**Inspection and test plan – Fill Earthworks Type C**

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| **Project no.** | | CC0374 | **Project name** | Pakenham Roads Upgrade | | **Date** |  | | **Approved by** | Edward Ginger |
| **ITP no.** | 1630-P200-SYM-QAC-ITP-0049 | | **Revision date** | 4/07/2023 | **Plant and equipment used** | | |  | | |
| **Lot no.** |  | | **Location (chainages, detailed description or marked up plan)** | | | | |  | | |

Attach Dockets, Certificates and QA Documents to ITP

|  |  | |  |  |  |  | **Verification of acceptance by** | | | | | **Remarks/record (eg. Test frequency reports, certificates, checklist etc)** |
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|  |  | |  |  |  |  | **Symal** | | | **Superintendent** | |
| **Item no.** | **Activity** | | **Ref docs** | **Acceptance criteria** | **Freq** | | **Key** | **Resp** | **Initial/ date** | **Key** | **Sign/ date** |
|  | | **1.0 Pre-start activities** | | | | | | | | | | |
| **1.1** | Define Work Lot | | 173.02  204.03 (h)  Table 204.142  Lot Diagram | Survey boundaries clearly define the Earthworks Type C Construction works.  Lot diagram to be provided clearly marking up extents of lot area.  Work Lot open on TeamBinder.  Lot size with no more than one day’s production | Prior to start of works | | R | SE |  |  |  |  |
|  | | **2.0 Set Out** | | | | | | | | | | |
| **2.1** | Set Out Survey Completed | | VR Clause 204.03 (a)  IFC Drawings | Set out pegs in place and clearly mark out limits of works as per IFC drawings. | Each Lot | | R | SE |  |  |  |  |
|  | | **3.0 Placement of Type C Material** | | | | | | | | | | |
| **3.1** | Underlying Layer Conformance | | VR Clause 204.10(b)  Construction Document | No fill to be placed until the area has been reviewed by the Superintendent.  **Approval to proceed granted?**  **Yes □ No □** | Each Lot | | **H**  W | SE |  | **H** |  |  |
| **3.2** | Placing of Fill | | VR Clause 204.10(d) | Spread and compact in layers not exceeding a compacted thickness of 300 mm.  **Where Type C material contains 25% or more of rock by volume, which will not break down during compaction to meet the maximum particle dimension required for a 300 mm thick layer**, the loose thickness of each layer may equal the maximum particle dimension of the rock up to a maximum layer thickness of 500 mm.  Rocks with a maximum particle dimension of less than 800 mm may be placed in Type C material zones as specified, with sufficient spacing between larger rocks to enable full compaction of the Type C material.  The material shall be placed and compacted such that voids are completely filled with fine material.  Material shall be compacted at minimum moisture ratio of 80% | Once  Each Lot | | W | SE |  |  |  | Verification Records: **Yes □ No □**  Material Compliance Certificates & Material Approval Register  **Yes □ No □**  VicRoads registration of recycled material blend (if applicable)  **Yes □ No □** |
| **3.3** | Keyed Fill Layers | | VR Clause 204.10(c)  204.10(d)  Construction Document | Placement surface textured to ensure layers keyed into each other.  Where a fill is to be constructed on steep sideling ground or against an existing embankment with side slope steeper than 4 horizontally to 1 vertically, benches shall be progressively cut over the full area to be covered by new fill. The width of each bench shall be such as to permit safe and effective operation of plant but shall be not less than 1 m. | Once  Each Lot | | W | SE |  |  |  |  |
|  | | **4.0 Geotechnical Analysis** | | | | | | | | | | |
| **4.1** | Compaction Testing / Moisture Testing | | VR Clause Table 204.131  Table 204.141  Table 204.142  173.04(d)  Table PS3020.072 | **All areas of the job will be considered as scale A.**  **Scale A Testing: HWKR Rd, Princes Freeway, All Freeway Interchange Ramps, All other arterial roads.**  **Scale B Testing: All other local roads, SUP.**  Type C Material should meet the following compaction:   * **95% for Scale A** * **93% for Scale B** * **92% for Scale C**   Type C material is to be tested as per table 201.141 and table 201.142. And should meet the moisture content requirements as per VR204.  >70% for any material within 150mm of subgrade.  >80% for all material below cut floor level.  **Have the results been achieved?**  **Yes □ No □** | Each Lot | | R | SE |  |  |  | NATA Test Report: Compaction  **Yes □ No □** |
| **4.2** | Material Requirements | | VR Clause Table 204.041 | Type C material shall be capable of being spread in layers of not more than 500 mm and compacted as specified to achieve a stable condition.    **Have the results been achieved?**  **Yes □ No □** | Each Lot | | R | SE |  |  |  |  |
| **4.3** | Reduced Frequency  Post compaction testing of initial lots. | | VR Clause 204.14  Table 204.142  PS3020.07 (f) | Testing of compaction for each lot as per Table 204.142  **If Reduced frequency has been granted, the testing can be conducted at the following frequency:**  Compaction will only be required for every 6th lot.  **Has the criteria been achieved?**  **Yes □ No □** | Each Lot | | R | SE |  | R |  |  |
|  | | **5.0 Completion** | | | | | | | | | | |
| **5.1** | Conformity with IFC Drawings and Construction Tolerances | | VR Clause 204.03  Table 204.031 | Earthworks shall be finished to conform to the levels, lines, grades and cross-sectional specified or shown on the drawings.  **Does the final product conform to the above criterial?**  **Yes □ No □** | Each Lot | | R | SE |  |  |  |  |
| **5.2** | Preparation of Final Surface.  (For Underside of Pavement Layers and the surface of the Cut Floor). | | VR Clause 204.15 | Surface is Smooth, Hard, Tightly Bound and Free from Depressions Capable of Holding Water.  Material within 150 mm of subgrade shall be maintained such that its moisture content is not less than 70% of OMC prior to the placement of any pavement layers.  **Does the final product conform to the above criterial?**  **Yes □ No □** | Each Lot | | R | SE |  |  |  |  |
|  | | **6.0 Work Lot Close Out** | | | | | | | | | | |
| **6.1** | Test Reports | | DoT Specs | All Test reports received and reviewed | Each Lot | | R | SE |  |  |  | NATA Endorsed Test Reports |
| **6.2** | Product Non-Conformance | | QMP | All Product Non-Conformance(s) recorded and closed (if applicable) | Each Lot | | R | SE |  |  |  | NCR reports |

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| **Works complete (signer SE)** | |  | | | **Date works complete** | |  | | | |
| **Lot conforms (signer PE)** |  | | **Date lot closed** |  | | **NCR/s no. raised** | |  | **Date NCR closed for this lot** |  |

**Responsibility (Resp.) Key**: **PM**-Project Manager, **PE**-Project Engineer, **SE**- Site Engineer, **CS**-Civil Superintendent, **SS**-Site Supervisor, **SV**-Surveyor, **CR**-Client Representative

**SI** – Superintendent

**Inspection Key: W –** Witness, **H –** Hold Point, **S –** Surveillance**, I** – Inspection, **R-** Review