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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| 1 |  | SECTION 1: PRELIMINARY AND GENERAL |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | Notes: |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | i) The agreement is to be the General Conditions of Contract for Works of Civil Engineering Construction (2015), published by the South African Institute of Civil  Engineers. |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | ii) Tenderers are referred to the above mentioned documents for the full intent and meaning of each clause thereof (hereinafter referred to by heading and clause number only)for which such allowance must be made as may be considered necessary. |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | iii) Where standard clauses or alternatives are not entirely applicable to this contract such modifications, corrections or supplements as will apply are given under each relevant clause heading. |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | iv) Where any item is not relevant to this specific  contract such item is marked N/A (Signifying 'Not Applicable') |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | v) Time related preliminaries will only be adjusted for ommissions or additions, issued by the employer, or delays caused by the employer, for which variations and extension of time has been granted |  |  |  |  |
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|  | SANS  1200 A | PRELIMINARY AND GENERAL |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.1 | PSA  8.3 | FIXED-CHARGE ITEMS | Sum | 1.0 |  |  |
|  |  |  |  |  |  |  |
| 1.1.1 | 8.3.1 | Contractual Requirements |  |  |  |  |
|  |  |  |  |  |  |  |
|  | PSA  8.3.2 | Establish Facilities on the Site : |  |  |  |  |
|  |  |  |  |  |  |  |
|  | PSA  8.3.2.1 | a) Facilities for Engineer |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.1.2 |  | Offices: 2 air-conditioned, prefabricated and furnished  room with telephones, internet connection and name- boards |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 8.3.2.2 | b) Facilities for Contractor |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.1.3 |  | Offices and storage sheds |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.1.4 |  | Ablution and latrine facilities |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.1.5 |  | Tools and equipment |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.1.6 |  | Water supplies, electric power and communications |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.1.7 |  | Dealing with water (Subclause 5.5) |  |  |  |  |
| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
| 1.1.8 |  | Access (Subclause 5.8) |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.1.9 | 8.3.3 | Other fixed-charge obligations |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.2 | PSA  8.4 | TIME-RELATED ITEMS | Sum | 1.0 |  |  |
|  |  |  |  |  |  |  |
| 1.2.1 | 8.4.1 | Contractual Requirements |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 8.4.2 | Operate and maintain facilities on the Site: |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 8.4.2.1 | a) Facilities for Engineer for duration of construction  (SANS 1200 AB) |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.2.2 |  | Survey assistants and material |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 8.4.2.2 | b) Facilities for Contractor for duration of construction,  except where otherwise stated |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.2.3 |  | Offices and storage sheds |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.2.4 |  | Ablution and latrine facilities |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.2.5 |  | Tools and equipment |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.2.6 |  | Water supplies, electric power and communications |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.2.7 |  | Dealing with water (Subclause 5.5) |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.2.8 |  | Access (Subclause 5.8) |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.2.9 | 8.4.3 | Supervision |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.2.10 | 8.4.4 | Company and head office overhead costs |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.2.11 | 8.4.5 | Other time-related obligations |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.3 | PSA  8.5 | SUMS STATED PROVISIONALLY BY ENGINEER | Sum | 1.0 |  |  |
|  |  |  |  |  |  |  |
|  | 8.8.5 | Land Survey Act |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.3.1 |  | a) Search for and record tri- gonometrical survey  beacons, bench marks and plot boundary pegs, and expose on completion of Works |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.3.2 |  | b) Protect beacons, etc., located under item .3.6 and reposition or re-establish, as ordered, the same by a Registered Land Surveyor on completion of the Works |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.3.3 |  | Progress Aerial Photography |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.3.4 |  | Engineers Testing |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.3.5 |  | Special Survey and setting out |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.3.6 |  | Provision of asbuilt information |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.3.7 |  | Security |  |  |  |  |
|  |  |  |  |  |  |  |
| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
|  |  | Health and Safety |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.3.8 |  | (a) Fixed obligations for the preparation of risk assessments, safe work procedures, the project H & S file, the H & S plan and any other H & S matters that  the contractor deems necessary. | Sum | 1.0 |  |  |
|  |  |  |  |  |  |  |
| 1.3.9 |  | (b) Fixed obligations for completing and checking the  Project H & S file and handing over to the Client on completion of the works. | Sum | 1.0 |  |  |
|  |  |  |  |  |  |  |
| 1.3.10 |  | (c) Time related obligations for updating and amending the risk assessments, safe work procedures, the project H & S file, the H & S plan and  full compliance with all H & S matters during the construction of the works under the contract. | month | 18.0 |  |  |
|  |  |  |  |  |  |  |
| 1.4 | PSA  8.7 | Daywork |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | Personnel |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.4.1 |  | (a) Unskilled labour | h | 650.0 |  |  |
|  |  |  |  |  |  |  |
| 1.4.2 |  | (b) Semi-skilled labour | h | 240.0 |  |  |
|  |  |  |  |  |  |  |
| 1.4.3 |  | (c) Skilled labour | h | 240.0 |  |  |
|  |  |  |  |  |  |  |
| 1.4.4 |  | (d) Ganger | h | 240.0 |  |  |
|  |  |  |  |  |  |  |
| 1.4.5 |  | (e) Flagmen | h | 5000.0 |  |  |
|  |  |  |  |  |  |  |
| 1.4.6 |  | (f) Site Administration Clerk | month | 18.0 | R10 000.00 | R180 000.00 |
|  |  |  |  |  |  |  |
| 1.4.7 |  | (g) Community Liaison Officer (CLO) | month | 18.0 | R10 000.00 | R180 000.00 |
|  |  |  |  |  |  |  |
| 1.4.8 |  | (h) Geotechnical Engineer with PrNatSci | month | 18.0 | R20 000.00 | R360 000.00 |
|  |  |  |  |  |  |  |
| 1.4.9 |  | (i) Surveyor | month | 18.0 | R10 000.00 | R180 000.00 |
|  |  |  |  |  |  |  |
| 1.4.10 |  | (j) Site Monitoring and Contract Administration | month | 18.0 | R200 000.00 | R3 600 000.00 |
|  |  |  |  |  |  |  |
|  |  | Plant |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.4.11 |  | (a) Bulldozer with rippers (minimum 125kW) | h | 100.0 |  |  |
|  |  |  |  |  |  |  |
| 1.4.12 |  | (b) Front end loader (minimum 60kW) | h | 100.0 |  |  |
|  |  |  |  |  |  |  |
| 1.4.13 |  | (c) Tractor loader backhoe 4 x 4 (50kW) | h | 100.0 |  |  |
|  |  |  |  |  |  |  |
| 1.4.14 |  | (d) Track excavator (125kW) | h | 100.0 |  |  |
|  |  |  |  |  |  |  |
| 1.4.15 |  | (e) Smooth drum roller (12 ton) | h | 100.0 |  |  |
|  |  |  |  |  |  |  |
| 1.4.16 |  | (f) Water bowser (10 000 litre) | h | 100.0 |  |  |
|  |  |  |  |  |  |  |
| 1.4.17 |  | (g) Tip truck 6 m³ capacity | h | 100.0 |  |  |
|  |  |  |  |  |  |  |
| 1.4.18 |  | (h) Tip truck 10 m³ capacity | h | 240.0 |  |  |
|  |  |  |  |  |  |  |
| 1.4.19 |  | (i) LDV (1600cc) | km | 1800.0 |  |  |
|  |  |  |  |  |  |  |
| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
| 1.4.20 |  | (j) Water pump (75mm diameter with 50m hose) | h | 650.0 |  |  |
|  |  |  |  |  |  |  |
| 1.5 | PSA 8.8 | TEMPORARY WORKS | Sum | 1.0 |  |  |
|  |  |  |  |  |  |  |
| 1.5.1 | 8.8.1 | Main access road to works: construction including regrading and gravelling of access roads where required as directed by the engineer |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.5.2 | 8.8.2 | Deal with traffic and maintain road (or accommodation of traffic) |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 8.8.4 | Existing services |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.5.3 |  | Excavate by hand in soft material to expose existing services |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.5.4 |  | Temporary protection of existing services |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.5.5 |  | Relocation of existing services |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.6 |  | ADHERENCE TO B.U.I.L.D PROGRAMME |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | Indirect Targeting for Enterprise Development |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.6.1 |  | Minimum of 5% of the project value to develop targeted enterprises in accordance to the CIDB guidelines and as published in Gazette Notice no. 36190 of 25 February 2013 | Prov sum | 8500000.00 |  | R8 500 000.00 |
