# Inspection and test plan – Driveway entrance pipe crossing.

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| **Project no.** | CC0375 | **Project name** | Hunter Power Project | | | | | | |
| **HPP ITP no.** | CC0375-ITP- | **Revision no.** | 1 | **Revision date** | | 24/06/2024 | **Plant and equipment used** | |  |
| **UGL ITP no.** | 3200-0663-HPP-QA-ITP- | | | | | | **SHL ITP no.** | HPP-UGL-QUA-GN-GEN-ITP- | |
| **HPP Lot No.** | ITP- | | | | | | | | |
| **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 |
| **Project Engineer: Quality Representative:** | | **Process Qualifications** | |  | | **(MDR Insert as marked ◻ )**   * 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 |
| Subcontractors | | **Traceability:** | | **Client Specifications** | |
| HPP-AEC-CIV-GN-GEN-SPT-0161 QUALITY (CONSTRUCTION)  HPP-AEC-CIV-DD-SWS-SPT-1121 EARTHWORKS  HPP-AEC-CIV-GN-GEN-SPT-0319 MINOR CONCRETE WORKS  HPP-AEC-CIV-ST-GEN-SPT-0002 CONCRETE SUPPLY, CONSTRUCTION AND GROUTING  HPP-MHI-QUA-GN-GEN-ITP-0002 - CG-64290 –  Inspection and Test Plan at Site for MHI Scope Section  HPP-MHI-CIV-ST-GPS-PRO-0001 – CG-  64293 - Installation Procedure for Anchor Bolts and Template for GT  HPP-MHI-CIV-ST-GPS-PRO-0002 – CG-  64292 – Check Sheet for GT & GTG Anchor Bolt Setting  MHI GT Erection Procedure (Site Assembly) | |
| Finnbar constructions  ACW | | Material: Alloy Verification | |
| Heat Treatment: Pressure Testing | |
| Consumable: NDT: | |
| Welder ID: WPS: | |
| Electrical: Instruments | |
| Surveillance / Inspection Key | |
| **HOLD POINT (H):** Nominated point beyond which work shall not proceed without verified acceptance by nominee. | | **Heat Treatment: Dimensional Control:** | |
| **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. | | **Testing (NDT): Acceptance Specification:** | |
| **REVIEW (R): Verify** by examination of documentary evidence that inspection / tests have been satisfactorily conducted. | | **Pressure Testing:**  **Elect. / Instrumentation:** | |
| **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. | |  | |
| Notes: | |
| **VISUAL (V): 100**% Visual Inspection of work / item to ensure compliance with code / specification. | |  | |
| **Engineering Procedures / WI** | |
| **DIMENSIONAL (D): Measurement** of critical dimensions to ensure work / item is within tolerance | |  | | HPP-MHI-CIV-ST-GPS-PRO-0001  HPP-MHI-CIV-ST-GPS-PRO-0002 | |
| Prepared by: | Yash Bhavsar | Date: 24/06/2024 | Approved By: Graham Nuss | | Date : 24/06/2024 |  |

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|  | | | | | **Verification of acceptance by** | | | | | | **Remarks / record (eg. test frequency, reports, certificates,**  **checklist etc)** |
| **NA** | | **HPP Con.** | | **HPP QA** | |
| **Item no.** | **Activity** | **Ref docs** | **Acceptance criteria** | **Acceptance** | **Key** | **Sign date** | **Key** | **Sign date** | **Key** | **Sign date** |
| 1. **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 | NA | 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 | NA | S |  | S |  | Lot Map |
| **1.3** | Set out | Drawings | Setout structure to the location and levels on the drawings. This shall be presented for inspection by the superintendent. | * Yes ☐ No   + N/A | S | NA | S |  | S |  |  |
| **2.0 Excavation & Foundation** | | | | | | | | | | | |
| **2.1** | Excavation | Spec. 1112  Earthwork s [Cl 4.6] | Excavate to the depth nominated on the drawings and remove any loose material at the base.  Ensure excavation is carried out to a width which will not impede external formwork. | * Yes ☐ No   + N/A | S | NA | S |  | S |  |  |
| **2.2** | Unsuitable Material | Spec. 1112  Earthwork s [Cl 4.6] | Any Unsuitable Material to be removed to the depth as directed by the Superintendent.  Replace unsuitable with 300mm thick ballast wrapped with Geofabric material.  **HOLD POINT** | * Yes ☐ No   + N/A | **H** | NA | **H** |  | **H** |  |  |
| **2.3** | Foundation Inspection | Spec. 1112  Earthwork  s [4.7] | Foundation to be inspected by the Superintendent prior to placing blinding or commencing work. | * Yes ☐ No   + N/A | S | NA | S |  | S |  |  |

