



## Far North District Council

### Unsealed Roding Network Audit

Prepared for Far North District Council

August 2019

Ref L21634a



**Hutchinson**  
CONSULTING ENGINEERS

# Far North District Council

## Unsealed Road Network Audit

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## **EXECUTIVE SUMMARY**

Hutchinson Consulting Engineers (Hutchinson) has been engaged by Far North District Council (FNDC) to undertake an independent random audit of the condition of the unsealed network throughout the district. The randomly distributed audit also looks at the performance of both Road Corridor Maintenance Contract (RCM) areas with respect to the contract specifications and each other.

The Far North District is portioned in two individual contract areas and these areas are maintained by the following contractors;

Northern Contractor: Fulton Hogan Limited

Southern Contractor: Broadspectrum NZ Limited

In accordance with the approved FNDC brief, the objective of the audit was to:

- Summarise the correlation between the approved specifications and physical works.
- Evaluate the overall condition of the unsealed network.
- Review the suitability of the contract specifications for the environment.
- Review the suitability of the intervention levels for the environment.
- Provide general recommendations.

Following discussions with representatives of FNDC, it was agreed that Hutchinson would randomly select approximately 20 roads from throughout the district and conduct an onsite observation of each road selected.

The carriageways were selected from RAMM to provide as best range as possible of traffic volumes, road classification and carriageway characteristics while ensuring an adequate spread across the district.

The 21 roads randomly chosen for assessment were:

1. Waimamaku Beach Road	Waimamaku
2. Waiotemarama Gorge Road	Waiotemarama
3. Horeke Road	Horeke
4. Wharepunga Road	Otaua
5. Opara Road	Oue
6. Orakau Road	Tautoto
7. Tapuhi Road	Tapuhi
8. Pipiwai Road	Matawaia
9. Waikare Road	Jacks Bay
10. Runaruna Road	Panguru
11. Diggers Valley Road	Takahue
12. Kauaepepe Road	Broadwood
13. Paponga Road	Broadwood
14. Puketotara Road	Kerikeri
15. Martin Road	Kaeo
16. Kohumaru Road	Mangonui
17. Duncan Road	Kaingarua
18. Henderson Bay Road	Ngataki
19. Te Paki Stream Road	Te Paki
20. Te Hapua Road	Te Hapua
21. Rarawa Beach Road	Ngataki

During the site assessments, the focus was to provide an overall 'snapshot' condition assessment of the carriageways and execution of any maintenance work in regards to Far North District Councils contract specifications and industry 'best practice'. Our observations generally included:

- Roadside Drainage
- Pavement Condition
- Crossfall and Superelevation
- Defects (Potholing, Corrugations, Drainage etc)

This office carried out an assessment of 21 carriageways throughout the Far North District over three days from Wednesday the 17<sup>th</sup> to Friday the 19<sup>th</sup> of July respectively. During the course of our site observations we covered approximately 1100km of the FNDC network and the unsealed portion of the network was generally observed to be in satisfactory condition, with the majority of carriageways assessed as fit for purpose. The three obvious mechanisms of pavement failure throughout the unsealed network can be summarised as:

- Inadequate drainage
- Incorrect crossfall
- Insufficient pavement thickness

We were also engaged to evaluate the quality of the completed works and review the suitability of maintenance methodology. We generally found the maintenance works to have been completed in accordance with the contract specification, however the methodology could be improved.

Our general recommendations to improve the network performance are as follows:

- Install culvert flumes where notable scour is occurring on outlets
- Construct cut off drains at the top of significant cut batters to mitigate erosion of the embankment
- Increase the frequency of water table cut-outs to direct run-off out of the water table and mitigate potential for scouring and concentrated run-off
- Install water table scour protection i.e. placement of rock rip-rap, particularly on steep sections of carriageway
- Implement a cyclic water tabling maintenance programme to ensure drainage is sufficiently maintained at all times
- Re-shape the carriageway to create sufficient crossfall and super elevation
- Supply, place and compact replenishment aggregate in areas where subgrade is exposed and/or high traffic volumes are present

During our site observations, the unsealed roads we visited generally exhibited adequate crossfall and carriageway shape however, in some areas where the carriageway lacked crossfall (particularly on the exit of horizontal curves) potholing was an obvious issue.

To re-shape the road including the underlying subgrade formation would be a costly exercise and is typically carried out as part of a renewal programme and/or seal extension work. However, if the maintenance contractors gradually started to re-shape the carriageway as part of the surface grading maintenance, even in 20mm increments, over 10 grading cycles the road would then reflect a 6% crossfall which would help to prevent potholing.



If the entire unsealed roading network was consistently shaped having crossfalls within the 6% to 8% range and super elevation limited to around 10%, provided there are no longitudinal grades or other geometric constraints, this would have a significant beneficial effect on the maintenance demand of the network.

A competent and durable unsealed pavement requiring minimal maintenance is constructed on stable ground by providing

- Adequate roadside drainage
- Sufficient transverse cross fall (6% to 8%)
- Adequate and appropriate basecourse\*

\*The Main Highways Board (1938) Book of Instructions and Standard Specifications' Although 'outdated' the most appropriate basecourse specification for unsealed road maintenance is the Main Highways Board (MHB) 1938 specification.

The MHB in New Zealand was created by the Main Highways Act, passed in 1922 and came into effect in 1924.

The MHB was replaced by the National Roads Board (NRB) in 1954, Transit New Zealand in 1989 then more recently New Zealand Transport Agency (NZTA) in 2008.

The MHB (1938) Book of Instructions and Standard Specifications is familiar to few and omitted from modern specifications. It is however as relevant today as it was when it was originally developed when the majority of roads through New Zealand were unsealed.

The MHB (1938) Specification appropriately details the aggregate types and maintenance procedures required for an unsealed roading network.

The modern practitioner should familiarise themselves with this MHB (1938) document as it defines appropriate practical means of competently managing replenishment materials for unsealed pavements.

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## **1.0 INTRODUCTION**

Hutchinson Consulting Engineers (Hutchinson) has been engaged by Far North District Council (FNDC) to undertake an independent random audit of the condition of the unsealed network throughout the district. The randomly distributed audit also looks at the performance of both Road Corridor Maintenance Contract (RCM) areas with respect to the contract specifications and each other.

The Far North District is divided into two individual contract areas and these areas are maintained by the following contractors,

Northern Contractor: Fulton Hogan Limited

Southern Contractor: Broadspectrum NZ Limited

## **2.0 OBJECTIVE AND SCOPE**

### **2.1 Objective**

In accordance with the approved FNDC brief, the objective of the audit was to:

- Summarise the correlation between the approved specifications and physical works.
- Evaluate the overall condition of the unsealed network.
- Review the suitability of the contract specifications for the environment.
- Review the suitability of the intervention levels for the environment.
- Provide general recommendations.

### **2.2 Scope**

The scope of works performed to meet the above objective included:

- To review the current contract specifications
- To carry out a desktop study investigation
- To randomly select a representative number of roads (approximately 20) from within the district
- To visit the selected roads and complete site-specific observations, including photographic records.
- To undertake general compliance checks against contract specifications.
- To report on findings including general recommendations.

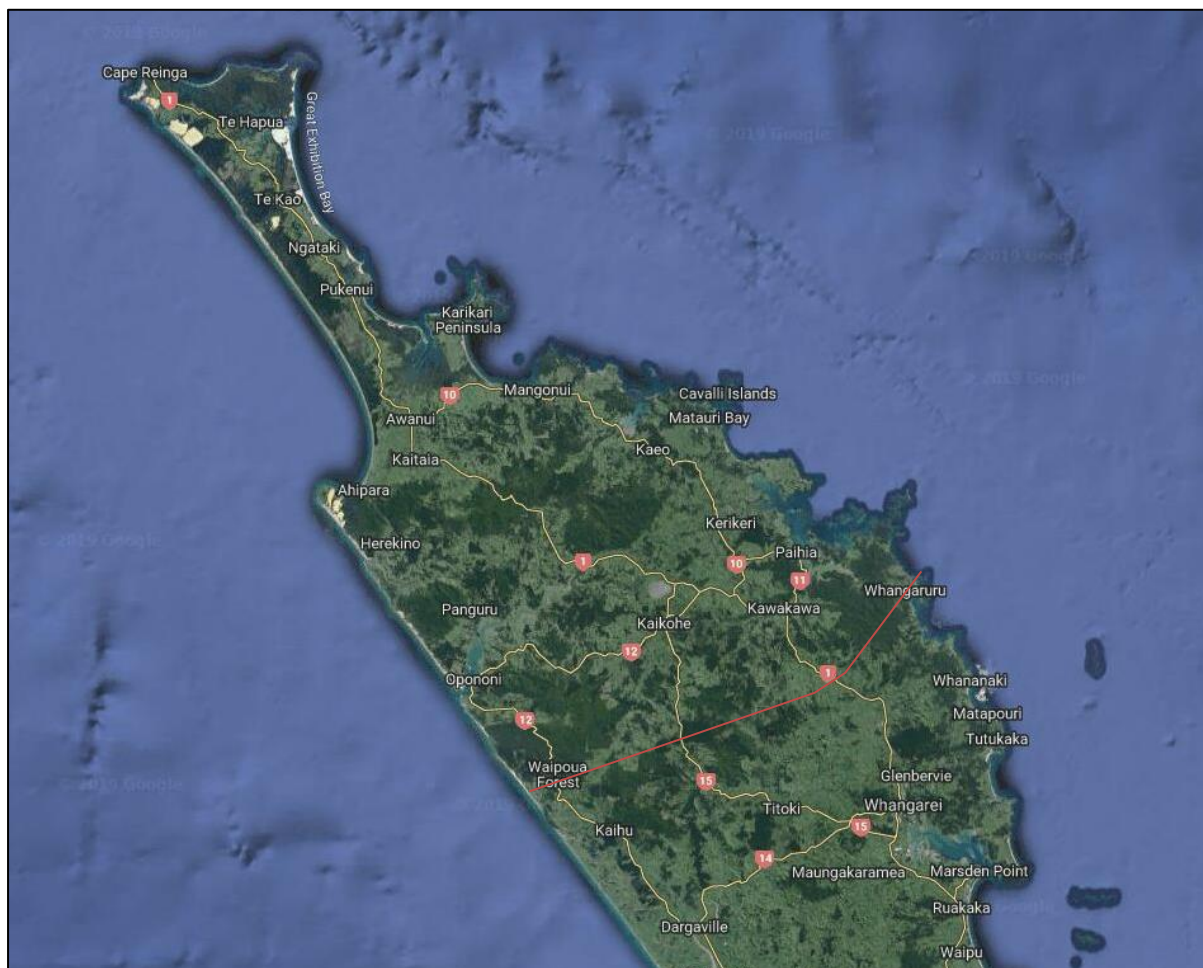
### **2.3 Limitations**

As a result of the audit being undertaken over a relatively small random sample of carriageways, general conformance of the entire network can only be inferred from the sample.

The roads selected were chosen based on a desktop study using the Far North District Council RAMM database and with very limited local knowledge of the district.

### 3.0 SITE LOCATION

The Far North District encompasses an area of over 7300km<sup>2</sup> and extends from Cape Reinga in the north around 175km south to the east-west district boundary between Whangarei and Kaikohe. As a result of its size, the topography of the Far North varies significantly throughout the district from low-lying coastal flats to gently rolling pasture in much of the north and south and steep farming and forestry land through the interior and pockets of the west coast.



*Figure 3.1 – Overall aerial view of the Far North District*

### 4.0 DESKTOP STUDY

The Far North District Council (FNDC) roading network comprises around 2530km of roadway and is divided into two individual maintenance contract areas shared by Broadspectrum NZ and Fulton Hogan. The ratio of sealed to unsealed roadway is approximately as follows,

- Unsealed Roadway 1666km (66%)
- Sealed Roadway 864km (34%)

Hutchinson Consulting Engineers have been engaged by FNDC to carry out an external audit on the current unsealed roading network throughout the Far North District. The purpose of the audit is to provide a 'snapshot' look at the current condition and safety of the network to ascertain whether the current maintenance strategy is 'fit for purpose'.



The Far North District is spread over an approximate land area of around 7300km<sup>2</sup>. Following discussions with representatives of FNDC, it was agreed that Hutchinson would randomly select approximately 20 roads from throughout the district and conduct a drive observation of each road selected.

In order to obtain a representative selection of roads, the Far North District was divided into 5 individual sectors as identified in Figure 4.1 below,



**Figure 4.1 – Far North District divided into 5 sectors**

Following this, a minimum of 4 roads was selected from each sector. The selection process was carried out using the FNDC RAMM asset management program. Using RAMM data, the unsealed network was sorted based on the most recent traffic count volume (ADT) and a minimum of four roads from each sector were selected with a range of both low volume and high volume traffic counts.

The selected roads were then plotted on a map of the Far North District to observe the range and spread across the district. In order to spread the roads demographically, several roads were removed and/or replaced to provide an even spread across the district.

Following the above process, 21 roads were finally selected evenly spread over the five sectors. The list of roads selected are as follows,

### **Sector 1**

Road Name	Locality	Traffic Volume (VPD)	Hierarchy
Waimamaku Road	Waimamaku	75	Rural Access
Waiotemarama Gorge Road	Waitotemarama	150	Rural Access
Horeke Road	Horeke	200	Rural Access
Wharepunga Road	Otaua	39	Rural Access
Opara Road	Oue	50	Rural Low Volume

### **Sector 2**

Road Name	Locality	Traffic Volume (VPD)	Hierarchy
Orakau Road	Tautoto	150	Rural Access
Tapuhi Road	Tapuhi	140	Rural Access
Pipiwai Road	Matawaia	94	Rural Access
Waikare Road	Jacks Bay	200	Secondary Collector

### **Sector 3**

Road Name	Locality	Traffic Volume (VPD)	Hierarchy
Runaruna Road	Panguru	200	Secondary Collector
Diggers Valley Road	Takahue	113	Rural Access
Kauaepepe Road	Broadwood	28	Rural Access
Paponga Road	Broadwood	29	Rural Access

### **Sector 4**

Road Name	Locality	Traffic Volume (VPD)	Hierarchy
Puketotara Road	Kerikeri	150	Rural Access
Martin Road	Kaeo	130	Rural Access
Kohumaru Road	Mangonui	100	Rural Access
Duncan Road	Kaingaroa	220	Secondary Collector

### **Sector 5**

Road Name	Locality	Traffic Volume (VPD)	Hierarchy
Henderson Bay Road	Ngataki	200	Secondary Collector
Te Paki Stream Road	Te Paki	196	Secondary Collector
Te Hapua Road	Te Hapua	120	Rural Access
Rarawa Beach Road	Ngataki	60	Rural Access

Following confirmation with FNDC it was confirmed that the roads selected under Sector 1 and 2 are maintained by Broadspectrum and the roads selected under Sector 3 to 5 are maintained by Fulton Hogan, with the exception of Puketotara Road which falls within Broadspectrum's maintenance contract area.

As part of our desktop study the following information relating to the 21 selected roads was provided to us by FNDC to investigate as part of our desktop study,

- Maintenance Records
- Recent Audits
- Recent Complaints

A brief summary for each of the three items investigated is on the following page.

### Maintenance Records

Maintenance records were extracted from Road Asset and Maintenance Management (RAMM) Contractor based on all dispatches raised against each of the 21 roads since the commencement of the new contracts in 2018.

Using the information provided to us in an excel spreadsheet format, the type of maintenance was filtered to only include unsealed maintenance within the last 12 months. After reviewing the maintenance records for each road, it was evident that all 21 unsealed roads have received some form of maintenance in the last 12 months.

The maintenance work typically included the following items;

- Surface grading
- Pothole repairs
- Aggregate replenishment
- Water table clearing and shaping
- Culvert flushing
- Sump clearing
- Re-painting sight rails/barriers
- Cleaning road signs

### Recent Audits

As part of the desktop study, we were provided with a summary of inspection audits carried by the contractor on each of the selected roads. The current maintenance contract specifies that the frequency of inspection is based on both the One Network Road Classification (ONRC) Road Classification and Risk Level as per the table below.

Most of the roads are considered “Low Volume” therefore a six-monthly inspection frequency is required. From the information provided to us, each road has either been previously inspected or programmed for inspection a minimum of 4 times in the last 12 months, therefore meeting this specification.

Frequency of Inspection				
ONRC Road Classification	Risk Level <sup>1 2</sup>	Monthly <sup>3</sup>	Two Monthly	Six Monthly <sup>4</sup>
Unsealed Primary and Secondary Collector	High	X		
	Medium		X	
	Low <sup>5</sup>			X
Unsealed Access	High	X		
	Medium		X	
	Low <sup>5</sup>			X
Unsealed Low Volume	High	X		
	Medium		X	
	Low <sup>5</sup>			X

<sup>1</sup> Default setting of Risks (until varied by the Engineer) shall be:

- All Unsealed Primary and Secondary Collector shall be High Risk
- All Unsealed Access shall be High Risk
- All Unsealed Low Volume shall be Medium Risk

### Recent Complaints

The final part of our desktop study was to ascertain the extent and frequency of public complaints received within the last 12 months. A list of complaints was provided to us from FNDC specifying the type of request, date received and associated road name.