|  |  |  |  |  |  |  |
|  |  | Contract Skills Development |  |  |  |  |
|  |  |  |  |  |  |  |
| 1.6.2 |  | Provision of minimum of 0.25% of the project value towards Contract Skills Developmnet Goal (CSDG) in accordance with CIDB guidelines and as published in Gazette Notice no. 48491 of 28 April 2023 | Prov sum | 450000.00 |  | R450 000.00 |
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| Total Carried Forward To Summary | | | | | |  |

SITE CLEARANCE

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| 2 | SANS  1200 C | SECTION 2 : SITE CLEARANCE |  |  |  |  |
|  |  |  |  |  |  |  |
| 2.1 |  | CLEAR SITE |  |  |  |  |
|  |  |  |  |  |  |  |
| 2.1.1 | 8.2.1 | Clear and grub Site | ha | 6.0 |  |  |
|  |  |  |  |  |  |  |
|  | 8.2.2 | Remove and grub large trees and tree stumps of girth  over and up to |  |  |  |  |
|  |  |  |  |  |  |  |
| 2.1.2 |  | a) over 1 m and up to and including 2 m | No. | 10.0 |  |  |
|  |  |  |  |  |  |  |
| 2.1.3 |  | b) over 2 m and up to and includlng 3 m | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 2.1.4 |  | c) over 3 m, in steps of 1 m | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
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| Total Carried Forward To Summary | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| 3 |  | SECTION 3: ROADWORKS |  |  |  |  |
|  |  |  |  |  |  |  |
|  | SANS  1200 DM | PREPARATION OF SITE |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.1 | PSDM  8.3.2(a) | Removal of topsoil to 300mm deep, stockpile and  maintain | m³ | 4750.0 |  |  |
|  |  |  |  |  |  |  |
|  |  | TREATMENT OF ROAD-BED |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.2 | PSDM  8.3.3 (c) | Three-pass roller compaction |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.2.1 |  | Vibratory roller | m² | 10675.0 |  |  |
|  |  |  |  |  |  |  |
| 3.2.2 |  | Impact roller | m² | 4270.0 |  |  |
|  |  |  |  |  |  |  |
| 3.3 | 8.3.3(a) | Road-bed preparation and compaction of material |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.3.1 |  | Compact to 93 % mod. AASHTO maximum density | m³ | 1605.0 |  |  |
|  |  |  |  |  |  |  |
|  |  | Sidewalk preparation and compaction of material |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.3.2 |  | Compact to 93 % mod. AASHTO maximum density | m³ | 570.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.4 | 8.3.3(b) | In-place treatment of Road-Bed in intermediate or  hard material |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.4.1 |  | Ripping | m³ | 6405.0 |  |  |
|  |  |  |  |  |  |  |
| 3.4.2 |  | Blasting | m³ | 4300.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | EARTHWORKS |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.5 | 8.3.4 | Cut and borrow to Fill to formation (box) level and  compact to 93% mod. AASHTO max. density measured in fill including benching: |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.5.1 |  | Compact to 93 % mod. AASHTO maximum density | m³ | 1350.0 |  |  |
|  |  |  |  |  |  |  |
| 3.5.2 |  | Rockfill, process, and compact | m³ | 300.0 |  |  |
|  |  |  |  |  |  |  |
| 3.6 | 8.3.6 | Extra-over items 3.5 inclusive for excavating and  breaking down material in: |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.6.1 |  | (a) Intermediate Material | m³ | 200.0 |  |  |
|  |  |  |  |  |  |  |
| 3.6.2 |  | (b) Hard material (Includes material such as  formations of unweathered rock that can be removed only after blasting) | m³ | 200.0 |  |  |
|  |  |  |  |  |  |  |
| 3.6.3 |  | (d) Boulder excavation Class B | m³ | 200.0 |  |  |
|  |  |  |  |  |  |  |
| 3.7 | 8.3.7 | Cut to Spoil from |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.7.1 |  | (a) Soft excavation | m³ | 22000.0 |  |  |
|  |  |  |  |  |  |  |
| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
| 3.7.2 |  | (b) Intermediate excavation | m³ | 8800.0 |  |  |
|  |  |  |  |  |  |  |
| 3.7.3 |  | (c) Hard excavation (Includes material such as  formations of unweathered rock that can be removed only after blasting) | m³ | 17600.0 |  |  |
|  |  |  |  |  |  |  |
| 3.7.4 |  | (e) Boulder excavation Class B | m³ | 3510.0 |  |  |
|  |  |  |  |  |  |  |
| 3.8 | 8.3.7 | Cut to Stockpile from |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.8.1 |  | (a) Soft excavation | m³ | 150.0 |  |  |
|  |  |  |  |  |  |  |
| 3.8.2 |  | (b) Intermediate excavation | m³ | 100.0 |  |  |
|  |  |  |  |  |  |  |
| 3.8.3 |  | (c) Hard excavation (Includes material such as  formations of unweathered rock that can be removed only after blasting) | m³ | 100.0 |  |  |
|  |  |  |  |  |  |  |
| 3.8.4 |  | (e) Boulder excavation Class B | m³ | 50.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.9 | 8.3.4 | Cut and borrow to Fill to Attenuation Dams to compact  to 93% mod. AASHTO max. density measured in fill including benching: |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.9.1 |  | Compact to 93 % mod. AASHTO maximum density | m³ | 5000.0 |  |  |
|  |  |  |  |  |  |  |
| 3.10 | 8.3.6 | Extra-over items 3.9 inclusive for excavating and  breaking down material in: |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.10.1 |  | Intermediate Material | m³ | 2000.0 |  |  |
|  |  |  |  |  |  |  |
| 3.10.2 |  | Hard material (Includes material such as formations of  unweathered rock that can be removed only after blasting) | m³ | 1500.0 |  |  |
|  |  |  |  |  |  |  |
| 3.10.3 |  | Boulder excavation Class B | m³ | 500.0 |  |  |
|  |  |  |  |  |  |  |
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| 3.11 | SANS  1200 DM | SUNDRIES |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.11.1 | 8.3.11 | Extra-over items 8.3.2, 8.3.4 and 8.3.5 for temporary  stockpiling of material | m³ | 4700.0 |  |  |
|  |  |  |  |  |  |  |
|  | 8.3.12 | OVERHAUL |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.11.2 |  | Extra-over items 8.3.2, 8.3.4 and 8.3.5 for hauling  material in excess of the freehaul of 0,5km but not more than 18,0km | m³.km | 43900.0 |  |  |
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| 3.12 | 8.3.13 | SURFACE FINISHES |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.12.1 |  | Topsoiling | m² | 5700.0 |  |  |
|  |  |  |  |  |  |  |
| 3.12.2 |  | Grassing | ha | 0.6 |  |  |
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| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
| 3.13 |  | Finishing-off cut and fill slopes: |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.13.1 | PS | (a) Cut slopes | m² | 3500.0 |  |  |
|  |  |  |  |  |  |  |
| 3.13.2 | PS | (b) Fill slopes | m² | 2300.0 |  |  |
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|  |  |  |  |  |  |  |
| 3.14 | 8.3.14 | Construct Subgrade including shoulders with material from borrowpit or commercial sources and all haul |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.14.1 |  | G9 150mm to carriageways to 95% mod. AASHTO  maximum density | m³ | 1650.0 |  |  |
|  |  |  |  |  |  |  |
| 3.14.2 |  | G7 150mm to carriageways to 97% mod. AASHTO  maximum density | m³ | 1550.0 |  |  |
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| 3.15 | SANS  1200 ME | SECTION : SUBBASE |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 8.3.1 | Construct subbase including Sidewalks with material  from commercial sources and all haul |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.15.1 |  | 150mm G5 to carriageway 98% mod. AASHTO  maximum density | m³ | 2050.0 |  |  |
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|  |  |  |  |  |  |  |
| 3.16 | 8.3.8 | Stabilizing agent |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.16.1 |  | b) Portland cement | t | 5.7 |  |  |
|  |  |  |  |  |  |  |
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|  | SANS  1200 MFL | SECTION : BASE (LIGHT PAVEMENT  STRUCTURES) |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 8.3.1 | Construct base with material from commercial sources  and all haul |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.17 |  | a) Crushed stone G2 (max. size 37.5mm) |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.17.1 |  | 150 mm to all roadways compacted to 99% mod.  AASHTO maximum density | m³ | 1380.0 |  |  |
|  |  |  |  |  |  |  |
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|  | SANS  1200 MG | SECTION : BITUMINOUS SURFACE TREATMENT |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.18 |  | PRIME COAT |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 8.4.1 | Prime coat using: |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.18.1 |  | CUTBACK BITUMEN Grade MC30 at 0.8l/m² | m² | 9700.0 |  |  |
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| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
|  | SANS  1200 MH | SECTION : ASPHALT BASE AND SURFACING |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.19 |  | TACK COAT |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 8.5.3 | Spray surface using emulsion |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.19.1 |  | Anionic stablisation grade emulsion 60% | m² | 9700.0 |  |  |
|  |  |  |  |  |  |  |
| 3.20 |  | ASPHALT BASE |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 8.5.4 | Continuously graded asphalt base (including  Sidewalks & Speedhumps) using: |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.20.1 |  | b) bitumen Type 50/70 pen grade | t | 1200.0 |  |  |
|  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |
|  | SANS  1200 MK | SECTION : KERBING AND CHANNELLING |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.21 |  | CONCRETE KERBING AND CHANNELLING |  |  |  |  |
|  |  |  |  |  |  |  |
| 3.21.1 | 8.2.2 | Standard Fig 6 mountable kerb type "E" with 300mm  Channel with expansion joints | m | 2260.0 |  |  |
|  |  |  |  |  |  |  |
| 3.21.2 | 8.2.1 | Concrete Edge Beam (150mm x 300mm) | m | 100.0 |  |  |
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|  |  |  |  |  |  |  |
| 3.22 | PS | Provisional sum for maintaining access to site  including regrading and gravelling of access roads where required | Sum | 1.0 | 100000.00 |  |
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| Total Carried Forward To Summary | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| 4 |  | SECTION 4: PLATFORM EARTHWORKS |  |  |  |  |
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| 4.1 | SANS  1200 C | SITE CLEARANCE |  |  |  |  |
|  |  |  |  |  |  |  |
| 4.1.1 |  | Clear site, remove trees and other scheduled  obstructions | ha | 0.2 |  |  |
|  |  |  |  |  |  |  |
| 4.2 | SANS  1200 D | EXCAVATION |  |  |  |  |
|  |  |  |  |  |  |  |
| 4.2.1 | 8.3.1.2 | Remove topsoil to nominal depth 150mm, stockpile,  and maintain | m² | 14000.0 |  |  |
|  |  |  |  |  |  |  |
| 4.3 |  | FINISHINGS |  |  |  |  |
|  |  |  |  |  |  |  |
| 4.3.1 | 8.3.10 | Topsoiling | m² | 8480.0 |  |  |
|  |  |  |  |  |  |  |
| 4.3.2 | 8.3.11 | Grassing | ha | 0.9 |  |  |
|  |  |  |  |  |  |  |
|  |  | EARTHWORKS |  |  |  |  |
|  |  |  |  |  |  |  |
| 4.4 | 8.3.2 | Bulk Excavation |  |  |  |  |
|  |  |  |  |  |  |  |
| 4.4.1 |  | a) Excavate in all materials and use for embankment  or backfill or dispose, as ordered | m³ | 38800.0 |  |  |
|  |  |  |  |  |  |  |
| 4.4.2 |  | b) Extra Over for |  |  |  |  |
|  |  |  |  |  |  |  |
| 4.4.2.1 |  | 1) Intermediate excavation | m³ | 7750.0 |  |  |
|  |  |  |  |  |  |  |
| 4.4.2.2 |  | 2) Hard Rock excavation | m³ | 15500.0 |  |  |
|  |  |  |  |  |  |  |
| 4.4.2.3 |  | 3) Boulder excavation Class A | m³ | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 4.4.2.4 |  | 4) Boulder excavation Class B | m³ | 3100.0 |  |  |
|  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |
|  | SANS  1200 ME |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 4.5 | 8.3.4 | Importing of Materials |  |  |  |  |
|  |  |  |  |  |  |  |
| 4.5.1 |  | a) 2 x layers of 150mm G5 compacted to 98% mod.  AASHTO maximum density | m³ | 3860.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
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| 4.6 | SANS  1200 DM | SUNDRIES |  |  |  |  |
|  |  |  |  |  |  |  |
| 4.6.1 | 8.3.11 | Extra-over items 4.4 for temporary stockpiling of  material | m³ | 4220.0 |  |  |
|  |  |  |  |  |  |  |
| 4.7 | 8.3.12 | OVERHAUL |  |  |  |  |
|  |  |  |  |  |  |  |
| 4.7.1 |  | Extra-over items 4.4 for hauling material in excess of the freehaul of 0,5km but not more than 18,0km | m³ | 3410.0 |  |  |
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| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
|  |  | RETAINING WALLS |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | Dry Stack Interlocking Retaining Walls along  Roads/Platforms |  |  |  |  |
|  |  |  |  |  |  |  |
| 4.8 | SANS  1200 D | Excavate for Retaining Wall Base/Structure |  |  |  |  |
|  |  |  |  |  |  |  |
| 4.8.1 | 8.3.3 | Restricted Excavation |  |  |  |  |
|  |  |  |  |  |  |  |
| 4.8.1.1 |  | a) Excavate for restricted foundations, footings and  pipe trenches in all materials and use for backfill or embankment or dispose | m³ | 420.0 |  |  |
|  |  |  |  |  |  |  |
| 4.8.2 |  | b) Extra Over for |  |  |  |  |
|  |  |  |  |  |  |  |
| 4.8.2.1 |  | 1) Intermediate excavation | m³ | 100.0 |  |  |
|  |  |  |  |  |  |  |
| 4.8.2.2 |  | 2) Hard Rock excavation | m³ | 200.0 |  |  |
|  |  |  |  |  |  |  |
| 4.8.2.3 |  | 3) Boulder excavation Class A | m³ | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 4.8.2.4 |  | 4) Boulder excavation Class B | m³ | 45.0 |  |  |
|  |  |  |  |  |  |  |
| 4.8.2.5 | 8.3.2 | Selected Backfill to back of Retaining wall | m³ | 1300.0 |  |  |
|  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |
| 4.9 | SANS  1200 G | Concrete |  |  |  |  |
|  |  |  |  |  |  |  |
| 4.9.1 | 8.1.2.2 | b) Welded Mesh - Ref Mesh 245 (For retaining wall  base) | m² | 550.0 |  |  |
|  |  |  |  |  |  |  |
| 4.9.2 | 8.1.3.1 | 25MPa Concrete for Retaining Wall Base | m³ | 250.0 |  |  |
|  |  |  |  |  |  |  |
| 4.9.3 | PS | Supply and Install dry stack interlocking retaining  blocks as per drawings | m² | 1300.0 |  |  |
|  |  |  |  |  |  |  |
| 4.10 |  | Subsoil Drainage for Retaining Walls |  |  |  |  |
|  |  |  |  |  |  |  |
| 4.10.1 | SANS  1200 LE 8.2.1 | 160mm diameter geopipe | m | 580.0 |  |  |
|  |  |  |  |  |  |  |
| 4.10.2 |  | Suply and Lay Geofabric (Bidum U14) | m² | 4450.0 |  |  |
|  |  |  |  |  |  |  |
| 4.10.3 | SANS 1200 LB  8.2.2.3 | Dust Free 19mm Stone Aggregate | m³ | 145.0 |  |  |
|  |  |  |  |  |  |  |
| 4.10.4 | 8.2.2.3 | Selected Granular Material (Riversand) | m³ | 605.0 |  |  |
|  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |
| 4.11 |  | Subsoil Drainage for Platforms |  |  |  |  |
|  |  |  |  |  |  |  |
| 4.11.1 | SANS  1200 LE 8.2.1 | 160mm diameter geopipe | m | 2020.0 |  |  |
|  |  |  |  |  |  |  |
| 4.11.2 |  | Suply and Lay Geofabric (Bidum U14) | m² | 8470.0 |  |  |
| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
| 4.11.3 | SANS 1200 LB  8.2.2.3 | Dust Free 19mm Stone Aggregate | m³ | 490.0 |  |  |
|  |  |  |  |  |  |  |
| 4.11.4 | 8.2.2.3 | Selected Granular Material (Riversand) | m³ | 610.0 |  |  |
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| Total Carried Forward To Summary | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| 5 |  | SECTION 5: STORMWATER, SUBSOILS  DRAINAGE & CABLE DUCTS |  |  |  |  |
|  |  |  |  |  |  |  |
|  | SABS 1200  DB | EXCAVATION |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.1 | 8.3.2(a) | Excavate in all materials for trenches backfill, compact, and dispose of surplus/unsuitable material, for pipes: Over 100 up to 750 mm diam. for total  trench depth: |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.1.1 |  | i) Exceeding 0,0 m but not exceeding 1,0 m | m³ | 1170.0 |  |  |
|  |  |  |  |  |  |  |
| 5.1.2 |  | ii) Exceeding 1,0 m but not exceeding 1,5 m | m³ | 585.0 |  |  |
|  |  |  |  |  |  |  |
| 5.1.3 |  | iii) Exceeding 1,5 m but not exceeding 2,0 m | m³ | 455.0 |  |  |
|  |  |  |  |  |  |  |
| 5.1.4 |  | iv) Exceeding 2,0 m but not exceeding 2,5 m | m³ | 260.0 |  |  |
|  |  |  |  |  |  |  |
| 5.1.5 |  | v) Exceeding 2,5 m but not exceeding 3,0 m | m³ | 130.0 |  |  |
|  |  |  |  |  |  |  |
| 5.1.6 |  | vi) Exceeding 3,0 m but not exceeding 3,5 m | m³ | 78.0 |  |  |
|  |  |  |  |  |  |  |
| 5.1.7 |  | vii) Exceeding 3,5 m but not exceeding 4.0 m | m³ | 52.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.2 | 8.3.2(b) | Extra-over items 5.1 incl. for |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.2.1 |  | Intermediate excavation | m³ | 1092.0 |  |  |
|  |  |  |  |  |  |  |
| 5.2.2 |  | Hard rock excavation | m³ | 936.0 |  |  |
|  |  |  |  |  |  |  |
| 5.2.3 | 8.3.2(c) | Excavate and dispose of unsuitable material from  trench bottom (Provisional) | m³ | 1040.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.3 | 8.3.3.1 | Make up deficiency in backfill material: (Provisional) |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.3.1 |  | a) From Commercial Source | m³ | 1170.0 |  |  |
|  |  |  |  |  |  |  |
| 5.3.2 |  | b)From other excavations on site | m³ | 260.0 |  |  |
|  |  |  |  |  |  |  |
| 5.4 | 8.3.3.4 | Overhaul |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.4.1 | PSDB 1 | Special haul : Over 50 m up to 0,5 km (provisional) | m³.km | 235.0 |  |  |
|  |  |  |  |  |  |  |
| 5.5 | 8.3.4(a) | Shore trench |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.5.1 |  | i) Shore Trech opposite structure or sevice | m | 235.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | EXISTING SERVICES |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.6 |  | Excavate by hand in all materials to expose : |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.6.1 |  | i) Stormwater services (provisional) | m³ | 65.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
|  | SABS 1200LB | BEDDING |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.7 |  | PROVISION OF BEDDING |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | Available from trench within 0,5 km (Subclause 3.4.1) |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.7.1 | 8.2.1 | a) Selected granular material | m³ | 65.0 |  |  |
|  |  |  |  |  |  |  |
| 5.7.2 |  | b) Selected fill material | m³ | 40.0 |  |  |
|  |  |  |  |  |  |  |
|  | 8.2.2.3 | c) Commercial sources (Provisional) |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.7.3 |  | 1) Selected granular material | m³ | 390.0 |  |  |
|  |  |  |  |  |  |  |
| 5.7.4 |  | 2) Selected fill material | m³ | 585.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | SANS  1200 LE | STORMWATER DRAINAGE |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.8 | 8.2.1 | Supply, handle, lay, bed Class B concrete pipe Type  and Class .100D, Spigot and Socket joints fitted with rubber rings |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.8.1 |  | a) 450 mm diameter | m | 1235.0 |  |  |
|  |  |  |  |  |  |  |
