**Inspection and test plan – Subgrade Preparation**

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| **Project no.** | | CC0371 | **Project name** | Parkville Urban Realm Works | | | | | **Date** |  | **Approved by** | Ibrahim Demiri |
| **ITP no.** | 1 | | **Revision no.** | A | **Revision date** | 07/10/2022 | **Layer thickness** | | |  | | |
| **Plant and equipment used** | | | Excavator, Grader, Roller, Tandems, Trucks & Trailers | | | | | | | | | |
| **Lot no.** |  | | **Location (chainages, detailed description or marked up plan)** | | | | | Refer to attached lot map | | | | |

Attach Dockets, Certificates and QA Documents to ITP

|  | |  | | | | |  |  |  |  | **Verify of acceptance by** | | | | | **Remarks / record (eg. test frequency, reports, certificates, checklist etc)** | |
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|  | |  | | | | |  |  |  |  | **Symal Infrastructure** | | | **CYP D&C JV** | |
| **Item no.** | | **Activity** | | | | | **Ref docs** | **Acceptance criteria** |  | **Freq** | **Key** | **Resp** | **Sign/ date** | **Key** | **Sign/ date** |
|  | |  | | | **1.0 Preliminaries** | | | | | | | | | | | | |
| **1.1** | | Determine lot size | | | | | Lot map | **What is the lot size?**  ……………….. m2  Maximum lot size = 1 days production or 4000m2 |  | Prior to start of works | W | PE |  |  |  | Lot map | |
| **1.2** | | Survey set-out | | | | | VR Clause 204.03 (a) | **Has the work area been set out for line and level?**  Yes  No  N/A |  | Each lot | H | **PE** |  | **S** |  |  | |
| **1.3** | | Excavation material classification | | | | | VR Clause 204.06 (c)  204.04 (b) | **Has the material being excavated been inspected with category agreed upon by Superintendent?**  Yes  No  N/A |  | Prior to start of works | H | PE |  | **H** |  | Material test report | |
| **1.4** | | Fill material classification | | | | | VR Clause 204.06 (c)  204.04 (b)  IFC Drawings | **Has the material to be used been approved by CYP D&C JV?**  Yes  No  N/A |  | Per material | H | PE |  | **H** |  | Imported material test report  CYP Material Approval | |
| **1.5** | | Water management | | | | | VR Clause 204.06 (b) | **Where necessary, have batters been rounded and catch drains constructed to allow for potential surface runoff during the course of excavation?**  Yes  No  N/A |  | Each lot | S | PE |  |  |  |  | |
| **1.6** | | Stage/ Zone | | | | | Site Layout | 1A / 1B/ 1C/ 1D / 1E / 1F / 1G / 2A / 2B / 2C / 2D / 2E / 2F / 2G / 3A / 3B / 3C / 4A / 4B / 4C / 5A / 5B / 5D / 6A / 6B  Stage\_\_\_\_\_\_\_\_\_\_\_ |  | Each lot | S | SE |  | **IR/**  **CYP(R)** |  | Lot map | |
|  | | | | Is the area in **cut / fill / both?**  If in **cut** proceed to step 2.0 and strike out section 3.0.  If in **fill** please strike out section 2.0 and proceed to section 3.0  If in **both** proceed to step 2.0 as well as section 3.0 | | | | | | | | | | | | | |
|  | |  | | | **2.0 Bulk earthworks – cut** | | | | | | | | | | | | |
| **2.1** | | Subgrade preparation | | | | | VR Clause  204.06 | **Has the cut surface been trimmed to an even surface free from lose material?**  Yes  No  N/A |  | Each lot | W | SE |  | **W** |  | Site photos | |
| **2.2** | | Groundwater/ seepage (if applicable) | | | | | VR Clause  204.06 (h) | If groundwater or seepage is encountered, notify the Superintendent and create a course of proposed action.  Submit any necessary approvals from relevant authorities for the treatment and disposal of this groundwater.  **Approval to proceed?**  Yes  No  N/A |  | Each lot | W | SE |  |  |  | Dewatering permit (if applicable) | |
| **2.3** | | Treatment of Cut | | | | | VR Clause  204.06 (e)(ii)  204.10 (b)  204.12 | The in-situ material shall be ripped to a minimum depth of 150 mm, loosened and broken down to a maximum particle size of 50 mm. Any rocks or boulders larger than 50 mm shall be removed and any resulting depression shall be backfilled with approved material and such backfilling together with the loosened material shall be reworked and compacted as specified to the Cut Floor Level in preparation for test rolling.  **Has all of the above been completed?**  Yes  No  N/A |  | Each lot | W | SE |  | **W** |  |  | |
| **2.4** | | Compaction | | | | | VR Clause  204.13  204.13 (b)  204.15  173.04 | Compaction Scale C, CBR and Swell Testing per lot (3 tests per lot).  Has the subgrade been adequately compacted achieving a mean value density ratio of 95% Standard?  Yes  No  N/A |  | Each Lot | H | SE |  | **IR/**  **CYP(W)** |  | Test reports | |
| **2.5** | | Test Rolling of prepared subgrade | | | | | VR Clause  173.03 | Does the layer withstand test rolling without visible deformation or springing?  Yes  No  N/A  If ‘no’ please see below.  If ‘yes’ please proceed |  | Each lot | H | PE |  | **IR(W)/**  **CYP(H)** |  | Proof roll report | |
| **2.6** | | Identification of soft wet or unstable material | | | | | VR Clause  204.07 | What quantity of soft, wet or unstable material is present?  ……………….. m3 |  | Each lot | S | SE |  |  |  | Survey report of area | |
| **2.7** | | Treatment of unsuitable material | | | | | VR Clause  204.07(d) | Has rectification process been submitted to the Superintendent for review?  ☐ Yes ☐ No ☐ N/A  What was the rectification process used?  …………………………………………………. |  | Each lot | H | SE |  | **H** |  | Rectification process | |