From the information provided to us, 176 complaints were received between January 2018 and July 2019 relating to the 21 roads selected. A majority of the complaints related to drainage issues, road surface defects and general unsealed roading issues.

We understand that the communication process between FNDC and the relevant maintenance contractor is generally working well when responding to customer requests. From our understanding, unsealed road maintenance is primarily driven by the customer request process as opposed to using a cyclic maintenance program. As a comparison, Auckland Transport uses a cyclic maintenance program as a way of encouraging preventative maintenance.

## **5.0 NETWORK DESCRIPTION**

The roading network in the Far North District area comprises a total of around 2500km of carriageway, of which around 1650km is unsealed. RAMM data indicates that the unsealed network is made up of 697 roads and accounts for around 66% of the total FNDC roading network.

The network is spread over an area of over 7300km<sup>2</sup> and extends from Cape Reinga in the north around 175km south to the east-west district boundary between Whangarei and Kaikohe. As a result of its size, the topography of the Far North varies significantly throughout the district from low-lying coastal flats to gently rolling pasture in much of the north and south and steep farming and forestry land through the interior and pockets of the west coast.

As a result of the variable topography, the nature of the unsealed network also varies to suit its environment, with the network comprising a mixture of flat, wide, well-shaped unsealed carriageways through the flats to steep, highly constrained unsealed tracks used for forestry and quarry access. While highly variable, the unsealed network can be summarised as generally comprising meandering carriageways cut through natural terrain over the path of least resistance, especially through the steeper interior.

The majority of unsealed carriageways throughout the region are typically local rural or rural secondary collector roads that service a mixture of lifestyle properties, farming, agriculture, forestry, quarrying and light-industrial activities. Typical carriageway formations appear to be unmodified insitu subgrades with varying thicknesses of basecourse aggregate, typically no more than 100-200mm of mixed aggregates including limestone, rounded conglomerate gravels and angular greywacke or basalt. The variable aggregate across the network is likely as a result of aggregate being locally sourced from whatever deposit is available.

Unsealed carriageways throughout the FNDC typically have Average Daily Traffic (ADT) counts of no more than around 300 vehicles per day (VPD), with the average ADT across the network being 93 VPD. However, 27 carriageways have counts greater than 300, 5 of which have counts of 1000 or more. Refer to the table below for a breakdown of traffic volumes on Far North District Councils unsealed network.



ADT	Number of Carriageways	Percentage of Total
0-50	495	71
51-100	145	21
101-200	45	6
201-300	4	0.6
301-400	3	0.5
401-500	2	0.4
500+	3	0.5
Total	697	100%

**Figure 5.1 – Summary of FNDC Unsealed Network Traffic Volume**

## 6.0 GENERAL NETWORK DESCRIPTION

The purpose of our audit was to observe a representative selection of roads throughout the entire Far North District in order to ascertain the current safety and condition of the unsealed network.

21 unsealed roads were observed as part of our audit with various levels of service and traffic volume use. The sites observed were typically low volume rural access roads with several secondary collector roads included.

As part of our site-specific observations, several other unsealed roads were traversed to access the selected sites and as such observations were made on the general condition of the unsealed network.

Several features were observed during our drive over and these features are listed as follows,

- General Topography
- General Carriageway Condition
- Typical Road Shape and Alignment
- Drainage
- Shaded Areas
- Dust Suppression Areas

### General Topography

Based on our site observations, the topography throughout the Far North District was generally comparable with the Auckland District where there is a mixture of flat relatively level low-lying areas surrounded by gentle to steeply undulating hillsides.

In some areas, excessive longitudinal gradients were observed where longitudinal constraints were evident. Likewise, in the low lying relatively level areas, drainage constraints were evident in the form of limited longitudinal fall, debris build-up, ponding water etc.

In general, each of the 5 sectors we observed exhibited a range of typical topography constraints, comparable to the Auckland District.

### General Carriageway Condition

The carriageway condition for each of the 21 selected roads were observed as part of the site-specific observations however, in general the following notes were made on the overall condition of the carriageways we drove over.

- Aggregate used was typically of volcanic origin and ranged in size from 30mm up to 65mm
- Some roads comprised a blend of volcanic rock and calcareous limestone aggregate
- Roads located in steep topography generally exhibited exposed rock subgrade in isolated areas
- Severe potholing was typical on bridge approaches
- Bridge approaches were typically unsealed

### Typical Road Shape and Alignment

The general road shape and alignment of the roads we drove over were typically representative of the site topography and accessibility. A majority of the roads appear to have been constructed with an alignment extending along the path of least resistance.

In areas of steep topography it was evident that a cut to fill earthworks operation was utilised to form the road into the hillside, typical of historic road formation throughout NZ.

Super elevation throughout the unsealed roading network was generally considered excessive with slope angles ranging up to around 20% recorded in some areas. From our observations it appeared that the carriageway geometrics generally correlated with the surrounding topography, available road width and horizontal curve radius.

Whilst crossfalls from 6% to 8% are encouraged, super elevation should be limited to around 10% unless restricted by longitudinal grades or other geometric constraints.

### Drainage

In general, the drainage observed throughout the majority of the network was typically 'satisfactory'. In some areas the topography assisted roadside drainage and other areas the topography was the main factor for poor drainage. Steep sections of carriageway generally exhibited rock rip rap within the roadside swale drains to mitigate scouring and erosion.

Culverts were generally in good conditions with no obvious blockages identified during our drive over. We observed a number of concrete bound rock head wall structures at the inlet of culverts, typically in steep sections of road where higher flow rates are experienced. Culvert marker posts were also well maintained with associated culvert ID's clearly labelled and visible.

### Shaded Areas

During our site observations several roads were identified as having heavily shaded areas as a result of adjacent vegetation blocking natural sun light. Having shaded areas has both advantages and disadvantages throughout seasons.

Shaded areas typically hold moisture within the pavement during hot and dry summer months which reduces dust nuisance and mitigates the potential for aggregate unravelling. However, during wet winter months this can be detrimental in that the pavement does not have a chance to dry out and the surface is constantly wet and slippery.

### Dust Suppression Areas

During our site drive overs, a number of roads were identified with dust suppression trial sections. The dust suppression areas were typically located in sections where adjacent dwellings were located within close proximity to the carriageway.

The dust suppression treatment observed was a Gravel Lock product - Road Dust Control (RDC) which comprises a specifically formulated blend of both Magnesium Chloride and Proprietary Additives.



**Figure 6.1 – Orakau Road with Gravel Lock RDC section installed**

## 8.0 SITE SPECIFIC OBSERVATIONS

Hutchinson Consulting Engineers have visited and observed 21 sites throughout the Far North District in order to provide an independent and random 'snapshot' condition assessment of the unsealed network for the FNDC.

The 21 carriageways were selected from RAMM to provide as best range possible of traffic volumes, road classification and carriageway characteristics while ensuring an adequate spread across the district. During the site assessments, the focus was on providing an overall 'snapshot' condition assessment of the carriageways and execution of any maintenance work in regards to Far North District Councils contract specifications and industry 'best practice'. Our observations generally included:

- Roadside Drainage
- Pavement Condition
- Crossfall and Superelevation
- Defects (Potholing, Corrugations, Drainage etc)

The three most important factors that dictate the condition of an unsealed carriageway are adequate drainage, correct carriageway shape and adequate aggregate thickness. Adequate drainage of the subgrade significantly improves subgrade strength and hence, rutting, potholing, corrugation and punching failures. Correct carriageway shape allows surface water to be more effectively shed into the roadside table drains, minimising standing water on the trafficked surface which often leads to potholing, basecourse contamination and other surface defects. Suitable aggregate thickness and quality significantly increase the load capacity and durability of the pavement

The 21 roads chosen for assessment were:

1. Waimamaku Beach Road	Waimamaku
2. Waiotemarama Gorge Road	Waiotemarama
3. Horeke Road	Horeke
4. Wharepunga Road	Otaua
5. Opara Road	Oue
6. Orakau Road	Tautoto
7. Tapuhi Road	Tapuhi
8. Pipiwai Road	Matawaia
9. Waikare Road	Jacks Bay
10. Runaruna Road	Panguru
11. Diggers Valley Road	Takahue
12. Kauaepepe Road	Broadwood
13. Papinga Road	Broadwood
14. Puketotara Road	Kerikeri
15. Martin Road	Kaero
16. Kohumaru Road	Mangonui
17. Duncan Road	Kaingarua
18. Henderson Bay Road	Ngataki
19. Te Pahi Stream Road	Te Pahi
20. Te Hapua Road	Te Hapua
21. Rarawa Beach Road	Ngataki



The scoring system used during our site-specific drive over observation was based on the following performance indicators,

- 1 – 4 **Deficient**
  - Completed work is unsatisfactory – Poor standard of work or specification.
  - Remedial instruction required.
- 5 **Satisfactory**
  - Work is satisfactory – Adequate standard of work or specification.
  - This represents a minimum passing standard.
- 6 **Above Average**
  - This represents a fair passing standard – Room for improvement.
- 7 **Good**
  - Standard of completed work is good – No issues with standard or specification.
- 8 **Very Good**
  - Completed work is commendable.
  - Contractor is providing high quality work.
- 9 **Excellent**
  - Completed work is of model standard or specification.
- 10 **Exemplary**
  - Contractor has exceeded all expected standards of work and specification.

Based on the scoring system above we consider a poor, satisfactory and good condition road to have the following range of scores,

- **Poor**                      *Score 1 to 4*
- **Satisfactory**              *Score 5 to 7*
- **Good**                      *Score 8 to 10*

We have summarised six carriageways, comprising of two representatives of 'poor', 'satisfactory' and 'good' within our reporting to give a sample with complete observation records included in Appendix B.

## 7.1 Orakau Road, Tautoto – Poor Condition

Orakau Road is an unsealed rural access road servicing a small number of rural lifestyle properties and farms, as well as providing forestry access to the southern extent of the Rakautao and Tokawhero Forestry blocks. Latest FNDC traffic count records indicate Orakau Road has an Average Daily Traffic (ADT) count of around 76 vehicles per day (VPD), with a Heavy Commercial Vehicle count of 6%. The count was located at the eastern end of the carriageway at its intersection with Pokapu Road & Matawaia-Marokmaku Road respectively, however we anticipate that higher traffic numbers would be generated at its western extent.

This office visited and performed an assessment of Orakau Road on Wednesday 17<sup>th</sup> July 2019. The carriageway was observed to be in deficient to poor condition with no evidence of any recent maintenance.



Figure 7.1.1 – Ponding, Shear Failure & Potholing



Figure 7.1.2 – Significant Potholing at Bridge Approach

During the site observation it was noted that all three key elements of roadside drainage, carriageway shape and aggregate thickness were typically poor throughout Orakau Road. Roadside drainage was insufficient with no freeboard available to the pavement, resulting in softening of the subgrade and multiple areas of punching, rutting and shear failures. Crossfall was appropriate in sections, however corner super-elevation was typically inadequate compounding drainage issues and resulting in significant potholing on offside corner approaches. Pavement thickness also appeared to be limited, with numerous areas of exposed subgrade. Recent rain wetted the surface prior to our observation, however it was apparent from roadside deposits and a Gravel Lock trial site that dust is an issue.



Figure 7.1.3 – Gravel Lock Trial Site Potholing



Figure 7.1.4 – Inadequate Drainage



## 7.2 Runaruna Road, Panguru – Poor Condition

Runaruna Road is an unsealed rural secondary collector road servicing a number of rural lifestyle properties and farms, as well as providing access to numerous forestry blocks and at least one active quarry. The most recent 2012 FNDC traffic count records indicate Runaruna Road has an Average Daily Traffic (ADT) count of around 142 vehicles per day (VPD), with a Heavy Commercial Vehicle count of 6%, however a 2011 count recorded 189 VPD with 10% HCV.

This office visited and performed an assessment of Runaruna Road on Thursday 18<sup>th</sup> July 2019. The carriageway was observed to be in deficient to poor condition with no evidence of any recent maintenance.



Figure 7.2.1 – Potholing & Logging Signage



Figure 7.2.2 – Potholing & Ponding on Inside Curve

Observation of the carriageway identified inadequate roadside drainage and sections of poor carriageway shape as the two primary factors contributing the most significantly to Runaruna Roads poor condition. Ponding, corrugating and severe scouring of downhill curves are all the result of inadequate stormwater control and lack of cut-outs to direct run-off away from the carriageway. Areas of ground water seepage were also noted as being uncontrolled.

Further to the poor drainage and lack of pavement freeboard, crossfall and corner super-elevation were inappropriate in sections, leading to standing water, weakening pavement layers and ultimately resulting in significant corrugations and potholing on offside corner approaches.



Figure 7.2.3 – Severe Corrugation Causing Scouring



Figure 7.2.4 – Minor Corrugating



### 7.3 Wharepunga Road, Oue – Satisfactory Condition

Wharepunga Road is an unsealed rural access road predominately servicing farming activities as well as providing access to local forestry blocks. The most recent 2017 FNDC traffic count records indicate Wharepunga Road has an Average Daily Traffic (ADT) count of around 39 vehicles per day (VPD), with a Heavy Commercial Vehicle count of 11%.

This office visited and performed an assessment of Wharepunga Road on Wednesday 17<sup>th</sup> July 2019. The carriageway was observed to be in satisfactory condition with no evidence of any recent maintenance.



Figure 7.3.1 – Typically Hard Packed Smooth Surface



Figure 7.3.2 – Good Superelevation but Limited Drainage

As above Wharepunga Road was typically observed to be in satisfactory condition with the majority of the pavement being well graded with adequate pavement depth. Roadside drainage was present albeit too shallow to be effective, isolated areas of poor roadside drainage were identified particularly through lower lying portions of the carriageway, however this is the result of flat topography. Pavement thickness was typically sufficient, however there were isolated areas of exposed subgrade, which has punched through. Also noted were small isolated areas of potholing, primarily at the bridge approaches but also in areas identified above with poor drainage and a lack of freeboard.

A lack of freeboard results in the wetting of the underlying subgrade which directly affects pavement strength and durability and often leads to subgrade punching and rutting failures seen on site.



Figure 7.3.3 – Exposed Subgrade



Figure 7.3.4 – Ponding at Carriageway Edge



#### 7.4 Paponga Road, Broadwood – Satisfactory Condition

Paponga Road is an unsealed rural access road predominately servicing farming activities as well as at least two large forestry blocks, but also provides access to several lifestyle properties. Traffic counts vary significantly depending on count location, however the most recent 2017 FNDC traffic count records record an Average Daily Traffic (ADT) count of around 29 vehicles per day (VPD) for the Broadwood Road end to 31 (VPD) heading towards Rakautapu Road, with a Heavy Commercial Vehicle count of 29% to 2% respectively. A 2012 traffic count recorded around 73 vehicles per day (VPD), with a Heavy Commercial Vehicle count of 6% at the West Coast Road end.

This office visited and performed an assessment of Paponga Road on Thursday 18<sup>th</sup> July 2019. The carriageway was observed to be in satisfactory condition with recent maintenance evident.



Figure 7.4.1 – Constrained Carriageway – Recent Metal



Figure 7.4.2 – Recent Overslip Repair

Assessment of the Paponga Road carriageway identified no significant widespread defects or fundamental issues aside from sections of the carriageway that are highly constrained by the steep topography of the area. Recent embankment work was noted, likely to clear loose overslip debris. Fresh attrition metal was also noted throughout the site, however had not been adequately compacted and was very loose. Pavement thickness was typically sufficient elsewhere through the site. Only one shear failure was noted, however this was likely as a result of poor drainage and weakening of the subgrade in an isolated section. No other significant potholing, corrugating or rutting was noted.



Figure 7.4.3 – Smooth Hardpacked Surface in Areas



Figure 7.4.4 – Shear Failure at Carriageway Edge



## 7.5 Henderson Bay Road, Ngataki – Good Condition

Henderson Bay Road is an unsealed rural access road providing overland access to Henderson Bay Beach, a small number of lifestyle properties, the North Wind Backpacker Lodge and also a small number of adjacent farms. The latest FNDC traffic estimate from March 2016 indicates Henderson Bay Road has an Average Daily Traffic (ADT) count of around 200 vehicles per day (VPD), with a Heavy Commercial Vehicle count of 4%.

This office visited and performed an assessment of Henderson Bay Road on Thursday 18<sup>th</sup> July 2019. The carriageway was observed to be in typically good condition, with no evidence of recent maintenance and only one isolated subgrade failure.