| 5.8.2 |  | b) 600 mm diameter | m | 65.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | SABS 1200  DK | GABIONS AND PITCHING |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.9 | 8.2.1 | Surface preparation bedding of gabions |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.9.1 |  | a) Mattresses 6 x 2 x 0.23m | m² | 60.0 |  |  |
|  |  |  |  |  |  |  |
| 5.10 | 8.2.2 | Gabion mattresses : |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.10.1 |  | a) Mattresses 6 x 2 x 0.23m | m³ | 15.0 |  |  |
|  |  |  |  |  |  |  |
| 5.11 |  | Extra-over items 4.30 for cutting and folding |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.11.1 |  | a) Gabion mattresses | m² | 60.0 |  |  |
|  |  |  |  |  |  |  |
| 5.11.2 | 8.2.4 | Geotextile blanket, Grade B (270g/m2) Geotextile or  similar approved | m² | 155.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | HEADWALLS |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | Provide all materials & construct headwall onto  s/water pipe as per detail. Rate to include for excavation |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.12 |  | a) Inlet headwall |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.12.1 |  | i) For pipes up to 600mm idameter | No. | 0.0 |  |  |
| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
| 5.13 |  | b) Outlet headwall including splitter blocks |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.13.1 |  | i) For pipes up to 600mm idameter | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
|  | 8.2.8 | MANHOLES construct complete with LD covers and  frames |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.14 |  | Type A manhole as per eThekwini standard detail |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.14.1 |  | i) Exceeding 0,0 m but not exceeding 1,0 m | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 5.14.2 |  | ii) Exceeding 1,0 m but not exceeding 1,5 m | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 5.14.3 |  | iii) Exceeding 1,5 m but not exceeding 2,0 m | No. | 3.0 |  |  |
|  |  |  |  |  |  |  |
| 5.14.4 |  | iv) Exceeding 2,0 m but not exceeding 2,5 m | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 5.14.5 |  | v) Exceeding 2,5 m but not exceeding 3,0 m | No. | 4.0 |  |  |
|  |  |  |  |  |  |  |
| 5.15 |  | Type B manhole as per eThekwini standard detail |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.15.1 |  | i) Exceeding 3,0 m but not exceeding 3,5 m | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 5.15.2 |  | ii) Exceeding 3,5 m but not exceeding 4,0 m | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 5.15.3 |  | iii) Exceeding 4,0 m but not exceeding 4,5 m | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
|  | 8.2.8 | CATCHPITS Construct complete with MD covers and  frames |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.16 |  | Type S2 Kerb Inlet as per eThekwini standard detail |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.16.1 |  | i) Exceeding 0,0 m but not exceeding 1,0 m | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 5.16.2 |  | ii) Exceeding 1,0 m but not exceeding 1,5 m | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 5.16.3 |  | iii) Exceeding 1,5 m but not exceeding 2,0 m | No. | 13.0 |  |  |
|  |  |  |  |  |  |  |
| 5.16.4 |  | iv) Exceeding 2,0 m but not exceeding 2,5 m | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 5.16.5 |  | v) Exceeding 2,5 m but not exceeding 3,0 m | No. | 4.0 |  |  |
|  |  |  |  |  |  |  |
| 5.16.6 |  | vi) Exceeding 3,0 m but not exceeding 3,5 m | No. | 4.0 |  |  |
|  |  |  |  |  |  |  |
| 5.16.7 |  | vii) Exceeding 3,5 m but not exceeding 4,0 m | No. | 3.0 |  |  |
|  |  |  |  |  |  |  |
| 5.17 | 8.2.8 | Type D3 Kerb Inlet at low points as per eThekwini  standard detail |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.17.1 |  | i) Exceeding 0,0 m but not exceeding 1,0 m | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 5.17.2 |  | ii) Exceeding 1,0 m but not exceeding 1,5 m | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 5.17.3 |  | iii) Exceeding 1,5 m but not exceeding 2,0 m | No. | 8.0 |  |  |
|  |  |  |  |  |  |  |
| 5.17.4 |  | iv) Exceeding 2,0 m but not exceeding 2,5 m | No. | 2.0 |  |  |
|  |  |  |  |  |  |  |
| 5.17.5 |  | v) Exceeding 2,5 m but not exceeding 3,0 m | No. | 2.0 |  |  |
|  |  |  |  |  |  |  |
| 5.17.6 |  | vi) Exceeding 3,0 m but not exceeding 3,5 m | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
| 5.18 | 8.2.10 | ACCESSORIES |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.18.1 |  | Extra Over Items 5.14 to 5.15 for HD concrete covers  and frames | No. | 3.0 |  |  |
|  |  |  |  |  |  |  |
| 5.18.1 |  | Extra Over Items 5.14 to 5.15 for HD Polymer  concrete covers and frames | No. | 3.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.19 |  | SUBSOIL PIPES |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.19.1 |  | i) 110 mm dia. slotted Unplasticised PVC pipes and  fittings, normal duty complete with couplings | m | 1950.0 |  |  |
|  |  |  |  |  |  |  |
| 5.19.2 |  | ii) 110mm x 45 deg. uPVC bends (provisional) | No. | 30.0 |  |  |
|  |  |  |  |  |  |  |
| 5.19.3 |  | iii) 110mm x 110mm x 45 deg. uPVC junctions | No. | 30.0 |  |  |
|  |  |  |  |  |  |  |
| 5.19.4 |  | iv) Stone - 19mm | m³ | 380.0 |  |  |
|  |  |  |  |  |  |  |
| 5.19.5 |  | v) Impermeable backfilling to subsoil drainage  systems | m³ | 50.0 |  |  |
|  |  |  |  |  |  |  |
| 5.19.6 |  | vi) Sand obtained from approved commercial sources | m³ | 500.0 |  |  |
|  |  |  |  |  |  |  |
| 5.19.7 |  | vii) Rodding-eyes on sub-soil drains - complete with  concrete slab covers and end-caps | No. | 30.0 |  |  |
|  |  |  |  |  |  |  |
| 5.20 |  | Synthetic fibre filter fabric polletheline sheet |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.20.1 |  | i) Grade C or similar | m² | 6600.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.21 |  | MISCELLANEOUS |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.21.1 | 8.2.11 | Anchors for pipes | m³ | 90.0 |  |  |
|  |  |  |  |  |  |  |
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| Total Carried Forward To Summary | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| 6 |  | SECTION 6: SEWERS |  |  |  |  |
|  |  |  |  |  |  |  |
|  | SABS 1200  DB | EARTHWORKS ( PIPE TRENCHES ) |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | EXCAVATION |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 8.3.2 (a) | a) Excavate in soft materials for trenches, backfill,  compact and dispose of surplus/unsuitable material for pipes: |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.1 |  | i) 160 mm up to 250 mm diam. for total trench depth: |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.1.1 |  | 0m to 1.0m | m³ | 1560.0 |  |  |
|  |  |  |  |  |  |  |
| 6.1.2 |  | Exceeding 1m but not 2.0m | m³ | 1287.0 |  |  |
|  |  |  |  |  |  |  |
| 6.1.3 |  | Exceeding 2.0m but not 3.0m | m³ | 780.0 |  |  |
|  |  |  |  |  |  |  |
| 6.1.4 |  | Exceeding 3.0m but not 4.0m | m³ | 468.0 |  |  |
|  |  |  |  |  |  |  |
| 6.1.5 |  | Exceeding 4.0m but not 5.0m | m³ | 1729.0 |  |  |
|  |  |  |  |  |  |  |
| 6.2 |  | Extra-over items 6.1 to 6.2 incl. for |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.2.1 |  | Intermediate excavation | m² | 2330.0 |  |  |
|  |  |  |  |  |  |  |
| 6.2.2 |  | Hard rock excavation | m² | 2558.0 |  |  |
|  |  |  |  |  |  |  |
| 6.2.3 | 8.3.2(c) | Excavate and dispose of unsuitable material from  trench bottom (Provisional) | m³ | 650.0 |  |  |
|  |  |  |  |  |  |  |
| 6.3 | 8.3.3.1 | Make up deficiency in backfill material: (Provisional) |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.3.1 |  | a)From other excavations on site | m³ | 650.0 |  |  |
|  |  |  |  |  |  |  |
| 6.3.2 |  | b)From Commercial Source | m³ | 2600.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | EXISTING SERVICES |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.4 |  | Excavate by hand in all materials to expose : |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.4.1 |  | i) Sewer services (provisional) | m³ | 250.0 |  |  |
|  |  |  |  |  |  |  |
|  | SABS 1200LB | BEDDING |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.5 |  | PROVISION OF BEDDING |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | Available from trench within 0,5 km (Subclause 3.4.1) |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.5.1 | 8.2.1 | a) Selected granular material | m³ | 65.0 |  |  |
|  |  |  |  |  |  |  |
| 6.5.2 |  | b) Selected fill material | m³ | 40.0 |  |  |
|  |  |  |  |  |  |  |
|  | 8.2.2.3 | Commercial sources (Provisional) |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.5.3 |  | a) Selected granular material | m³ | 520.0 |  |  |
|  |  |  |  |  |  |  |
| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
| 6.5.4 |  | b) Selected fill material | m³ | 845.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 1200 LD | PIPEWORK |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.6 | 8.2.1 | Supply, lay, joint, bed (Class 34) Heavy duty uPVC  dewer pipe on flexible pipe bedding |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.6.1 |  | a)160 mm dia. | m | 2054.0 |  |  |
|  |  |  |  |  |  |  |
| 6.6.2 |  | b)200 mm dia. | m | 195.0 |  |  |
|  |  |  |  |  |  |  |
| 6.6.3 |  | c)250 mm dia. | m | 0.0 |  |  |
|  |  |  |  |  |  |  |
|  | SABS 1200  LD | MANHOLES ETC |  |  |  |  |
|  |  |  |  |  |  |  |
