Verification Activity

**Responsible Inspectorate (RI)**

**LEGEND**

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| **H** | Hold Point | Work shall not proceed past the Hold Point until released by the organisation imposing the Hold Point. |
| **W** | Witness Point | An inspection point that may be witnessed by the organisation imposing the Witness Point. |
| **I** | Inspection | A formal inspection activity to be undertaken and recorded. |
| **S** | Surveillance | An activity that is subject to ongoing monitoring. |
| **R** | Review | Review of text reports / records or other evidence of compliance. |

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| **REFERENCE DOCUMENTS** |
| **Development:** |
| WSP-DPK-088-00-CRG-3700-0 – Roads and Pavements |
| VicRoads SD2001, SD2103 & SD2102 |
| VicRoads Specification 703- [General Concrete Paving](https://webapps.vicroads.vic.gov.au/VRNE/csdspeci.nsf/webscdocs/AC3DA93F049A2853CA258955000252F7?OpenDocument) |
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| **Implementation:** |
| WSP-088-WPA-CMS-XCN-0051 CEP - Carparks |
| 3046-0000-QAC-FRM-0097 – Kerb and Channel Checklist |
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| **APPROVAL / REVISION** | | | | | |
| **Rev** | **Date** | **Details** | **Author** | **Reviewed** | **Approved** |
| 0 | 05/02/2024 | Issued for Construction | ME | ZH, SS | BD |
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| WPA | Western Program Alliance |
| MTM | Metro Trains Melbourne |
| V/LINE | V/Line |
| S/C | Subcontractor |
| PM | Project Manager |
| CM | Construction Manager |
| SPE | Senior Project Engineer |
| SUP | Supervisor |
| SUR | Surveyor |
| PE | Project Engineer |
| O/S | Other Stakeholder: |
| SE | Site Engineer |
| QMR | Quality Management Rep. |
| AGDR | Alliance Geotechnical Design Rep |

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| **Package Name:** | Webb Street NWA | **Work Lot:** |

# Zeeshan Haider

[**Zeeshan.Haider@wpalliance.com.au**](mailto:Zeeshan.Haider@wpalliance.com.au) **Quality Engineer**

## Stage1: Approved 22/1/24 03:57 PM

Type:Reviewer

**No CommentsProvided**

# Saudah Saib

[**Saudah.Saib@wpalliance.com.au**](mailto:Saudah.Saib@wpalliance.com.au)

**Project Engineer**

## Stage1: Approved 31/1/24 02:25 PM

Type:Reviewer

**No CommentsProvided**

# Brenton Davey

[**brenton.davey@wpalliance.com.au**](mailto:brenton.davey@wpalliance.com.au) **Construction Manager**

## Stage 2: APproved 5/2/2412:29 PM

Type: APprover

**No CommentsProvided**

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| **Item** | **Basic Job Step** | **Acceptance Criteria** | **Applicable Standard** | **Inspection Test** | | **Verification Activity by (RI)** | | | | **Verifying Records** |
| **Method** | **Frequency** | **S/C** | **WPA** | **MTM** | **O/S** |
| **1 PRELIMINARIES** | | | | | | | | | | |
| 1.1 | Authorised documentation to commence work in place. | Approvals and permits obtained. CEP reviewed and approved. | Preparation of construction control documents (HSEQ-QC- PRO006-GEN-ALL) | Document review and approval | Once  (Prior to Works) |  | CM (R) |  |  | TeamBinder Correspondence |
| **2** | **MATERIALS** | | |  |  |  |  |  |  |  |
| 2.1 | Concrete | Concrete used in kerb extrusion machines to have a minimum cementitious material content as per below:  **Traffic Routes**: 320 kg per cubic metre  **Local Streets**: 280kg per cubic metre  Concrete for kerb and channel that is placed and compacted between formwork to meet the below:  **Traffic Routes**: N32 portland cement–based concrete or 32 MPa geopolymer concrete standard strength grade  **Local Streets**: N25 portland cement–based concrete or 25 MPa geopolymer concrete standard strength grade as specified | VicRoads 703.05 (b) | Document review and approval | Once  (Prior to Works) |  | SE (R) |  |  | Concrete Mix Design Documents  Material Approval From via TeamBinder  Delivery Dockets |
| **3** | **PRE-COMMENCEMENT ACTIVITIES** | | |  |  |  |  |  |  |  |
| 3.1 | Survey set out | Works to be set out to the line, level and cross section as shown on the drawings | VicRoads 703.17 | Inspection | Prior to works commencing |  | SE, SUR  (H) |  |  | 3046-0000-QAC-FRM-0097 –  Kerb and Channel Checklist |
| **4** | **CONSTRUCTION DETAILS – KERB AND CHANNEL CONSTRUCTION** | | |  |  |  |  |  |  |  |
| 4.1 | Excavation | Excavate to the required depth to allow bedding material underneath kerb.  Existing asphalt or bituminous surfacing shall be saw cut to produce a neat vertical face. | VicRoads 703.20 | Inspection | Prior to pour |  | SE (I) |  |  | 3046-0000-QAC-FRM-0097 –  Kerb and Channel Checklist |