**Figure 7.5.1 – Wide, Smooth Carriageway Profile**



**Figure 7.5.2 – Appropriate Superelevation**

Henderson Bay Road was generally observed to be in good condition with the only defect being an isolated shear failure located at the brow of a rise. At the location of the shear failure the carriageway has been cut through the ridgeline to ease the vertical curve and it is likely that the weaker underlying subsoils have been exposed in this location. Aside from the shear failure, roadside drainage, pavement thickness and carriageway profile were satisfactory throughout the site, with adequate water tables, no other notable surface failures and crossfall and super-elevation typically within specification.



**Figure 7.5.3 – Defined Drainage & Crossfall**



**Figure 7.5.4 – Isolated Section of Exposed Subgrade**



## 7.6 Puketotara Road, Kerikeri – Good Condition

Puketotara Road is an unsealed rural access road that provides access to a number of small lifestyle properties and also farming and horticultural activities. The latest FNDC traffic count from 2009 indicates Puketotara Road has an Average Daily Traffic (ADT) count of around 126 vehicles per day (VPD), with a Heavy Commercial Vehicle count of 10%, however we envisage this number would have increased in the ten years to 2019.

This office visited and performed an assessment of Puketotara Road on Wednesday 17<sup>th</sup> July 2019. The carriageway was observed to be in good condition, with no evidence of recent maintenance.



Figure 7.6.1 – Wide, Smooth Carriageway Profile



Figure 7.6.2 – Appropriate Superelevation

Puketotara Road was generally observed to be in good condition, within only isolated ponding of surface water within section of the site with limited fall, aside from this ponding no other notable defects were noted. Carriageway profile was good, super-elevation and crossfalls were appropriate and generally appeared to direct stormwater away from the trafficable pavement. Pavement condition was good, albeit the running course was relatively loose and 'boney'. This is a direct result of using a rounded conglomerate aggregate which although provides a smoother ride, is typically very loose and reduces traction.



Figure 7.6.3 – Isolated Ponding Through Flats



Figure 7.6.4 – Loose, Rounded Aggregates



## 8.0 OBSERVATION SUMMARY

This office carried out an assessment of 21 carriageways throughout the Far North District over three days from Wednesday the 17<sup>th</sup> to Friday the 19<sup>th</sup> of July respectively. During the course of our site observations we covered approximately 1100km of the FNDC network and the unsealed portion of the network was generally observed to be in satisfactory condition, with the majority of carriageways assessed as fit for purpose. The three obvious mechanisms of pavement failure throughout the unsealed network can be summarised as:

- Inadequate drainage
- Incorrect crossfall
- Insufficient pavement thickness

### ***Inadequate Drainage***

Culverts and roadside drainage were generally observed to be adequate throughout the majority of network, however there were instances where poor drainage, particularly in already heavily constrained areas was obviously leading to pavement failures. In some instances these issues are causing significant downstream erosion and instability within shoulders and embankments. General comments for areas of poor condition are as below:

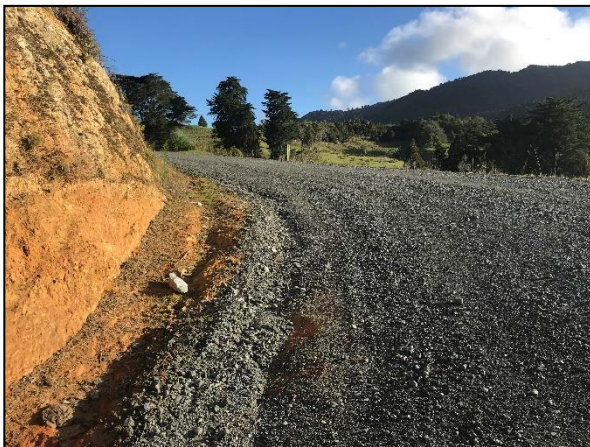
- Roadside drains are generally formed, however typically too shallow to be effective
- Swale cut-outs are often ineffective as a result of frequency, swale grade or depth
- Culverts obstructed by debris and aggregates, particularly on steeper forestry roads
- Scouring as a result of unprotected swales or short outlets, particularly in steep areas



**Figure 8.1 – Waikare Road Inlet Blocked with Debris**



**Figure 8.2 – Waimamaku Beach Road Ponding**



**Figure 8.3 – Diggers Valley Scouring (No Formed Swale)**



**Figure 8.4 – Martin Road Swallow Ineffective Cut-outs**



### ***Incorrect Crossfall***

Carriageway shape including crossfall and super elevation was generally observed to be adequate throughout the majority of network, however there were several areas where the carriageway lacked cross fall and as a result potholing and corrugations were evident. Orakau Road in particular was severely potholed as a result of poor carriageway shape, no crossfall, and heavy traffic loading from the logging trucks coming in and out of the Rakautao Forest.

An unsealed carriageway should be shaped using the following guidelines,

- Pavement needs to be graded to form a 'crown' in the centre of the road to allow surface water to drain away efficiently.
- Crossfall should be no less than 4% and no greater than 6% on straight sections of road.
- Where two unsealed carriageways intersect the crown should be gradually reduced over around 20m, so at the intersection there is no apparent crown.
- Super elevation should not exceed 10% unless restricted by longitudinal grades or other geometric constraints



**Figure 8.5 – Orakau Road with minimal crossfall**



**Figure 8.6 – Tapuhi Road with limited crossfall**



**Figure 8.7 – Horeke Road with minimal crossfall**



**Figure 8.8 – Runaruna Road with limited super elevation**



### **Minimum Pavement Thickness**

Adequate pavement thickness is key to ensuring the longevity and durability of an unsealed pavement, especially over the plastic clay subgrades beneath much of the Far North Districts network. During our site observations it was noted that small isolated portions of much of the network had areas of exposed subgrade and/or were showing shear failures as a result of inadequate pavement thickness.

Based on a 90<sup>th</sup> percentile traffic volume for the FNDC of 100 vehicles per day, the AustRoads “Design Chart for Granular Pavements” specifies the minimum base material thickness for a three year design life is around 200mm to prevent shear failure and rutting of the subgrade.

Obviously for more highly trafficked carriageways such as Matai Bay Road there will require more robust pavements to ensure similar longevity. It is also worth noting that running course or wearing course aggregate will constantly be lost from the carriageway as it is trafficked and will require to be replaced with attrition metal by the RCM contractor as required. More extensive replenishment metalling should be undertaken bi-annually at minimum.



**Figure 8.9** – Waitemarama Gorge Road Shear Failure



**Figure 8.10** – Diggers Valley Road, Exposed Subgrade



**Figure 8.11** – Waikare Road Exposed Subgrade



**Figure 8.12** – Tapuhi Road Contaminated Running Course

## 9.0 RECOMMENDATIONS

We have completed an independent assessment of the unsealed road network at the request of Far North District Council to audit of the condition of the unsealed network throughout the district and the performance of both road corridor maintenance contract (RCM) areas with respect to the contract specifications and each other.

We were also asked to evaluate the quality of the completed works and review the suitability of maintenance methodology. We generally found the maintenance works to have been completed in accordance with the contract specification, however the methodology could be improved.

Our general recommendations to improve the network performance are as follows:

- Install culvert flumes where notable scour is occurring on outlets
- Construct cut off drains at the top of significant cut batters to mitigate erosion of the embankment
- Increase the frequency of water table cut-outs to direct run-off out of the water table and mitigate potential for scouring and concentrated run-off
- Install water table scour protection i.e. placement of rock rip-rap, particularly on steep sections of carriageway
- Implement a cyclic water tabling maintenance programme to ensure drainage is sufficiently maintained at all times
- Re-shape the carriageway to create sufficient crossfall and super elevation
- Supply, place and compact replenishment aggregate in areas where subgrade is exposed and/or high traffic volumes are present

During our site observations, the unsealed roads we visited generally exhibited adequate crossfall and carriageway shape however, in some areas where the carriageway lacked crossfall (particularly on the exit of horizontal curves) potholing was an obvious issue.

To re-shape the road including the underlying subgrade formation would be a costly exercise and is typically carried out as part of a renewal programme and/or seal extension work. However, if the maintenance contractors gradually started to re-shape the carriageway as part of the surface grading maintenance, even in 20mm increments, over 10 grading cycles the road would then reflect a 6% crossfall which would help to prevent potholing.

If the entire unsealed roading network was consistently shaped having crossfalls within the 6% to 8% range and super elevation limited to around 10%, provided there are no longitudinal grades or other geometric constraints, this would have a significant beneficial effect on the maintenance demand of the network.

A competent and durable unsealed pavement requiring minimal maintenance is constructed on stable ground by providing

- Adequate roadside drainage
- Sufficient transverse cross fall (6% to 8%)
- Adequate and appropriate basecourse\*

\*The Main Highways Board (1938) Book of Instructions and Standard Specifications' Although 'outdated' the most appropriate basecourse specification for unsealed road maintenance is the Main Highways Board (MHB) 1938 specification.

The MHB in New Zealand was created by the Main Highways Act, passed in 1922 and came into effect in 1924.



The MHB was replaced by the National Roads Board (NRB) in 1954, Transit New Zealand in 1989 then more recently New Zealand Transport Agency (NZTA) in 2008.

The MHB (1938) Book of Instructions and Standard Specifications is familiar to few and omitted from modern specifications. It is however as relevant today as it was when it was originally developed when the majority of roads through New Zealand were unsealed.

The MHB (1938) Specification appropriately details the aggregate types and maintenance procedures required for an unsealed roading network.

The modern practitioner should familiarise themselves with this MHB (1938) document as it defines appropriate practical means of competently managing replenishment materials for unsealed pavements.


## 10.0 LIMITATION


This report has been prepared solely for the benefit of Far North District Council as our client with respect to the brief. The reliance by other parties on the information or opinions contained in the report shall, without prior review and agreement in writing be at such parties sole risk.

Should you wish to discuss any aspects of the above information, please contact this office.

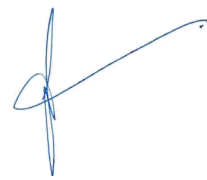
We trust this meets with your approval.


Yours faithfully,  
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## **Appendix A – Summary of Observation Scoring**

## Summary of Individual Road Observation Scores

Sector Number and Road Name	Locality	Traffic Volume (VPD)	Existing Carrigeway Score	Surface Defects Score	Drainage Score	Vegetation Score	Signs/Street Furniture Score	Overall Average Score
<b>Sector #1</b>								<b>5.5 (avg)</b>
Waimamaku Beach Road	Waimamaku	75	6.0	4.0	2.0	6.0	6.0	5.0
Waiotoemarama Gorge Road	Waitoemarama	130	6.0	4.0	6.5	8.0	6.0	6.0
Horeke Road	Horeke	200	5.0	3.0	4.0	5.0	5.0	4.5
Wharepunga Road	Otaua	39	6.0	5.5	5.0	5.0	5.0	5.5
Opara Road	Oue	50	6.0	4.0	5.0	6.0	N/A	5.5
<b>Sector #2</b>								<b>5.0 (avg)</b>
Orakau Road	Tautoto	150	4.0	1.0	2.0	7.0	6.0	4.0
Tapuhi Road	Hekerenui	140	7.0	5.0	5.0	5.0	5.0	5.5
Pipiwai Road	Matawaia	94	7.0	6.0	5.0	6.0	5.0	6.0
Waikara Road	Jacks Bay	200	4.0	4.0	4.0	N/A	N/A	4.0
<b>Sector #3</b>								<b>5.5 (avg)</b>
Runaruna Road	Panguru	200	4.5	4.0	5.0	6.0	4.0	5.0
Diggers Valley Road	Takahue	113	6.0	6.0	4.0	6.0	6.0	5.5
Kauaepepe Road	Broadwood	28	5.0	4.0	4.0	5.0	5.0	4.5
Paponga Road	Broadwood	29	6.0	6.5	6.5	7.0	7.0	6.5
<b>Sector #4</b>								<b>6.0 (avg)</b>
Puketotara Road	Kerikeri	150	8.0	8.0	8.0	N/A	N/A	8.0
Martin Road	Kaeo	130	7.5	7.5	5.0	6.0	5.0	6.0
Kohumaru Road	Mangonui	100	6.0	6.0	4.0	6.0	6.0	5.5
Duncan Road	Kaingaroa	228	5.0	4.0	4.0	5.0	5.0	4.5
<b>Sector #5</b>								<b>5.5 (avg)</b>
Henderson Bay Road	Ngataki	200	7.0	5.0	5.5	N/A	7.0	6.0
Te Paki Stream Road	Te Paki	196	5.0	4.0	4.0	N/A	N/A	4.5
Te Hapua Road	Te Hapua	120	6.0	3.5	6.0	N/A	6.0	5.5
Rarawa Beach Road	Ngataki	60	7.0	7.0	6.0	N/A	6.0	6.5



## **Observation Scoring System**

The scoring system used during our site-specific drive over observation was based on the following performance indicators,

- 1 – 4 **Deficient**
  - Completed work is unsatisfactory – Poor standard of work or specification.
  - Remedial instruction required.
- 5 **Satisfactory**
  - Work is satisfactory – Adequate standard of work or specification.
  - This represents a minimum passing standard.
- 6 **Above Average**
  - This represents a fair passing standard – Room for improvement.
- 7 **Good**
  - Standard of completed work is good – No issues with standard or specification.
- 8 **Very Good**
  - Completed work is commendable.
  - Contractor is providing high quality work.
- 9 **Excellent**
  - Completed work is of model standard or specification.
- 10 **Exemplary**
  - Contractor has exceeded all expected standards of work and specification.

Based on the scoring system above we consider a poor, satisfactory and good condition road to have the following range of scores,

- ***Poor***                      *Score 1 to 4*
- ***Satisfactory***              *Score 5 to 7*
- ***Good***                        *Score 8 to 10*



## **Appendix B –** Site Observation Records

### UNSEALED ROAD MAINTENANCE OBSERVATION RECORD

<b>DATE OF OBSERVATION:</b>	17/07/2019	<b>CONTRACT AREA:</b>	Fulton Hogan/Broadspectrum
<b>ROAD NAME:</b>	Waimamaku Beach Road	<b>LOCALITY:</b>	Waimamaku
<b>TRAFFIC VOLUME:</b>	75	<b>ROAD CLASSIFICATION:</b>	Rural Access
<b>LAST MAINTAINED:</b>	June 2019	<b>WEATHER CONDITIONS:</b>	Raining

COMMENTS/OBSERVATIONS			
<b>EXISTING CARRIAGEWAY</b>			<b>Score</b>
			<b>6.0</b>
<i>Existing Width (m)</i>	4.5 -5.5M		
<i>Crossfall (%)</i>	Varies up to max 6%, overall good shape		
<i>Longitudinal Grade (%)</i>	Mostly flat, isolated section 13%		
<i>Superelevation (%)</i>	Up		
<i>Shoulder Grade (%)</i>	OK		
<i>Aggregate Condition</i>	River rock, some large cobbles		
<i>General Comments</i>			
<b>SURFACE DEFECTS</b>			<b>Score</b>
			<b>4.0</b>
<i>Potholing (density)</i>	Severely potholed		
<i>Corrugations (depth)</i>	N/A		
<i>Weathered aggregate</i>	Yes		
<i>Exposed Subgrade</i>	N/A		
<i>General Comments</i>			
<b>DRAINAGE</b>			<b>Score</b>
			<b>2.0</b>
<i>Swale Depth (S/G freeboard)</i>	Very poor, minimal depth, ponding water		
<i>Side Slopes (%)</i>	2:1 - 1:1		
<i>Swale Cut-outs</i>	N/A		
<i>Longitudinal Grade (≥1%)</i>	Topography doesn't allow much fall		
<i>Obstructions</i>	N/A		



Scouring	Scouring in steep sections		
Existing Culverts	Generally in OK condition, some outlet scouring		
Silt Runoff	N/A		
General Comments	Constrained drainage due to topography		
VEGETATION		Score	6.0
Proximity to carriageway	Close in areas		
Overhanging Branches?	Minor overhang in isolated areas		
General Comments			
SIGNS/STREET FURNITURE		Score	6.0
Condition of signs	Good		
Edge marker posts	Culvert marker posts in place, ID numbers		
Guardrails/Sight rails	N/A		
Line marking	N/A		
General Comments	No edge markers		
RECOMMENDATIONS			

### UNSEALED ROAD MAINTENANCE OBSERVATION RECORD

<b>DATE OF OBSERVATION:</b>	17/07/2019	<b>CONTRACT AREA:</b>	Fulton Hogan/Broadspectrum
<b>ROAD NAME:</b>	Waiotemarama Gorge Road	<b>LOCALITY:</b>	Waiotemarama
<b>TRAFFIC VOLUME:</b>	150	<b>ROAD CLASSIFICATION:</b>	Rural Access
<b>LAST MAINTAINED:</b>	June 2019	<b>WEATHER CONDITIONS:</b>	Fine/ Drizzle