|  | PSLD 1 | Manholes as per eThekwini Details complete with LD  cover and frame & Type A Benching as per details, for depths over and up to: |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.7 |  | i) 250mm diam. for total trench depth: |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.7.1 |  | 0m to 1.0m | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 6.7.2 |  | Exceeding 1.0m but not 2.0m | No. | 36.0 |  |  |
|  |  |  |  |  |  |  |
| 6.7.3 |  | Exceeding 2.0m but not 3.0m | No. | 16.0 |  |  |
|  |  |  |  |  |  |  |
| 6.7.4 |  | Exceeding 3.0m but not 4.0m | No. | 12.0 |  |  |
|  |  |  |  |  |  |  |
| 6.7.5 |  | Exceeding 4.0m but not 5.0m | No. | 38.0 |  |  |
|  |  |  |  |  |  |  |
| 6.7.6 |  | Exceeding 5.0m but not 6.0m | No. | 1.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.8 | 8.2.10 | ACCESSORIES |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.8.1 |  | Extra Over Items 6.7.1 to 6.7.6 for HD concrete  covers and frames | No. | 28.0 |  |  |
|  |  |  |  |  |  |  |
| 6.8.2 |  | Extra Over Items 6.7.1 to 6.7.6 for HD Polymer  Concrete covers and frames | No. | 2.0 |  |  |
|  |  |  |  |  |  |  |
| 6.8.3 |  | Extra Over Items 6.7.1 to 6.7.6 for Type A Drop  Manhole | No. | 120.0 |  |  |
|  |  |  |  |  |  |  |
| 6.8.4 |  | Extra Over Items 6.7.1 to 6.7.6 for Type B Drop  Manhole | No. | 26.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.9 |  | SUNDRIES |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.9.1 | 8.2.7 | Pipe protection Concrete cover slab (25Mpa) accross  roadways, inclusive of Ref 395 mesh as per dwg no. BMK-RPE-021 | m³ | 260.0 |  |  |
|  |  |  |  |  |  |  |
| 6.9.2 | 8.2.9 | Marker posts, complete, installed | No. | 273.0 |  |  |
|  |  |  |  |  |  |  |
| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
| 6.9.3 | 8.2.10 | Permanent plug stoppers | No. | 30.0 |  |  |
|  |  |  |  |  |  |  |
| 6.10 | 8.2.11 | Connect to existing sewer: : |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.10.1 |  | a) Tie into existing manhole as per engineers  instruction. | No. | 35.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.10 |  | Erf Connections (110 mm dia uPVC Class 34 sewer  pipes) (214 Units) |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.10.1 |  | Direct Connections out of Main Sewer for the following  lengths: |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.10.1.1 |  | 0m to 2.0m | No. | 260.0 |  |  |
|  |  |  |  |  |  |  |
| 6.10.1.2 |  | 2m to 4.0m | No. | 40.0 |  |  |
|  |  |  |  |  |  |  |
| 6.10.2 |  | Normal Erf Connections out of Manhole for the  following lengths: |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.10.2.1 |  | 0m to 2.0m | No. | 28.0 |  |  |
|  |  |  |  |  |  |  |
| 6.10.2.2 |  | 2m to 4.0m | No. | 16.0 |  |  |
|  |  |  |  |  |  |  |
| 6.10.3 |  | Extra over Item 6.10 for supply, excavation, lay, bed, test and backfill of 110 mm uPVC Class 34 (or similar approved) pipes for longer than listed house  connections (including all fittings) | m | 1300.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | COMPLETION OF BULK SEWER |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | SABS 1200  DB | EARTHWORKS ( PIPE TRENCHES ) |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | EXCAVATION |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 8.3.2 (a) | a) Excavate in soft materials for trenches, backfill,  compact and dispose of surplus/unsuitable material for pipes: |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.11 |  | i) 160 mm up to 315 mm diam. for total trench depth: |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.11.1 |  | 0m to 1.0m | m³ | 2000.0 |  |  |
|  |  |  |  |  |  |  |
| 6.11.2 |  | Exceeding 1m but not 2.0m | m³ | 2000.0 |  |  |
|  |  |  |  |  |  |  |
| 6.11.3 |  | Exceeding 2.0m but not 3.0m | m³ | 2000.0 |  |  |
|  |  |  |  |  |  |  |
| 6.11.4 |  | Exceeding 3.0m but not 4.0m | m³ | 500.0 |  |  |
|  |  |  |  |  |  |  |
| 6.12 |  | Extra-over items 6.1 to 6.2 incl. for |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.12.1 |  | Intermediate excavation | m² | 1000.0 |  |  |
|  |  |  |  |  |  |  |
| 6.12.2 |  | Hard rock excavation | m² | 2000.0 |  |  |
| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
| 6.12.3 | 8.3.2(c) | Excavate and dispose of unsuitable material from  trench bottom (Provisional) | m³ | 1000.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.13 | 8.3.3.1 | Make up deficiency in backfill material: (Provisional) |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.13.1 |  | b)From Commercial Source | m³ | 500.0 |  |  |
|  |  |  |  |  |  |  |
| 6.13.2 |  | a)From other excavations on site | m³ | 1000.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | EXISTING SERVICES |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.14 |  | Excavate by hand in all materials to expose : |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.14.1 |  | i) Sewer services (provisional) | m³ | 100.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | SABS 1200LB | BEDDING |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.15 |  | PROVISION OF BEDDING |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 8.2.2.3 | Commercial sources (Provisional) |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.15.1 |  | a) Selected granular material | m³ | 500.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 1200 LD | PIPEWORK |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.16 | 8.2.1 | Supply, lay, joint, bed (Class 34) Heavy duty uPVC  sewer pipe on flexible pipe bedding |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.16.1 |  | a) 315 mm dia. | m | 2500.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | SABS 1200  LD | MANHOLES ETC |  |  |  |  |
|  |  |  |  |  |  |  |
|  | PSLD 1 | Manholes as per eThekwini Details complete with LD  cover and frame & Type A Benching as per details, for depths over and up to: |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.17 |  | i) 250mm diam. for total trench depth: |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.17.1 |  | 0m to 1.0m | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 6.17.2 |  | Exceeding 1.0m but not 2.0m | No. | 35.0 |  |  |
|  |  |  |  |  |  |  |
| 6.17.3 |  | Exceeding 2.0m but not 3.0m | No. | 25.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.18 | 8.2.10 | ACCESSORIES |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
| 6.18.1 |  | Extra Over Items 6.17 for HD concrete covers and  frames | No. | 10.0 |  |  |
|  |  |  |  |  |  |  |
| 6.18.2 |  | Extra Over Items 6.17 for HD Polymer Concrete  covers and frames | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 6.18.3 |  | Extra Over Items 6.17 for Type A Drop Manhole | No. | 10.0 |  |  |
|  |  |  |  |  |  |  |
| 6.18.4 |  | Extra Over Items 6.17 for Type B Drop Manhole | No. | 10.0 |  |  |
|  |  |  |  |  |  |  |
| 6.18.5 |  | Extra Over Items 5.7 for Type B Benching | No. | 10.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.19 |  | SUNDRIES |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.19.1 | 8.2.7 | Pipe protection Concrete cover slab (25Mpa) accross roadways where indicated by engineer, inclusive of Ref 395 mesh as per eThekwini Satandard Details | m | 100.0 |  |  |
|  |  |  |  |  |  |  |
| 6.19.2 | 8.2.9 | Marker posts, complete, installed | No. | 100.0 |  |  |
|  |  |  |  |  |  |  |
| 6.19.3 | 8.2.10 | Permanent plug stoppers | No. | 10.0 |  |  |
|  |  |  |  |  |  |  |
| 6.20 | 8.2.11 | Connect to existing sewer: : |  |  |  |  |
|  |  |  |  |  |  |  |
| 6.20.1 |  | a) Tie into existing manhole as per engineers  instruction. | No. | 1.0 |  |  |
|  |  |  |  |  |  |  |
| 6.21 |  | Tacheometric Strip Survey for Proposed Bulk Sewer  Line Alignment | m² | 50000.0 |  |  |
|  |  |  |  |  |  |  |
| 6.22 |  | Sewer Impact Assessment of Existing Trunk Main  Infrastructure | Sum | 1.0 | 3000000.00 | R3 000 000.00 |
|  |  |  |  |  |  |  |
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| Total Carried Forward To Summary | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
|  | SABS 1200  DB | SECTION 7: WATER RETICULATION |  |  |  |  |
|  |  |  |  |  |  |  |
|  | SABS 1200 A | PRELIMINARY AND GENERAL |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.1 |  | INSPECTION AND DETECTION OF DEFECTS |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.1.1 | PSL 8.2.21 | Allow provisional sum for Earthworks (Small Works) testing, where ordered by the Engineer (Prov.) | Sum | 1.0 | 50000.00 |  |
|  |  |  |  |  |  |  |
| 7.2 | PSL 8.2.19 | PRESSURE TESTING & DISINFECTION |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.2.1 |  | Water supplied for testing and disinfection of pipelines  (prov) | Sum | 1.0 | 10000.00 |  |
|  |  |  |  |  |  |  |
| 7.2.2 |  | Testing in accordance with PSL 7.4, PSL 7.2.1 & PSL  7.2.2 | Sum | 1.0 | 10000.00 |  |
|  |  |  |  |  |  |  |
| 7.2.3 |  | Contractors mark-up on item 7.2.2 | % | 0.0 |  |  |
|  |  |  |  |  |  |  |
|  |  | EXCAVATION |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.3 | PSDB 8.3.2  (a) | a) Excavate in soft materials for trenches, backfill, compact, haunch and dispose of surplus/unsuitable material for pipes up to and including 350mm dia. for  depths: |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | i) 50mm diam. for total trench depth: |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.3.1 |  | Exceeding 0,5m but not 1,5m | m³ | 260.0 |  |  |
|  |  |  |  |  |  |  |
| 7.3.2 |  | Exceeding 1,5m but not 2,0m | m³ | 225.0 |  |  |
|  |  |  |  |  |  |  |
|  |  | ii) 75mm diam. for total trench depth: |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.3.3 |  | Exceeding 0,5m but not 1,5m | m³ | 780.0 |  |  |
|  |  |  |  |  |  |  |
