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| **Project** | **SH 2- RS 258- RP 10970 - 11390 & 11750- 12500 - Gun Shop Hill**  **Waka Kotahi NZTA** | | | | | | | | | | | | | | | | **ITP No.:** |  | |
| **Client** | **Revision :** | 0 | |
| **Description of Work** | Pavement Rehabilitation, 150mm thickness TNZ M/4 AP40 aggregate overlay material, modified with 1.5% cement to 200mm depth. | | | | | | | | | | | | | | | | | | |
| **Prepared By** | Liju Mathew | | | **Approved By** | Ruan Potgieter | | | | | | | | | | | | **Date:** | 17/07/2023 | |
| **Current Version:** | BOPE Sharepoint Frosts | | | | | | | | | | | | | | | | | | |
| **INSPECTION AND TEST PLAN (ITP)** | | | | | | | | | | | | | | | | | | | |
| **Operation or Task Category** | **Task Description** | **Controlling Documents** | **Acceptance Criteria** | **Inspection or Test** | | | **Verifying Document** | **Inspection / Test Authority** | | | | **Hold Point** | **Witness Point** | **Quality Controller Sign Off** | **Date** | **Engineer Sign-off** | **Date** | **Compliance Manager Sign off** | **Date** |
| *(e.g. procurement, temp works, construction activities)* | *(e.g. list specifications & clause, drawing)* | *(e.g. slump value, cylinder strength, etc.)* | Method | Frequency | Responsible Person | *(e.g. test result, pour record, material approval)* | S, C, E or Sp | | | | Y/N | Y/N | Name / Signature | Date All Records verified complete | Name / Signature | Date All Records verified complete | Name / Signature | Date All Records verified complete |
| *(e.g. visual inspection, slump test)* | Conduct | Witness | Produce Record | Approval |
| **1. Procurement** | | | | | | | | | | | | | | | | | | | |
|  | Design | | | | | | | | | | | | | | | | | | |
| *Pre-construction tasks. e.g. approval of materials* | Geometric Design | Austroads Guide to Road Design Part 3: Geometric Design,  TNZ State Highway Geometric Design Manual | Principal Approval | Contractor and Principal peer review | per design revision |  |  | C or S |  | C | E | Y |  |  |  |  |  |  |  |
| Pavement Treatment Design | Austroads Guide to Pavement Technology,  New Zealand Guide to Pavement Evaluation and Treatment Design:2018 (Version  1.2) | Principal Approval | Contractor and Principal peer review | per design |  | Approvals Register  -  SH30 Frosts - Pavement Rehabilitation Design Report | C or S |  | C | E | Y |  |  |  |  |  |  |  |
| Materials: GAP 65 Pre-treatment Material | | | | | | | | | | | | | | | | | | |
| Aggregate Sampling | NZS 4407:2015, WSP Rotorua  Sampling Guide |  |  |  |  | Sampling Worksheet | C or S |  |  | S |  |  |  |  |  |  |  |  |
| Source Property Test | CBR - BOPE NOC Contract Documents Maintenance Specification Section 2.5.3 | Soaked CBR ≥ 40 | Soaked CBR test (NZS:4407:2015:3.15) |  | Supervisor | Test Report | Sp or C or S |  | Sp or S | E | Y |  |  |  |  |  |  |  |
| Production Property Test | Sand Equivalent - BOPE NOC Contract Documents Maintenance Specification Section 2.5.3 | Sand Equivalent >35, OR <35 but well graded with no more than 10% by mass passing through a 0.425mm sieve | Sand Equivalent Test (NZS:4407:2015, 3.6) |  | Supervisor | Test Report | Sp or C or S |  | Sp or S | E | Y |  |  |  |  |  |  |  |
| Materials: M/4 AP40 Basecourse Material | | | | | | | | | | | | | | | | | | |
| Aggregate Sampling | NZS 4407:2015, WSP Rotorua  Sampling Guide |  |  |  |  | Sampling Worksheet |  |  |  |  |  |  |  |  |  |  |  |  |
