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| Logo Fulton Hogan AUS_CMYK_150dpi | **Inspection and Test Plan - Control and Supervision of the Works** | **Document #**  **FHC-ITP-014** | |
| Revision : 1 | Date : 23/01/2024 |

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| **Client:** | **MRPA** | **Construction Process:** | Prepared by: | Reviewed by :  Name: Justin Sciacca  Signed :  Date : 25/01/24 | Approved by : Name:  Signed : Date : |
| **Project:** | **FITZGERALD ROAD CARPARK** | ***Subsurface Drainage*** | Name: **Fynn Riddick** |
| **Job No:** |  | **Specifications:** VicRoads Specification Section 701, 705 and Drawings |  |
|  |  | **Structure / Component:** Drainage | Signed : |
|  |  | **Location: Fitzgerald Road Level Crossing Removal Project** | Date : 23/01/2024 |

**Lot No: Lot Details: Lot Size/ Quantity:**

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| **Item** | **Task/Activity Description** | **Inspection / Controls and Verification Detail** | | | | | **HP/ WP/ AP/ IP/ TP/ SCP** | **Responsibility** | **Checked by:** | | | |
| **No.** | **Frequency** | **Acceptance Criteria** | **Reference Documents** | **Inspection / Test Method** | **Record of conformity** | Project Engineer Site Engineer Superintendent Surveyor Foreman | **Client** | **Fulton Hogan** | **FH's Sub- contractor** | **Date** |
| **1** | **Preliminary Works** | | | | | | | | | | | |
| 1.1 | Check for correct documentation | Prior to commencing any activity | Ensure that all employees and subcontractors are:  - using the correct and complete set of drawings  -all drawings are the latest revision | Drawings and drawing registers | Visual inspection | This ITP signed off | **HP\*** | Site Engineer / Site Foreman | N/A |  | N/A |  |
| 1.2 | Implementation of all measures and controls | Prior to commencing any activity | All necessary measures and controls are being implemented, that is: OHSCP, PHSCP, PCMP, EMP, ECP, CEMP, ERA, QMP, CHMP, SWMS | OHSCP, PHSCP, PCMP, EMP, ECP, CEMP, ERA, QMP, CHMP, SWMS | Visual Inspection | This ITP signed off | **HP\*** | Site Engineer / Site Foreman | N/A |  | N/A |  |
| 1.3 | Placement of no fines concrete methodology | Prior to works commencing | Where no fines concrete is to be used as filter material the Contractor shall submit quality procedures for review by the Superintendent which detail the method of placing the no-fines concrete. The method of compaction shall be in accordance with the Contractor's quality procedures | 702.09(g) | Verify | This ITP signed off | **HP** | Site Engineer/ Superintendent |  |  | N/A |  |
| 1.4 | Material Classification | Each Lot | **Subsurface drainage pipes**:  100mm DIA Class 1000kN/m/m corrugated perforated plastic pipe- with a perforation size of maximum 1.5mm width and minimum length of 150 mm per m^2.  **Granular filter material for bedding and backfill**: Trench backfilled and bedded with specified material on drawings (Type 2 as per SD 1061)  **Geotextiles:**  Shall comply with Cl 702.06.  **Subsurface drain pits:**  All subsurface drain pits shall be Type S1 to the specification of SD 1611  **Pit Lids:**  Type M3 circular lid (as per SD 1051) for Type S1 pit  **Flushout risers**:  constructed to the detail of SD 1631 | 702.04 702.05  702.06 | Verify | This ITP signed off | **WP** | Site Engineer | N/A |  | N/A |  |
| **2** | **Construction Works** | | | | | | | | | | | |

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| 1.5 | Excavation Permit | Each lot | An excavation permit must be issued prior to any  excavation commencing.  Plant and equipment shall be appropriate for the task. Excavation operations shall not disturb areas outside the limit of excavation | Excavation permit | Verify | This ITP Signed Off | **HP\*** | Site Engineer | N/A |  | N/A |  |
| 1.6 | Excavation of Trench | Each Lot | Bottom of trench shall be compacted and at a depth no  more than 50mm below the specified pipe invert. Grade of the base of the trench shall not allow ponding of water Any loose material shall be removed. To be inspected by Superintendent | 702.08 | Visual Inspection | This ITP signed off | **HP** | Site Engineer/ Superintendent |  |  | N/A |  |

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| **No.** | **Frequency** | **Acceptance Criteria** | **Reference Documents** | **Inspection / Test Method** | **Record of conformity** | Project Engineer  Site Engineer Superintendent Surveyor Foreman | **Client** | **Fulton Hogan** | **FH's Sub- contractor** | **Date** |
| 1.7 | Placement of bedding | Each Lot | Bedding of granular filter material, 25mm sand placed across bottom of trench and screeded or graded to level | 702.09 (c ) | Visual Inspection | This ITP signed off | **IP** | Site Engineer / Site Foreman | N/A |  | N/A |  |
| 1.8 | Placing pipes and geofabric (if required) | Each Lot | Pipes placed centrally in trench and held firmly in place positioned with openings at the lower half of the pipe.  If geofabric required as per Cl 3030.07 (subsurface drains installed in expansive materials), minimum 150mm lap of geotextile used for wrapping. | 702.09 | Visual Inspection | This ITP signed off | **WP** | Site Engineer / Site Foreman | N/A |  | N/A |  |
| 1.9 | Placement of backfill | Each Lot | Granular filter material placed and compacted compacted in layers not exceeding 300mm with minimal disturbance to pipes. Concrete is to be placed and  compacted within one hour of mixing | 702.09 (g) | Visual inspection | This ITP signed off | **IP** | Site Engineer / Site Foreman | N/A |  | N/A |  |
| 2 | Install Pits and Flushouts | Each Lot | Installed in accordance with drawings and Cl 702.10 | 702.1 | Verify | This ITP signed off | **WP** | Site Engineer / Site Foreman | N/A |  | N/A |  |
| 2.1 | Flushing Test | At completion of stage | All subsurface drainage lines constructed shall be inspected, after completion of the flushing test as stated in clause 702.09(h) and prior to placement of asphalt, by an independent testing organisation using closed circuit television (CCTV) to verify that the flow of water is not obstructed by waste construction material left  inside and to check for visible signs of defects. | 702.09(i)  702.09(h) | Site inspection | Signed ITP/ Record of flushing tests | **WP** | Superintendent / Site Engineer | N/A |  | N/A |  |
| 2.2 | CCTV | At completion of stage | Placement of asphalt shall not proceed until the CCTV inspection and flushing test have been completed, damaged or deformed subsurface drainage pipe has been removed and replaced and the waste and defects free condition of subsurface drainage lines has been verified by the Superintendent. | 702.09(i) | Site inspection | Signed ITP/ Record of flushing tests | **HP** | Superintendent / Site Engineer |  |  | N/A |  |

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

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| ***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 FHDB | **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 |  | | |