COMMENTS/OBSERVATIONS			
<b>EXISTING CARRIAGEWAY</b>			<b>Score</b>
			<b>6.0</b>
<i>Existing Width (m)</i>	4-5M		
<i>Crossfall (%)</i>	Varies up to approx. 6%		
<i>Longitudinal Grade (%)</i>	Varies - undulating to steep (5-20%)		
<i>Superelevation (%)</i>	Varies - some super steep around 15-20%		
<i>Shoulder Grade (%)</i>	N/A		
<i>Aggregate Condition</i>	Limited in depth, see below		
<i>General Comments</i>	Carriageway is highly constrained by steep topography - pretty good for terrain		
<b>SURFACE DEFECTS</b>			<b>Score</b>
			<b>4.0</b>
<i>Potholing (density)</i>	Minor potholing, A result of drainage		
<i>Corrugations (depth)</i>	Isolated to sharp steeper sections		
<i>Weathered aggregate</i>	N/A		
<i>Exposed Subgrade</i>	Prevalent in some areas		
<i>General Comments</i>	Significant subgrade failures throughout (we witnessed a vehicle loose control in one area)		
<b>DRAINAGE</b>			<b>Score</b>
			<b>6.5</b>
<i>Swale Depth (S/G freeboard)</i>	Adequate where required (naturally draining)		
<i>Side Slopes (%)</i>	1:1		
<i>Swale Cut-outs</i>	Natural (gorge feature)		
<i>Longitudinal Grade (<math>\geq 1\%</math>)</i>	Refer above (steep)		
<i>Obstructions</i>	N/A		

Scouring	Minor		
Existing Culverts	Adequate		
Silt Runoff	N/A		
General Comments	Defines drainage limited, but present where required, assisted by natural terrain.		
VEGETATION		Score	8.0
Proximity to carriageway	Near by but generally clear		
Overhanging Branches?	N/A		
General Comments	Thick vege through gorge, but generally good		
SIGNS/STREET FURNITURE		Score	6.0
Condition of signs	Signs are poor		
Edge marker posts	N/A - need them		
Guardrails/Sight rails	Recently painted with reflectors		
Line marking	N/A		
General Comments	Culvert markers good		
RECOMMENDATIONS			



### UNSEALED ROAD MAINTENANCE OBSERVATION RECORD

<b>DATE OF OBSERVATION:</b>	19/07/2019	<b>CONTRACT AREA:</b>	Broadspectrum
<b>ROAD NAME:</b>	Horeke Road	<b>LOCALITY:</b>	Horeke
<b>TRAFFIC VOLUME:</b>	200	<b>ROAD CLASSIFICATION:</b>	Rural Access
<b>LAST MAINTAINED:</b>	May 2019	<b>WEATHER CONDITIONS:</b>	Raining

COMMENTS/OBSERVATIONS			
<b>EXISTING CARRIAGEWAY</b>			<b>Score</b>
			<b>5.0</b>
<i>Existing Width (m)</i>	5.0 - 5.5M		
<i>Crossfall (%)</i>	Good in most areas $\approx$ 4-6%		
<i>Longitudinal Grade (%)</i>	Mostly level, some minor undulation		
<i>Superelevation (%)</i>	Generally good, up to 15% in some spots		
<i>Shoulder Grade (%)</i>	N/A		
<i>Aggregate Condition</i>	Good		
<i>General Comments</i>			
<b>SURFACE DEFECTS</b>			<b>Score</b>
			<b>3.0</b>
<i>Potholing (density)</i>	Sections of extensive potholing		
<i>Corrugations (depth)</i>	Heavily corrugated in many sections		
<i>Weathered aggregate</i>	N/A		
<i>Exposed Subgrade</i>	Evident in serveral areas		
<i>General Comments</i>			
<b>DRAINAGE</b>			<b>Score</b>
			<b>4.0</b>
<i>Swale Depth (S/G freeboard)</i>	Generally OK, very limited in some areas		
<i>Side Slopes (%)</i>	Up to 1:2		
<i>Swale Cut-outs</i>	Yes		
<i>Longitudinal Grade (<math>\geq</math>1%)</i>	Limited in some spots, free standing water in channel		
<i>Obstructions</i>	Minor vegetation debris, some household rubbish at culvert inlet		

Scouring	Minor in some areas		
Existing Culverts	Generally OK, concrete headwalls		
Silt Runoff	N/A		
General Comments			
VEGETATION		Score	5.0
Proximity to carriageway	Dense vegetation in NE end		
Overhanging Branches?	N/A		
General Comments			
SIGNS/STREET FURNITURE		Score	5.0
Condition of signs	Generally all OK		
Edge marker posts	As above		
Guardrails/Sight rails			
Line marking			
General Comments			
RECOMMENDATIONS			

### UNSEALED ROAD MAINTENANCE OBSERVATION RECORD

<b>DATE OF OBSERVATION:</b>	17/07/2019	<b>CONTRACT AREA:</b>	Fulton Hogan/Broadspectrum
<b>ROAD NAME:</b>	Wharepunga Road	<b>LOCALITY:</b>	Otaua
<b>TRAFFIC VOLUME:</b>	39	<b>ROAD CLASSIFICATION:</b>	Rural Access
<b>LAST MAINTAINED:</b>	May 2019	<b>WEATHER CONDITIONS:</b>	Fine

COMMENTS/OBSERVATIONS			
<b>EXISTING CARRIAGEWAY</b>			<b>Score</b>
			<b>6.0</b>
<i>Existing Width (m)</i>	5-5.5M		
<i>Crossfall (%)</i>	Typically good, varies up to 6%		
<i>Longitudinal Grade (%)</i>	Typically flat, 0-5% up to 10%		
<i>Superelevation (%)</i>	Up to 15% - 20%		
<i>Shoulder Grade (%)</i>	N/A		
<i>Aggregate Condition</i>	Pretty good, decent blue metal		
<i>General Comments</i>	Generally good, isolated improvements but areas of boney aggregate present		
<b>SURFACE DEFECTS</b>			<b>Score</b>
			<b>5.5</b>
<i>Potholing (density)</i>	Very minimal, couple isolated potholes		
<i>Corrugations (depth)</i>	Isolated minor to moderate		
<i>Weathered aggregate</i>	See above		
<i>Exposed Subgrade</i>	Isolated sections (two noted)		
<i>General Comments</i>	Potholes on bridge approaches		
<b>DRAINAGE</b>			<b>Score</b>
			<b>5.0</b>
<i>Swale Depth (S/G freeboard)</i>	Varies poor along flat, drainage constrained		
<i>Side Slopes (%)</i>	As above		
<i>Swale Cut-outs</i>	As above, minimal grade		
<i>Longitudinal Grade (<math>\geq 1\%</math>)</i>	As above		
<i>Obstructions</i>	Vehicle culvert crossing missing		



Scouring	Yes, in isolated steep sections	
Existing Culverts	As above	
Silt Runoff	N/A	
General Comments	<div>Pretty good for topography</div>	
VEGETATION		Score
		5.0
Proximity to carriageway	N/A	
Overhanging Branches?	N/A, couple of branches hanging out	
General Comments	Pretty good	
SIGNS/STREET FURNITURE		Score
		5.0
Condition of signs	OK	
Edge marker posts	Good	
Guardrails/Sight rails	Bridge guardrails very dirty	
Line marking	N/A	
General Comments		
RECOMMENDATIONS		

### UNSEALED ROAD MAINTENANCE OBSERVATION RECORD

<b>DATE OF OBSERVATION:</b>	19/07/2019	<b>CONTRACT AREA:</b>	Broadspectrum
<b>ROAD NAME:</b>	Opara Road	<b>LOCALITY:</b>	Oue
<b>TRAFFIC VOLUME:</b>	50	<b>ROAD CLASSIFICATION:</b>	Rural Low Volume
<b>LAST MAINTAINED:</b>	June 2019	<b>WEATHER CONDITIONS:</b>	Fine

COMMENTS/OBSERVATIONS			
<b>EXISTING CARRIAGEWAY</b>			<b>Score</b>
			<b>6.0</b>
<i>Existing Width (m)</i>	4-5.5M		
<i>Crossfall (%)</i>	OK 3-6% approximately		
<i>Longitudinal Grade (%)</i>	15-20%		
<i>Superelevation (%)</i>	Quite steep in places		
<i>Shoulder Grade (%)</i>	N/A due to limited width, topo constraints		
<i>Aggregate Condition</i>			
<i>General Comments</i>	Extended along a steep ridgeline		
<b>SURFACE DEFECTS</b>			<b>Score</b>
			<b>4.0</b>
<i>Potholing (density)</i>	Yes, not too bad		
<i>Corrugations (depth)</i>	No		
<i>Weathered aggregate</i>	In places		
<i>Exposed Subgrade</i>	Yes, in a few spots		
<i>General Comments</i>	Some over slips evident with embarkment		
<b>DRAINAGE</b>			<b>Score</b>
			<b>5.0</b>
<i>Swale Depth (S/G freeboard)</i>	Generally OK		
<i>Side Slopes (%)</i>	1:1		
<i>Swale Cut-outs</i>	Yes		
<i>Longitudinal Grade (<math>\geq 1\%</math>)</i>	Reflects carriageway grade		
<i>Obstructions</i>	No		

Scouring	Minor		
Existing Culverts	Generally clear of debris		
Silt Runoff	N/A		
General Comments			
VEGETATION		Score	6.0
Proximity to carriageway	In places		
Overhanging Branches?	Branch hanging out in isolated area		
General Comments	Looks as though maintenance contractor has responded and removed underway		
SIGNS/STREET FURNITURE		Score	N/A
Condition of signs			
Edge marker posts			
Guardrails/Sight rails			
Line marking			
General Comments			
RECOMMENDATIONS			



### UNSEALED ROAD MAINTENANCE OBSERVATION RECORD

<b>DATE OF OBSERVATION:</b>	17/07/2019	<b>CONTRACT AREA:</b>	Broadspectrum
<b>ROAD NAME:</b>	Orakau Road	<b>LOCALITY:</b>	Tautoto
<b>TRAFFIC VOLUME:</b>	150	<b>ROAD CLASSIFICATION:</b>	Rural Access
<b>LAST MAINTAINED:</b>	July 2019	<b>WEATHER CONDITIONS:</b>	Fine

COMMENTS/OBSERVATIONS			
<b>EXISTING CARRIAGEWAY</b>			<b>Score</b>
			<b>4.0</b>
<i>Existing Width (m)</i>	5.5 - 6.5M		
<i>Crossfall (%)</i>	4-6%		
<i>Longitudinal Grade (%)</i>	Relatively level		
<i>Superelevation (%)</i>	Nil - caused potholes on corners - Bad!		
<i>Shoulder Grade (%)</i>	Not defined		
<i>Aggregate Condition</i>	Highly weathered		
<i>General Comments</i>	Heavily trafficked likely as a result of adjacent forestry operation		
<b>SURFACE DEFECTS</b>			<b>Score</b>
			<b>1.0</b>
<i>Potholing (density)</i>	Very frequent		
<i>Corrugations (depth)</i>	Occasional		
<i>Weathered aggregate</i>			
<i>Exposed Subgrade</i>	Frequent		
<i>General Comments</i>			
<b>DRAINAGE</b>			<b>Score</b>
			<b>2.0</b>
<i>Swale Depth (S/G freeboard)</i>	Inadequate		
<i>Side Slopes (%)</i>	Up to 1:1		
<i>Swale Cut-outs</i>	N/A		
<i>Longitudinal Grade (<math>\geq 1\%</math>)</i>	Relatively level		
<i>Obstructions</i>	Yes		

Scouring	In places
Existing Culverts	Poor to good
Silt Runoff	N/A
General Comments	
VEGETATION	
Score	7.0
Proximity to carriageway	Close in some areas
Overhanging Branches?	N/A
General Comments	
SIGNS/STREET FURNITURE	
Score	6.0
Condition of signs	Good
Edge marker posts	OK
Guardrails/Sight rails	N/A
Line marking	N/A
General Comments	
RECOMMENDATIONS	

### UNSEALED ROAD MAINTENANCE OBSERVATION RECORD

DATE OF OBSERVATION:	19/07/2019	CONTRACT AREA:	Broadspectrum
ROAD NAME:	Tapuhi Road	LOCALITY:	Hukerenui
TRAFFIC VOLUME:	140	ROAD CLASSIFICATION:	Rural Access
LAST MAINTAINED:	July 2019	WEATHER CONDITIONS:	Drizzly

COMMENTS/OBSERVATIONS			
<b>EXISTING CARRIAGEWAY</b>			<b>Score</b>
			<b>7.0</b>
Existing Width (m)	5.5-6.5M		
Crossfall (%)	Typically 4-6%		
Longitudinal Grade (%)	Relatively level, max ≈5%		
Superelevation (%)	Good, typically 10-15%		
Shoulder Grade (%)	N/A		
Aggregate Condition	Good		
General Comments			
<b>SURFACE DEFECTS</b>			<b>Score</b>
			<b>5.0</b>
Potholing (density)	Isolated areas of heavy potholing		
Corrugations (depth)	Minor in some sharper corners		
Weathered aggregate	Good condition		
Exposed Subgrade	N/A		
General Comments			
<b>DRAINAGE</b>			<b>Score</b>
			<b>5.0</b>
Swale Depth (S/G freeboard)	Consistently good throughout, minor area limited		
Side Slopes (%)	Up to 1:2		
Swale Cut-outs	Yes		
Longitudinal Grade (≥1%)	Sufficient, minor isolated area of ponding on corners		
Obstructions	N/A		



Scouring	Not identified		
Existing Culverts	Generally in good condition		
Silt Runoff	N/A		
General Comments			
VEGETATION		Score	5.0
Proximity to carriageway	Some dense areas		
Overhanging Branches?	N/A		
General Comments			
SIGNS/STREET FURNITURE		Score	5.0
Condition of signs	Typically in good, clean condition		
Edge marker posts	As above		
Guardrails/Sight rails			
Line marking			
General Comments			
RECOMMENDATIONS			

### UNSEALED ROAD MAINTENANCE OBSERVATION RECORD

<b>DATE OF OBSERVATION:</b>	19/07/2019	<b>CONTRACT AREA:</b>	Broadspectrum
<b>ROAD NAME:</b>	Pipiwai Road	<b>LOCALITY:</b>	Matawaia
<b>TRAFFIC VOLUME:</b>	94	<b>ROAD CLASSIFICATION:</b>	Rural Access
<b>LAST MAINTAINED:</b>	July 2019	<b>WEATHER CONDITIONS:</b>	Fine

COMMENTS/OBSERVATIONS		
<b>EXISTING CARRIAGEWAY</b>	<b>Score</b>	<b>7.0</b>
<i>Existing Width (m)</i>	<i>Varies 5.5 - 6.0 m typical</i>	
<i>Crossfall (%)</i>	Good - 4+%	
<i>Longitudinal Grade (%)</i>	Varies , typically gently undulating	
<i>Superelevation (%)</i>	Good - 4+%	
<i>Shoulder Grade (%)</i>	N/A (Only present in sections)	
<i>Aggregate Condition</i>	Good, sections of fresh aggregate	
<i>General Comments</i>	Carriageway typically in good conditions. Fresh metal noted (GAP30)	
<b>SURFACE DEFECTS</b>	<b>Score</b>	<b>6.0</b>
<i>Potholing (density)</i>	Infrequent, typically good given traffic volume	
<i>Corrugations (depth)</i>	N/A - Nothing significant	
<i>Weathered aggregate</i>	N/A	
<i>Exposed Subgrade</i>	N/A	
<i>General Comments</i>	Given traffic loading from the logging surface defects are infrequent and minor	
<b>DRAINAGE</b>	<b>Score</b>	<b>5.0</b>
<i>Swale Depth (S/G freeboard)</i>	Varies, typically formed but shallow	
<i>Side Slopes (%)</i>	Varies	
<i>Swale Cut-outs</i>	OK	
<i>Longitudinal Grade (<math>\geq 1\%</math>)</i>	OK	
<i>Obstructions</i>	N/A - none noted	

Scouring	None significant	
Existing Culverts	Those observed OK	
Silt Runoff		
General Comments	Areas of fresh watertabling and drainage work (Possibly associated with widening)	
VEGETATION		Score 6.0
Proximity to carriageway	OK	
Overhanging Branches?	OK	
General Comments		
SIGNS/STREET FURNITURE		Score 5.0
Condition of signs	OK	
Edge marker posts	OK	
Guardrails/Sight rails	OK	
Line marking	N/A	
General Comments		
RECOMMENDATIONS		