| Source Property Test | Crushing Resistance (3.3.1) - TNZ M/4: 2006,  NZS 4407: 1991 Test 3.10 (The  Crushing Resistance Test) | less than 10% fines passing  2.36mm sieve size under a load of 130kN | Curshing Resistance Test (NZS 4407:1991, Test 3.10) | One test for every 10,000m³ of source material | Quality Controller | Test Report | Sp or C or S |  | Sp or S | E | Y |  |  |  |  |  |  |  |
| Weathering Quality Index (3.3.2) - TNZ M/4: 2006,  NZS 4407: 1991, Test 3.11  (Weathering Quality Index Test) | AA, AB, AC, BA, BB or CA | Weathering Quality Index Test (NZS 4407: 1991, Test 3.11) | One test for every 10,000m³ of source material | Quality Controller | Test Report | Sp or C or S |  | Sp or S | E | Y |  |  |  |  |  |  |  |
| California Bearing Ratio (3.3.3) - TNZ M/4: 2006,  NZS 4402: 1986 Test 4.1.3,  NZS 4407: 1991 Test 3.15  (California Bearing Ratio Test) | Soaked CBR ≥ 80% | California Bearing Ratio Test  (NZS 4407: 1991, Test 3.15) after being compacted according to  Vibrating Hammer Compaction Test at OWC  (NZS 4402: 1986, Test 4.1.3) | One test for every 10,000m³ of source material | Quality Controller | Test Report | Sp or C or S |  | Sp or S | E | Y |  |  |  |  |  |  |  |
| Production Property Test | Sand Equivalent (4.2.1.1) - TNZ M/4: 2006,  NZS 4407: 1991 Test 3.6 or  Clay Index (4.2.1.2) - TNZ M/4: 2006,  NZS 4407: 1991, Test 3.5 or  Plasticity Index (4.2.1.3) - TNZ M/4: 2006,  NZS 4407: 1991 Test 3.4 | Sand Equivalent ≥40; or Clay Index ≤3; or Plasticity Index ≤5 | Sand Equivalent Test (NZS:4407:2015, 3.6); or  Clay Index Test (NZS:4407: 1991, 3.5); or  Plasticity Index Test (NZS 4407:1991, 3.4) | 2 Samples required as per Table 1, Production Property Test Sampling (4.1) - TNZ M/4: 2006 | Quality Controller | Test Report | Sp or C or S |  | Sp or S | E | Y |  |  |  |  |  |  |  |
| Broken Face Content (4.2.2) - TNZ M/4: 2006,  NZS:4407: 1991 Test 3.14 | Broken Face Content ≥70% between 37.5mm and 4.75mm sieve and ≥2 broken faces | Broken Face Test (NZS:4407: 1991, Test 3.4) | 2 Samples required as per Table 1, Production Property Test Sampling (4.1) - TNZ M/4: 2006 | Quality Controller | Test Report | Sp or C or S |  | Sp or S | E | Y |  |  |  |  |  |  |  |
| Particle Size Distribution (4.2.3) - TNZ M/4: 2006,  NZS 4407: 1991 Test 3.8.1 (Wet  Sieving Test) | Particle size distribution as per Table 2 and Table 3, 4.2.3 Particle Size Distribution | Wet Sieving Test  (NZS 4407: 1991, Test 3.8.1) | 2 Samples required as per Table 1, Production Property Test Sampling (4.1) - TNZ M/4: 2006 | Quality Controller | Test Report | Sp or C or S |  | Sp or S | E | Y |  |  |  |  |  |  |  |
| Materials: Cement | | | | | | | | | | | | | | | | | | |
| Stabilising Agent Selection | Cement (4.1.2) - TNZ B/5: 2008 | GP | Visual inspection of supplier docket | per truck load | Quality Controller | Supplier Docket Supplier Cert | Sp or S |  | Sp or S | C | Y |  |  |  |  |  |  |  |
| Materials: Water | | | | | | | | | | | | | | | | | | |
| Water draw for stabilising | Water (5.0.0) - TNZ B/5: 2008 | Free from impurities justified by use of municipal water supply | Visual inspection of hydrant use form | per truck load | Quality Controller | Hydrant use form | Sp or S |  | Sp or S | C | Y |  |  |  |  |  |  |  |
| Materials: Geotextile | | | | | | | | | | | | | | | | | | |
| Geotextile (Strength Class C)  A29 or greater | TNZ F7 Specification | Details on Docket | Visual inspection | Per Delivery | Quality Controller | MDS | Sp or S |  | Sp or S | C | Y |  |  |  |  |  |  |  |
| Materials: Geogrid | | | | | | | | | | | | | | | | | | |
| Geogrid Triaxial Tx160 or similar  equivalent | As per NZTA list of approved  materials/suppliers | Details on Docket | Visual inspection | Per Delivery | Quality Controller | MDS | Sp or S |  | Sp or S | C | Y |  |  |  |  |  |  |  |
