

SPARK – North East Link – Primary Package

**Inspection and Test Plan (ITP)**

ITP Title: Line Marking

ITP Number: NEL-CNT-SDC-2990-PQA-ITP-0072 Rev 1

LOT Number:

Primary Asset Location Code:

Discipline: Pavement Line Marking

**OFFICIAL : Sensitive**

**Spark NELP Approval Record**

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| --- | --- | --- | --- | --- |
| **Function** | **Position** | **Name** | **Signature** | **Date** |
| Prepared By | Quality Representative | Abiola Olulana | Abiola Olulana Digitally  Date: 20 | signed by Abiola Olulana  22.09.29 10:45:26 +10'00' |
| Reviewed By | Project Engineer | Elias Abdallah | Elias Abdallah Digitally  Date: 202 | signed by Elias Abdallah  2.09.29 11:47:49 +10'00' |
| Approved By | Quality Manager | Greg Iro | Digital Date:  +10'00 | ly signed by Greg Iro 2022.09.29 12:01:01  ' |

*Notes:*

1. *Ensure all Records or Checklist References are attached and that each Inspection Requirement is clearly named, signed, and dated.*
2. *Ensure every Records or Checklist References attached are legible*
3. *This Inspection Test Plan may be generic – ensure the requirement is demographically clear to your scope of work*
4. *Verification Inspections where applicable for the IREA stated as “Witness” or “Hold” shall be formally notified for their engagement and with sufficient advance notice time (3 days or as agreed with the Sub-IREA Representative and/or the Nominated Authority)*
5. *All Nominated Authority Hold Points are Witness Points for Sub-IREA*
6. *The Sub-IREA representative is not required to physically sign-off on ITPs*

ITP – Line Marking

**Document Number:** NEL-CNT-SDC-2990-PQA-ITP-0072. **Revision: 1**

Spark PMS Doc# MSF28-2-NEL Rev 3

Management System - Uncontrolled Document when Printed Webuild Source Doc# MSF28-2

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| **Item No.** | **Resp. Person** | **Inspection and Test Activity** | | **Specification Reference** | **Acceptance Criteria** | **Test Method** | **Test Freq.** | **Inspection/Verification (Name, signature & date)** | | | | | **Records/Documents** | **Field Notes / Comments** |
| **Sub- Contractor** | | **Spark NEL Engineer** | **Nominated Authority** | **IREA** |  |  |
| **1.0** | **Preliminaries (Include all aspects of Materials, Approvals, IFC Drawings, etc. Ensure all required permits have been raised prior to commencing works)** | | | | | | | | | | | | | |
| 1.1 | PE | Construction Package Approval | | PSDR Part F6 2 (a) to (h) | Construction Documentation shall be submitted and approved prior to commencing work at site. | R | PW | NR | | **HP** | NR | NR  Notice Only Sign not Req’d | IFU Construction Pkg InEight Ref:  #  IFC Design Pkg InEight Ref:  # |  |
| 1.2 | PE | Material Conformance | | VicRoads 721.A05  IFC Drawings  PSDR Part B 7(q)  Table B.7 | Provisions of records or evidence demonstrating compliance of Raised Pavement Markers, Adhesive, Line marking and Road marking Paint, Glass Beads, Thermoplastic Pavement marking material, Cold- Applied Plastic Pavement Marking Material, Pliant Polymer Marking Tape and Bicycle Lane surfacing as specified in the specs. Unless otherwise specified, materials used for signing and pavement marking shall comply with the relevant sections of VicRoads Standard Specifications for Roadworks and Bridgeworks.  **Pliant polymer pavement marking tape intended for use under this Contract shall be approved by the**  **Nominated Authority.** | R | PW | **HP** | | **HP** | **WP** | **WP**  Notice Only Sign not Req’d | WP Release InEight Reference:  # Records Review |  |