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| **Item** | **Basic Job Step** | **Acceptance Criteria** | **Applicable Standard** | **Inspection Test** | | **Verification Activity by (RI)** | | | | **Verifying Records** |
| **Method** | **Frequency** | **S/C** | **WPA** | **MTM** | **O/S** |
| 4.2 | Bedding Preparation | Bedding to be compacted size 20mm Class 3 or Class 4 crushed rock or crushed concrete  Bedding shall be not less than 100mm compacted thickness. | VicRoads 703.21 | Inspection | Prior to pour |  | SE (I) |  |  | 3046-0000-QAC-FRM-0097 –  Kerb and Channel Checklist |
| 4.3 | Kerb Construction with Machine Extrusion | Concrete to be fed to the machine at a uniform rate and produce a compacted, dense mass of concrete without any faulty or honeycombed patches.  Surface to be free from surface pitting larger than 5 mm diameter. | VicRoads 703.23 | Inspection | Each Pour |  | SE (I) |  |  | 3046-0000-QAC-FRM-0097 –  Kerb and Channel Checklist |
| 4.4 | Profile Transitions | Profile transitions to be made at a constant rate between 10 and 20mm per metre | VicRoads 703.24 | Inspection | Following completion of activity |  | SE (I) |  |  | 3046-0000-QAC-FRM-0097 –  Kerb and Channel Checklist |
| 4.5 | Surface Finish | All edgings shall be rendered and have a steel trowel finish.  Mortar shall consist of two parts fine aggregate, one part of cement, and water to produce a mix of suitable consistency.  The thickness of rendering shall not exceed 3 mm. | VicRoads 703.25 | Inspection | Following completion of activity |  | SE (I) |  |  | 3046-0000-QAC-FRM-0097 –  Kerb and Channel Checklist |
| 4.6 | Joints | Transverse joints to be constructed at right angles to the back of edgings, at intervals not exceeding 2.5m  Joints in kerbs to be opposite joints in adjacent footpaths/ SUP’s | VicRoads 703.26 | Inspection | Following completion of activity |  | SE (I) |  |  | 3046-0000-QAC-FRM-0097 –  Kerb and Channel Checklist |
| 4.7 | Conduit Position Marking | Positions of any existing conduits passing under edgings shall be marked by a chase in the edging immediately above the conduit along with a suitable identification mark | VicRoads 703.28 | Inspection | Following completion of activity |  | SE (I) |  |  | 3046-0000-QAC-FRM-0097 –  Kerb and Channel Checklist |

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| **Item** | **Basic Job Step** | **Acceptance Criteria** | **Applicable Standard** | **Inspection Test** | | **Verification Activity by (RI)** | | | | **Verifying Records** |
| **Method** | **Frequency** | **S/C** | **WPA** | **MTM** | **O/S** |
| 4.8 | Concrete Curing | Concrete shall be cured by water  curing, wet hessian, polyethylene  sheeting, curing compound or a combination.  Concrete to be protected from  damage until hard set. | VicRoads 703.10  VicRoads 703.27 | Inspection | Each pour |  | SE (I) |  |  | 3046-0000-QAC-FRM-0097 –  Kerb and Channel Checklist |
| 4.9 | Concrete Crack Repair | Concrete to have no surface cracks with width greater than  0.2 mm. Cracked sections of concrete shall be either removed and replaced, or repaired | VicRoads 703.30 | Inspection | Following completion of activity |  | SE (I) |  |  | 3046-0000-QAC-FRM-0097 –  Kerb and Channel Checklist |
| 4.10 | As-Built Survey | Kerb and channel shall be constructed to the level of the adjoining pavement with a tolerance of 0 to +10 mm.  Except on curves or in shaped areas, the deviation of the finished work from a 3 m straightedge shall not exceed 5 mm | VicRoads 703.15 (e) | Survey Conformanc e Report | Following completion of activity |  | SE (R) |  |  | 3046-0000-QAC-FRM-0097 –  Kerb and Channel Checklist |
| **5 CONFIRMATION OF CONFORMANCE AND CLOSE OUT** | | | | | | | | | | |
| 5.1 | Lot close out. | Lot documentation complete, verifying records conforming / or NCR recorded and signed by relevant parties. | Quality Control Procedure 2792-0000-QAC-PRO-  0003 | Review and Approval | Following completion of activity |  | QMR (H) |  |  | TeamBinder Forms Module ‘Completion Record’ |