| **2. Pre-Implementation** | | | | | | | | | | | | | | | | | | | |
|  | Production Testing of stabilised material - OMC/MDD | TNZ B/5 section 7.5 & 7.7.1 | To obtain OMC & MDD | NZS 4402, test 4.1.3, New Zealand vibrating hammer compaction test. | Once on commencement and then each stablilised layer at one test per 5000m2 | Quality Controller | Test report | C | C | C |  |  | Y |  |  |  |  |  |  |

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| **INSPECTION AND TEST PLAN (ITP)** | | | | | | | | | | | | | | | | | | | |
| **Operation or Task Category** | **Task Description** | **Controlling Documents** | **Acceptance Criteria** | **Inspection or Test** | | | **Verifying Document** | **Inspection / Test Authority** | | | | **Hold Point** | **Witness Point** | **Quality Controller Sign Off** | **Date** | **Engineer Sign-off** | **Date** | **Compliance Manager Sign off** | **Date** |
| *(e.g. procurement, temp works, construction activities)* | *(e.g. list specifications & clause, drawing)* | *(e.g. slump value, cylinder strength, etc.)* | Method | Frequency | Responsible Person | *(e.g. test result, pour record, material approval)* | S, C, E or Sp | | | | Y/N | Y/N | Name / Signature | Date All Records verified complete | Name / Signature | Date All Records verified complete | Name / Signature | Date All Records verified complete |
| *(e.g. visual inspection, slump test)* | Conduct | Witness | Produce Record | Approval |
|  | Production Testing of stabilised material - Solid Density | TNZ B/5 section 7.7 | For info. and use in MDD calculation | NZS 4407; test 3.7.1 | Once on commencement and if any materials chage | Quality Controller | Test report | C | C | C |  |  | Y |  |  |  |  |  |  |
| Project survey setting out | Reference from Project Drawings |  | Survey/Mobile Roads, Marks with Dazzle | Chainages for every different pavement sections | Subcontractor/ Engineer | Construction drawings | C |  | C |  | Y |  |  |  |  |  |  |  |
| Records Management  (i.e. it is known what documented records are to be kept) | ITP and QMP state what quality documentation is required | Filled in and Signed ITP | Visual inspection, recording and approval | As per hold points in collaboration with the programme | Quality Controller | ITP and all referenced documents | C |  | C | E | Y |  |  |  |  |  |  |  |
| **3. Construction - Pre-treatment Digouts** | | | | | | | | | | | | | | | | | | | |
| *Construction phase - Digouts* | Pre-treatment Repair Method Selection | Site specifics to be confirmed | Confirm scala acceptance criteria based on treatment type | Scala Penetrometer on Excavation Floor | As required | Quality Controller | Agreed treatment plan | S | C | S | E | Y |  |  |  |  |  |  |  |
| Excavation floor drainage | Higgins SOP 0128 - Digout Repair | 4-8% toward edge of seal | Digital level | As required | Quality Controller | Dig out QA form | S | C | S | C |  | Y |  |  |  |  |  |  |
| Subgrade material hardness Check base of excavation | Higgins SOP 0128 - Digout Repair | Scala > 3 blows per 100mm | Scala Penetrometer test on base of digout | As required depending on size of digout | Quality Controller | Test report | S/C | C | S/C | E | Y |  |  |  |  |  |  |  |
| Geotextile (Strength Class C = A29) Layer beneath treatment layer | TNZ F7 Specification | Meet TNZ F7 Spec. | Visual inspection | Per Delivery | Quality Controller | Certificate of conformance | Sp or S |  | C | C |  | Y |  |  |  |  |  |  |
| Geogrid Triaxial Tx160 or similar equivalent | As per NZTA list of approved materials/suppliers | On the list of approved materials/suppliers | Visual inspection | Per Delivery | Quality Controller | Certificate of conformance | Sp or S |  | C | C |  | Y |  |  |  |  |  |  |
