

Inspection and Test Plan – In situ Kerb and Channel

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| **Project no.** | | CC0374 | **Project name** | Pakenham Road Upgrade | | **Date** | 18/10/2023 | **Approved by** | Damian Hagebols |
| **ITP no.** | 1630-P200-SYM-QAC-  ITP-0022 | | **Revision date** | 18/10/2023 | **Plant and equipment used** | | |  |  |
| **Lot no.** |  | | **Location (chainages, detailed description or marked up plan)** | | | | |  |  |

Attach Dockets, Certificates and QA Documents to ITP

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|  | | | | | **Verification of acceptance by** | | | | | **Remarks/record (eg. Test frequency reports, certificates,**  **checklist etc)** |
| **Symal** | | | **Superintendent** | |
| **Item no.** | **Activity** | **Ref docs** | **Acceptance criteria** | **Freq** | **Key** | **Resp** | **Initial/ date** | **Key** | **Sign/ date** |
| **1.0 Pre-start activities** | | | | | | | | | | |
| **1.1** | Supply of Premixed Concrete for Kerb Extrusion | DoT Clause  703.05 (b)  703.11 | * Concrete is minimum or equal 320kg cementitious material or geopolymer binder per m3. No slump or compressive strength requirements. * Where kerb and channel is placed and compacted with internal vibration between previously placed formwork: Concrete is N32 Portland or 32 MPa geopolymer concrete standard strength grade. | Prior to start of works | R | SE |  |  |  | Mix Design |
| **1.2** | Hot or Cold Weather Concreting | DoT  610.17 (a) | **Any proposed hot or cold weathering procedure is submitted at least 2 weeks from placement and approved by the Superintendent.** | Prior to start of works | R | SE |  | W |  | Proposed Procedure |
| **2.0 Setting Out** | | | | | | | | | | |
| **2.1** | Setting Out | DoT Clause 703.17  IFC Design | **Superintendent has reviewed and confirmed the set out. Work is constructed as per the set-out line, level, cross-sectional profiles on the drawings.** | Each lot | **H** | SE |  | **H** |  | Survey Set out |
| **3.0 Construction** | | | | | | | | | | |
| **3.1** | Ambient Weather for Concreting | DoT Clause 703.09  610.17 | * Freshly finished concrete is protected from sun, wind, rain until curing is completed. Further protection is considered for more extreme. * Concrete temperature right before placing is between 10°C and 32°C. * Evaporation rate is less than 0.50kg/m2 per hour. | Each lot | S | SE |  |  |  |  |
| **3.2** | Machine extrusion or Slip Form | DoT Clause 703.23 | * Datum for grade/alignment is established. | Each lot | S | SE |  |  |  | Delivery Dockets |

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|  |  |  | * Concrete is fed to the machine at a uniform rate, free of surface pitting >5mm and honeycombed patches. And satisfactorily compacted and dense. * When combining fixed forms and extruded work with similar mixes, the concrete in the fixed form section is compacted with internal vibration for a   satisfactory compacted mass of concrete. |  |  |  |  |  |  |  |
| **3.3** | Profile transitions and Matching Existing Sections | DoT Clause 703.24  SD2102 | * When joining new and existing kerb, profile transitions follow SD2102 and should appear identical to the existing sections. | Each lot | I | SE |  |  |  |  |
| **3.4** | Surface Finish (Exposed Surface) Edgings | DoT Clause 703.25 | Edgings are rendered and have a steel trowel finish.   * Rendering applied within 30m of placing/extruding. * Mortar used is 2 parts fines, 1 part cement, and sufficient water for a suitable consistency. * Rendering thickness is less than 3mm. * Exposed surfaces have a steel trowel finish. | Each lot | S | SE |  |  |  |  |
| **3.5** | Surface Finish (Exposed Surface) | DoT Clause 703.25 | Finished product is neat and of uniform colour.   * Edges are sharp and clean, and bullnoses are regular and of uniform appearance. * Discoloured concrete is cleaned/replaced. * Permanently hidden concrete surfaces including footpaths, edgings, concrete surfacing have a class 4 finish. * All other concrete elements have a class 3 finish for external surface and a class 4 finish for   permanently hidden surface. | Each lot | I | SE |  |  |  |  |
| **3.6** | Joints (Edgings-Transverse) | DoT Clause 703.26 | * Transverse joints are built at right angles to back of edgings at intervals less than 2.5m. * Extruded edging installation does not damage or distort adjacent surfaces. * Fixed form edgings templates are removed as soon as practicable after finishing placement. * The guillotine (extruding) or template (fixed) cuts between 40% to 70% of the are of section. In both cases the resultant slot in the edging shall be tooled to a depth of 20 mm to produce a neat   groove not less than 5 mm wide on the exposed | Each lot | S | SE |  |  |  |  |

