**Inspection and test plan – earthworks**

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| **Project no.** | | CC-0388 | **Project name** | Shoalhaven Area Remediation of Multiple Slips | | | | | **Date** |  | **Approved by** |  |
| **ITP no.** | SYM-0388-ITP-002 | | **Revision no.** | C | **Revision date** | 08/06/2023 | **Layer thickness** | | |  | | |
| **Plant and equipment used** | | |  | | | | | | | | | |
| **Site no.** |  | | **Location (chainages, detailed description or marked up plan)** | | | | |  | | | | |

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** | | **Shoalhaven City Council** | |
| **Item no.** | | **Activity** | **Ref docs** | **Acceptance criteria** | **Acceptance** | **Key** | **Sign date** | **Key** | **Sign date** |
| **1.0 General & Extent Approval** | | | | | | | | | | | |
| 1.1 | | Determine Site Size | IFC Drawings | Treatment Length: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_m  Treatment Width: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_m | Yes  No  N/A | H |  | H |  | Approved Earthworks Extent Markup  (Doc No. \_\_\_\_\_\_\_\_\_\_) | |
| 1.2 | | Slope Treatment Type | IFC Drawings | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Dated: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ | Yes  No  N/A | H |  | H |  | Approved Design Change Markup  (Doc No. \_\_\_\_\_\_\_\_\_\_) | |
| 1.3 | | Survey Set Out | TfNSW G71 CL3.2  IFC Drawing | Set out and pegged to suit the approved design extent markup. | Yes  No  N/A | H |  | H |  | Photos of pegged out location | |
| 1.4 | | Slope Treatment Submission | IFC Drawings | The following documents have been submitted by Symal to the Client for the slope treatment type approval:   * Survey report * Notification of completion of clearing * Details of tests, inspections, assessments and any recommended slope treatment proposed by the Geotechnical Engineer | Yes  No  N/A | H |  | H |  | Survey Report  (Doc No. \_\_\_\_\_\_\_\_\_\_)  Notification of Clearing  (Lot No. \_\_\_\_\_\_\_\_\_\_\_)  Geotech Report  (Doc No. \_\_\_\_\_\_\_\_\_\_) | |
| 1.5 | | Methodology | TfNSW R44 Cl 1.5  IFC Drawings | Symal to submit methodology for excavation, shoring and filling works per IFC Drawings Note 191 (A). | Yes  No  N/A | H |  | H |  | Approved Earthworks Methodology  (Doc No. \_\_\_\_\_\_\_\_\_\_) | |
| **2.0 Surface Excavation** | | | | | | | | | | | |
| 2.1 | | Erosion and sediment control | IFC Drawings | Installed as per Erosion and Sediment Control Plans in the approved Activity Method Statement document. | Yes  No  N/A | S |  |  |  |  | |
| 2.2 | | Clearing and Grubbing | IFC Drawings | Completed as per ITP-001 and signed off. | Yes  No  N/A | S |  |  |  | ☐ Completed ITP-001  (Lot No. \_\_\_\_\_\_\_\_\_) | |
| 2.3 | | Working Platform & Temporary Batters | IFC Drawings | Requirement for any working platform or temporary batter stabilisation assessed by Geotechnical Engineer and temporary work designed.  Working platform or batter stabilisation then constructed in accordance with the temporary works design. | Yes  No  N/A | W |  | W |  | Geotechnical Inspection Report  (Doc No. \_\_\_\_\_\_\_\_\_\_)  Temporary Works Design  (Doc No. \_\_\_\_\_\_\_\_\_\_\_) | |
| 2.4 | | Excavation Permit | IFC Drawings Note 191 (B) (i) | Have all trees / native flora and fauna been protected including the establishment of no go zones as indicated in the construction documentation? | Yes  No  N/A | H |  | H |  | Excavation Permit  (Doc No. \_\_\_\_\_\_\_\_\_\_) | |
| 2.5 | | Sub Vertical Excavation | TfNSW R64 CL. 3.3  IFC Drawings Note 71 | Sub vertical excavation must not exceed a total depth of 1.5 m.  Where this depth is required to be exceeded it shall be first inspected by a suitably qualified geotechnical engineer and either signed off or provide a temporary works design to facilitate the excavation. | Yes o No o N/A o | W |  |  |  | ☐ Written confirmation from Geotech  (Doc No. \_\_\_\_\_\_\_\_\_)  ☐ Temporary Works Design  (Doc No. \_\_\_\_\_\_\_\_\_) | |
| 2.6 | | Proof rolling of subgrade | IFC Drawings Note 62 | The subgrade must be proof rolled with a 12 tonne static mass smooth drum roller.  Any soft or yielding materials must be removed and replaced | Yes o No o N/A o | W |  | W |  |  | |