| Place and compact GAP65 in digout area | Higgins SOP 0128 - Digout Repair | Clegg > 45 | Clegg Test | Min. 2 per digout | Quality Controller | Test report | S/C | C | S/C | E | Y |  |  |  |  |  |  |  |
| **4. Construction - Granular make up and In-situ Modification** | | | | | | | | | | | | | | | | | | | |
| *Construction phase - Rehab* | Place M/4 AP40 Basecourse Material | TNZ B/5 (section 7) | Evenly spread, no segregation, placed near optimium moisture content | Visual Inspection | On completion of placement | Quality Controller | Photographs and Daily Site Record | S or C |  | S or C | C |  | Y |  |  |  |  |  |  |
| Spreading of Cement | Spreading of Cement (7.3) - TNZ B/5: 2008 | Within ± 0.5 kg/m² of the specified rate and  within ± 2.5% of the specified rate | Mat test (1m² canvas) and Average Usage Test | per 400m² and  upon emptying the spreader | Quality Controller | Mat Test Form and truck dockets | S or Sp |  | S | E | Y |  |  |  |  |  |  |  |
| Addition of Water | Addition of Water (7.5) - TNZ B/5: 2008 | 90-100% OWC | Nuclear Densometer Testing prior to Stabilisation | ≥1 per 1000m² lot | Quality Controller | NDM Record | S |  | S | C |  | Y |  |  |  |  |  |  |
| Cut Depth | Control of cut depth (7.6.1) - TNZ B/5: 2008 | -5mm and +15mm of design stab depth | Physical Measure and Visual Record | ≥1 per 200m of cut length | Quality Controller | Photographs and Daily Site Record | S |  | S | C |  | Y |  |  |  |  |  |  |
| Longitudinal Joints | Overlap on longitudinal joints (7.6.2) - TNZ B/5: 2008 | The greater of 100m or 50% of layer thickness | Visual Record | per sucessive cut | Quality Controller | Photographs, Daily Site Record and Stabilising Plan | S |  | S | C |  | Y |  |  |  |  |  |  |
| Continuity of Layer | Continuity of stabilised layer (7.6.3) - TNZ B/5: 2008 | Longitudinal overlap 1m for cement,  5m for bituminous stabilising agents | Visual Record | per sucessive cut | Quality Controller | Photographs, Daily Site Record and Stabilising Plan | S |  | S | C |  | Y |  |  |  |  |  |  |
| Stabilised Material Particle Size | Particle size distribution of stabilised material (7.6.4) - TNZ B/5: 2008 | No excessive breakdown of stabilised material | Visual Record | within 20m of each section and then regularly based on material variability | Quality Controller | Photographs | S or C |  | S or C | C |  | Y |  |  |  |  |  |  |
| Establish Compaction Methodology - type of plant, number and speed of passes | Higgins 'Interim Pavement Layer Compaction Guide' - Technical Note,  Compaction (7.7) - TNZ B/5: 2008 | To establish type of plant, number and speed of passes to achieve MDD | Plateau Density Testing | 1 time, or additional tests when material changes visually | Supervisor | Test record | C |  | C | C |  | Y |  |  |  |  |  |  |
| Establish Compaction Target | Higgins 'Interim Pavement Layer Compaction Guide' - Technical Note,  Compaction (7.7) - TNZ B/5: 2008,  Acceptance criteria for stabilised pavement layer compaction (7.7.1) - TNZ B/5: 2008 | To provide MDD for NDM testing | Plateau Density Testing | Minimum once per Lot.  A lot shall not exceed 1000 m2. | Quality Controller | Test Record | C |  | C | E |  | Y |  |  |  |  |  |  |
| Degree of Compaction  MDD to obtain target for NDM testing | Higgins 'Interim Pavement Layer Compaction Guide' - Technical Note,  Compaction (7.7) - TNZ B/5: 2008,  Acceptance criteria for stabilised pavement layer compaction (7.7.1) - TNZ B/5: 2008 | To provide MDD for NDM testing | Laboratory MDD at OMC NZS 4402 test 4.1.3. | Minimum once per Lot.  A lot shall not exceed 5000 m2. | Quality Controller | Test Record | C |  | C | C |  | Y |  |  |  |  |  |  |