| 7.3.4 |  | Exceeding 1,5m but not 2,0m | m³ | 700.0 |  |  |
|  |  |  |  |  |  |  |
|  |  | iii) 110mm diam. for total trench depth: |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.3.5 |  | Exceeding 0,5m but not 1,5m | m³ | 435.0 |  |  |
|  |  |  |  |  |  |  |
| 7.3.6 |  | Exceeding 1,5m but not 2,0m | m³ | 385.0 |  |  |
|  |  |  |  |  |  |  |
|  |  | iv) 160mm diam. for total trench depth: |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.3.7 |  | Exceeding 0,5m but not 1,5m | m³ | 190.0 |  |  |
|  |  |  |  |  |  |  |
| 7.3.8 |  | Exceeding 1,5m but not 2,0m | m³ | 170.0 |  |  |
|  |  |  |  |  |  |  |
|  |  | v) 200mm diam. for total trench depth: |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.3.9 |  | Exceeding 0,5m but not 1,5m | m³ | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.3.10 |  | Exceeding 1,5m but not 2,0m | m³ | 0.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.4 |  | Extra-over items 7.3.1 to 7.3.10 incl. for |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.4.1 |  | Intermediate excavation | m³ | 935.0 |  |  |
| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
| 7.4.2 |  | Hard rock excavation | m³ | 935.0 |  |  |
|  |  |  |  |  |  |  |
| 7.4.3 | 8.3.2(c) | Excavate and dispose of unsuitable material from  trench bottom (Provisional) | m³ | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.5 | 8.3.3.1 | Make up deficiency in backfill material: (Provisional) |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.5.1 |  | a)From other excavations on site | m³ | 650.0 |  |  |
|  |  |  |  |  |  |  |
|  |  | EXISTING SERVICES |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.6 | PSDB 8 | Excavate by hand in all materials to expose : |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.6.1 |  | i) Water services (provisional) | m³ | 20.0 |  |  |
|  |  |  |  |  |  |  |
|  | SANS  1200 LB | BEDDING |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | PROVISION OF BEDDING (Flexible) |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.7 |  | Available from trench within 0,5 km |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.7.1 | 8.2.1 | a) Selected granular material | m³ | 380.0 |  |  |
|  |  |  |  |  |  |  |
| 7.7.2 |  | b) Selected fill material | m³ | 410.0 |  |  |
|  |  |  |  |  |  |  |
|  |  | Imported from |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.7.3 | 8.2.2.3 | c) Commercial sources (Provisional) |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.7.4 |  | 1) Selected granular material | m³ | 80.0 |  |  |
|  |  |  |  |  |  |  |
| 7.7.5 |  | 2) Selected fill material | m³ | 85.0 |  |  |
|  |  |  |  |  |  |  |
|  | 8.2.5 | Overhaul of material for bedding (Provisional) where  ordered Extra-over items 7.7.1 to 7.7.5 |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.7.6 |  | a) Selected granular material | m³.km | 560.0 |  |  |
|  |  |  |  |  |  |  |
| 7.7.7 |  | b) Selected fill material | m³.km | 310.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | SABS 1200  LD | PIPEWORK |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | mPVC PIPELINES FROM 50mm dia. up to and  including 300mm dia.(Class 12) |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.8 | 8.2.1 | Supply, deliver, handle, lay, bed, joint, test and  disinfect in accordance with PSL 9, to SABS 966, Part 1 (1998) |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.8.1 |  | a) 50mm HDPE PE100 PN12.5 | m | 350.0 |  |  |
|  |  |  |  |  |  |  |
| 7.8.2 |  | b) 75mm HDPE PE100 PN12.5 | m | 1080.0 |  |  |
|  |  |  |  |  |  |  |
| 7.8.3 |  | c) 110mm dia mPVC Class 12 | m | 600.0 |  |  |
|  |  |  |  |  |  |  |
| 7.8.4 |  | d) 125mm dia mPVC Class 12 | m | 0.0 |  |  |
|  |  |  |  |  |  |  |
| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
| 7.8.5 |  | e) 160mm dia mPVC Class 12 | m | 260.0 |  |  |
|  |  |  |  |  |  |  |
| 7.8.6 |  | f) 200mm dia mPVC Class 12 | m | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.8.7 |  | g) 250mm dia mPVC Class 12 | m | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.8.8 |  | h) 315mm dia mPVC Class 12 | m | 0.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | Specials and Fittings for mPVC Pipelines (All specials  and fittings to EWS standards) |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 8.2.2 | Supply, deliver, handle, lay, bed, joint, test and  disinfect in accordance with PSL 9. |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.9 |  | Steel Reducers (for mPVC pipes, all ends flanged) |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.9.1 |  | a) 315mm x 200mm | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.9.2 |  | b) 315mm x 160mm | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.9.3 |  | c) 315mm x 110mm | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.9.4 |  | d) 315mm x 75mm | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.9.5 |  | f) 200mm x 160mm | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.9.6 |  | f) 200mm x 110mm | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.9.7 |  | g) 200mm x 75mm | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.9.8 |  | f) 160mm x 110mm | No. | 10.0 |  |  |
|  |  |  |  |  |  |  |
| 7.9.9 |  | f) 160mm x 75mm | No. | 10.0 |  |  |
|  |  |  |  |  |  |  |
| 7.9.10 |  | e) 110mm x 75mm | No. | 10.0 |  |  |
|  |  |  |  |  |  |  |
| 7.9.11 |  | e) 110mm x 50mm | No. | 10.0 |  |  |
|  |  |  |  |  |  |  |
| 7.9.12 |  | e) 75mm x 50mm | No. | 10.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | Flange Adaptors - (C.I for mPVC pipe - flange to  SABS 1123, Table 1600/3) |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.10 |  | Include for "Denso-wrapping" bolted connections in  accordance with PSL1) |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.10.1 |  | a) 315mm | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.10.2 |  | b) 250mm | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.10.3 |  | c) 200mm | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.10.4 |  | d) 160mm | No. | 20.0 |  |  |
|  |  |  |  |  |  |  |
| 7.10.5 |  | e) 125mm | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.10.6 |  | f) 110mm | No. | 30.0 |  |  |
| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
| 7.10.7 |  | g) 75mm | No. | 30.0 |  |  |
|  |  |  |  |  |  |  |
| 7.10.8 |  | g) 50mm | No. | 20.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.11 |  | Equal Tees (Steel for mPVC pipes, all ends flanged) |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.11.1 |  | a) 50mm | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.11.2 |  | a) 75mm | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.11.3 |  | e) 110mm | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.11.4 |  | c) 160mm | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.11.5 |  | b) 200mm | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.11.6 |  | c) 315mm | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.12 |  | Unequal Tees (Steel for mPVC pipes, all ends  flanged) |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.12.1 |  | a) 315mm x 315mm x 200mm dia. | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.12.2 |  | b) 315mm x 315mm x 160mm dia. | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.12.3 |  | c) 315mm x 315mm x 110mm dia. | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.12.4 |  | d) 315mm x 315mm x 75mm dia. | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.12.5 |  | e) 200mm x 200mm x 160mm dia. | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.12.6 |  | f) 200mm x 200mm x 110mm dia. | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.12.7 |  | g) 200mm x 200mm x 75mm dia. | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.12.8 |  | h) 160mm x 160mm x 110mm dia. | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.12.9 |  | i) 160mm x 160mm x 75mm dia. | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.12.10 |  | j) 110mm x 110mm x 75mm dia. | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.12.11 |  | k) 110mm x 110mm x 50mm dia. | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.12.12 |  | l) 75mm x 75mm x 50mm dia. | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.13 |  | Endcaps (Steel for mPVC pipe- socketed) |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.13.1 |  | a) 315mm | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.13.2 |  | b) 200mm | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.13.3 |  | c) 160mm | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.13.4 |  | d) 110mm | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