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|  | | | | | **Verification of acceptance by** | | | | | | | **Remarks / record (eg. test frequency, reports, certificates,**  **checklist etc)** | |
| **NA** | | **HPP Con.** | | **HPP QA** | | |
| **Item no.** | **Activity** | **Ref docs** | **Acceptance criteria** | **Acceptance** | **Key** | **Sign date** | **Key** | **Sign date** | **Key** | **Sign date** |  | |
| **3.0 Formwork & Concrete Placement** | | | | | | | | | | | | | |
| **3.1** | Formwork | Spec. 0319  Concrete supply, construction, and grouting [Cl 4.0]  Drawings | Formwork installed as per drawings and adequately supported.  Completed formwork to be inspected by the Superintendent prior to concrete placement.  Install 2\*dia. 300 stormpro pipe to levels, 50mm below drain invert.  Formwork engineers’ inspection certificate complete and received | * Yes ☐ No   N/A | S | NA | S |  | S |  | * Pre-pour inspection | |
| **3.2** | Concrete Supply Temperature | Spec. 0002  Concrete supply, construction, and grouting [Cl 8.1.2] | Temperature of concrete at the time of placement must be minimum 10°C and maximum 30°C.  Ambient air temperature at the time of placement must be between 5oC and 32oC.  If ambient temperature is between 32oC and 38oC, seek approval from superintendent to proceed by taking special precautions noted in the specification. | * Yes ☐ No   N/A | S | NA | S |  | S |  | Material dockets  Concrete pour records | |
| **3.3** | Concrete Placement | Spec. 0002  Concrete supply, construction, and grouting [Cl 8.1.4] | Ensure elapsed time between batching and discharge of the mix does not exceed 1.5 hours.  Concrete placed in layers ≤ 300mm thick and adequately vibrated avoiding over-vibration.  Concrete thoroughly compacted – one internal vibrator per 10m3 concrete placed per hour  Concrete strength of Cast-in-situ units shall be min. 20MPa or as otherwise stated on drawings. | * Yes ☐ No   N/A | S | NA | S |  | S |  | Material dockets  Concrete pour records | |

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| **3.4** | Curing | Spec. 0319  Minor Concrete Works [Cl 4.13] | From completion of finishing cure continuously with an approved method such as either curing compound, wet curing or form retention until 15MPa is achieved unless directed otherwise by the superintendent. | * Yes ☐ No   + N/A | S | NA | S |  | S |  |  |
| **4.0 Conformance check** | | | | | | | | | | | | |
| **4.1** | Survey Report | Spec. 0161 Quality [Cl 3.13]  AS3610 | An as-built survey of the structure has been completed to ensure all structures are within the following construction tolerances:   * Absolute position in plan shall be within 10 mm. * Floor to floor plumb shall not exceed 0.002 times the dimension between the floors or 10 mm whichever is the greater. * Deviation from the specified dimension shall not exceed 0.001 times the specified dimension or 5mm, whichever is the greater. | * Yes ☐ No   + N/A | **R** | NA | **R** |  | **R** |  | * Survey report |
| **4.2** | 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** | NA | **H** |  | **H** |  |  |

## Acceptance of works:

UGL representative name

SHL representative name

UGL representative signature Date

SHL representative signature Date

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**Inspection Checklist Report**

**Project no.** CC0375 **Project name** Hunter Power Project **Date Symal ITP no.**  CC0375-ITP-15

**UGL ITP no.** 3200-0663-HPP-QA-ITP-015 **SHL ITP no.** HPP-UGL-QUA-GN-GEN-ITP-0015

**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** | | **UGL** | | **SHL** | | |
| **ITP**  **Step No.** | **Activity to be verified** | **Items conforms?** | | | **NCR /**  **Test Repor t No.** | **Key** | **Sign Date** | **Key** | **Sign Date** | **Key** | **Sign Date** |  | |
| Yes | No | NA |
| **1.0 Preliminaries** | | | | | | | | | | | | | |
| 1.1 | Documentation | ☐ | ☐ | ☐ |  | S | NA | S |  | S |  |  | |
| 1.2 | Lot Traceability | ☐ | ☐ | ☐ |  | S | NA | S |  | S |  | Lot Map | |
| 1.3 | Setout | ☐ | ☐ | ☐ |  | S | NA | S |  | S |  |  | |
| **2.0 Excavation & Foundation** | | | | | | | | | | | | | |
| 2.1 | Excavation | ☐ | ☐ | ☐ |  | S | NA | S |  | S |  |  | |
| 2.2 | Unsuitable Material  **HOLD POINT** | ☐ | ☐ | ☐ |  | **H** | NA | **H** |  | **H** |  |  | |
| 2.3 | Foundation Inspection | ☐ | ☐ | ☐ |  | S | NA | S |  | S |  |  | |
| 2.4 | Formwork | ☐ | ☐ | ☐ |  | S | NA | S |  | S |  |  | |
| **3.0 Formwork & Concrete Placement** | | | | | | | | | | | | | |
| 3.1 | Formwork | ☐ | ☐ | ☐ |  | S | NA | S |  | S |  | * Pre-pour Inspection | |
| 3.2 | Concrete Supply Temperature | ☐ | ☐ | ☐ |  | S | NA | S |  | S |  | Material dockets  Concrete pour record | |
| 3.3 | Concrete Placement | ☐ | ☐ | ☐ |  | S | NA | S |  | S |  | * Material dockets * Concrete pour record | |
| 3.4 | Curing | ☐ | ☐ | ☐ |  | S | NA | S |  | S |  |  | |
| **4.0 Conformance check** | | | | | | | | | | | | | |
| 4.1 | Survey report | ☐ | ☐ | ☐ |  | **R** | NA | **R** |  | **R** |  | * Survey Reports | |
| 4.2 | Acceptance and  closure of non- conforming items  **HOLD POINT** | ☐ | ☐ | ☐ |  | **H** | NA | **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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| **UGL Representative** |  | **Signature** |  | **Date** |
|  | | | | |
| **SHL Representative** |  | **Signature** |  | **Date** |
| **Comments:** | | | | |
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