| Formally agree with the Engineer the MDD target, based on review of the lab. MDD and the site plateau test | Plateau Density Testing Lab. MDD | At commencement of construction and whenever materials change | Quality Controller Engineer | Notice to Contractor/ Notice to Engineer | C |  | C | E | Y |  |  |  |  |  |  |  |
| Compaction Acceptance | Acceptance criteria for stabilised pavement layer compaction (7.7.1) and Table 5 - TNZ B/5: 2008,  Acceptance criteria for pavement layer compaction  (7.6) - TNZ B/2: 2005 | Mean value ≥ 98% and Minimum Value ≥ 95% | Nuclear Densometer Testing | ≥ 5 tests per 1000m² lot | Quality Controller | NDM Record | S or C |  | S or C | C | Y |  |  |  |  |  |  |  |

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| **INSPECTION AND TEST PLAN (ITP)** | | | | | | | | | | | | | | | | | | | |
| **Operation or Task Category** | **Task Description** | **Controlling Documents** | **Acceptance Criteria** | **Inspection or Test** | | | **Verifying Document** | **Inspection / Test Authority** | | | | **Hold Point** | **Witness Point** | **Quality Controller Sign Off** | **Date** | **Engineer Sign-off** | **Date** | **Compliance Manager Sign off** | **Date** |
| *(e.g. procurement, temp works, construction activities)* | *(e.g. list specifications & clause, drawing)* | *(e.g. slump value, cylinder strength, etc.)* | Method | Frequency | Responsible Person | *(e.g. test result, pour record, material approval)* | S, C, E or Sp | | | | Y/N | Y/N | Name / Signature | Date All Records verified complete | Name / Signature | Date All Records verified complete | Name / Signature | Date All Records verified complete |
| *(e.g. visual inspection, slump test)* | Conduct | Witness | Produce Record | Approval |
| *Final Testing, Inspection and Acceptance* | Control Testing (if required) | Control testing during and after construction (7.7.2) - TNZ B/5: 2008 | Nil | Vibrating Hammer Compaction Test at OWC  (NZS 4402: 1986, Test 4.1.3) | when agreed with the Engineer | Quality Controller | Test Report | S or C |  | S or C | E |  |  |  |  |  |  |  |  |
| Surface Smoothness | Surface shape (7.8) - TNZ B/5: 2008 | ± 10mm deviation along a 3m straight edge  No water ponding | 3m Straight Edge | during construction and prior to seal | Supervisor | Photographs | S |  | S | E | Y |  |  |  |  |  |  |  |
| Surface Shape | Surface shape (7.8) - TNZ B/5: 2008 | Between -5mm and +15mm | String lines or Survey Asbuilt | during construction and prior to seal | Supervisor | String Sheet/Survey Asbuilts | S |  | S | E | Y |  |  |  |  |  |  |  |
| Cross Fall | Crossfall (7.9) -  TNZ B/5: 2008 | 0.5% ≤ X ≤ -0.5% | 3m straight edge or Survey Asbuilt | during construction and prior to seal | Supervisor | Cross Fall Records/Survey Asbuilts | S | C | S | E | Y |  |  |  |  |  |  |  |
| Surface Finish | Surface finish (7.10) - TNZ B/5: 2008 | Tightly bound matrix post sweep | Visual inpsection | prior to seal | Supervisor | Pre-seal inspection sheet | C | C and E | C or S | E | Y |  |  |  |  |  |  |  |
| Degree of Saturation, DOS | Pre-sealing requirements (7.12) - TNZ B/5: 2008,  Pre-sealing requirements (9) - TNZ B/2 Notes: 2005 | ≤80%, however 65% is ideal | Nuclear Densometer Testing | ≥5 tests per 1000m² lot | Quality Controller | NDM Record | C | E | S | E | Y |  |  |  |  |  |  |  |
| Roughness (NAASRA) | NZTA Maintainence specification section 6.1.2 | For chipseal or non structural AC surfacing;  No 100m moving average shall exceed 2.9 lane IRI.qc m/km 75 NAASRA counts/km | NZTA Maintainence specification section 6.1.2 | Average of three replica runs for each lane reported at 20m intervals. | Quality Controller | Test Records | C | E | S | E | Y |  |  |  |  |  |  |  |
