| **INSPECTION AND TEST CHECKLIST FOR:**  **Earthworks SMZ (R44)** |
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| Activity No.# | Description | Requirements / Reference | | Acceptance Criteria | | | | | | | Comments / Attachments / Records | | | | Engineer Signoff | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | **Safety Review** | Project Safety Plan | | * All site personnel inducted (includes environment and cultural) * Required Safe Work Method Statements completed and signed * Subcontractor’s safety plan/procedure approved | | | | | | |  | | | |  | |
| 2 | **Environment** | Project Environment Plan  G36 CL 3.1  G38, G40 | | * Installation of soil erosion and sedimentation controls completed in accordance with ESC Plan and EMP, as well as Specification TfNSW G38 * All work undertaken under this Specification must be approved by the Environmental Site Representative (refer TfNSW G36) and comply with Abergeldie’s CEMS and CEMP | | | | | | |  | | | |  | |
| 3 | **Site Won Selected Material** | R44 Cl 2.8.5.1 | | Material is the same source in both layers  Any site won selected material must:   * Have a characteristic CBR (4 day) value of minimum 33 for the upper 150mm layer (T117 test method), for the fraction passing 19mm AS sieve * Have a characteristic CBR (4 day) value of minimum 19 for the lower 150mm layer (T117 test method), for the fraction passing 19mm AS sieve * Have a Plasticity Index of maximum 15 (T109 test method) * Be free from stone larger than 53mm maximum particle dimension * Have no less than 50% passing the 19mm AS sieve | | | | | | |  | | | |  | |
| 4 | **Imported Selected Material** | R44 Cl 2.8.5.2  R44 Cl 6.1.2  R44 A2.2  RMS 3051  RMS 3071- Clause 5.1 | | Place and compact each layer of the SMZ with a compacted thickness not exceeding 150mm and not less than 100mm  Material is from the same source in both layers  Imported material to be used for the selected Material Zone must meet requirements of Specification TfNSW 3071.  PI = 15 MAX  CBR (upper 150 mm thick layer) = 33 min  CBR (lower layer) = 19 min  Particle Size Distribution as per table below       * Provide Principal with details of nominated materials, together with a recent certificate verifying the material conforms to RMS 3071 * If source of supply, method of production or type of material changes, submit details of the new nominated material and re-confirm material is suitable for use | | | | | | |  | | | |  | |
| 5 | **Underlying layers** | R44 | | * Underlying layers beneath the SMZ layer must comply with either UZF or Construction of Heavily Bound Pavement Course ITP’s & conform to specific test requirements etc. of R44 prior to placement of SMZ Material | | | | | | |  | | | |  | |
| 6 | **Delivery of Material** | R44 Cl 6.1.1  TfNSW 3071 CL 7 | | * **HOLD POINT: Delivery of Material** - Submission of details of location, quantities, type and verification of conformity of Upper Zone Material (including selected Material). If imported, verification that all possible onsite sources of material have been exhausted * At least five working days prior delivery of material from a new certified stockpile, provide notification of intended delivery | | | | | | |  | | | |  | |
| 7 | **Prior to Placement** | R44 CL 6.1.2 | | * **HOLD POINT: Placement of SMZ** - Prior to placement of material in SMZ, submit to Principal test reports verifying conformity of each lot of stockpiled material for use in Selected Material Zone | | | | | | |  | | | |  | |
| 8 | **Material for Verges** | R44 Cl 6.2 | | * **HOLD POINT: Delivery of site won and imported material for the verges** – Submit proposed location, quantities and type of material, and verification of conformity. If imported, provide verification that all possible sources of the material within the site have been exhausted | | | | | | |  | | | |  | |
| 9 | **Trimming** | R44 CL 6.1.2  R44 CL 7.7.1 | | * Trim the selected material zone to meet tolerances shown in clause 7.7.1   + *Top of lower layer of SMZ*   ***+10 mm / -40 mm***   * + *Top of upper 150mm layer of SMZ, where overlaying layer is not part of contract*   ***+0 mm / -20 mm***   * + *Top of upper 150mm layer of SMZ, where overlaying layer is part of the contract*   ***+0mm / -20mm*** | | | | | | |  | | | |  | |
| 10 | **Lot Conformity** | R44 CL 7.3  R44 CL 7.4 | | Determine the relative compaction in accordance with TfNSW R44 Cl7.4.   * *Each layer of Selected Material Zone =* ***102.0%*** | | | | | | |  | | | |  | |
| 11 | **Proof Rolling** | R44 CL 7.6.1 | | **WITNESS POINT: Proof rolling of any embankment fill layer, or any other surface within 1.5m of the underside of the Selected Material Zone**  At least 1 working day prior to the proof rolling, notify the Principal and provide verification *by the Geotechnical Engineer* that the subject layer or surface conforms in all respects except for proof rolling   * *All proof rolling is to be carried out under the supervision of the Geotechnical Engineer, who must also provide written sign off or recommendations for further actions* | | | | | | |  | | | |  | |
| 12 | **Deflection Testing** | R44 CL 7.6  R44 CL 7.6.2  R44 Annex A4 | | Conduct deflection testing using Benkelman Beam in accordance with Test Method TfNSW T199 of the following surfaces:   * Underside of the Select Material Zone * Top of the Selected Material Zone   Carry out testing within 3 days of taking samples for compaction testing and moisture conformity testing of the material.  Where Benkelman Beam test cannot be conducted due to insufficient space or short run length (<100m) notify Client and request approval for Proof Roll in lieu of Beam test  **WITNESS POINT:** Provide notification at least 1 day prior to proof rolling / Beam test  *All Benkelman Beam testing is to be carried out under the supervision of the Geotechnical Engineer who must also provide written sign off of compliance or recommendations for further actions*  Where characteristic deflection does not exceed 1.2mm, the standard deviation of the Lot must not exceed 0.2mm. If the required characteristic deflection exceeds 1.2mm, the coefficient of variation of the Lot must not exceed 25%.  Where these values are exceeded, re-examine the Lot boundaries, re-check the Lot for homogeneity, and subsequently re-nominate the Lot (or parts thereof) for further testing following reworking.  ***Maximum characteristic deflection***   * ***1.0 mm (Top of Selected Material Zone), 1.2mm (Underside of Selected Material Zone)*** | | | | | | |  | | | |  | |
| 13 | **Covering Each Lot** | R44 CL 6.1.2  Table R44.10 | | **HOLD POINT:** Prior to covering each lot of SMZ, submit to principal verification of conformity of each lot of SMZ placed with relevant test and survey reports.  Test Reports include Relative Compaction, Moisture Content and Deflection Monitoring (Beam Test) Results. | | | | | | |  | | | |  | |
| 14 | **Placing SMZ, or pavement where there is no SMZ Zone** | R44 CL 7.6.2 | | **HOLD POINT:** Submit deflection test results, Survey Report of the finished surface and verification of conformity of each Lot of formation | | | | | | |  | | | |  | |
| **REVIEW BY PROJECT ENGINEER** | | | | | | | | | | | | | | | | |
| Any non-conformances? | | | YES | | NO | | Nos: | | | Closed Out | | | YES | | | NO |
| Other QA details – NCRs, CARs, Identified Records etc | | |  | | | | | | | | | | | | | |
| All work has been satisfactorily completed | | | | | | YES | | | NO | | | | | | | |
| Name | | | | | | | | Signature | | | | Date | |  | | |