| 7.13.5 |  | e) 75mm | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.13.6 |  | f) 50mm | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.14 |  | Hydrant Tee for mPVC pipes all ends flanged to  SABS 1123 table 1600/3 |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.14.1 |  | a) 75 x 80mm dia. | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.14.2 |  | b) 315mm x 80mm dia. | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.14.3 |  | c) 160mm x 80mm dia. | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.14.4 |  | d) 110mm x 80mm dia. | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.14.5 |  | e) 50mm x 80mm dia. | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | Pressure bends with Lyng Joint or similar approved -  Class 16 |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.15 |  | Bend 90 Degree |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.15.1 |  | a) 315mm dia | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.15.2 |  | b) 200mm dia | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.15.3 |  | c) 160mm dia | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.15.4 |  | d) 110mm dia | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.15.5 |  | e) 75mm dia | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.15.6 |  | a) 50mm dia | No. | 10.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.16 |  | Bend 45 Degree |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.16.1 |  | a) 315mm dia | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.16.2 |  | b) 200mm dia | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.16.3 |  | c) 160mm dia | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.16.4 |  | d) 110mm dia | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.16.5 |  | e) 75mm dia | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.16.6 |  | a) 50mm dia | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.17 |  | Bend 22.5 Degree |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.17.1 |  | a) 315mm dia | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.17.2 |  | b) 200mm dia | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
| 7.17.3 |  | c) 160mm dia | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.17.4 |  | d) 110mm dia | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.17.5 |  | e) 75mm dia | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.17.6 |  | a) 50mm dia | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.18 |  | Bend 11.25 Degree |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.18.1 |  | a) 315mm dia | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.18.2 |  | b) 200mm dia | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.18.3 |  | c) 160mm dia | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.18.4 |  | d) 110mm dia | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.18.5 |  | e) 75mm dia | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.18.6 |  | a) 50mm dia | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | Pipe Sleeves for Roads Crossing |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.19 |  | Supply, deliver, handle, lay,bed, joint pipe sleeves for  road crossings |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.19.1 |  | a) 50mm dia HDPE PE100 PN12.5 | m | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.19.2 |  | b) 75mm diameter Class 16 mPVC | m | 60.0 |  |  |
|  |  |  |  |  |  |  |
| 7.19.3 |  | c) 315mm diameter Class 16 mPVC | m | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.19.4 |  | d) 160mm diameter Class 16 mPVC | m | 15.0 |  |  |
|  |  |  |  |  |  |  |
| 7.19.5 |  | e) 125mm diameter Class 16 mPVC | m | 10.0 |  |  |
|  |  |  |  |  |  |  |
| 7.19.6 |  | f) 110mm diameter Class 16 mPVC | m | 20.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.20 | 8.2.11 | Anchor/Thrust Blocks |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.20.1 |  | a) Supply and install concrete thrust block grade 25/19 | m³ | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.21 | 8.2.12 | Concrete encasing |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.21.1 |  | a) Pipe protection Concrete cover slab (25Mpa) accross roadways where indicated by engineer, inclusive of Ref 395 mesh as per eThekwini Standard  Details | m³ | 10.0 |  |  |
|  |  |  |  |  |  |  |
| 7.22 | 8.2.13 | Fire hydrants |  |  |  |  |
|  |  |  |  |  |  |  |
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| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
| 7.22.1 |  | a) Supply and install fire hydrant complete as per dwg. EWS standards. 80mm Isolating valve and 100mm x 80mm dia. reducer measured elsewhere. | No. | 15.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.23 | PSL 5 | Isolation Valves as per eThekwini standard details |  |  |  |  |
|  |  |  |  |  |  |  |
| 5.23.1 |  | a) 50mm dia. | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.23.2 |  | b) 315mm dia. | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.23.3 |  | c) 250mm dia. | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.23.4 |  | d) 200mm dia. | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 7.23.5 |  | e) 160mm dia. | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 7.23.6 |  | f) 110mm dia. | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 5.23.7 |  | g) 75mm dia. | No. | 5.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.24 | PSA 4 | Connection to main line to ethekwini main line (to be  done by eThekwini contractor) | Sum | 1.0 | 40000.00 |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.25 |  | Erf Connections |  |  |  |  |
|  |  |  |  |  |  |  |
| 7.25.1 |  | Direct Connections | No. | 224.0 |  |  |
|  |  |  |  |  |  |  |
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| Total Carried Forward To Summary | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| 8 | SANS  1200 MM | SECTION 8: ANCILLARY ROADWORKS |  |  |  |  |
|  |  |  |  |  |  |  |
| 8.1 |  | GUARDRAILS |  |  |  |  |
|  |  |  |  |  |  |  |
| 8.1.1 | 8.2.1 | Supply and erect galvanized steel guardrails on timber posts, backfilled with material available on Site | m | 630.0 |  |  |
|  |  |  |  |  |  |  |
| 8.1.2 | 8.2.2 | Extra-over Item .1.1 for horizontally curved guardrails factory-bent to a radius of less than 150 mm | m | 190.0 |  |  |
|  |  |  |  |  |  |  |
|  | 8.2.3 | End Units |  |  |  |  |
|  |  |  |  |  |  |  |
| 8.1.3 |  | a) End wings | No. | 30.0 |  |  |
|  |  |  |  |  |  |  |
| 8.1.4 |  | b) Terminal sections to eThekwini standard details  using single guardrail sections | No. | 20.0 |  |  |
|  |  |  |  |  |  |  |
| 8.1.5 | 8.2.5 | Reflector plates, supply and fix every 5m, to  eThekwini standard details | No. | 114.0 |  |  |
|  |  |  |  |  |  |  |
| 8.2 |  | PERMANENT TRAFFIC SIGNS |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 8.3.1 | Sign faces with painted or galvanized (as stated) background. Symbols, characters, legend, and borders in engineering grade retroreflective material  with signboards constructed from |  |  |  |  |
|  |  |  |  |  |  |  |
| 8.2.1 |  | a) Aluminium sheet (2,0 mm thick), of area over 2 m2  and up to 10 m2 | m² | 80.0 |  |  |
|  |  |  |  |  |  |  |
|  | 8.3.3 | Sign Supports |  |  |  |  |
|  |  |  |  |  |  |  |
| 8.2.2 |  | c) Timber to eThekwini standard details diameter 145  mm - 175 mm pine | m | 290.0 |  |  |
|  |  |  |  |  |  |  |
| 8.2.3 | 8.1.1 &  8.3.4 | Excavation for sign supports and backfilling with in-  situ material | m³ | 65.0 |  |  |
|  |  |  |  |  |  |  |
| 8.2.4 | 8.3.7 | Statutory signs, street names, and the like, supplied  and erected complete | No. | 35.0 |  |  |
|  |  |  |  |  |  |  |
| 8.3 |  | ROAD MARKINGS |  |  |  |  |
|  |  |  |  |  |  |  |
|  | 8.4.1 | Non-reflectorized paint applied at nominal rate of 0,42  l/m2 (or proprietary brand roadmarking material applied at a nominal rate of ... l/m2) |  |  |  |  |
|  |  |  |  |  |  |  |
| 8.3.1 |  | a) White lines (unbroken) (width 100 mm) | km | 4.3 |  |  |
|  |  |  |  |  |  |  |
| 8.3.2 |  | b) Yellow lines (unbroken) (width 150 mm) | km | 0.5 |  |  |
|  |  |  |  |  |  |  |
| 8.3.3 |  | c) White characters and symbols | m² | 825.0 |  |  |
|  |  |  |  |  |  |  |
| 8.3.4 |  | e) Traffic island markings (any colour) | m² | 50.0 |  |  |
|  |  |  |  |  |  |  |
| 8.3.5 | 8.4.3 | Road studs (Type , size, shape, and colour, as  given on Dwg ) | No. | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 8.3.6 | 8.4.4 | Setting out and premarking of lines (excluding traffic  island markings, characters, and symbols) | km | 4.3 |  |  |
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| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
| 8.4 |  | GUIDE BLOCKS |  |  |  |  |
|  |  |  |  |  |  |  |
| 8.4.1 | 8.1.1 &  8.5.1 | Guide blocks supplied and erected (Dwg ) | No. | 20.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | RETAINING WALLS |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | Dry Stack Interlocking Retaining Walls along  Roads/Platforms |  |  |  |  |
|  |  |  |  |  |  |  |
| 8.5 | SANS  1200 D | Excavate for Retaining Wall Base/Structure |  |  |  |  |
|  |  |  |  |  |  |  |
| 8.5.1 | 8.3.3 | Restricted Excavation |  |  |  |  |
|  |  |  |  |  |  |  |
| 8.5.1.1 |  | a) Excavate for restricted foundations, footings and  pipe trenches in all materials and use for backfill or embankment or dispose | m³ | 920.0 |  |  |
|  |  |  |  |  |  |  |
| 8.5.2 |  | b) Extra Over for |  |  |  |  |
|  |  |  |  |  |  |  |
| 8.5.2.1 |  | 1) Intermediate excavation | m³ | 280.0 |  |  |
|  |  |  |  |  |  |  |
| 8.5.2.2 |  | 2) Hard Rock excavation | m³ | 370.0 |  |  |
|  |  |  |  |  |  |  |
| 8.5.2.3 |  | 3) Boulder excavation Class A | m³ | 0.0 |  |  |
|  |  |  |  |  |  |  |
| 8.5.2.4 |  | 4) Boulder excavation Class B | m³ | 100.0 |  |  |
|  |  |  |  |  |  |  |
| 8.5.2.5 | 8.3.2 | Selected Backfill to back of Retaining wall | m³ | 980.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 8.6 | SANS  1200 G | Concrete |  |  |  |  |
|  |  |  |  |  |  |  |
| 8.6.1 | 8.1.2.2 | b) Welded Mesh - Ref Mesh 245 (For retaining wall  base) | m² | 80.0 |  |  |
|  |  |  |  |  |  |  |
| 8.6.2 | 8.1.3.1 | 25MPa Concrete for Retaining Wall Base | m³ | 550.0 |  |  |
|  |  |  |  |  |  |  |
| 8.6.3 | PS | Supply and Install dry stack interlocking retaining  blocks as per drawings | m² | 1000.0 |  |  |
|  |  |  |  |  |  |  |
| 8.7 |  | Subsoil Drainage |  |  |  |  |
|  |  |  |  |  |  |  |
| 8.7.1 | SANS  1200 LE 8.2.1 | 160mm diameter geopipe | m | 780.0 |  |  |