| **5. Chip Sealing** | | | | | | | | | | | | | | | | | | | |
| **5.1. Procurement** | **Chipseal Resurfacing** | | | | | | | | | | | | | | | | | | |
| *Pre-construction tasks. e.g. approval of materials* | Binder - Penetration Grade | TNZ M/1 | Table 1 | Property Test | Annual | Bitumen Supplier/ Surfacing Project Manager | IANZ Report's | C |  | C | N |  | Y |  |  |  |  |  |  |
| Binder - Polymer Modified Emulsion | Higgins Internal Specification | % PMB Required, PH, Residue by Evaporation, Viscosity | Property Test | 1/100,000 litres supplied | C |  | C | N |  | Y |  |  |  |  |  |  |
| Source Property -Coarse Aggregate - Crushing Resistance | TNZ M6, RNZ 9805:2009 | <10% fines under 230kN minimum | Sample Test - Crushing Resistance NZS 4407 Test 3.10 | 1 test per 10,000m³ or 1 test per annum if less than 10,000m³ produced per annum | Surfacing Project Manager | C |  | C | N | Y |  |  |  |  |  |  |  |
| Source Property -Coarse Aggregate - Weathering Resistance | AA or BA | Weathering Quality Index NZS 4407 Test 3.10 | C |  | C | N | Y |  |  |  |  |  |  |  |
| Source Property - Skid Resistance | NZTA T/10 | Meet Skid performance Requirement | Aggregate Perfomance Method TNZ T/10 section 12.3 | Each Site | C |  | C | N | Y |  |  |  |  |  |  |  |
| *Initial production testing and design approval* | Production Property - Cleaness Value | NZTA P/17, M/6 | G2 - 89 min, G3 - 87 min, G4 -  85 min | Sample Test - Cleaness Value NZS 4407 Test 3.9 | Per Stockpile  <100m3 - 1 Sample 100-500m3 - 2 Samples  >500m3 - 3 Samples | C |  | C | N | Y |  |  |  |  |  |  |  |
| Production Property - Particle Size/Shape | As per Table 3 NZTA M/6 | Sample Test - Particle Size/Shape NZS 4407 Test 3.13 | C |  | C | N | Y |  |  |  |  |  |  |  |
| Production Property - Broken Faces | Min. 98% | Sample Test - Broken Faces NZS 4407 Test 3.14 | C |  | C | N | Y |  |  |  |  |  |  |  |
| Chipseal Designs | EBOP NOC Design Report, Chipsealing in NZ, NZTA P/17 | Client Approval | Review | Annual | EBOP NOC Design Report Acceptance | C |  | C | N | Y |  |  |  |  |  |  |  |
| **5.2. Construction** | **Chipseal Resurfacing** | | | | | | | | | | | | | | | | | | |
|  | Ensure limits of site are marked | EBOP NOC Design Report | Visual Inspection | Visual | Prior to start sealing each site | Surfacing Supervisor | Chip Sealing Quality and Site Record | C |  | C | C |  | Y |  |  |  |  |  |  |
| Sweep surface clean of deleterious material | P/17 | Visual Inspection | Visual | Each site, prior to start of sealing | Surfacing Supervisor | Chip Sealing Quality and Site Record | C |  | C | C |  | Y |  |  |  |  |  |  |
| Record ATP's on site | N/A | Visual Inspection | Visual | Each site, prior to start of sealing | Surfacing Supervisor | Chip Sealing Quality and Site Record | C |  | C | C |  | Y |  |  |  |  |  |  |
| Confirm correct treatment(s) and chip | EBOP NOC Design Report | Details/chip correct | Visual | Each Site | Surfacing Supervisor | Chip Sealing Quality and Site Record | C |  | C | C | Y |  |  |  |  |  |  |  |
| Cutback Bitumen Blend | RNZ 9803\_0513 | +/- 2PPH Cutter, +ve for Adhesion agent presence | Sample and test | 1 Sample per Per Sprayer load, tested at frequency of 1 per 100,000l sprayed | Surfacing Project Manager, Surfacing Supervisor | IANZ Report's | C |  | C | C |  | Y |  |  |  |  |  |  |
| Bitumen Application Rate | E/2 Certificate, Seal Design / Spray Instruction | Current E/2 Certificate  +/- 4% per Spray Run | Test, Review | Per Sprayer, Per Site | Surfacing Supervisor | E/2 Certificate. Spray Sheets | C |  | C | C |  | Y |  |  |  |  |  |  |