### UNSEALED ROAD MAINTENANCE OBSERVATION RECORD

DATE OF OBSERVATION:	19/07/2019	CONTRACT AREA:	Broadspectrum
ROAD NAME:	Waikare Road	LOCALITY:	Jacks Bay
TRAFFIC VOLUME:	200	ROAD CLASSIFICATION:	Rural Sec. Collector
LAST MAINTAINED:	Jun-19	WEATHER CONDITIONS:	Drizzle

COMMENTS/OBSERVATIONS			
<b>EXISTING CARRIAGEWAY</b>			<b>Score</b>
			<b>4.0</b>
Existing Width (m)	Varies 4.0 - 6.0 m		
Crossfall (%)	OK in places, however flat in areas		
Longitudinal Grade (%)	Undulating to flat		
Superelevation (%)	Up to 8% (poor in areas - leading to corrugation)		
Shoulder Grade (%)	N/A		
Aggregate Condition	Poor - highly weathered in places		
General Comments	Recent Grade - Tyre and blade marks noted		
<b>SURFACE DEFECTS</b>			<b>Score</b>
			<b>4.0</b>
Potholing (density)	Yes		
Corrugations (depth)	Yes - extensive throughout entire site		
Weathered aggregate	Yes		
Exposed Subgrade	Yes - throughout - slippery!		
General Comments	Surface in poor condition, weather and contaminated running course		
<b>DRAINAGE</b>			<b>Score</b>
			<b>4.0</b>
Swale Depth (S/G freeboard)	Generally poor		
Side Slopes (%)	1:1		
Swale Cut-outs	Infrequent, swales tend to run out		
Longitudinal Grade ( $\geq 1\%$ )	OK		
Obstructions	Debris noted in inlets		

Scouring	Yes, particularly on inside curves		
Existing Culverts	Two blocked		
Silt Runoff	N/A		
General Comments	Topography is steep and difficult resulting in narrow carriageway and limited drainage. Present in sections but shallow		
VEGETATION		Score	N/A
Proximity to carriageway	N/A		
Overhanging Branches?	N/A		
General Comments			
SIGNS/STREET FURNITURE		Score	N/A
Condition of signs	OK		
Edge marker posts	OK		
Guardrails/Sight rails	OK		
Line marking	N/A		
General Comments			
RECOMMENDATIONS			

### UNSEALED ROAD MAINTENANCE OBSERVATION RECORD

<b>DATE OF OBSERVATION:</b>	18/07/2019	<b>CONTRACT AREA:</b>	Fulton Hogan
<b>ROAD NAME:</b>	Runaruna Road	<b>LOCALITY:</b>	Panguru
<b>TRAFFIC VOLUME:</b>	200	<b>ROAD CLASSIFICATION:</b>	Rural Secondary Collector
<b>LAST MAINTAINED:</b>	June 2019	<b>WEATHER CONDITIONS:</b>	Fine - Dusk

COMMENTS/OBSERVATIONS			
<b>EXISTING CARRIAGEWAY</b>			<b>Score</b>
			<b>4.5</b>
<i>Existing Width (m)</i>	4.5 - 6.0M		
<i>Crossfall (%)</i>	Generally OK at 4-6%, some flat areas		
<i>Longitudinal Grade (%)</i>	Up to approximately 15 -20% max		
<i>Superelevation (%)</i>	Generally OK		
<i>Shoulder Grade (%)</i>	N/A		
<i>Aggregate Condition</i>	Weathered		
<u><i>General Comments</i></u>	Areas where difficult for two vehicles to pass each other safely		
<b>SURFACE DEFECTS</b>			<b>Score</b>
			<b>4.0</b>
<i>Potholing (density)</i>	Extensive potholing in some areas		
<i>Corrugations (depth)</i>	Most corners corrugated, some bad areas		
<i>Weathered aggregate</i>	Generally OK, some weathered brown rocks in places		
<i>Exposed Subgrade</i>	N/A		
<u><i>General Comments</i></u>			
<b>DRAINAGE</b>			<b>Score</b>
			<b>5.0</b>
<i>Swale Depth (S/G freeboard)</i>	Typically OK, some areas limited		
<i>Side Slopes (%)</i>	Up to 2:1		
<i>Swale Cut-outs</i>	Yes		
<i>Longitudinal Grade (<math>\geq 1\%</math>)</i>	Refer to carriageway comments		
<i>Obstructions</i>	Some vegetation debris		



Scouring	Evident in steep sections		
Existing Culverts	Generally OK		
Silt Runoff	N/A		
<u>General Comments</u>			
VEGETATION		Score	6.0
Proximity to carriageway	Some dense bush areas		
Overhanging Branches?	No		
<u>General Comments</u>			
SIGNS/STREET FURNITURE		Score	4.0
Condition of signs	Poor condition, very dusty and hard to read		
Edge marker posts			
Guardrails/Sight rails	Sight rails are very dirty		
Line marking			
<u>General Comments</u>			
<u>RECOMMENDATIONS</u>			

### UNSEALED ROAD MAINTENANCE OBSERVATION RECORD

<b>DATE OF OBSERVATION:</b>	17/07/2019	<b>CONTRACT AREA:</b>	Fulton Hogan/Broadspectrum
<b>ROAD NAME:</b>	Diggers Valley Road	<b>LOCALITY:</b>	Takahue
<b>TRAFFIC VOLUME:</b>	150	<b>ROAD CLASSIFICATION:</b>	Rural Access
<b>LAST MAINTAINED:</b>	June 2019	<b>WEATHER CONDITIONS:</b>	Fine

COMMENTS/OBSERVATIONS			
<b>EXISTING CARRIAGEWAY</b>			<b>Score</b>
			<b>6.0</b>
<i>Existing Width (m)</i>	Varies 3.5 - 6.5M		
<i>Crossfall (%)</i>	Generally OK, approximately 3-4%		
<i>Longitudinal Grade (%)</i>	Varies flat to steep		
<i>Superelevation (%)</i>	Generally good, up to 10-15%		
<i>Shoulder Grade (%)</i>	N/A		
<i>Aggregate Condition</i>	Highly weathered in places		
<i>General Comments</i>	Highly constrained due to topography but generally good with isolated sections of poor shape		
<b>SURFACE DEFECTS</b>			<b>Score</b>
			<b>6.0</b>
<i>Potholing (density)</i>	Infrequent, isolated patches		
<i>Corrugations (depth)</i>	Isolated to steeper sections		
<i>Weathered aggregate</i>	In places		
<i>Exposed Subgrade</i>	Yes, two isolated sections noted		
<i>General Comments</i>	Generally good, isolated faults through logging areas		
<b>DRAINAGE</b>			<b>Score</b>
			<b>4.0</b>
<i>Swale Depth (S/G freeboard)</i>	Limited, typically shallow if formed		
<i>Side Slopes (%)</i>	1:1 to N/A		
<i>Swale Cut-outs</i>	Infrequent		
<i>Longitudinal Grade (<math>\geq 1\%</math>)</i>	OK, topography typically steep		
<i>Obstructions</i>	N/A		

Scouring	Yes, noted in steep, poorly drained sections		
Existing Culverts	OK		
Silt Runoff	N/A		
General Comments	<div>Stormwater control is generally poor, OK in some sections however steeper areas would benefit from water tabling work</div>		
VEGETATION		Score	6.0
Proximity to carriageway	OK		
Overhanging Branches?	OK		
General Comments			
SIGNS/STREET FURNITURE		Score	6.0
Condition of signs	OK		
Edge marker posts	OK		
Guardrails/Sight rails	OK		
Line marking	N/A		
General Comments			
RECOMMENDATIONS			

### UNSEALED ROAD MAINTENANCE OBSERVATION RECORD

<b>DATE OF OBSERVATION:</b>	18/07/2019	<b>CONTRACT AREA:</b>	Fulton Hogan
<b>ROAD NAME:</b>	Kauaepepe Road	<b>LOCALITY:</b>	Broadwood
<b>TRAFFIC VOLUME:</b>	28	<b>ROAD CLASSIFICATION:</b>	Rural Access
<b>LAST MAINTAINED:</b>	June 2019	<b>WEATHER CONDITIONS:</b>	Fine - Dusk

COMMENTS/OBSERVATIONS			
<b>EXISTING CARRIAGEWAY</b>			<b>Score</b>
			<b>5.0</b>
<i>Existing Width (m)</i>	4.0 - 5.0M		
<i>Crossfall (%)</i>	Typically 4-6%		
<i>Longitudinal Grade (%)</i>	Gently undulation - max ≈ 8%		
<i>Superelevation (%)</i>	Typically OK ≈6-10% max 20%		
<i>Shoulder Grade (%)</i>	N/A		
<i>Aggregate Condition</i>	Good		
<i>General Comments</i>			
<b>SURFACE DEFECTS</b>			<b>Score</b>
			<b>4.0</b>
<i>Potholing (density)</i>	No potholing identified		
<i>Corrugations (depth)</i>	In most corners, severe in places		
<i>Weathered aggregate</i>	Exposed coarse aggregate in some places		
<i>Exposed Subgrade</i>	N/A		
<i>General Comments</i>			
<b>DRAINAGE</b>			<b>Score</b>
			<b>4.0</b>
<i>Swale Depth (S/G freeboard)</i>	Swale missing in the start, adjacent to quarry entrance		
<i>Side Slopes (%)</i>	Up to 2:1		
<i>Swale Cut-outs</i>	OK		
<i>Longitudinal Grade (≥1%)</i>	As per carriageway comments		
<i>Obstructions</i>	N/A		



Scouring	Evident across carriageway in few sections		
Existing Culverts	OK		
Silt Runoff	N/A		
General Comments			
VEGETATION		Score	5.0
Proximity to carriageway	Dense vegetation on both sides		
Overhanging Branches?	In some sections		
General Comments			
SIGNS/STREET FURNITURE		Score	5.0
Condition of signs	OK		
Edge marker posts	No defects, generally clean		
Guardrails/Sight rails			
Line marking			
General Comments			
RECOMMENDATIONS			

### UNSEALED ROAD MAINTENANCE OBSERVATION RECORD

<b>DATE OF OBSERVATION:</b>	18/07/2019	<b>CONTRACT AREA:</b>	Fulton Hogan
<b>ROAD NAME:</b>	Papong Road	<b>LOCALITY:</b>	Broadwood
<b>TRAFFIC VOLUME:</b>	29	<b>ROAD CLASSIFICATION:</b>	Rural Access
<b>LAST MAINTAINED:</b>	July 2019	<b>WEATHER CONDITIONS:</b>	Fine - Dusk

COMMENTS/OBSERVATIONS			
<b>EXISTING CARRIAGEWAY</b>			<b>Score</b>
			<b>6.0</b>
<i>Existing Width (m)</i>	4.5 - 5.5M		
<i>Crossfall (%)</i>	Typically good crossfall - approx 4-6%		
<i>Longitudinal Grade (%)</i>	Some steep sections in northern end up to around 10%		
<i>Superelevation (%)</i>	Generally OK ≈6-10%		
<i>Shoulder Grade (%)</i>	N/A		
<i>Aggregate Condition</i>	Areas of new replenishment metal spread		
<i>General Comments</i>			
<b>SURFACE DEFECTS</b>			<b>Score</b>
			<b>6.5</b>
<i>Potholing (density)</i>	No potholing observed		
<i>Corrugations (depth)</i>	Minor corrugations evident on sharper corners		
<i>Weathered aggregate</i>	*Generally OK - sections of new metal		
<i>Exposed Subgrade</i>	N/A		
<i>General Comments</i>	*Isolated section of weathered metal - smooth surface. Isolated subgrade failure in shoulder identified.		
<b>DRAINAGE</b>			<b>Score</b>
			<b>6.5</b>
<i>Swale Depth (S/G freeboard)</i>	Generally OK throughout the length		
<i>Side Slopes (%)</i>	Up to 2:1		
<i>Swale Cut-outs</i>	Typically in place where required		
<i>Longitudinal Grade (≥1%)</i>	As per carriageway comments		
<i>Obstructions</i>	N/A		

Scouring	Not identified	
Existing Culverts	Generally good with rock headwalls in high flow areas	
Silt Runoff	N/A	
General Comments		
<b>VEGETATION</b>		
	Score	7.0
Proximity to carriageway	Dense bush on either side in northern portion	
Overhanging Branches?	N/A	
General Comments		
<b>SIGNS/STREET FURNITURE</b>		
	Score	7.0
Condition of signs	Generally in good clean condition	
Edge marker posts	As above	
Guardrails/Sight rails		
Line marking		
General Comments		
<b>RECOMMENDATIONS</b>		

### UNSEALED ROAD MAINTENANCE OBSERVATION RECORD

<b>DATE OF OBSERVATION:</b>	17/07/2019	<b>CONTRACT AREA:</b>	Broadspectrum
<b>ROAD NAME:</b>	Puketotara Road	<b>LOCALITY:</b>	Kerikeri
<b>TRAFFIC VOLUME:</b>	150	<b>ROAD CLASSIFICATION:</b>	Rural Access
<b>LAST MAINTAINED:</b>	May 2019	<b>WEATHER CONDITIONS:</b>	Fine

COMMENTS/OBSERVATIONS		
<b>EXISTING CARRIAGEWAY</b>	<b>Score</b>	<b>8.0</b>
<i>Existing Width (m)</i>	5.0 - 6.0 m	
<i>Crossfall (%)</i>	Good - up to 5%	
<i>Longitudinal Grade (%)</i>	Flat to rolling	
<i>Superelevation (%)</i>	Good	
<i>Shoulder Grade (%)</i>	N/A	
<i>Aggregate Condition</i>	Good - loose material however	
<i>General Comments</i>	Very good - Reference site for 8	
<b>SURFACE DEFECTS</b>	<b>Score</b>	<b>8.0</b>
<i>Potholing (density)</i>	None	
<i>Corrugations (depth)</i>	None	
<i>Weathered aggregate</i>	None	
<i>Exposed Subgrade</i>	None	
<i>General Comments</i>	Very good	
<b>DRAINAGE</b>	<b>Score</b>	<b>8.0</b>
<i>Swale Depth (S/G freeboard)</i>	Good	
<i>Side Slopes (%)</i>	Up to 1:1 (Varies)	
<i>Swale Cut-outs</i>	As required OK	
<i>Longitudinal Grade (≥1%)</i>	Minimal as result of contour	
<i>Obstructions</i>	N/A	



Scouring	N/A	
Existing Culverts	Fair to good	
Silt Runoff	N/A	
General Comments	Only isolated issues, generally very good	
VEGETATION		Score
Proximity to carriageway		
Overhanging Branches?		
General Comments		
SIGNS/STREET FURNITURE		Score
Condition of signs	OK	
Edge marker posts		
Guardrails/Sight rails		
Line marking		
General Comments		
RECOMMENDATIONS		
Benchmark site for FNDC Observations. Very good 8/10		

### UNSEALED ROAD MAINTENANCE OBSERVATION RECORD

<b>DATE OF OBSERVATION:</b>	17/07/2019	<b>CONTRACT AREA:</b>	Fulton Hogan/Broadspectrum
<b>ROAD NAME:</b>	Martin Road	<b>LOCALITY:</b>	Kaeo
<b>TRAFFIC VOLUME:</b>	130	<b>ROAD CLASSIFICATION:</b>	Rural Access
<b>LAST MAINTAINED:</b>	July 2019	<b>WEATHER CONDITIONS:</b>	Fine

COMMENTS/OBSERVATIONS			
<b>EXISTING CARRIAGEWAY</b>			<b>Score</b>
			<b>7.5</b>
<i>Existing Width (m)</i>	5-5.5M		
<i>Crossfall (%)</i>	Varies up to 7%		
<i>Longitudinal Grade (%)</i>	Mostly level some minor undulation - NW, quite steep		
<i>Superelevation (%)</i>	10-15%		
<i>Shoulder Grade (%)</i>	N/A		
<i>Aggregate Condition</i>	Good, recent replenishment		
<i>General Comments</i>	Very good		
<b>SURFACE DEFECTS</b>			<b>Score</b>
			<b>7.5</b>
<i>Potholing (density)</i>	Very isolated to minor section of poor drainage		
<i>Corrugations (depth)</i>	N/A		
<i>Weathered aggregate</i>	N/A		
<i>Exposed Subgrade</i>	N/A		
<i>General Comments</i>			
<b>DRAINAGE</b>			<b>Score</b>
			<b>5.0</b>
<i>Swale Depth (S/G freeboard)</i>	Typically OK, isolated section of ponding water		
<i>Side Slopes (%)</i>	Up to 1:1		
<i>Swale Cut-outs</i>	Satisfactory		
<i>Longitudinal Grade (<math>\geq 1\%</math>)</i>	As per carriageway longitudinal grade		
<i>Obstructions</i>	N/A		

