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| Logo Fulton Hogan AUS_CMYK_150dpi | | **Inspection and Test Plan - Control and Supervision of the Works** | | | | | | | | **Document # FHC-ITP-012** | |  |
| Revision : 1 | Date : 23/01/2024 | |
|  | | | | | | | | | | | | |
| **Client:** | **MRPA** |  | **Construction Process:** |  | Prepared by: |  | Reviewed by : | |  | Approved by : |  |  |
| **Project:** | **FITZGERALD ROAD CARPARK** | | ***Hot Mix Asphalt Placement*** |  | Name: **Fynn Riddick** |  | Name: Justin Sciacca | |  | Name: |  |  |
| **Job No:** |  | | **Specifications:** VicRoads Standard Specification – Section 407 | |  |  |  | |  |  |  |  |
|  |  | | **Structure / Component:** Pavement |  | Signed : |  | Signed : | |  | Signed : |  |  |
|  |  | | **Location:** Fitzgerald Road Level Crossing Removal Project | | Date : 23/01/2024 |  | Date : 25/01/24 | |  | Date : |  |  |
|  | | | | | | | | | | | | |
| **Lot No:** |  | **Lot Details:** |  |  |  |  | **Lot Size/ Quantity:** | | |  |  |  |
|  | | | | | | | | | | | | |
| **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** | **Construction Works** | | | | | | | | | | | |
| 1.1 | Submission of Mix Design | Prior to commencing paving | Ensure this mix design has been registered and is approved by Superintendent prior to laying mix. | VicRoads Spec.  Cl.407.09 | Correspondence of receipt of mix design | MRPA approval Completed ITP | **HP** | Site Engineer/ Asphalt Supervisor /  Superintendent |  |  |  |  |
| 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 |  |  |  |
| 1.3 | Site Inspection and Base Condition | Prior to commencing paving | Surface on which asphalt is to be placed is essentially dry and free from puddles and defects (holes, cracks, unstable material and edge irregularities) and loose materials. | 407.17  AS2150 10.1  AS2150 10.3 | Visual Inspection | ITP Signed | **WP** | Site Engineer/ Asphalt Supervisor | N/A |  |  |  |
| 1.4 | Ambient Conditions for Placing | Prior to commencing paving | The majority of the surface area to be paved has a temperature greater than or equal to the following: Base & Intermediate Courses: 5°C for conventional binders or  10°C for PMBs & Class 600  Wearing Courses: 10°C for conventional binders or 15°C for PMBs | 407.17 | Verify | Thermometer | **IP** | Site Engineer/ Asphalt Supervisor | N/A |  |  |  |
| 1.5 | Planning of Joints | Prior to commencing paving | Runs to be marked to ensure placement of joints satisfy the following unless otherwise approved by the Client:  Transverse Joints Offset from layer to layer by at least 2m  Longitudinal Joints Offset from layer to layer by at least  150mm and be within 300mm of the lane line or centre of lane. Wearing course shall be on lane  lines. | 407.21 (b) & (c)  Pavement Drawings | Measure and mark out runs by tape measure or survey | Paving Plan | **WP** | Project Engineer/ Asphalt Supervisor | 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** |
| 1.6 | Longitudinal Joints with existing Pavement | Prior to commencing paving | Where new pavement abuts an existing pavement, the existing pavement shall be removed in steps to achieve an offset from layer to layer of not less than 150mm.  Depth of step to be cut to the full depth of each  indiviual layer. | 407.21 (c)  (ii) | Visual Inspection | ITP Signed | **WP** | Project Engineer/ Asphalt Supervisor | N/A |  |  |  |
| 1.7 | Lot Size | Prior to testing | Lot size for determination of testing shall be in accordance with 407.27 (b) (ii), where less than 500 m2, reduced testing may apply | 407.27 (b) (ii) | Visual Inspection | ITP Signed | **IP** | Project Engineer/ Asphalt  Supervisor | N/A |  |  |  |
| **2** | **Asphalt Placement works** | | | | | | | | | | | |
| 2.1 | Tack Coat | Prior to commencing paving | Tack coat to be sprayed in a uniform film over the surface to be paved at a rate of 0.15-0.30 L/m2 of residual binder (60% bitumen )or 0.30 to 0.60 litres/m2 (30% bitumen content). This rate is to be doubled on joints and chases. Tack coat must be allowed to turn from brown to black before paving. NOTE: Tack coat is not required on clean, freshly placed asphalt or primed surfaces or when the layer to be placed exceeds 50mm unless directed by the Client | 407.19  AS2150 11 | Visual Inspection | Spray area | **WP** | Site Engineer/ Asphalt Supervisor | N/A |  |  |  |
