**Inspection and test plan – Concrete Pit Completion Works**

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| **Project no.** | CC0375 | | **Project name** | Hunter Power Project | | | | | | **Date** | |  |
| **Symal ITP no.** | | CC0375-ITP-024 | **Revision no.** | 1 | **Revision date** | | 09/02/2024 | **Plant and equipment used** |  | | | |
| **UGL ITP no.** | | | 3200-0663-HPP-QA-ITP-124 | | | | | **SHL ITP no.** | HPP-UGL-QUA-GN-GEN-ITP-0064 | | | |
| **Plant and equipment used** | | |  | | | | | | | | | |
| **Lot no.** | |  | | | | **Location (chainages, detailed description or marked up plan)** | | | | |  | |

Attach Dockets, Certificates and QA Documents to ITP

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| Contact Details | | Summary of Requirements | | | Principle Codes / Standards | | Records | |
| **Customer:**  **Construction Manager:**  **Project Engineer:**  **Quality Representative:**  Subcontractors    Surveillance / Inspection Key  **HOLD POINT (H):** Nominated point beyond which work shall not proceed without verified acceptance by nominee.  **WITNESS POINT (W):** Points at which the nominee shall be notified and invited to witness an activity, but further work may proceed without the presence of the nominee.  **SURVEILLANCE (S): Continuing** evaluation of the status of methods, analysis of records and monitoring of activities on a random basis to ensure quality requirements will be met.  **VISUAL (V): 100**% Visual Inspection of work / item to ensure compliance with code / specification.  **DIMENSIONAL (D): Measurement** of critical dimensions to ensure work / item is within tolerance. | | **Process Qualifications**  **Traceability:**  Material:  Alloy Verification  Heat Treatment:  Pressure Testing  Consumable:  NDT:  Welder ID:  WPS:  Electrical:  Instruments  **Heat Treatment:**  **Dimensional Control:**  **Testing (NDT):**  **Acceptance Specification:**  **Pressure Testing:**  **Elect. / Instrumentation:**  Notes: | | | **Client Specifications**  HPP-AEC-CIV-GN-GEN-SPT-0161\_0 QUALITY (CONSTRUCTION)  HPP-AEC-CIV-DD-SWS-SPT-1351\_0 STORMWATER DRAINAGE (CONSTRUCTION)  HPP-AEC-CIV-DD-SWS-SPT-1353\_0 PRECAST BOX CULVERTS  HPP-AEC-CIV-DD-SWS-SPT-1354\_0 DRAINAGE STRUCTURES  **Engineering Procedures / WI** | | **(MDR Insert as marked 3 )**   * Inspect Release Certs. * Deviations/Concessions * Material Certificates * Conformance Certificate * Welding Records * Welder Qual. Register * NDT Reports * Report on Repairs * Heat Treatment Records * Dimensional Records * Non-Conformance Rpts * Pressure Test Records * Drawings & Data Sheets * Misc Verification Records * Electrical Test Sheets | |
| Prepared by: |  | | Date : 09/02/24 | Approved By: | | Date : 09/02/24 | |  |

|  | |  | |  |  |  | **Verification of acceptance by** | | | | | | **Remarks / record (eg. test frequency, reports, certificates, checklist etc)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | |  | |  |  |  | **Symal** | | **HPP Con** | | **HPP QA** | |
| **Item no.** | | **Activity** | | **Ref docs** | **Acceptance criteria** | **Acceptance** | **Key** | **Sign date** | **Key** | **Sign date** | **Key** | **Sign date** |  |
| **1.0 Preliminaries** | | | | | | | | | | | | | |
| **1.1** | | Documentation | | Issued drawings / Site copy drawings | Check that you have the latest site and engineering drawings BEFORE starting each task/set of tasks. | Yes  No  N/A | S |  | S |  | S |  |  |
| **1.2** | | Lot Traceability | | Spec. 0161 Quality [Cl 7.3] | Prepare a lot map for traceability of the work area | Yes  No  N/A | S |  | S |  | S |  | Lot map |
| **1.3** | | Set out | | Drawings | Setout pits to the location and levels on the drawings. This shall be presented for inspection by the superintendent. | Yes  No  N/A | S |  | S |  | S |  |  |
| **1.4** | | Pit Handover | |  | Each pit shall be visually inspected prior start of the completion works. Any defects recorded must be reported and rectified before receiving back the pit from HPP. | Yes  No  N/A | H |  | H |  | H |  | Joint inspection with HPP rep |
| **2.0 Pit Completion Works** | | | | | | | | | | | | | |
| **2.1** | | Pit Lid Installation | | Drawings | Pits Lids to be installed as per drawings and manufacturers specifications utilising certified lifting points. | Yes  No  N/A | S |  | S |  | S |  |  |
| **2.2** | | Access Covers & Grates | | Drawings | Access covers, grates and frames to be installed as per the drawings AS 3996 | Yes  No  N/A | S |  | S |  | S |  |  |
| **2.3** | | Step Irons | | Drawings | Pits deeper than 600 to be fitted with galvanised plastic-coated step irons as per AS1657 | Yes  No  N/A | S |  | S |  | S |  |  |
| **2.4** | | Pit Jointing  (if applicable) | | Spec. 1354 Stormwater Drainage Structures [Cl 3.5] | Internal joints between precast pits and riser units to be waterproofed as per Symal RFI-037 & manufacturer recommendations.  External Joints between pits and abutting concrete pavement, kerb or structures to be a 10mm isolation joint. | Yes  No  N/A | S |  | S |  | S |  |  |
| **2.5** | | Brass Marker Plates | | Spec. 0002 General Electrical Installation [Cl 6.11]  Drawings | Brass marker plates to be installed at each pit showing cable/conduit routes, contact phone number, organisation & drawing number. | Yes  No  N/A | S |  | S |  | S |  |  |
| **2.6** | | Cable Markers | | Spec. 0002 General Electrical Installation [Cl 6.10] | Install Concrete Cable markers on the surface of all underground cable joints, at every change in direction, and on straight runs at least every 30m.  Markers to be a 400mm square and 100mm deep concrete block with a brass label attached. Label to identify conduit type and direction. | Yes  No  N/A | S |  | S |  | S |  |  |
| **3.0 Conformance Check** | | | | | | | | | | | | | |
| **3.1** | | Survey Report | | Spec. 0161 Quality [Cl 3.13] | An as-built survey of the drainage system been completed to ensure all structures are within construction tolerances.  **HOLD POINT** | ☐ Yes ☐ No ☐ N/A | **H** |  | **W** |  | S |  | Survey report |
| **3.2** | | Acceptance and closure of non-conforming items | | Spec. 0161 Quality [Cl 3.8] | NCRs to be opened for non-conforming items and closed prior to closing construction lot. **HOLD POINT** | ☐ Yes ☐ No ☐ N/A | **H** |  | **H** |  | **H** |  |  |
|  |  | | **Comments**: | | | | | | | | | | |
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| **Acceptance of works:** | | | | |  | |
| Symal Infrastructure representative name |  |  | Symal Infrastructure representative signature |  | Date |  |
| HPP Construction representative name |  |  | HPP Construction representative signature |  | Date |  |
| HPP Quality representative name |  |  | HPP Quality representative signature |  | Date |  |