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|  |  |  | surfaces, following which a vertical cut shall be  made through the base of the groove to a depth not less than 50 mm from the surface. |  |  |  |  |  |  |  |
| **3.7** | Joints (Edgings-Expansion) | DoT Clause 703.26  (a) (ii) | * Expansion joints are placed at junctions with bridges and are 15mm wide filled with cork or bituminous impregnated particle board strips extending for the full width/depth of edging. * Fillers are placed before concrete is placed and   held firmly during placement. | Each lot | R | SE |  |  |  |  |
| **3.8** | Curing & Protection of Concrete | DoT Clause 703.10  703.27 | All concrete work is:   * Cured continuously with either water, wet hessian, or curing compound (AS3799) for at least 7 days. Except concrete edgings which is at least 3 days. * Protected from early loading (4 days): Pedestrians,   animals, vehicles, and rain or other cause. | Each lot | S | SE |  |  |  |  |
| **3.9** | Marking of conduit positions | DoT Clause 703.28 | Existing conduit under edgings are marked up above the conduit with a suitable identification. | Each lot | I | SE |  |  |  |  |
| **3.10** | Concrete Cracking | DoT Clause 703.30 | * Concrete has no surface crack more than 0.2mm. NCR is raised for cracking more than 0.2mm. * Cracked sections are removed and replaced or   repaired as directed by the superintendent. | Each lot | I | SE |  |  |  |  |
| **3.11** | Repair of Damaged Kerb and Channel | DoT Clause 703.30 | Damaged kerb concrete repairs shall be carried out using a method and materials accepted by the Superintendent.  Kerb channel and edgings shall have a length at least 1m removed and replaced with a section:   1. Constructed on compacted bedding. 2. Dowelled into the adjoining sections with 12 mm diameter hot dip galvanised dowels embedded at least 100 mm each side of the joint; and, 3. Shaped and finished with curved trowels to match   the profile and surface finish of adjoining sections | Each lot | I | SE |  | R |  |  |
| **3.12** | Paving | DoT Clause 703.15 | Concrete paving including footpaths, edgings, other surfacing’s are shaped to match existing fixtures, e.g., pit covers, edgings and vehicle crossings, within 5 mm. |  |  |  |  |  |  |  |

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| **4.0 Completion** | | | | | | | | | | |
| **4.1** | As Built Survey | DoT Clause 703.15 | 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 at any point. | Each lot | R I | SE |  | R |  |  |
| **5.0 Work Lot Close Out** | | | | | | | | | | |
| **5.1** | Product Non-Conformance | QMP | All Product Non-Conformance(s) recorded and closed (if applicable) | Each lot | R | SE |  |  |  | NCR No:………………  NCR reports |
| **5.2** | Quality Representative to check the above criteria and records to confirm | QMP  Lot Records | All above criteria met, and records identified attached. | Each lot | R | SE |  |  |  | Completed Checklist (if applicable) and reports and other compliance records attached. |

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| **Works complete (signer SS)** | **Date works complete** | |  |
| **Lot conforms (signer PE)** | **Date lot closed** | **NCR/s no. raised** | **Date NCR closed for this lot** |

**Responsibility (Resp.) Key**: **PM**-Project Manager, **PE**-Project Engineer, **SE**- Site Engineer, **CS**-Civil Superintendent, **SS**-Site Supervisor, **SV**-Surveyor, **CR**-Client Representative

**SI -** Superintendent

**Inspection Key: W –** Witness, **H –** Hold Point, **S –** Surveillance, **R –** Review Point, **I –** Inspection Point