Scouring	Isolated		
Existing Culverts	Typically Ok , limited pavement cover		
Silt Runoff	N/A		
General Comments	Recent water works evident		
VEGETATION		Score	6.0
Proximity to carriageway	Isolated section with close proximity to vegetation		
Overhanging Branches?	Some minor overhanging in steep section		
General Comments			
SIGNS/STREET FURNITURE		Score	5.0
Condition of signs	Good		
Edge marker posts	OK		
Guardrails/Sight rails	N/A		
Line marking	N/A		
General Comments			
RECOMMENDATIONS		Isolated sections of loose gravel	

### UNSEALED ROAD MAINTENANCE OBSERVATION RECORD

DATE OF OBSERVATION:	18/07/2019	CONTRACT AREA:	Fulton Hogan
ROAD NAME:	Kohumaru Road	LOCALITY:	Mangonui
TRAFFIC VOLUME:	100	ROAD CLASSIFICATION:	Rural Access
LAST MAINTAINED:	June 2019	WEATHER CONDITIONS:	Fine

COMMENTS/OBSERVATIONS			
<b>EXISTING CARRIAGEWAY</b>			<b>Score</b>
			<b>6.0</b>
Existing Width (m)	Varies 4 - 6 m (Narrows in steeper sections)		
Crossfall (%)	Good (Typically $\approx 4\%$ )		
Longitudinal Grade (%)	Flat to steep		
Superelevation (%)	Good (Varies up to 15%)		
Shoulder Grade (%)	N/A		
Aggregate Condition	Typically pretty good (Fresh in places)		
General Comments	Mixed Aggregate - Mudstone/limestone soft rock run in over steep grades		
<b>SURFACE DEFECTS</b>			<b>Score</b>
			<b>6.0</b>
Potholing (density)	Minimal, more frequent at Southern end		
Corrugations (depth)	Minimal		
Weathered aggregate	In isolated sections at Southern end		
Exposed Subgrade	Isolated patches		
General Comments			
<b>DRAINAGE</b>			<b>Score</b>
			<b>4.0</b>
Swale Depth (S/G freeboard)	Good in places, however topography constrains		
Side Slopes (%)	N/A		
Swale Cut-outs	Infrequent		
Longitudinal Grade ( $\geq 1\%$ )	In places, however several areas of ponding		
Obstructions	Yes		



Scouring	Minor		
Existing Culverts	Those observed were clear		
Silt Runoff	N/A		
General Comments	Drainage was generally fair, however freeboard and falls were lacking		
VEGETATION		Score	6.0
Proximity to carriageway	N/A		
Overhanging Branches?	In places		
General Comments	Southern extent becomes quite densely vegetated, but generally clear of road		
SIGNS/STREET FURNITURE		Score	6.0
Condition of signs	N/A		
Edge marker posts	OK		
Guardrails/Sight rails	OK		
Line marking	N/A		
General Comments	OK		
RECOMMENDATIONS			

### UNSEALED ROAD MAINTENANCE OBSERVATION RECORD

<b>DATE OF OBSERVATION:</b>	18/07/2019	<b>CONTRACT AREA:</b>	Broadspectrum
<b>ROAD NAME:</b>	Duncan Road	<b>LOCALITY:</b>	Kaingaroa
<b>TRAFFIC VOLUME:</b>	228	<b>ROAD CLASSIFICATION:</b>	Rural Secondary Collector
<b>LAST MAINTAINED:</b>	July 2019	<b>WEATHER CONDITIONS:</b>	Fine

COMMENTS/OBSERVATIONS			
<b>EXISTING CARRIAGEWAY</b>			<b>Score</b>
			<b>5.0</b>
<i>Existing Width (m)</i>	4.0 - 5.5M		
<i>Crossfall (%)</i>	Generally OK, up to around 6% max		
<i>Longitudinal Grade (%)</i>	Relatively level, max around 10%		
<i>Superelevation (%)</i>	Good super approximately 10-15% max		
<i>Shoulder Grade (%)</i>	N/A		
<i>Aggregate Condition</i>	Weathered		
<i>General Comments</i>			
<b>SURFACE DEFECTS</b>			<b>Score</b>
			<b>4.0</b>
<i>Potholing (density)</i>	N/A		
<i>Corrugations (depth)</i>	Some isolated areas of severe corrugation		
<i>Weathered aggregate</i>	Aggregate very fine in some areas		
<i>Exposed Subgrade</i>	Isolated area of exposed rock subgrade		
<i>General Comments</i>			
<b>DRAINAGE</b>			<b>Score</b>
			<b>4.0</b>
<i>Swale Depth (S/G freeboard)</i>	Swales generally quite limited in depth		
<i>Side Slopes (%)</i>	Up to 2:1		
<i>Swale Cut-outs</i>	Generally in place		
<i>Longitudinal Grade (<math>\geq 1\%</math>)</i>	As per carriageway		
<i>Obstructions</i>	Some vegetation debris		

Scouring	N/A		
Existing Culverts	Generally OK		
Silt Runoff	N/A		
General Comments			
VEGETATION		Score	5.0
Proximity to carriageway	Close in low lying areas		
Overhanging Branches?	Some areas of dense vegetation with overhanging branches visible		
General Comments			
SIGNS/STREET FURNITURE		Score	5.0
Condition of signs			
Edge marker posts	Culverts and edge markers in place		
Guardrails/Sight rails			
Line marking			
General Comments			
RECOMMENDATIONS			

### UNSEALED ROAD MAINTENANCE OBSERVATION RECORD

<b>DATE OF OBSERVATION:</b>	18/07/2019	<b>CONTRACT AREA:</b>	Fulton Hogan
<b>ROAD NAME:</b>	Henderson Bay Road	<b>LOCALITY:</b>	Ngataki
<b>TRAFFIC VOLUME:</b>	200	<b>ROAD CLASSIFICATION:</b>	Rural Secondary Collector
<b>LAST MAINTAINED:</b>	June 2019	<b>WEATHER CONDITIONS:</b>	Fine

COMMENTS/OBSERVATIONS		
<b>EXISTING CARRIAGEWAY</b>	<b>Score</b>	<b>7.0</b>
<i>Existing Width (m)</i>	5.0 - 6.5M	
<i>Crossfall (%)</i>	Generally good - up to around 6-8%	
<i>Longitudinal Grade (%)</i>	Rolling topography - up to approx. 15-20%	
<i>Superelevation (%)</i>	Generally OK $\approx$ 6-10%	
<i>Shoulder Grade (%)</i>	N/A	
<i>Aggregate Condition</i>	Good condition, looks fresh	
<i>General Comments</i>		
<b>SURFACE DEFECTS</b>	<b>Score</b>	<b>5.0</b>
<i>Potholing (density)</i>	None visible	
<i>Corrugations (depth)</i>	Corrugations evident in most corners - not bad	
<i>Weathered aggregate</i>	N/A	
<i>Exposed Subgrade</i>	Isolated area in eastern end where subgrade has punched through and is extensively rutted	
<i>General Comments</i>		
<b>DRAINAGE</b>	<b>Score</b>	<b>5.5</b>
<i>Swale Depth (S/G freeboard)</i>	Generally OK, limited on inside of some corners	
<i>Side Slopes (%)</i>	Steep, up to max 1:1	
<i>Swale Cut-outs</i>	Terrain allows run-off from swale	
<i>Longitudinal Grade (<math>\geq 1\%</math>)</i>	As per long grade	
<i>Obstructions</i>	None visible	

Scouring	Minor in some steep sections		
Existing Culverts	Generally OK		
Silt Runoff	N/A		
General Comments			
VEGETATION		Score	N/A
Proximity to carriageway	N/A		
Overhanging Branches?			
General Comments			
SIGNS/STREET FURNITURE		Score	7.0
Condition of signs	Good condition - no defects		
Edge marker posts	As above		
Guardrails/Sight rails	N/A		
Line marking	N/A		
General Comments			
RECOMMENDATIONS			



### UNSEALED ROAD MAINTENANCE OBSERVATION RECORD

DATE OF OBSERVATION:	19/07/2019	CONTRACT AREA:	Fulton Hogan
ROAD NAME:	Te Paki Stream Road	LOCALITY:	Te Paki
TRAFFIC VOLUME:	196	ROAD CLASSIFICATION:	Rural Sec. Collector
LAST MAINTAINED:	June 2019	WEATHER CONDITIONS:	Overcast

COMMENTS/OBSERVATIONS			
<b>EXISTING CARRIAGEWAY</b>			<b>Score</b>
			<b>5.0</b>
Existing Width (m)	Varies - Typically 4.5 - 6.0 m		
Crossfall (%)	OK - more would be beneficial		
Longitudinal Grade (%)	Undulating		
Superelevation (%)	OK - more would help with drainage		
Shoulder Grade (%)	N/A		
Aggregate Condition	OK		
General Comments	As roadside drainage is poor, carriageway shape could help minimise surface defects		
<b>SURFACE DEFECTS</b>			<b>Score</b>
			<b>4.0</b>
Potholing (density)	Yes - isolated patches		
Corrugations (depth)	Nothing significant - one isolated patch (30mm)		
Weathered aggregate	Yes		
Exposed Subgrade	Yes - numerous patches		
General Comments	Generally OK, weathered aggregate, shear failure noted where metal depth is limited		
<b>DRAINAGE</b>			<b>Score</b>
			<b>4.0</b>
Swale Depth (S/G freeboard)	Limited - shallow where formed		
Side Slopes (%)	1:1		
Swale Cut-outs	N/A		
Longitudinal Grade ( $\geq 1\%$ )	Poor in places		
Obstructions	None noted		

Scouring	None significant		
Existing Culverts			
Silt Runoff			
General Comments	Drainage is poor. Areas of ponding as result of limited depth and no fall.		
VEGETATION		Score	N/A
Proximity to carriageway	N/A		
Overhanging Branches?	N/A		
General Comments			
SIGNS/STREET FURNITURE		Score	N/A
Condition of signs	OK		
Edge marker posts	N/A		
Guardrails/Sight rails	N/A		
Line marking	N/A		
General Comments			
RECOMMENDATIONS			

### UNSEALED ROAD MAINTENANCE OBSERVATION RECORD

<b>DATE OF OBSERVATION:</b>	18/07/2019	<b>CONTRACT AREA:</b>	Fulton Hogan
<b>ROAD NAME:</b>	Te Hapua Road	<b>LOCALITY:</b>	Te Hapua
<b>TRAFFIC VOLUME:</b>	120	<b>ROAD CLASSIFICATION:</b>	Rural Access
<b>LAST MAINTAINED:</b>	June 2019	<b>WEATHER CONDITIONS:</b>	Fine - Dusk

COMMENTS/OBSERVATIONS			
<b>EXISTING CARRIAGEWAY</b>			<b>Score</b>
			<b>6.0</b>
<i>Existing Width (m)</i>	6.0 - 6.5M		
<i>Crossfall (%)</i>	Poor in places, flat causing potholing		
<i>Longitudinal Grade (%)</i>	Relatively level		
<i>Superelevation (%)</i>	Good - typically 10-15%		
<i>Shoulder Grade (%)</i>	N/A		
<i>Aggregate Condition</i>	Good		
<i>General Comments</i>			
<b>SURFACE DEFECTS</b>			<b>Score</b>
			<b>3.5</b>
<i>Potholing (density)</i>	Severe in several places where crossfall is limited		
<i>Corrugations (depth)</i>	Isolated areas of corrugation		
<i>Weathered aggregate</i>	Aggregate looks reasonably fresh		
<i>Exposed Subgrade</i>	Isolated area of subgrade exposure		
<i>General Comments</i>			
<b>DRAINAGE</b>			<b>Score</b>
			<b>6.0</b>
<i>Swale Depth (S/G freeboard)</i>	Generally OK, some isolated areas of ponding		
<i>Side Slopes (%)</i>	Up to 2H:1V		
<i>Swale Cut-outs</i>	Generally every 200m		
<i>Longitudinal Grade (<math>\geq 1\%</math>)</i>	Refer to long grade comment		
<i>Obstructions</i>	No obstructions evident		

Scouring	N/A		
Existing Culverts	Generally OK		
Silt Runoff	N/A		
<u>General Comments</u>			
VEGETATION		Score	N/A
Proximity to carriageway	N/A		
Overhanging Branches?	N/A		
<u>General Comments</u>			
SIGNS/STREET FURNITURE		Score	6.0
Condition of signs			
Edge marker posts	Good condition		
Guardrails/Sight rails			
Line marking			
<u>General Comments</u>			
<u>RECOMMENDATIONS</u>			

### UNSEALED ROAD MAINTENANCE OBSERVATION RECORD

<b>DATE OF OBSERVATION:</b>	18/07/2019	<b>CONTRACT AREA:</b>	Fulton Hogan
<b>ROAD NAME:</b>	Rarawa Beach Road	<b>LOCALITY:</b>	Ngataki
<b>TRAFFIC VOLUME:</b>	60	<b>ROAD CLASSIFICATION:</b>	Rural Access
<b>LAST MAINTAINED:</b>	June 2019	<b>WEATHER CONDITIONS:</b>	Fine

COMMENTS/OBSERVATIONS			
<b>EXISTING CARRIAGEWAY</b>			<b>Score</b>
			<b>7.0</b>
<i>Existing Width (m)</i>	6.0 - 7.0 m		
<i>Crossfall (%)</i>	Good up to 5%		
<i>Longitudinal Grade (%)</i>	Gently falling to flat		
<i>Superelevation (%)</i>	Good up to 10%		
<i>Shoulder Grade (%)</i>	N/A		
<i>Aggregate Condition</i>	Good - however some loose material		
<i>General Comments</i>	Generally very good		
<b>SURFACE DEFECTS</b>			<b>Score</b>
			<b>7.0</b>
<i>Potholing (density)</i>	None		
<i>Corrugations (depth)</i>	None		
<i>Weathered aggregate</i>	N/A		
<i>Exposed Subgrade</i>	N/A		
<i>General Comments</i>	Good		
<b>DRAINAGE</b>			<b>Score</b>
			<b>6.0</b>
<i>Swale Depth (S/G freeboard)</i>	Shallow but formed		
<i>Side Slopes (%)</i>	1:1		
<i>Swale Cut-outs</i>	No		
<i>Longitudinal Grade (<math>\geq 1\%</math>)</i>	Minimal - Constrained		
<i>Obstructions</i>	None noted		



Scouring	No
Existing Culverts	OK
Silt Runoff	No
General Comments	Satisfactory - but could be improved
VEGETATION	
Proximity to carriageway	N/A
Overhanging Branches?	N/A
General Comments	
SIGNS/STREET FURNITURE	
Condition of signs	OK
Edge marker posts	N/A
Guardrails/Sight rails	N/A
Line marking	N/A
General Comments	
RECOMMENDATIONS	