| 2.2 | Commencement of Placing | Prior to commencing Paving | The placement of asphalt on the sub-base or granular base for a new pavement or for an overlay of an existing bituminous surfaced pavement shall not commence until the consent to proceed is obtained from the Client. | 407.23 | Visual Inspection | ITP Signed | **HP** | Site Engineer/ Asphalt Supervisor / Superintendent |  |  |  |  |
| 2.3 | Mix Design Confirmation | Each lot | Check correct mix design as per pavement design has been delivered prior to laying mix. | 407.2 | Visual Inspection & Delivery Docket | Delivery docket Completed ITP | **HP\*** | Site Engineer/ Asphalt Supervisor | N/A |  |  |  |
| 2.4 | Delivery of Mix | Each load | Asphalt is not segregated, binder is not separated or does not contain uncoated particles and the temperature from mixing plant is not more than 175°C. | 407.20 | Visual Inspection | Delivery Docket | **WP** | Site Engineer/ Asphalt Supervisor | N/A |  |  |  |
| 2.5 | Traceability | Each lot | Ability to locate asphalt test results placed in three dimensions i.e. start/end chainage, offset/lane and layer | Fulton Hogan Quality Plan | Verify | Daily Lot Record | **IP** | Site Engineer/ Asphalt Supervisor | N/A |  |  |  |
| 2.6 | Layer Thickness and Level Control | Regularly during paving | Thickness of asphalt layer conforms to asphalt thickness on drawings or specifications | 407.20 (a) & (b)  Drawings | Verify | Dips using ruler or dip stick | **WP** | Site Engineer/ Asphalt Supervisor | N/A |  |  |  |
| 2.7 | Paver Stoppages | If paver stops | A transverse joint shall be constructed if the asphalt in front of the screed cools to below 120°C | 407.25 (c) | Verify | Thermometer | **WP** | Site Engineer/ Asphalt Supervisor | N/A |  |  |  |
| 2.8 | Surface Finish of Wearing Course | During paving and after final roll | The finished surface of asphalt wearing course shall be of uniform appearance, free of dragged areas, cracks, open textured patches and roller  marks | 407.29 (a)(i) | Visual Inspection | ITP Signed | **WP** | Site Engineer/ Asphalt Supervisor | 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** |
| 2.9 | Kerb and Channel | | During paving and after final roll | The edge of the wearing course shall be either flush with or not more than 5 mm above the lip of the channel unless otherwise specified | 407.29 (a)(ii) | Visual Inspection | ITP Signed | **WP** | Site Engineer/ Asphalt Supervisor | N/A |  |  |  |
| 2.10 | Alignment of layers not placed against concrete edge | | During paving and at completion of work | The edge of asphalt layers shall not be more than 50mm inside nor more than 100mm outside, the designed offset from centreline or design line.  The rate of change of offset of the edge of layer shall not be greater than 25mm in 10m | 407.29 (a)(iv)  Drawings | Visual Inspection | ITP Signed | **IP** | Site Engineer/ Asphalt Supervisor | N/A |  |  |  |
| 2.11 | Width of layers not placed against concrete edge | | During paving and at completion of work | The width of asphalt layers shall not be less than the design or specified width of layer by more than 50mm or greater than the design or specified width by more than 100mm.  The average width over any 300m shall not be  less than the design or specified width | 407.29 (a)(v) | Visual Inspection | ITP Signed | **IP** | Site Engineer/ Asphalt Supervisor | N/A |  |  |  |
| **3** | **Testing** | | | | | | | | | | | | |
| 3.1 | Compaction | | Per Lot | For layers <50mm, if characteristic density ratio is: 95.0% or greater Accept lot  93.0% to 94.9% Lot may be accepted at reduced rate  For layers ≥50mm, if characteristic thickness is: 96.0% or greater Accept lot  94.0% to 95.9% Lot may be accepted at reduced rate | 407.27 | Verify | Test Report | **TP** | Site Engineer/ FH Lab Technician | N/A |  |  |  |
| 3.2 | Level Conformance | | Per 4,000m2 at completion of work | Individual departures from design not to exceed  ±8mm with a standard deviation of no greater than 10mm (Scale B) | Table 407.293 | Survey by VicRoads Section 173 | Survey Conformance | **SCP** | Site Engineer/ Surveyor | N/A |  | N/A |  |
|  | | | | | | | | | | | | | |
|  | **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: / / | |  |  |
|  | | | | | | | | | | | | | |
| ***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 FH | | | **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 | | |  | | | | | | | | |