**Inspection Checklist Report**

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| **Project no.** | CC0375 | **Project name:** | Hunter Power Project | | **Date:** |  |
| **Symal ITP no.** | CC0375-ITP-024 | | | | | |
| **UGL ITP no.** | 3200-0663-HPP-QA-ITP-124 | | **SHL ITP no.** | | HPP-UGL-QUA-GN-GEN-ITP-0064 | |
| **Symal Lot no.** |  | | | | **Symal Sub Lot no.** |  |
| **Location (chainages, detailed description or marked up plan)** | | | |  | | |

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|  | | **Verify of acceptance by** | | | | | | | | | **Remarks / records** |
|  | | **Symal** | | | **HPP Con** | | | **HPP QA** | | |
| **ID No.** | **Activity to be verified** | **ITP Step No.** | **Items conforms?** | | | **NCR / Test Report No.** | | **Key** | | **Sign Date** | **Key** | | **Sign Date** | **Key** | | **Sign Date** |  | |
| Yes | No | NA |
| **Preliminaries** | | | | | | | | | | | | | | | | | | |
| 1. | Documentation | 1.1 |  |  |  |  | | S | |  | S | |  | S | |  |  | |
| 2. | Lot Traceability | 1.2 |  |  |  |  | | S | |  | S | |  | S | |  | Lot map | |
| 3. | Set out | 1.3 |  |  |  |  | | S | |  | S | |  | S | |  |  | |
| 4. | Pit Handover **HOLD POINT** | 1.4 |  |  |  |  | | **H** | |  | **H** | |  | **H** | |  | Joint inspection with HPP rep | |
| **Pit Completion Works** | | | | | | | | | | | | | | | | | | |
| 5. | Pit Lid Installation | 2.1 |  |  |  |  | | S | |  | S | |  | S | |  |  | |
| 6. | Access Covers & Grates | 2.2 |  |  |  |  | | S | |  | S | |  | S | |  |  | |
| 7. | Step Irons | 2.3 |  |  |  |  | | S | |  | S | |  | S | |  |  | |
| 8. | Pit Jointing  (if applicable) | 2.4 |  |  |  |  | | S | |  | S | |  | S | |  |  | |
| 9. | Brass Marker Plates | 2.5 |  |  |  |  | | S | |  | S | |  | S | |  |  | |
| 10. | Cable Markers | 2.6 |  |  |  |  | | S | |  | S | |  | S | |  |  | |
| **Conformance Check** | | | | | | | | | | | | | | | | | | |
| 11. | Survey Report  **HOLD POINT** | 3.1 |  |  |  |  | | **H** | |  | **W** | |  | S | |  | Survey Report | |
| 12. | Acceptance and closure of non-conforming items **HOLD POINT** | 3.2 |  |  |  |  | | **H** | |  | **H** | |  | **H** | |  |  | |

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| I certify that this Lot conforms to the requirements of the design and specifications; that all associated NCRs have been closed out: and all survey, conformance testing and inspections have been undertaken in accordance with the specified requirements. | | | | |
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| **Symal Representative** |  | **Signature** |  | **Date** |
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| **HPP Construction Representative** |  | **Signature** |  | **Date** |
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| **HPP Quality Representative** |  | **Signature** |  | **Date** |
| **Comments:** | | | | |
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