERSECTION DETAILS: ROAD D3600 AND ROAD 3    | LNM002/2019/20/INT/TD/01 |
|   | Fax: 015 295 8   | 384  | REVISION 00              |

|    |  |     |    | MOD. WOTTO DENOTT |      |        |    |      |      |
|----|--|-----|----|-------------------|------|--------|----|------|------|
| 1  | 30mm ASPHALT                                 |     |    |                   |      |        |    |      | 4500 |
| 2  | BASE LAYER                                   | 150 | C3 | 97                | 1.5  | 6      | _  | 1200 | 3400 |
| 3  | STABILIZED UPPER SUBBASE                     | 150 | C3 | 97                | 1.5  | 6      | _  | 1000 | 3400 |
| 4  | STABILIZED LOWER SUBBASE                     | 150 | C4 | 95                | 1.2  | 6      | _  | 750  | 3400 |
| 5  | UPPER SELECTED                               | 150 | G6 | 95                | 1.2  | 2GM+10 | 25 |      | 3400 |
| 6  | LOWER SELECTED                               | 150 | G7 | 93                | -    | -      | 15 | _    | 3400 |
| 7  | ROADBED                                      |     | G8 | 93                | -    | -      | 10 | —    | 3300 |
| 8  | VERGE FILL COMPACTED IN<br>MAX.150 mm LAYERS |     | G9 | 93                | 0.75 | 2GM+10 | 7  | _    | 3300 |
| 9  | FILL: COMPACTED IN MAX<br>150mm THICK LAYERS |     | G9 | 93                | 0.75 | 2GM+10 | 7  | _    | 3300 |
| 10 | 3 PASS ROLLER COMPACTION                     |     |    | _                 | -    | -      | -  | _    | 3300 |
| 11 | GRAVEL SHOULDER                              | 150 | G6 | 95                | 1.2  | 2GM+10 | 25 | _    | 3400 |
|    |  |     |    | NTS               |      |        |    |      |      |

| PAVEMENT DESIGN (UTG2) (Klipheuwil D3600) |          |  |  |  |  |  |
|---|----------|--|--|--|--|--|
| ROAD CATEGORY                             | С        |  |  |  |  |  |
| AADT                                      | 3001     |  |  |  |  |  |
| FACTOR (X1.2) FOR 24 HOUR COUNT           | 1.2      |  |  |  |  |  |
| % HEAVY VEHICLES                          | 9.1 %    |  |  |  |  |  |
| YEAR COUNTED                              | 2014     |  |  |  |  |  |
| BASE YEAR                                 | 2014     |  |  |  |  |  |
| YEARS UNTIL OPEN FOR TRAFFIC              | 1        |  |  |  |  |  |
| % ANNUAL GROWTH IN TRAFFIC                | 10%      |  |  |  |  |  |
| TRAFFIC GROWTH FACTOR                     | 1.04     |  |  |  |  |  |
| AVERAGE E80'S AT BASE YEAR                | 121      |  |  |  |  |  |
| DESIGN LIFE TIME                          | 15       |  |  |  |  |  |
| TOTAL E80'S PER ANALYSIS PERIOD           | 3.19E+06 |  |  |  |  |  |
| PAVEMENT CLASS                            | ES3      |  |  |  |  |  |

- 1. ALL POINTS OF INTERSECTION WITH THE EXCEPTION OF THE CROWN OF THE ROAD MUST BE ROUNDED TO A MINIMUM WIDTH OF 0.5m
- 2. SURFACING OF SHOULDERS IS TO BE CONSIDERED WHEN CONDITIONS
- a. THE RESULTANT SLOPE EXCEEDS 5% (i.e. CROSS-FALL AND
- b. WHERE GUARDRAILS ARE REQUIRED WHICH MAKE IT DIFFICULT
- d. WHERE SHORT SECTIONS OF UNSURFACED SHOULDERS OCCUR CONSIDERATION SHOULD BE GIVEN TO MAKING THE SURFACED