| 2.7 | | Foundation | IFC Drawings Note 61 | Foundation layer shall be dry, smooth, level and graded to the profile as shown in the detailed drawing. It shall be free of surface irregularities, loose or unsuitable material.  Foundation level to be confirmed on site by a suitably qualified geotechnical engineer | Yes o No o N/A o |  |  |  |  |  | |
| 2.8 | | Compaction | TfNSW R44 | Has the stabilised subgrade been adequately compacted achieving a mean value density ratio of 99% Standard? | Yes o No o N/A o | W |  | W |  | ☐ Compaction Test Report No. \_\_\_\_\_\_\_ | |
| 2.9 | | Stockpile | IFC Drawings Note 77 | Excavated material stockpiled in the nominated and approved location to a height not exceeding 2m.  Ensure that different soil types are separated into different stockpiles | Yes o No o N/A o | S |  |  |  |  | |
| 2.10 | | Shape of Excavation | IFC Drawings | Survey pickup of cut surface after completion of stripping and earthworks. | Yes o No o N/A o | W |  | W |  | ☐ Batter Survey Conformance  (Doc No. \_\_\_\_\_\_\_\_\_) | |
| **3.0 Filling** | | | | | | | | | | | |
| 3.1 | | Fill Material | IFC Drawings Note 54 | Import material shall be virgin excavated natural material only unless otherwise approved.  Provide test data and documentation where non-virgin material is used on site. | Yes o No o N/A o | H |  | H |  | ☐ Material Dockets  (Doc No. \_\_\_\_\_\_\_\_\_)  ☐ Material Test Data  (Doc No. \_\_\_\_\_\_\_\_\_) | |
| 3.2 | | Proof rolling of subgrade | IFC Drawings | The subgrade must be proof rolled with a 12 tonne static mass smooth drum roller prior to any filling.  Any soft or yielding materials must be removed and replaced | Yes o No o N/A o | W |  | W |  | ☐ Photos  (Doc No. \_\_\_\_\_\_\_\_\_) | |
| 3.3 | | Fill Placement | IFC Drawings | Fill material shall be spread in layers not exceeding 150mm and compacted at +- 2% of OMC.  Density testing of each fill layer at a rate of 1 test per 100m2 (min. 2 tests per site). | Yes o No o N/A o | H |  | H |  | ☐ Compaction Test Report No. \_\_\_\_\_\_\_ | |
| 3.4 | | Foundations | IFC Drawings Note 191 (C) | Witness bearing capacity of excavations prior to pouring of any foundations by geotechnical engineer | Yes o No o N/A o | H |  | H |  |  | |
| **4.0 Backfilling and Geotextile and Erosion Control Mat** | | | | | | | | | | | |
| 4.1 | | Backfill Material | IFC Drawings | Appropriate backfill material as per IFC Drawings. | Yes o No o N/A o | W |  | W |  | ☐ Material Test Data No. \_\_\_\_\_\_\_ | |
| 4.2 | | Backfill Depth | IFC Drawings | Backfilled to the depth as per the IFC Drawings. | Yes o No o N/A o | W |  |  |  |  | |
| 4.3 | | Backfill Compaction | IFC Drawings | Compaction tests are conducted to ensure the specified compaction level is achieved. | Yes o No o N/A o | H |  | H |  | ☐ Compaction Test Report No. \_\_\_\_\_\_\_ | |
| 4.4 | | Erosion Control Mat Installation | IFC Drawings | Erosion Control Mat Installed as per IFC Drawings. | Yes o No o N/A o | W |  | W |  |  | |
| 4.5 | | Geotextile | TfNSW R44 cl3.2.4 | Geotextile installed as per the IFC drawing or the direction from the principal. | Yes o No o N/A o | W |  | W |  |  | |
| **5.0 Blinding Layer** | | | | | | | | | | | |
| 5.1 | | Blinding layer | IFC Drawings Note 68 | Blinding may be required to infill voids, uneven ground and cavities at foundation level to create a stable working platform. Where required, blinding layer should be created using granular site won soils and rockfill, compacted to minimum relative density of 70%. | Yes o No o N/A o | W |  | W |  | ☐ Material Test Data No. \_\_\_\_\_\_\_  ☐ Compaction Test Report No. \_\_\_\_\_\_\_ | |
| **6.0 Post Process** | | | | | | | | | | | |
| 6.1 | | Tolerances | IFC Drawings | Tolerances of the slope conform to the IFC Drawings. | Yes o No o N/A o | S |  |  |  |  | |
| 6.2 | | Non-Conformity | TfNSW Q6 CL8.3 | Identified non-conformity captured and closed-out. | Yes o No o N/A o | H |  |  |  | NCR No. \_\_\_\_\_\_\_ | |
|  | **Comments**: | | | | | | | | | |  |
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| **Site acceptance:** | | | | |
| Symal Infrastructure representative name |  |  | Shoalhaven City Council representative name |  |
| Symal Infrastructure representative signature |  |  | Shoalhaven City Council representative signature |  |

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