| Chip Application Rates | Chipsealing in NewZealand | As per Chipping Guide | Visual | Each Site | Chip application check sheet. Chip Sealing Quality and Site Record | C |  | C | C |  | Y |  |  |  |  |  |  |
| Rolling | Chipsealing in NewZealand | Mimimum as per CS in NZ - Bit volume / 3600 | Visual | Each Site | Chip Sealing Quality and Site Record | C |  | C | C |  | Y |  |  |  |  |  |  |
| Cleanup | Chipsealing in NewZealand | Site including adjacent surfaces free of loose chip | Visual | Each Site | Chip Sealing Quality and Site Record | C |  | C | C |  | Y |  |  |  |  |  |  |
| Post Sweeping | Chipsealing in NewZealand | Site including adjacent surfaces free of loose chip | Visual | Each Site | Site Record | C |  | C | C |  | Y |  |  |  |  |  |  |
| Linemarking and RRPM Reinstated | MOTSAM | Matches previous linemarking - within 48hours of sealing | Visual | Each Site | Site Record | C |  | C | C |  | Y |  |  |  |  |  |  |
| **5.3. Post Construction** | **Chipseal Resurfacing** | | | | | | | | | | | | | | | | | | |

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| **INSPECTION AND TEST PLAN (ITP)** | | | | | | | | | | | | | | | | | | | |
| **Operation or Task Category** | **Task Description** | **Controlling Documents** | **Acceptance Criteria** | **Inspection or Test** | | | **Verifying Document** | **Inspection / Test Authority** | | | | **Hold Point** | **Witness Point** | **Quality Controller Sign Off** | **Date** | **Engineer Sign-off** | **Date** | **Compliance Manager Sign off** | **Date** |
| *(e.g. procurement, temp works, construction activities)* | *(e.g. list specifications & clause, drawing)* | *(e.g. slump value, cylinder strength, etc.)* | Method | Frequency | Responsible Person | *(e.g. test result, pour record, material approval)* | S, C, E or Sp | | | | Y/N | Y/N | Name / Signature | Date All Records verified complete | Name / Signature | Date All Records verified complete | Name / Signature | Date All Records verified complete |
| *(e.g. visual inspection, slump test)* | Conduct | Witness | Produce Record | Approval |
| *Final Testing, Inspection and Acceptance* | Post Construction Walkover |  | Formal Agreement | Visual Inspection | Post seal sweep | Quality Controller, Supervisor and Engineer | Meeting Minutes | C | C, S  and E | C | E | Y |  |  | | | | | |
| Resurfacing Construction Completion report | NOC; MS 6.1.3 | Comply with Requirement of NOC MS 6.1.3 | Record | Within 2 months of completing the annual resurfacing programme | Surfacing Manager | Construction Completion Report | C |  | C | C | Y |  |  |  |  |  |  |  |
| Chipseal Post-Verification Testing and Report | NOC; MS 6.1.3 | Comply with Requirement of NOC MS 6.1.3 | Record | Each Site | Surfacing Manager | Chipseal Post- Verification Testing and Report | C |  | C | C | Y |  |  |  |  |  |  |  |
| **6. Close Out** | | | | | | | | | | | | | | | | | | | |
| *Final Closeout and Handover* | Pavement Rehabilitation Construction Completion Report | Pavement Rehabilitation Construction Completion Report (6.1.2) - BOPE 2\_14-001\_601  Maintenance Specification | Engineer Approval | Visual Inspection | ≤2 months of 1st Coat Seal | Quality Controller/ Contract Manager | Signed Report | C | C, S  and E | C | E | Y |  |  |  |  |  |  |  |
| S – Subcontractor C – Contractor E – Engineer/Principal Representative Sp – Supplier  **Quality Control Records Compiled by:** Name: **Reviewed / Approved by:** Name:    Role: Role:    Signature: Signature:    Date: Date | | | | | | | | | | | | | | | | | | | |