| **2.8** | | Maintenance of Cut Floor Level | | | | | VR Clause  204.15  204.03 | Visual inspection to confirm that surface is a smooth, hard, tightly bound surface, 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 optimum moisture content prior to the placement of any pavement layer.  Has all of the above been completed?  ☐ Yes ☐ No ☐ N/A |  | Each lot | W | SE |  | **S** |  | Site photos | |
|  | |  | | | **3.0 Bulk earthworks - fill** | | | | | | | | | | | | |
| **3.1** | | Stripped surface - test rolling  (If applicable) | | | | | VR Clause  173.03  204.10 | Does the stripped surface to be filled withstand test rolling without visible deformation or springing?  Yes  No  N/A  If ‘no’ please see below.  If ‘yes’ please proceed to item 3.2 |  | Each lot | H | PE |  | **IR(W)/**  **CYP(H)** |  | Material report  Proof roll report | |
| **3.2** | | Identification of soft wet or unstable material | | | | | VR Clause  204.07 | What quantity of soft, wet or unstable material is present?  ……………….. m3 |  | Each lot | S | SE |  |  |  | Survey report of area | |
| **3.3** | | Treatment of unsuitable material | | | | | VR Clause  204.07(d) | Has rectification process been submitted to the Superintendent for review?  ☐ Yes ☐ No ☐ N/A  What was the rectification process used?  …………………………………………………. |  | Each lot | H | SE |  | **H** |  | Rectification process | |
| **3.4** | | Preparation of surface | | | | | VR Clause  204.13(B) | Has adequate water been added to the stripped surface to ensure adhesion to the next layer?  Yes  No  N/A |  | Each lot | S | SE |  |  |  |  | |
| **3.5** | | Fill Placement | | | | | VR Clause  204.10 | Has fill been placed in maximum 200mm compacted layer thickness?  Yes  No  N/A |  | Each lot | S | SE |  | **IR/**  **CYP(W)** |  | As built report | |
| **3.6** | | Moisture | | | | | VR Clause  204.13(B) | Has the material maintained at optimum moisture content (>80%), with additional water being added if required during compaction?  Yes  No  N/A |  | Each lot | W | SE |  |  |  | Test reports | |
| **3.7** | | Compaction | | | | | VR Clause  204.13 | Compaction Scale C (3 tests per lot)  Has the layer been adequately compacted achieving a mean value density ratio of 95% Standard?  Yes  No  N/A |  | Each lot | W | SE |  | **IR/**  **CYP(W)** |  | Test reports | |
| **3.8** | | Material properties testing | | | | | VR Clause  204.04  Table 204.041  204.14 | Has the material properties testing (CBR / Swell / Grading / PI / LL / Permeability) been undertaken for the first lot of material placement and satisfies the VicRoads requirements as per Table 204.041?  If the first lot of each fill satisfies the specified post compaction requirements, every second lot of like material and work will be tested  Yes  No  N/A |  | Per material | H | PE |  | **H** |  | Test reports | |
| **3.9** | | Fill layer – test rolling | | | | | VR Clause  173.03  204.10 | Does the layer withstand test rolling without visible deformation or springing?  ☐ Yes ☐ No ☐ N/A  If ‘no’ please see below  If ‘yes’ please proceed to fill construction |  | Each lot | H | PE |  | **IR(W)/**  **CYP(H)** |  | Proof roll report | |
| **3.10** | | Identification of soft wet or unstable material | | | | | VR Clause  204.07 | What quantity of soft, wet or unstable material is present?  ……………….. m3 |  | Each lot | S | SE |  |  |  | Survey report of area | |
| **3.11** | | Treatment of unsuitable material | | | | | VR Clause  204.07(d) | Has rectification process been submitted to the Superintendent for review?  ☐ Yes ☐ No ☐ N/A  What was the rectification process used?  …………………………………………………. |  | Each lot | H | SE |  | **H** |  | Rectification process | |
|  | |  | | | **4.0 Conformance check** | | | | | | | | | | | | |
| **4.1** | | Width and alignment | | | | | VR Clause  204.03  IFC drawings | Has the pavement been constructed at the correct width and alignment as detailed in the construction drawings?  Yes  No  N/A |  | Each lot | W | SE |  | **IR/**  **CYP(W)** |  | As built report | |
| **4.2** | | Subgrade level and shape | | | | | VR Clause  204.03  IFC drawings | Has the prepared subgrade been surveyed in accordance with and verifying specified requirements?  Mean Range: +5mm to -25mm Standard Deviation: Maximum 15mm  Yes  No  N/A |  | Each lot | W | SE |  | **IR/**  **CYP(W)** |  | As built report | |
| **4.3** | | Test Reports | | | | | VR Clause  204.14 | All Test reports received and reviewed.  Yes  No  N/A |  | Each lot | W | SE |  | **IR/**  **CYP(W)** |  | NATA Endorsed Test Reports | |
| **4.4** | | Product non-conformance | | | | |  | All Product Non-Conformance(s) recorded and closed (if applicable)  Yes  No  N/A |  | Each lot | W | SE |  | **IR/**  **CYP(W)** |  | Completed NCR form | |
|  |  | |  | | | **Comments**: | | | | | | | | | | |  |
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| **Lot acceptance:**   |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Works complete (signer SS)** | |  | | | **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, **CR-**Client Representative, **SI-**Superintendent

**Inspection key: W –** Witness, **H –** Hold Point, **S -** Surveillance