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| 1.3 | PE | Removal of Existing Pavement markings (If required) | | VicRoads 721.A08,  721.A12 | Nominated Authority to approve method procedure to remove old / redundant Line marking, Road Markings & RRPM’s | R | PW | **HP** | | **HP** | **HP** | **WP**  Notice Only Sign not Req’d | HP Release InEight Reference:  # |  |
| **2.0** | **Operations (Include Work Execution – Installation / Manufacturing Process step-by-step)** | | | | | | | | | | | | | |
| 2.1 | SE | Site Preparation | | VicRoads 721.A06  IFC Drawing | Surface clear of existing unsounds, obsolete or redundant pavement marking. Surface to be dry and clear of any foreign materials and debris. | V | PW | **HP** | | **WP** | NR | NR  Notice Only Sign not Req’d | This ITP |  |
| 2.2 | SE | Removal of old/redundant Line marking, Road Marking or RRPMs (if applicable) | | VicRoads 721.A08  IFC Drawing | Where required, old, redundant or damaged pavement markers shall be removed in accordance with specification and drawings and the approved method procedure. | S | Prior to Paint/ Adhesive Application | **HP** | | **HP** | **WP** | **WP**  Notice Only Sign not Req’d | WP Release InEight Reference:  # |  |
| 2.3 | SE | Positioning of Line marking, road marking and RRPMs | | VicRoads 721.A09,  721.B05,  721.A03,  IFC Drawing | Pavement marking shall be set out and positioned in accordance with the current IFC drawings. | S | Prior to Paint/ Adhesive Application | **HP** | | **WP** | NR | NR  Notice Only Sign not  Req’d | This ITP |  |

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| 2.4 | PE | Setout - Line marking, road marking and RRPMs. | | VicRoads 721.B05,  IFC Drawing | Inspection, verification, and acceptance of survey set out points. Submit the set out of pavement markings for permanent works for review by NA (submit survey file in accordance with timeline) | R | Prior to Paint/ Adhesive Application | **HP** | | **HP** | **HP** | **WP**  Notice Only Sign not Req’d | HP Release InEight Reference:  # |  |
| 2.5 | SE | Application of New Pavement Marking | | VicRoads 721.A101,  721.B04,  721.E01,  721.E02,  721.E021,  721.E03,  IFC Drawings | -The application of pavement marking shall be in accordance with specified program requirements.  -All data shall be recorded in the daily diary  -All pavement marking shall be within specified tolerances.  -Long Life pavement marking shall be prepared and used accordance  with the manufacturer’s specification and applied in accordance with  required specifications.  -The shared use, pedestrian and bicycle lane pavement markers to be applied to specification and within tolerance. (Spec reference)  -Line marking in incorrect position will be removed and replaced in accordance with sub-contractors approved methodology to suit  specification | V | Prior to Paint/ Adhesive Application | **HP** | | **WP** | NR | NR  Notice Only Sign not Req’d | This ITP |  |

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| 2.6 | SE | Placing and Application of Raised Pavement Markers | | 721.A07,  Table 721.A101,  721.A05,  IFC Drawings, | -Markers shall be placed in accordance with manufacturer specification.  -Adhesives on exposed surface of marker shall be removed.  -A marker placed in incorrect position shall be removed and replaced by a new marker.  -Wherever possible markers shall be placed clear of longitudinal or transverse joints and clear of surface cracks or positions where markers have been removed and the surface is damaged.  -All pavement markings shall be within specified tolerances.  -The Contractor shall comply with the tolerance as shown in Table 721.A101  -Spot check during placement with occur. | V | PL | **HP** | | **WP** | NR | NR  Notice Only Sign not Req’d | This ITP |  |
| 2.7 | PE | Submission of Job Completion Report | | VicRoads 721.A12,  721.A05,  721.A10,  721.A14,  721.D02,  721.E02 | A submission of job completion report setting out completed works and associated documentation.  Asbuilt drawing will be submitted for final handover. | V & R | PL | **HP** | | **HP** | **WP** | **WP**  Notice Only Sign not Req’d | WP Release InEight Reference:  #  Job Completion Report |  |
| 2.8 | PE | Acceptance of Retro-reflectivity | | VicRoads 721.A13, | Retro-reflectivity testing to be conducted between 3-5 weeks of |  | X1 | **HP** | | **HP** | **WP** | **WP** | WP Release InEight Reference: |  |

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|  |  | **3-5 weeks post final coat** | | 721.A12 Table 721.A131 | completion of the final coat using VR RC424.01 as listed in section 175. A retroreflective report to be submitted determining the retroreflective for each test lot. Measurements shall be forwarded to the Nominated  Authority no later than five days from  when the measurements were taken. | T |  |  | |  |  | Notice Only Sign not Req’d | #  Retro-reflectivity Report  (3-5 weeks after completion) |  |
| 2.9 | PE | Acceptance of Retro-reflectivity **5-6 months post final coat** | | VicRoads 721.A13,  721.A12  Table 721.A131 | Pavement Marking shall comply with specified requirements. A second Retro-reflectivity testing to be conducted 5-6 month after completion of the final coat using VR RC424.01 as listed in section 175.  A retroreflective report to be submitted determining the retroreflective for each test lot. Measurements shall be forwarded to the Nominated Authority no later  than five days from when the measurements were taken. | T | X1 | **HP** | | **HP** | **WP** | **WP**  Notice Only Sign not Req’d | WP Release InEight Reference:  #  Retro-reflectivity Report  (5-6 months after completion) |  |
| 2.10 | PE | Acceptance of Colour | | VicRoads 721.A14 | White markings - the colour match test for white materials shall be based on luminance factor and conducted in accordance with AS 4049.4, using Field Method 2 of AS 4049.4 Appendix H4.3 as listed in Section 175.  Yellow markings – the colour match test for non-white (yellow) materials | T | X1 | **HP** | | **HP** | **WP** | **WP**  Notice Only Sign not Req’d | WP Release InEight Reference:  # Test Report |  |

