|  |  |  |  |
| --- | --- | --- | --- |
| **Lot No**: | **Lot Details:** | **Lot size/Quantity**: | **Date:** |

| **Item**  **No.** | **Task/Activity Description** | **Inspection/Test** | | | | | **HP/ WP/ AP/ IP/ TP/ SCP** | **Responsibility** | **Checked by:** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Frequency** | **Acceptance Criteria** | **Reference Documents** | **Inspection/Test Method** | **Record of conformity** | **Client** | **Fulton Hogan** | **Date** |
| **1.0** | **Preliminary Works** | | | | | | | | | | |
| 1.1 | Check for Correct Documentation | Prior to commencing works. | Ensure that all employees and subcontractors are using the complete set of the correct and most current drawings. | Project IFC Drawings and Drawings Register | Visual Inspection | Signed Inspection & Test Plan (ITP) | HP\* | Project Engineer/Site Supervisor |  |  |  |
| 1.2 | Implementation of all measures and controls | Prior to commencing any works on site. | All necessary measures and controls are being implemented, that is: PMP, EMP, ECP, TMP, SWMS | PMP, EMP, ECP, TMP, SWMS | Visual Inspection | Signed Inspection & Test Plan (ITP) | HP\* | Project Engineer |  |  |  |
| 1.3 | Service Identification & Excavation Permit | Prior to commencing any works on site. | All services are located, and the relevant service authorities have been consulted and permits obtained.  Ensure an excavation permit is issued and all involved personnel are briefed about the services in the area before signing onto the permit. | DBYD | Verify | Signed Inspection & Test Plan (ITP) | HP\* | Project Engineer |  |  |  |
| 1.4 | Training and Competency | Prior to commencing any works on site. | The bonded anchor installers, and all of its site personnel, shall be certified by the AEFAC, and shall provide evidence of this certification and of its competency acceptable to the Superintendent.  All personnel, including supervisory personnel, who are required to install bonded anchors shall also be trained on-site by the supplier of the bonded anchor system in the specific installation requirements of the project before bonded anchor installation works commence. | VicRoads Standard Section 680 Clause 680.06 | Verify | Signed Inspection & Test Plan (ITP) | HP\* | Project Engineer/ Site Supervisor/ Superintendent |  |  |  |
| **2.0** | **Construction Works** | | | | | | | | | | |
| 2.1 | Survey & Set Out | Each Lot | Ensure line and level of all bonded anchor holes is in accordance with design levels, survey files and drawings. | Project IFC Drawings and Survey Data | Visual Inspection | Signed Inspection & Test Plan (ITP) | HP\* | Project Engineer/Site Supervisor |  |  |  |
| 2.2 | Trial Installation | Each Lot | The Contractor shall not proceed with the permanent bonded anchor installation works until the trial system installation have been carried out and the outcomes reviewed and approved by the Superintendent. | VicRoads Standard Section 680 Clause 680.11 | Visual Inspection | Signed Inspection & Test Plan (ITP) | **HP** | Project Engineer/ Site Supervisor/ Superintendent |  |  |  |
| 2.3 | Drilling & Roughening of Anchor Holes | Each Lot | The Contractor shall not proceed with drilling or cutting holes into the concrete, installation or removal of bonded anchor works until the WMS and ITPs have been reviewed and approved by the Superintendent.  Ensure hole depths and widths are drilled in accordance with Project IFC Drawings. | Drawing No.578259 – 578276  VicRoads Standard Section 680 Clause 680.11 | Visual Inspection | Signed Inspection & Test Plan (ITP) | **HP** | Project Engineer/ Site Supervisor/ Superintendent |  |  |  |
| 2.4 | Cleaning of Holes | Each Lot | Ensure all holes are cleaned in accordance with the manufacturer’s installation instructions. This must include the following as a minimum:   * Air flush twice as the specified pressure. * Brush clean twice. * Air flush twice at the specified pressure. * Fingertip test the hole surface for dust, and if dust is still present, brush clean and air-flush until all dust is removed. Ensure hole is clean and free of debris, dust particles, oils and other contaminants over its full depth. | Section 680 Clause 680.08 | Visual Inspection | Signed Inspection & Test Plan (ITP) | HP\* | Project Engineer/Site Supervisor |  |  |  |
| 2.5 | Placement of Bonded Anchors | Each Lot | Ensure materials being used are in accordance with standard specifications and design drawings.  Chemical adhesives shall be allowed to gain strength for the minimum time specified by the manufacturer’s installation instructions before torque is applied to bolts and load is applied to the bonded anchor system.  Ensure bonded anchor casting register is populated including relevant details such as cast date, cast time, ambient temperature and time of casting, material batch no., and material batch expiry date. | VicRoads Standard Section 680 | Visual Inspection | Signed Inspection & Test Plan (ITP) | HP\* | Project Engineer/Site Supervisor/Superintendent |  |  |  |
| **3.0** | **Testing** | | | | | | | | | | |
| 3.1 | Calibration of Testing Equipment | Each Lot | One week prior to testing the Contractor shall submit to the Superintendent calibration certificates conforming to the requirements of AS 2193 Grade B for the jack and pressure gauges or other force measuring devise to be used. | VicRoads Standard Section 680 Clause 680.09 | Test Point | Test Report | HP | Project Engineer/Site Supervisor |  |  |  |
| 3.2 | Test Method | Each Lot | Details of the test method including load increments and duration of sustained loading shall be submitted to the Superintendent for review not later than one week prior to the testing. | VicRoads Standard Section 680 Clause 680.09 |  |  | HP | Project Engineer/Site Supervisor/Superintendent |  |  |  |
| 3.3 | Testing of Bonded Anchors | Each Lot | Ensure a minimum of 20% of all bonded anchors subject to tensile loads, a combination of tensile and shear loads, or fatigue loads are tested and deemed to meet the minimum strength requirements.   * 50 kN   The Contractor shall provide a test report to the Superintendent for review.  If a bonded anchor fails either the ultimate load testing for suitability or the bonded anchor proof load test, the Contractor shall submit rectification proposals for review by the Superintendent prior to any further bonded anchor installation. | VicRoads Standard Section 680 Clause 680.09 |  |  | HP | Project Engineer/Site Supervisor/Superintendent |  |  |  |

|  |
| --- |
| **Final Inspection** The signature below verifies that this ITP has been completed in accordance with the SWA’s Quality system Procedures and verifies lot compliance with specifications.  **Print Name: Position: Signature: Date: / /** |

**Legend:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **HP** | Hold Point | Work shall not proceed past the HP until released by the Superintendent | **IP** | Inspection point | Formal Inspection to be done and recorded |
| **HP\*** | FH Hold Point | Work shall not proceed past the HP\* until released by the FH Superintendent | **TP** | Test Point | Product compliance test to be undertaken and recorded/reported |
| **WP** | Witness Point | An inspection which must be witnessed by the Superintendent | **SCP** | Survey conformance point | A qualified surveyor to check product/section/structure and report |
| **AP** | Approval Point | Written or verbal approval given by the Superintendent |  |  | |