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| **Project No:** | 3046 | **Date:** |
| **Package Name:** | NWA | **Lot No:** |
| **ITP No:** | WSP-088-WPA-ITP-XQC-0096 | **Location:** |

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| **ITP REF** | **ACTIVITY & ACCEPTANCE CRITERIA** | **VERIFIED** | | | **COMMENTS / RECORDS**  **Cross Refs/Support Docs [eg: NCR, Test No etc.]** |
| **RESP** | **INTL** | **DATE** |
| **3** | **PRE-COMMENCEMENT ACTIVITIES** |  |  |  |  |
| **3.1** | **SURVEY SET OUT**  Survey to set out drainage pits to correct, line, level and coordinates as provided in drawings. | **SIN (H)**  **SE (R)**  **SUR (I)** |  |  |  |
| **4** | **CONSTRUCTION DETAILS – KERB AND CHANNEL** |  |  |  |  |
| **4.1** | **EXCAVATION**  Excavate to the required depth to allow bedding material underneath kerb.  Existing asphalt or bituminous surfacing shall be saw cut to produce a neat vertical face. |  |  |  |  |
| **4.2** | **BEDDING PREPARATION**  Bedding to be compacted size 20mm Class 3 or Class 4 crushed rock or crushed concrete  Bedding shall be not less than 100mm compacted thickness. |  |  |  |  |
| **4.3** | **KERB CONSTRUCTION WITH MACHINE EXTRUSION**  Concrete to be fed to the machine at a uniform rate and produce a compacted, dense mass of concrete without any faulty or honeycombed patches.  Surface to be free from surface pitting larger than 5 mm diameter. |  |  |  |  |
| **4.4** | **PROFILE TRANSITIONS**  Profile transitions to be made at a constant rate between 10 and 20mm per metre |  |  |  |  |
| **4.5** | **SURFACE FINISH**  All edgings shall be rendered and have a steel trowel finish.  Mortar shall consist of two parts fine aggregate, one part of cement, and water to produce a mix of suitable consistency.  The thickness of rendering shall not exceed 3 mm |  |  |  |  |
| **4.6** | **JOINTS**  Transverse joints to be constructed at right angles to the back of edgings, at intervals not exceeding 2.5m  Joints in kerbs to be opposite joints in adjacent footpaths/ SUP’s |  |  |  |  |
| **4.7** | **CONDUIT POSITION MARKING**  Positions of any existing conduits passing under edgings shall be marked by a chase in the edging immediately above the conduit along with a suitable identification mark |  |  |  |  |

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| **ITP REF** | **ACTIVITY & ACCEPTANCE CRITERIA** | **VERIFIED** | | | **COMMENTS / RECORDS**  **Cross Refs/Support Docs [eg: NCR, Test No etc.]** |
| **RESP** | **INTL** | **DATE** |
| **4.8** | **Concrete Curing.**  Concrete shall be cured by water curing, wet hessian, polyethylene sheeting, curing compound or a combination.  Concrete to be protected from damage until hard set. |  |  |  |  |
| **4.9** | **CONCRETE CRACK REPAIR**  Concrete to have no surface cracks with width greater than  0.2 mm. Cracked sections of concrete shall be either removed and replaced, or repaired |  |  |  |  |
| **4.10** | **AS-BUILT SURVEY**  Kerb and channel shall be constructed to the level of the adjoining pavement with a tolerance of 0 to +10 mm.  Except on curves or in shaped areas, the deviation of the finished work from a 3 m straightedge shall not exceed 5 mm |  |  |  |  |
| **FINAL INSPECTION**:  All work completed accordance with applicable procedures, drawings, specifications and approved changes. | | SE (sign & date) | | | |
| SUP (sign & date) | | | |

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| **Sub-Contractor Name:** |  | **WPA Name:** |  |
| **Role:** |  | **Role:** |  |
| **Signature:** |  | **Signature:** |  |
| **Date:** |  | **Date:** |  |

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| **Punch List Items** | **Punch List / NCR - Yes/No** | **Punch List/ - NCR Number** |
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| 3. |  |  |
| 4. |  |  |
| 5. |  |  |