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|  |  |  | |  | shall be conducted in accordance with AS 4049.4 using Field Method 2 of AS 4049.4 Appendix H4.3, using the reference swatch sample NCS S 1070 Y20R.  Measurements shall be forwarded to the Nominated Authority upon request no later than five days from  when the measurements were taken. |  |  |  | |  |  |  |  |  |
| **3.0** | **Post Operations (Include Inspection and Testing)** | | | | | | | | | | | | | |
| 3.1 | PE | Verification and lot records  Complete | | CQMP Section 8.2.6.2 | Ensure completed work checklists, inspection and test results and contractor conformance records are progressively and permanently saved and stored as soon as possible after they are received.  Completed construction lot records are transferred to the project Quality Team for final record verification  prior to being closed | V | PL | **HP** | | **HP** | NR | NR  Notice Only Sign not Req’d | This ITP Lot record |  |
| 3.2 | PE | NCR Close out (if applicable) | | CQMP Section 8.3 | All NCR’s presented for closure | R | PL | **HP** | | **HP** | **HP** | WP  Notice Only Sign not req | HP Release InEight Reference:  #  NCR InEight Reference:  # |  |

Webuild Source Doc# MSF28-2

Spark PMS Source Doc# MSF28-2-NEL Rev 3

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NEL-CNT-SDC-2990-PQA-ITP-0072 Rev1

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|  |  |  | |  |  |  |  |  | |  |  |  | NCR Module |  |
| **4.0** | **Quality** | | | | | | | | | | | | | |
| 4.1 | QSR | Identification and control of non- conforming products or services  (if applicable) | | CQMP Section 8.3 | Review and confirm closure of NCR’s and associated RFI’s prior to closing of construction lot | R | PL | NR | | **HP** | NR | NR | NCR closed with related documentation |  |
| 4.2 | QSR | Check all quality records for lot closure | | CQMP Section 8.3 | All applicable quality records are complete | R | PL | NR | | **HP** | NR | NR | Compiled documents (all data reports and records) |  |

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| **Legend:** | | | | | | | | |
| **Responsibility** | | **Method** | **Inspection / Verification** | | **Test Frequency** | | **Other** | |
| SS: Site Supervisor PSM: Project Systems Manager | | V: Verify | HP: Hold Point | | PW: Prior to Works | | QP: Quality Plan | |
| SE: Site Engineer QSR: Quality Site Rep. | | I: Inspection | WP: Witness Point | | PL: Per Lot | | RFI: Request for Information | |
| PE: Project Engineer STR: Structural Engineer | | R: Review | NR: Not Required | | F: Full or 100% Inspection or Testing | | NCR: Non-Conformance | |
| SPE: Senior Project SSR: Site Safety Rep. | | T: Test |  | | X1: Inspect or Test at Specified | | VC: Verification Checklist | |
| Engineer EMR: Environmental Management Rep. | | S: Survey |  | | Frequency | | XXXX: Sequential Number from Doc Control | |
| GE: Geotechnical Engineer NA: Nominated Authority (Release of HP) | |  |  | | X2: Random Inspection or Test | |  | |
| PS: Project Surveyor IREA: Independent Reviewer (Observer) | |  |  | |  | |  | |
| **DDD – Types:** B – Building, C – Civil, G – General, M – Mechanical & Electrical, I – Motorway Operations System (ITS), S – Structure, O – Tolling, T – Tunnel, U – Urban Design & Landscape | | | | | | | | |
| **Supplier/Subcontractor:** | **Name** | **Signature and Date** | | **Spark-NELPP REP** | | **Name** | | **Signature and Date** |

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| **(If applicable)** |  |  |  |  |  |

**Lot closure comments**:

**Spark NELPP QA Rep**: **Name Signature: Date:**