|  |  |  |  |  |  |  |
| 8.7.2 |  | Suply and Lay Geofabric (Bidum U14) | m² | 3920.0 |  |  |
|  |  |  |  |  |  |  |
| 8.7.3 | SANS 1200 LB  8.2.2.3 | Dust Free 19mm Stone Aggregate | m³ | 150.0 |  |  |
|  |  |  |  |  |  |  |
| 8.7.4 | 8.2.2.3 | Selected Granular Material (Riversand) | m³ | 660.0 |  |  |
|  |  |  |  |  |  |  |
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| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
| 8.8 | SANS  1200 DK | Gabion Structures for Embankment Protection |  |  |  |  |
|  |  |  |  |  |  |  |
| 8.8.1 | 8.2.1 | Surface preparation for bedding of gabions |  |  |  |  |
|  |  |  |  |  |  |  |
| 8.8.1.1 |  | a) Cavities filled with approved excavated material or  rock | m³ | 400.0 |  |  |
|  |  |  |  |  |  |  |
| 8.8.1.2 |  | b) Cavities filled with grade 15 concrete (provisional) | m² | 120.0 |  |  |
|  |  |  |  |  |  |  |
| 8.8.2 | 8.2.2 | Gabions | m³ | 1200.0 |  |  |
|  |  |  |  |  |  |  |
| 8.8.3 | 8.2.4 | Suply and Lay Geotextile (Bidum U14) | m² | 1200.0 |  |  |
|  |  |  |  |  |  |  |
| 8.8.4 |  | Subsoil Drainage |  |  |  |  |
|  |  |  |  |  |  |  |
| 8.8.4.1 | SANS  1200 LE 8.2.1 | 160mm diameter geopipe | m | 200.0 |  |  |
|  |  |  |  |  |  |  |
| 8.8.4.2 |  | Suply and Lay Geofabric (Bidum U14) | m² | 540.0 |  |  |
|  |  |  |  |  |  |  |
| 8.8.4.3 | SANS 1200 LB  8.2.2.3 | Dust Free 19mm Stone Aggregate | m³ | 50.0 |  |  |
|  |  |  |  |  |  |  |
| 8.8.4.4 | 8.2.2.3 | Selected Granular Material (Riversand) | m³ | 120.0 |  |  |
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| Total Carried Forward To Summary | | | | | |  |

CABLE DUCTS

|  |  |  |  |  |  |  |
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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| 9 | SANS  1200 LC | SECTION 9 : CABLE DUCTS |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | EXCAVATION |  |  |  |  |
|  |  |  |  |  |  |  |
| 9.1 |  | Over 100 up to 300 mm diam. for total trench depth: |  |  |  |  |
|  |  |  |  |  |  |  |
| 9.1.1 |  | Exceeding 0,0 m but not exceeding 1,0 m | m³ | 120.0 |  |  |
|  |  |  |  |  |  |  |
| 9.1.2 |  | Exceeding 1,0 m but not exceeding 2,0 m | m³ | 180.0 |  |  |
|  |  |  |  |  |  |  |
| 9.2 | 8.3.2(b) | Extra-over items .2.1 to .2.12 incl. for (prov): |  |  |  |  |
|  |  |  |  |  |  |  |
| 9.2.1 |  | Intermediate excavation | m³ | 115.0 |  |  |
|  |  |  |  |  |  |  |
| 9.2.2 |  | Hard rock excavation | m³ | 170.0 |  |  |
|  |  |  |  |  |  |  |
| 9.3 | 8.2.5 | SUPPLY, LAY, BED, AND PROVE DUCTS |  |  |  |  |
|  |  |  |  |  |  |  |
| 9.3.1 |  | 160 mm diam. uPVC pipes | m | 590.0 |  |  |
|  |  |  |  |  |  |  |
| 9.3.2 |  | 110 mm diam. uPVC pipes | m | 590.0 |  |  |
|  |  |  |  |  |  |  |
| 9.3.3 | 8.2.6 | IMPORT BEDDING MATERIAL (provisional) | m³ | 60.0 |  |  |
|  |  |  |  |  |  |  |
| 9.4 | 8.2.7 | DRAW PITS/MANHOLES COMPLETE WITH TYPE  ... COVER AND FRAME |  |  |  |  |
|  |  |  |  |  |  |  |
| 9.4.1 |  | Draw pit 600 mm x 600 mm (Dwg ) | No. | 64.0 |  |  |
|  |  |  |  |  |  |  |
| 9.4.2 |  | Manhole 1 m x 1 m (Dwg ) | No. | 64.0 |  |  |
|  |  |  |  |  |  |  |
| 9.5 | PSLC3.4 | CABLE PROTECTION |  |  |  |  |
|  |  |  |  |  |  |  |
| 9.5.1 |  | Concrete Cover Slab over cable ducts for reduced  depth of cover | m | 55.0 |  |  |
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| Total Carried Forward To Summary | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
|  |  | STORMWATER ATTENUATION |  |  |  |  |
|  |  |  |  |  |  |  |
| 10 | SANS  1200 DM | STORMWATER ATTENUATION |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | SECTION 10: EARTHWORKS (ROADS,  SUBGRADE) |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | COMPLETION OF BULKS |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.1 |  | SITE CLEARANCE |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.1.1 |  | Clear and grub Site | ha | 0.5 |  |  |
|  |  |  |  |  |  |  |
| 10.1.2 |  | Remove and grub large trees and tree stumps of girth  Over and up to 1 m 2 m | No. | 5.0 |  |  |
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|  |  | EARTHWORKS |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.2 |  | Clear Site |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.2.1 |  | Remove topsoil 150mm to stockpile and maintain | m³ | 75.0 |  |  |
|  |  |  |  |  |  |  |
| 10.3 | 8.3.4 | Cut to fill |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.3.1 |  | Compact to 93 % mod. AASHTO maximum density | m³ | 3000.0 |  |  |
|  |  |  |  |  |  |  |
| 10.4 | 8.3.6 | Extra-over items 8.2 inclusive for excavating and  breaking down material in: |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.4.1 |  | Intermediate Material | m³ | 500.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.5 | 8.3.7 | Cut to spoil from |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.5.1 |  | Soft excavation | m³ | 200.0 |  |  |
|  |  |  |  |  |  |  |
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| 10.6 | 8.3.13 | SURFACE FINISHES |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.6.1 |  | Topsoiling | m² | 1000.0 |  |  |
|  |  |  |  |  |  |  |
| 10.6.2 |  | Grassing | ha | 0.3 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
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| 10.7 | PSDB 8.3.2(a) | Excavate in all materials for trenches backfill, compact, and dispose of surplus/unsuitable material, for pipes: Over 100 up to 750 mm diam. for total  trench depth: |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.7.1 |  | i) Exceeding 0,0 m but not exceeding 1,0 m | m³ | 20.0 |  |  |
|  |  |  |  |  |  |  |
| 10.7.2 |  | i) Exceeding 1,0 m but not exceeding 1,5 m | m³ | 20.0 |  |  |
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| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
| 10.8 | PSDB 8.3.2(a) | Excavate in all materials for trenches backfill, compact, and dispose of surplus/unsuitable material, for pipes: Over 750 up to1500 mm diam. for total  trench depth: |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.8.1 |  | i) Exceeding 0,0 m but not exceeding 1,0 m | m³ | 50.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.8.2 |  | Excavate and dispose of unsuitable material from  trench bottom (Provisional) | m³ | 20.0 |  |  |
|  |  |  |  |  |  |  |
|  |  | Make up deficiency in backfill material: (Provisional) |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.8.3 |  | a) From Commercial Source | m³ | 40.0 |  |  |
|  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |
|  | SABS 1200LB | BEDDING |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.9 |  | PROVISION OF BEDDING |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.9.1 |  | a) from other excavations on site | m³ | 50.0 |  |  |
|  |  |  |  |  |  |  |
| 10.9.2 | 8.2.2.3 | b) Commercial sources (Provisional) | m³ | 40.0 |  |  |
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|  | SANS  1200 LE | STORMWATER DRAINAGE |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.10 | 8.2.1 | Supply, handle, lay, bed Class B concrete pipe Type  and Class .100D, Spigot and Socket joints fitted with rubber rings |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.10.1 |  | a) 750 mm diameter | m | 50.0 |  |  |
|  |  |  |  |  |  |  |
| 10.10.2 |  | b) 900 mm diameter | m | 20.0 |  |  |
|  |  |  |  |  |  |  |
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|  |  | HEADWALLS |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | Provide all materials & construct headwall onto  s/water pipe as per detail. Rate to include for excavation |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.11 |  | a) Inlet headwall |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.11.1 |  | i) For pipes up to 900mm diameter | No. | 3.0 |  |  |
|  |  |  |  |  |  |  |
| 10.12 |  | b) Outlet headwall including splitter blocks |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.12.1 |  | i) For pipes up to 900mm diameter | No. | 3.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | SABS 1200  DK | GABIONS AND PITCHING |  |  |  |  |
|  |  |  |  |  |  |  |
| Total Carried Forward | | | | | |  |

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| ITEM NO | PAYMENT | DESCRIPTION | UNIT | QTY | RATE | AMOUNT R |
| Brought Forward | | | | | |  |
| 10.13 | 8.2.1 | Surface preparation bedding of gabions |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.13.1 |  | a) Mattresses 6 x 2 x 0.23m | m² | 50.0 |  |  |
|  |  |  |  |  |  |  |
| 10.14 | 8.2.2 | Gabion mattresses : |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.14.1 |  | a) Mattresses 6 x 2 x 0.23m | m³ | 15.0 |  |  |
|  |  |  |  |  |  |  |
| 10.15 |  | Extra-over items 4.30 for cutting and folding |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.15.1 |  | a) Gabion mattresses | m² | 5.0 |  |  |
|  |  |  |  |  |  |  |
| 10.15.2 | 8.2.4 | Geotextile blanket, Grade B (270g/m2) Geotextile or  similar approved | m² | 300.0 |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 10.16 |  | Construct attenuation overflow structures complete as  per attached drawing no….... | No. | 4.0 |  |  |
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| Total Carried Forward To Summary | | | | | |  |

SUMMARY OF SECTIONS

SECTION DESCRIPTION AMOUNT R

1. PRELIMINARY AND GENERAL
2. SITE CLEARANCE
3. ROADWORKS
4. EARTHWORKS (PLATFORMS)
5. STORMWATER & SUBSOIL DRAINAGE
6. SEWERS
7. WATER RETICULATION
8. ANCILLARY ROADWORKS
9. CABLE DUCTS
10. STORMWATER ATTENUATION SUBTOTAL

Preliminary and General @ 15% of Sub-total 1 SUBTOTAL

Add 15% VAT

Total Carried Forward To Form of Offer