## **Appendix C – Existing Maintenance Records**

Contract	Dispatch I Road	Road	Fault	Start	End	Length	Width	Depth	Side	Program	Notes	Maint Note	Claim Num	Item Num	Item Number	Units	Claim	Quar Account 2	Notes
7/18/101 Mtce & Renewals South (22)	20960	1785 HOREKE ROAD	Running course - Spot aggregate loss (m3) R	4630	4830	200	5.5	30	Full Width		Becoming bare and bo	May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		33	4015.1.1.4922 - Unsealed Road Metaling 211		
7/18/101 Mtce & Renewals South (22)	20963	1785 HOREKE ROAD	Running course - Spot aggregate loss (m3) R	6600	6850	250	5.5	30	Full Width		Very light to bare thro	May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		41.25	4015.1.1.4922 - Unsealed Road Metaling 211		
7/18/101 Mtce & Renewals South (22)	20964	1785 HOREKE ROAD	Running course - Spot aggregate loss (m3) R	7000	7500	500	5.5	30	Full Width		Bare to clay and becor	May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		82.5	4015.1.1.4922 - Unsealed Road Metaling 211		
7/18/101 Mtce & Renewals South (22)	20965	1785 HOREKE ROAD	Running course - Spot aggregate loss (m3) R	8100	8400	300	6.1	30	Full Width		Down to clay through	May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		27	4015.1.1.4922 - Unsealed Road Metaling 211		
7/18/101 Mtce & Renewals South (22)	20968	1785 HOREKE ROAD	Running course - Spot aggregate loss (m3) R	8965	9165	200	6.1	30	Full Width		Bare to clay.	May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		37	4015.1.1.4922 - Unsealed Road Metaling 211		
7/18/101 Mtce & Renewals South (22)	20970	1785 HOREKE ROAD	Running course - Spot aggregate loss (m3) R	10801	11051	250	6.3	30	Full Width		Becoming bare.	May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		48	4015.1.1.4922 - Unsealed Road Metaling 211		
7/18/101 Mtce & Renewals South (22)	20962	1785 HOREKE ROAD	Potholes - Unsealed (ea) R	5472					Full Width		Bridge approaches bac	May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		10	4118.1.1.2405 - Unsealed pavement mtce 112		
7/18/101 Mtce & Renewals South (22)	20957	1785 HOREKE ROAD	Potholes - Unsealed (ea) R	3108					Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		6	4118.1.1.2405 - Unsealed pavement mtce 112		
7/18/101 Mtce & Renewals South (22)	20958	1785 HOREKE ROAD	Potholes - Unsealed (ea) R	3265					Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		8	4118.1.1.2405 - Unsealed pavement mtce 112		
7/18/101 Mtce & Renewals South (22)	20959	1785 HOREKE ROAD	Potholes - Unsealed (ea) R	3467					Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		6	4118.1.1.2405 - Unsealed pavement mtce 112		
7/18/101 Mtce & Renewals South (22)	6452	1785 HOREKE ROAD	CP1 Single - Blocked chamber (ea)	14870					Right	Jun-19	Single Sump	Jun-19	DR03.1	Sump cleaning CP1 (Single)	each	1	4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	9687	1785 HOREKE ROAD	WT Heavy mtce / reform - Inadequate (m)	14246	14271	25			Left	May-19	Reseal Site. Clear wate	Jun-19	DR02.2	Watertable Mtce - Heavy	metres	25	4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	9694	1785 HOREKE ROAD	WT Heavy mtce / reform - Inadequate (m)	10104	10138	34			Right	May-19	Clear watertables 34m	Jun-19	DR02.2	Watertable Mtce - Heavy	metres	34	4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	9776	1785 HOREKE ROAD	WT Heavy mtce / reform - Inadequate (m)	8154	8216	62			Left	May-19	Clear watertables 62m	Jun-19	DR02.2	Watertable Mtce - Heavy	metres	62	4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	9777	1785 HOREKE ROAD	WT Heavy mtce / reform - Inadequate (m)	8131	8141	10			Left	May-19	Clear watertables 10m	Jun-19	DR02.2	Watertable Mtce - Heavy	metres	10	4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	9781	1785 HOREKE ROAD	WT Heavy mtce / reform - Inadequate (m)	7641	7687	46			Right	May-19	Clear watertables 46m	Jun-19	DR02.2	Watertable Mtce - Heavy	metres	46	4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	9839	1785 HOREKE ROAD	WT Heavy mtce / reform - Inadequate (m)	6782	6824	42			Right	May-19	Clear watertables 42m	Jun-19	DR02.2	Watertable Mtce - Heavy	metres	42	4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	9688	1785 HOREKE ROAD	CP1 Single - Blocked chamber (ea)	14067					Right	Jun-19	Water jet culvert requ	Jun-19	DR03.1	Sump cleaning CP1 (Single)	each	1	4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	9575	1785 HOREKE ROAD	WT Heavy mtce / reform - Inadequate (m)	13581	13593	12			Right	Apr-19	Clear watertables 12m	Jun-19	DR02.1	Watertable Mtce - Light	metres	12	4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	23940	1785 HOREKE ROAD	WT Heavy mtce / reform - Inadequate (m)	14246	14271	25			Right	May-19	Reseal Site. Clear wate	Jun-19	DR02.2	Watertable Mtce - Heavy	metres	25	4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	24908	1785 HOREKE ROAD	Running course - Spot aggregate loss (m3) R	3000	5500	2500	5.5	30	Full Width	Jun-19	Bare down to clay.	Jun-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		531	4015.1.1.4922 - Unsealed Road Metaling 211		
7/18/101 Mtce & Renewals South (22)	20956	1785 HOREKE ROAD	Potholes - Unsealed (ea) R	3024					Left	Jun-19		Jun-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		5	4118.1.1.2405 - Unsealed pavement mtce 112		
7/18/101 Mtce & Renewals South (22)	20961	1785 HOREKE ROAD	Grading - x-fall/potholes/corrugation/rut (m) R	3500	5500	2000			Full Width		Becoming potholed an	Jun-19	UR02.1.1	Unsealed - Surface Grading (Rout metres		2000	4118.1.1.2405 - Unsealed pavement mtce 112		
7/18/101 Mtce & Renewals South (22)	24907	1785 HOREKE ROAD	Potholes - Unsealed (ea) R	5510					Full Width		At bridge end.	Jun-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		10	4118.1.1.2405 - Unsealed pavement mtce 112		
7/18/101 Mtce & Renewals South (22)	20966	1785 HOREKE ROAD	Grading - x-fall/potholes/corrugation/rut (m) R	6500	9500	3000			Full Width		Spot grade and reshap	Jun-19	UR02.1.1	Unsealed - Surface Grading (Rout metres		3000	4118.1.1.2405 - Unsealed pavement mtce 112		
7/18/101 Mtce & Renewals South (22)	20969	1785 HOREKE ROAD	Potholes - Unsealed (ea) R	9507					Centre		Bridge approaches.	Jun-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		10	4118.1.1.2405 - Unsealed pavement mtce 112		
7/18/101 Mtce & Renewals South (22)	9840	1785 HOREKE ROAD	WT Heavy mtce / reform - Inadequate (m)	6178	6199	21			Left	May-19	Clear watertables 21m	Jul-19	DR02.2	Watertable Mtce - Heavy	metres	21	4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	9844	1785 HOREKE ROAD	WT Heavy mtce / reform - Inadequate (m)	5668	5725	57			Right	May-19	Clear watertables 57m	Jul-19	DR02.2	Watertable Mtce - Heavy	metres	57	4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	9847	1785 HOREKE ROAD	WT Heavy mtce / reform - Inadequate (m)	4517	4548	31			Right	May-19	Clear watertables 31m	Jul-19	DR02.2	Watertable Mtce - Heavy	metres	31	4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	9857	1785 HOREKE ROAD	WT Heavy mtce / reform - Inadequate (m)	3483	3549	66			Right	May-19	Clear watertables 66m	Jul-19	DR02.2	Watertable Mtce - Heavy	metres	66	4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	9571	1785 HOREKE ROAD	Culvert flushing - Blocked barrel (ea)	13265					Left		Water jet culvert required.	Culver	DR07.1	Culvert Flushing	each		4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	9577	1785 HOREKE ROAD	WT Heavy mtce / reform - Inadequate (m)	13541	13571	30			Left		Clear watertables 30m excluding 2	DR02.2		Watertable Mtce - Heavy	metres		4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	9582	1785 HOREKE ROAD	WT Heavy mtce / reform - Inadequate (m)	13837	13872	35			Both		Clear watertables 35m excluding 2	DR02.2		Watertable Mtce - Heavy	metres		4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	9699	1785 HOREKE ROAD	WT Heavy mtce / reform - Inadequate (m)	9308	9331	23			Left	Aug-19	Clear watertables 23m excluding 2	DR02.2		Watertable Mtce - Heavy	metres		4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	9704	1785 HOREKE ROAD	WT Heavy mtce / reform - Inadequate (m)	9087	9108	21			Left		Clear watertables 21m excluding 2	DR02.2		Watertable Mtce - Heavy	metres		4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	9864	1785 HOREKE ROAD	Culvert flushing - Blocked barrel (ea)	2520					Right		Water jet culvert required.	Culver	DR07.1	Culvert Flushing	each		4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	9853	1785 HOREKE ROAD	WT Light mtce / reform - Blocked (m)	4181	4207	26			Right	Aug-19	Clear cutout 26m excluding 2m ro	DR02.1		Watertable Mtce - Light	metres		4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	9851	1785 HOREKE ROAD	Culvert renewal - Inadequate/damaged (m)	4336	4346	10			Right	Jul-19	Replacement required. Sections sr	DR06.2		Culvert replace 375 dia 0 - 1.5m d metres			4011.1.1.4922 - Drainage Renewals 213		
7/18/101 Mtce & Renewals South (22)	9843	1785 HOREKE ROAD	Install headwall structure - Scour (ea)	5681	5691				Right	Jul-19	Replacement required. Sections sl	DR06.10		Culvert Headwalls (Concreted Rox each			4011.1.1.4922 - Drainage Renewals 213		
7/18/101 Mtce & Renewals South (22)	9842	1785 HOREKE ROAD	Install headwall structure - Scour (ea)	5819					Right	Jul-19	Washout inlet side needs repair. F	DR06.10		Culvert Headwalls (Concreted Rox each			4011.1.1.4922 - Drainage Renewals 213		
7/18/101 Mtce & Renewals South (22)	9926	1785 HOREKE ROAD	Culvert clear 2m - Blocked ent (ea) R	959					Left		Machine clean outlet. Clear outlet	DR01.1.1		Drainage Mtce (Routine)	each		4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	11306	1785 HOREKE ROAD	Install headwall structure - Scour (ea)	1183					Centre	Jul-19	Washout outlet side undermining	DR06.10		Culvert Headwalls (Concreted Rox each			4011.1.1.4922 - Drainage Renewals 213		
7/18/101 Mtce & Renewals South (22)	9850	1785 HOREKE ROAD	Culvert renewal - Inadequate/damaged (m)	4422	4430	7.5			Right	Jul-19	Replacement required. Sections sl	DR06.2		Culvert replace 375 dia 0 - 1.5m d metres			4011.1.1.4922 - Drainage Install 375mm dia		
7/18/101 Mtce & Renewals South (22)	14009	1785 HOREKE ROAD	Install headwall structure - Scour (ea)	4422	4430				Right	Jul-19	Install headwalls in conjunction wii	DR06.10		Culvert Headwalls (Concreted Rox each			4011.1.1.4922 - Drainage install x2 headwalls		
7/18/101 Mtce & Renewals South (22)	14010	1785 HOREKE ROAD	Install headwall structure - Scour (ea)	4336	4346				Right	Jul-19	Install headwalls in conjunction wii	DR06.10		Culvert Headwalls (Concreted Rox each			4011.1.1.4922 - Drainage Renewals 213		
7/18/101 Mtce & Renewals South (22)	14011	1785 HOREKE ROAD	Culvert renewal - Inadequate/damaged (m)	5681	5691	10			Right	Jul-19	Replacement required. Sections sl	DR06.2		Culvert replace 375 dia 0 - 1.5m d metres			4011.1.1.4922 - Drainage Install 375mm dia		
7/18/101 Mtce & Renewals South (22)	15856	1785 HOREKE ROAD	Culvert new install - Inadequate capacity (m)	13448	13458	10			Centre		Replacement required. Ceramic ci	DR06.2		Culvert replace 375 dia 0 - 1.5m d metres			4011.1.1.4922 - Drainage Renewals 213		
7/18/101 Mtce & Renewals South (22)	20967	1785 HOREKE ROAD	WT Light mtce / reform - Blocked (m)	8997	9032	35			Left		Open watertable to move water a	DR02.2		Watertable Mtce - Heavy	metres		4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	9841	1785 HOREKE ROAD	WT Heavy mtce / reform - Inadequate (m)	6046	6066	20			Right	Jul-19	Machine clean outlet >0.5m3.com	DR02.2		Watertable Mtce - Heavy	metres		4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	9845	1785 HOREKE ROAD	WT Heavy mtce / reform - Inadequate (m)	5399	5419	20			Right	Jul-19	Machine clean both inlet and outl	DR02.2		Watertable Mtce - Heavy	metres		4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	25154	1785 HOREKE ROAD	Channel sweep - Remove detritus (m) C	14381	14481	100			Left	Aug-19	Sweep dirt from channel		DR08.3	Channel Sweeping Zone 3 - Four t kilometre			4031.1.1.2405 - Routine Drainage Maintenance 113		
7/18/101 Mtce & Renewals South (22)	23713	2083 OPARA ROAD	Grading - x-fall/potholes/corrugation/rut (m) R	0	3077	3077			Full Width			May-19	UR02.1.1	Unsealed - Surface Grading (Rout metres		3077	4118.1.1.2405 - Unsealed pavement mtce 112		
7/18/101 Mtce & Renewals South (22)	24734	2083 OPARA ROAD	Potholes - Unsealed (ea) R	77					Centre			Jun-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		10	4118.1.1.2405 - Unsealed pavement mtce 112		
7/18/101 Mtce & Renewals South (22)	10907	2498 WAIMAMAKU BEACH ROAD	Running course - Spot aggregate loss (m3)	412	4125	3713	4	25	Full Width		Cover slushy areas	May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		-102	4015.1.1.4922 - Unsealed Double up with dispatch 10756		
7/18/101 Mtce & Renewals South (22)	23880	2498 WAIMAMAKU BEACH ROAD	Potholes - Unsealed (ea) R	534					Right	Jun-19		Jun-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		10	4118.1.1.2405 - Unsealed pavement mtce 112		
7/18/101 Mtce & Renewals South (22)	23879	2498 WAIMAMAKU BEACH ROAD	Potholes - Unsealed (ea) R	753					Right	Jun-19		Jun-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		10	4118.1.1.2405 - Unsealed pavement mtce 112		
7/18/101 Mtce & Renewals South (22)	23878	2498 WAIMAMAKU BEACH ROAD	Potholes - Unsealed (ea) R	938					Centre	Jun-19		Jun-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		10	4118.1.1.2405 - Unsealed pavement mtce 112		
7/18/101 Mtce & Renewals South (22)	23950	2510 WAIOTEMARAMA GORGE RO	Grading - x-fall/potholes/corrugation/rut (m) R	354	1017	663			Full Width			May-19	UR02.1.1	Unsealed - Surface Grading (Rout metres		663	4118.1.1.2405 - Unsealed pavement mtce 112		
7/18/101 Mtce & Renewals South (22)	23949	2510 WAIOTEMARAMA GORGE RO	Grading - x-fall/potholes/corrugation/rut (m) R	1104	1305	201			Full Width			May-19	UR02.1.1	Unsealed - Surface Grading (Rout metres		201	4118.1.1.2405 - Unsealed pavement mtce 112		
7/18/101 Mtce & Renewals South (22)	23948	2510 WAIOTEMARAMA GORGE RO	Grading - x-fall/potholes/corrugation/rut (m) R	1362	5003	3641			Full Width			May-19	UR02.1.1	Unsealed - Surface Grading (Rout metres		3641	4118.1.1.2405 - Unsealed pavement mtce 112		
7/18/101 Mtce & Renewals South (22)	23947	2510 WAIOTEMARAMA GORGE RO	Grading - x-fall/potholes/corrugation/rut (m) R	5003	8422	3419			Full Width			May-19	UR02.1.1	Unsealed - Surface Grading (Rout metres		3419	4118.1.1.2405 - Unsealed pavement mt		

