| **WORK AREA:** | **DESCRIPTION OF ACTIVITY:** | **Key: P= PERFORM (Activity)  R = REVIEW (Documents & Work)  W = WITNESS (Activity)   H = HOLD (Point For Acceptance)** |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |
| **Baldrock Road** | **0** |  |  |  |  |
| **Rev** | **Originator** | **Date** | **Approved** | **Date** |

| **Item No.** | **Item** | **Activity TASK** | **Acceptance Criteria** | **CERTIFING DOCUMENTATION AND FREQUENCY** | **Supervisor, Foreman or Subcontractor** | | **Project Manager or Delegated Person** | | **Engineer’s Representative** | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Key** | **Sign / Date** | **Key** | **Sign / Date** | **Key** | **Sign / Date** |
| **1** | **Survey** | Verify latest drawings | Latest Revision of IFC | Drawing Register | **R** |  | **R** |  |  |  |
| **2** |  | Set out | Review and Inspection | Initial, as per engineers’ request | **R** |  | **W** |  | **H** |  |
| **3** |  | Trenching/ Potholes | Location, alignment and level  check for existing services | Checklist | **W** |  | **R** |  |  |  |
| **4** | **Construction – Subsoil Drain** | Pipe Materials | 100mm dia slotted PVC or Polyethylene subsoil drain pipe | Supplier documentation  KDC Engineering Standards | **R** |  | **R** |  | **R** |  |
| **5** |  | Drainage materials | 20/7 “Pages” metal | Supplier documentation  KDC Engineering Standards | **R** |  | **R** |  | **R** |  |
| **6** | **Construction – Dished Channel** | Concrete Strength | 30MPa at 28 days | Supplier documentation  KDC Engineering Standards | **R** |  | **R** |  | **R** |  |
| **7** | **Construction – Pavement** | Stripped Surface | Visual Inspection | At completion of stripping, prior to further construction | **P** |  | **W** |  |  |  |
| **8** |  | Undercutting | Engineer to confirm | As required | **H** |  | **W** |  | **W** |  |
| **9** |  | Subgrade | 1. CBR > 3% 2. No visible deflections | 1. Scala testing at 10m intervals 2. Proof rolling with steel drum roller 3. Checklists | **P** |  | **R** |  | **H** |  |
| **10** |  | Sub-basecourse | 1. Mean 95% MDD, Min 92% MDD 2. -15mm below 3m straight edge 3. +10mm from design | 1. Nuclear density as per Waka Kotahi’s Specification B/2 and KDC Engineering Standards 2011 Part 5 2. Surface Finish – Straight edge 3. Level/thickness 4. Checklist / As-builts | **P** |  | **R** |  | **H** |  |
| **11** |  | Basecourse | 1. Mean 98% MDD, Min 95% MDD 2. -10mm below 3m straight edge 3. +5mm;-5mm from design 4. 1.4mm(90%) 1.8mm(max) 5. Material Approval as per TNZ M/4: 2006 | 1. Nuclear density as per Waka Kotahi’s Specification B/2 and KDC Engineering Standards 2011 Part 5 2. Surface Finish – Straight edge 3. Level/thickness 4. Benkelman Beam Testing – Deflection prior to sealing 5. Supplier documentation 6. As per technical specification section C0210 and Engineers approval | **P** |  | **R** |  | **H** |  |
| **12** |  | Chip-seal | 1. Check tight stone Mosaic surface 2. Aggregate – PSV54-56 3. Sealing QA 4. Approval of materials before use | 1. Visual Inspection 2. Test data sheet 3. Technical specification section C0213 4. Mix design as per technical specification section C0213 and Engineers approval | **P** |  | **R** |  | **H** |  |
| **13** |  | Line Marking | 1. Visual Inspection | 1. TNZ Manual of Traffic Signs and Markings | **P** |  | **R** |  | **R** |  |
| **14** | **As -Builts** | As-builts | A complete set of as-builts shall be provided on the completion of the project. This will include but not limited to  1. Pavement levels  2. Subsoil drains, dished channel, flushing eyes |  | **P** |  |  |  | **R** |  |

# INSPECTION & TEST PLAN (ITP)

The ITP defines the required inspections during various stages of fabrication, construction & installation work. It is also a method of communicating these requirements to those doing the work & a verifying record that they have been carried out.

The ITP defines four different levels of inspection according to the following criteria:

* **Perform (P)** The person(s) performing the work inspects his/her own work and the Foreman/Supervisor or Subcontractors Representative is to verify/check the work as correct. The Foreman/Supervisor or Subcontractors Representative is required to sign the Inspection & Test Checklist.
* **Review (R) – Documents** When applied to documents this can indicate review & approval before fabrication commences e.g. weld procedures or after completion e.g. QC Package.
* **Review (R) –Work Performed** Fabrication may proceed past the points indicated on the ITP. This type of inspection performed on a random basis. If corrective action is necessary, the frequency of inspections may be increased.
* **Witness (W)** This type of inspection is performed when critical activities are undertaken & verification of work done is required by a third party, or internally by a supervisor or QA Personnel. It is the responsibility of the Foreman/Supervisor or Subcontractors Representative to notify whoever is identified as the Witness initiator that the (W) stage of inspection has been reached.
* **Hold (H)** This type of inspection requires the Foreman/ Supervisor or Subcontractors Representative to notify the United Civil Project Manager that the (H) stage of inspection has been reached. Fabrication shall not proceed past this point unless the inspection has been carried out or approval to proceed is given in writing & signed by the Engineer’s Representative.

**NOTE REGARDING INSPECTION AUTHORITIES NOT SIGNING OFF WITNESS OR HOLD POINTS**

***On occasion there are situations where the required Inspection Authority (normally the Engineer or Contractor’s Representative) at the witness or hold points has not for whatever reason signed the required documentation such ITP or Check Sheet where the given verifications points are clearly and evidently completed to the required standard.***

***The Inspection Authority normally signifies verification by other means such as email sign off or other formal correspondence.***

***Where this occurs, in lieu of a signature, a note to this effect shall be made on the relevant document by the Project Manager and reference to the said correspondence.***

***The correspondence shall be kept on the company file for the project concerned.***