Contract	Dispatch I Road	Road	Fault	Start	End	Length	Width	Depth	Side	Programme	Notes	Maint Note	Claim Num	Item Num	Item Number	Units	Claim	Quar	Account 2	Notes
7/18/101 Mtce & Renewals South (22)	15293	2201 ORAKAU ROAD	Culvert flus	4245					Left	Jul-19	Water jet culvert. Barrel blocked		DR07.1		Culvert Flushing	each			4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	15289	2201 ORAKAU ROAD	Culvert flus	320					Left	Jul-19	Water jet culvert. Barrel blocked		DR07.1		Culvert Flushing	each			4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	15385	2201 ORAKAU ROAD	WT Light rr	12602	12612	10			Left	Aug-19	Clear watertables 10m excluding 2		DR02.1		Watertable Mtce - Light	metres			4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	15384	2201 ORAKAU ROAD	Culvert flus	12616					Left	Jul-19	Water jet culvert. Barrel blocked		DR07.1		Culvert Flushing	each			4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	15383	2201 ORAKAU ROAD	Culvert flus	12782					Left	Jul-19	Water jet culvert. Barrel blocked		DR07.1		Culvert Flushing	each			4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	15370	2201 ORAKAU ROAD	WT Light rr	16068	16091	23			Right	Aug-19	Clear watertables 23m excluding 2		DR02.2		Watertable Mtce - Heavy	metres			4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	15368	2201 ORAKAU ROAD	WT Light rr	16185	16203	18			Right	Aug-19	Clear watertables 18m excluding 2		DR02.2		Watertable Mtce - Heavy	metres			4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	15414	2201 ORAKAU ROAD	Culvert flus	7768					Left	Jul-19	Water jet culvert. Barrel blocked		DR07.1		Culvert Flushing	each			4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	15405	2201 ORAKAU ROAD	WT Light rr	10701	10706	5			Left	Aug-19	Clear watertables 5m excluding 2		DR02.1		Watertable Mtce - Light	metres			4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	15403	2201 ORAKAU ROAD	WT Light rr	10896	10910	14			Right	Aug-19	Clear watertables 14m excluding 2		DR02.1		Watertable Mtce - Light	metres			4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	15378	2201 ORAKAU ROAD	WT Heavy i	14919	14936	17			Right	Jun-19	Clear watertables 17m		Jun-19	DR02.2	Watertable Mtce - Heavy	metres	17		4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	23748	2164 PIPIWAI ROAD	WT Heavy i	8457	8471	14			Right	Jul-19	Clear watertables 14m		Jun-19	DR02.2	Watertable Mtce - Heavy	metres	14		4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	23744	2164 PIPIWAI ROAD	Culvert nev	8226	8238	12.5			Right	Jul-19	Replacement required. Sections sl		DR06.4		Culvert replace 600 dia 0 - 1.5m d	metres			4011.1.1.4922 - Drainage Renewals 213	
7/18/101 Mtce & Renewals South (22)	23745	2164 PIPIWAI ROAD	Install heac	8226					Both	Jul-19	Install headwalls both sides.		DR06.10		Culvert Headwalls (Concreted Roc	each			4011.1.1.4922 - Drainage Renewals 213	
7/18/101 Mtce & Renewals South (22)	24068	2164 PIPIWAI ROAD	Culvert nev	9098	9110	12.5			Full Width	Jul-19	Replacement required. Sections sl		DR06.4		Culvert replace 600 dia 0 - 1.5m d	metres			4011.1.1.4922 - Drainage Renewals 213	
7/18/101 Mtce & Renewals South (22)	24330	2164 PIPIWAI ROAD	Install heac	9098	9110				Both	Jul-19	Replacement required. Install hea		DR06.10		Culvert Headwalls (Concreted Roc	each			4011.1.1.4922 - Drainage Renewals 213	
7/18/101 Mtce & Renewals South (22)	25244	2164 PIPIWAI ROAD	Culvert dig	1284					Both	Jul-19	Machine clean both inlet and outl	DW1.8			DW - Mini Excavator < 3 tonne	hour			4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	25244	2164 PIPIWAI ROAD	Culvert dig	1284					Both	Jul-19	Machine clean both inlet and outl	DW1.19			DW - Truck (4 - 6 m3)	hour			4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	25244	2164 PIPIWAI ROAD	Culvert dig	1284					Both	Jul-19	Machine clean both inlet and outl	DW2.1			DW - Labourer	hour			4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	801	2384 TAPUHI ROAD	Install heac	6321					Centre	May-19	Washout outlet side e:	May-19	DW2.1		DW - Labourer	hour	2		4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	801	2384 TAPUHI ROAD	Install heac	6321					Centre	May-19	Washout outlet side e:	May-19	DW1.8		DW - Mini Excavator < 3 tonne	hour	1		4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	801	2384 TAPUHI ROAD	Install heac	6321					Centre	May-19	Washout outlet side e:	May-19	DW1.19		DW - Truck (4 - 6 m3)	hour	2		4031.1.1.2405 - Routine C Supply backfill	
7/18/101 Mtce & Renewals South (22)	801	2384 TAPUHI ROAD	Install heac	6321					Centre	May-19	Washout outlet side e:	May-19	DW3.1		DW - Materials (PS)	each	50		4031.1.1.2405 - Routine C Gap65 backfill Est 3m³	
7/18/101 Mtce & Renewals South (22)	801	2384 TAPUHI ROAD	Install heac	6321					Centre	May-19	Washout outlet side e:	May-19	DW3.2		DW - Materials On-Cost (15%)	Percentage	1		4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	9293	2384 TAPUHI ROAD	Culvert dig	10257					Both	May-19	Culvert 10257 blocked	May-19	DW1.8		DW - Mini Excavator < 3 tonne	hour	1		4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	9293	2384 TAPUHI ROAD	Culvert dig	10257					Both	May-19	Culvert 10257 blocked	May-19	DW2.1		DW - Labourer	hour	1		4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	20821	2384 TAPUHI ROAD	WT Heavy i	10041	10076	35			Left	Jul-19	HWT required on the left for abou		DR02.2		Watertable Mtce - Heavy	metres			4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	20982	2384 TAPUHI ROAD	Wearing cc	9539	9975	436	5.3	150	Full Width	May-19	Low through this secti		May-19	UR07.1	UnsWearing Course - Supply cart	m³	208		4015.1.1.4922 - Unsealed 139m³ solid = 208m³ loose measure. 60mm of GAP 30 wearing course	
7/18/101 Mtce & Renewals South (22)	20982	2384 TAPUHI ROAD	Wearing cc	9539	9975	436	5.3	150	Full Width	May-19	Low through this secti		May-19	UR06.1	UnsPvmtStrgth - GAP40 or GAP65	m³	519		4015.1.1.4922 - Unsealed 346m³ solid = 519m³ loose measure. 150mm of GAP 65	
7/18/101 Mtce & Renewals South (22)	21123	2384 TAPUHI ROAD	Install heac	6321					Centre	May-19	Washout outlet side e:	May-19	DR06.10		Culvert Headwalls (Concreted Roc	each	1		4011.1.1.4922 - Drainage Renewals 213	
7/18/101 Mtce & Renewals South (22)	23972	2384 TAPUHI ROAD	Rip & rema	4705	4735	30	6.5		Right	Jun-19	on site discussed with	Jun-19	UR05.1		Unsealed - Rip and Remake	m²	195		4118.1.1.2405 - Unsealed pavement mtce 112	
7/18/101 Mtce & Renewals South (22)	24087	2384 TAPUHI ROAD	WT recons	3884	3984	100			Right	Jun-19	Deeply scoured watert	Jun-19	DW1.21		DW - Truck & trailer (8 - 16m3)	hour	8		4031.1.1.2405 - Routine C To cart material to site.	
7/18/101 Mtce & Renewals South (22)	24087	2384 TAPUHI ROAD	WT recons	3884	3984	100			Right	Jun-19	Deeply scoured watert	Jun-19	DW1.2		DW - Grader (12 - 14 tonne)	hour	8		4031.1.1.2405 - Routine C To cut material in to backfill drain and form swale top.	
7/18/101 Mtce & Renewals South (22)	24087	2384 TAPUHI ROAD	WT recons	3884	3984	100			Right	Jun-19	Deeply scoured watert	Jun-19	DW2.1		DW - Labourer	hour	16		4031.1.1.2405 - Routine C Traffic control on site.	
7/18/101 Mtce & Renewals South (22)	24087	2384 TAPUHI ROAD	WT recons	3884	3984	100			Right	Jun-19	Deeply scoured watert	Jun-19	DW3.1		DW - Materials (PS)	each	2850		4031.1.1.2405 - Routine C Quarry run for backfill.	
7/18/101 Mtce & Renewals South (22)	24087	2384 TAPUHI ROAD	WT recons	3884	3984	100			Right	Jun-19	Deeply scoured watert	Jun-19	DW3.2		DW - Materials On-Cost (15%)	Percentage	1		4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	25480	2384 TAPUHI ROAD	Culvert ren	10257	10267	10			Right	Jul-19	Locating found old 300mm armco		DR06.2		Culvert replace 375 dia 0 - 1.5m d	metres			4011.1.1.4922 - Drainage Renewals 213	
7/18/101 Mtce & Renewals South (22)	26168	2384 TAPUHI ROAD	Culvert nev	1878	1886	8			Left	Aug-19	Armco culvert needs replacing. 8n		DR06.2		Culvert replace 375 dia 0 - 1.5m d	metres			4011.1.1.4922 - Drainage Renewals 213	
7/18/101 Mtce & Renewals South (22)	16403	2491 WAIKARE ROAD	WT Heavy i	5902	5912	10			Right	Jul-19	Inlet:10:0m light water tabling. Ol		DR02.2		Watertable Mtce - Heavy	metres			4031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/101 Mtce & Renewals South (22)	19383	2491 WAIKARE ROAD	Running co	13500	14000	500	5.6	30	Full Width	Jun-19	Steeper and narrow al	Jun-19	UR02.2		Unsealed - GAP20 or GAP30 Supp	m³	84		4015.1.1.4922 - Unsealed Road Metaling 211	
7/18/101 Mtce & Renewals South (22)	24088	2491 WAIKARE ROAD	Rip & rema	14000	14100	100	5		Full Width	Jun-19	Rip and remake to give	Jun-19	UR05.1		Unsealed - Rip and Remake	m²	500		4118.1.1.2405 - Unsealed pavement mtce 112	
7/18/101 Mtce & Renewals South (22)	19382	2491 WAIKARE ROAD	Running co	11600	12100	500	5.6	30	Full Width	Jul-19	Narrow and steep alw	Jun-19	UR02.2		Unsealed - GAP20 or GAP30 Supp	m³	84		4015.1.1.4922 - Unsealed Road Metaling 211	
7/18/101 Mtce & Renewals South (22)	24089	2491 WAIKARE ROAD	Rip & rema	12179	12479	300	4.8		Full Width	Jun-19	Rip and remake to elin	Jun-19	UR05.1		Unsealed - Rip and Remake	m²	1440		4118.1.1.2405 - Unsealed pavement mtce 112	
7/18/101 Mtce & Renewals South (22)	19381	2491 WAIKARE ROAD	Running co	10300	10800	500	5.6	30	Full Width	Jun-19	Narrow hill section be	Jun-19	UR02.2		Unsealed - GAP20 or GAP30 Supp	m³	36		4015.1.1.4922 - Unsealed Road Metaling 211	
7/18/101 Mtce & Renewals South (22)	24090	2491 WAIKARE ROAD	Rip & rema	10000	10300	300	5.6		Full Width	Jun-19	To eliminate corrugati	Jun-19	UR05.1		Unsealed - Rip and Remake	m²	1680		4118.1.1.2405 - Unsealed pavement mtce 112	
7/18/101 Mtce & Renewals South (22)	19378	2491 WAIKARE ROAD	Running co	8000	9200	1200	5.6	30	Full Width	Jun-19	This hill section corrug	Jun-19	UR02.2		Unsealed - GAP20 or GAP30 Supp	m³	201		4015.1.1.4922 - Unsealed Road Metaling 211	
7/18/101 Mtce & Renewals South (22)	24091	2491 WAIKARE ROAD	Rip & rema	9300	9600	300	5.6		Full Width	Jun-19	Rip and remake to rep	Jun-19	UR05.1		Unsealed - Rip and Remake	m²	1680		4118.1.1.2405 - Unsealed pavement mtce 112	

Contract	Dispatch I Road	Road	Fault	Start	End	Length	Width	Depth	Side	Programme Notes	Maint Note	Claim Num	Item Num	Item Number	Units	Claim Quar	Account 2	Notes
7/18/100 Mtce & Renewals North (21)	9370	1639 DIGGERS VALLEY ROAD	Grading - x		0	21878	21878		Full Width			May-19	UR02.1.1	Unsealed - Surface Grading (Routi	metres	21878	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10410	1639 DIGGERS VALLEY ROAD	Potholes - l		50				Centre			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	6	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10411	1639 DIGGERS VALLEY ROAD	Potholes - l		93				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	2	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10412	1639 DIGGERS VALLEY ROAD	Potholes - l		160				Centre			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	7	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10413	1639 DIGGERS VALLEY ROAD	Potholes - l		446				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	20	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10414	1639 DIGGERS VALLEY ROAD	Potholes - l		594				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	6	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10415	1639 DIGGERS VALLEY ROAD	Potholes - l		803				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	3	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10416	1639 DIGGERS VALLEY ROAD	Potholes - l		1013				Full Width			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	40	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10417	1639 DIGGERS VALLEY ROAD	Potholes - l		1845				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	14	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10418	1639 DIGGERS VALLEY ROAD	Potholes - l		2753				Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	1	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10419	1639 DIGGERS VALLEY ROAD	Potholes - l		2782				Both			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	10	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10420	1639 DIGGERS VALLEY ROAD	Potholes - l		2913				Full Width			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	6	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10421	1639 DIGGERS VALLEY ROAD	Potholes - l		3116				Both			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	3	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10422	1639 DIGGERS VALLEY ROAD	Potholes - l		3376				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	3	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10423	1639 DIGGERS VALLEY ROAD	Potholes - l		3572				Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	1	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10424	1639 DIGGERS VALLEY ROAD	Potholes - l		3626				Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	3	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10425	1639 DIGGERS VALLEY ROAD	Potholes - l		3739				Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	3	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10426	1639 DIGGERS VALLEY ROAD	Potholes - l		3816				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	1	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10427	1639 DIGGERS VALLEY ROAD	Potholes - l		3853				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	5	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10428	1639 DIGGERS VALLEY ROAD	Potholes - l		3885				Both			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	7	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10429	1639 DIGGERS VALLEY ROAD	Potholes - l		3998				Full Width			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	10	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10430	1639 DIGGERS VALLEY ROAD	Potholes - l		4103				Both			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	6	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10431	1639 DIGGERS VALLEY ROAD	Potholes - l		4141				Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	5	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10432	1639 DIGGERS VALLEY ROAD	Potholes - l		4164				Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	2	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10433	1639 DIGGERS VALLEY ROAD	Potholes - l		4344				Full Width			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	20	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10434	1639 DIGGERS VALLEY ROAD	Potholes - l		4453				Both			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	16	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10435	1639 DIGGERS VALLEY ROAD	Potholes - l		4859				Centre			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	4	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10436	1639 DIGGERS VALLEY ROAD	Potholes - l		5326				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	2	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10437	1639 DIGGERS VALLEY ROAD	Potholes - l		5376				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	2	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10438	1639 DIGGERS VALLEY ROAD	Potholes - l		5691				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	1	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10439	1639 DIGGERS VALLEY ROAD	Potholes - l		6126				Full Width			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	6	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10440	1639 DIGGERS VALLEY ROAD	Potholes - l		8486				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	1	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10441	1639 DIGGERS VALLEY ROAD	Potholes - l		8543				Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	1	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10442	1639 DIGGERS VALLEY ROAD	Potholes - l		8742				Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	1	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10443	1639 DIGGERS VALLEY ROAD	Potholes - l		11286				Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	1	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10444	1639 DIGGERS VALLEY ROAD	Potholes - l		12143				Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	1	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10445	1639 DIGGERS VALLEY ROAD	Potholes - l		14792				Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	3	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10446	1639 DIGGERS VALLEY ROAD	Potholes - l		14999				Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	3	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10447	1639 DIGGERS VALLEY ROAD	Potholes - l		16887				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	10	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10448	1639 DIGGERS VALLEY ROAD	Potholes - l		17476				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	1	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10449	1639 DIGGERS VALLEY ROAD	Potholes - l		17634				Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	4	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10451	1639 DIGGERS VALLEY ROAD	Potholes - l		18221				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	8	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10452	1639 DIGGERS VALLEY ROAD	Potholes - l		18544				Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	2	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10453	1639 DIGGERS VALLEY ROAD	Grading - x		20033	21878	1845		Full Width			May-19	UR02.1.1	Unsealed - Surface Grading (Routi	metres	1845	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11061	1639 DIGGERS VALLEY ROAD	Potholes - l		21404				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	10	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11062	1639 DIGGERS VALLEY ROAD	Potholes - l		21441				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	15	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11063	1639 DIGGERS VALLEY ROAD	Potholes - l		21516				Both			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	10	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11064	1639 DIGGERS VALLEY ROAD	Potholes - l		21559				Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	20	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11065	1639 DIGGERS VALLEY ROAD	Potholes - l		21610				Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	30	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11066	1639 DIGGERS VALLEY ROAD	Potholes - l		21660				Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	35	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11067	1639 DIGGERS VALLEY ROAD	Potholes - l		21717				Both			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	8	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11068	1639 DIGGERS VALLEY ROAD	Potholes - l		21745				Both			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	5	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11069	1639 DIGGERS VALLEY ROAD	Potholes - l		21014				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	20	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11070	1639 DIGGERS VALLEY ROAD	Potholes - l		20942				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	12	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11071	1639 DIGGERS VALLEY ROAD	Potholes - l		20715				Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	10	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11072	1639 DIGGERS VALLEY ROAD	Potholes - l		20669				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	8	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11073	1639 DIGGERS VALLEY ROAD	Potholes - l		20647				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	10	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11074	1639 DIGGERS VALLEY ROAD	Potholes - l		20590				Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	10	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11075	1639 DIGGERS VALLEY ROAD	Potholes - l		20465				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	8	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11076	1639 DIGGERS VALLEY ROAD	Potholes - l		20398				Right			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	12	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11077	1639 DIGGERS VALLEY ROAD	Potholes - l		20049				Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	30	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11078	1639 DIGGERS VALLEY ROAD	Potholes - l		19879				Left			May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	7	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11264	1639 DIGGERS VALLEY ROAD	Running cc		0	4517	4517	3.6	30 Full Width			May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		255	3015.1.1.4922 - Unsealed Road Metaling	211
7/18/100 Mtce & Renewals North (21)	12874	1639 DIGGERS VALLEY ROAD	Remark lin		0	20042	44		Left			Jun-19	TD01.1.8	Remark - 100mm Continuity Line - kilometre		0.044	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	12940	1639 DIGGERS VALLEY ROAD	Remark Int		10				Left			Jun-19	TD01.2.2	Remark - GIVE WAY Int complete	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	12969	1639 DIGGERS VALLEY ROAD	Remark lin		0	20042	80		Centre			Jun-19	TD01.1.5	Remark - 75mm EL white 220micr kilometre		0.08	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	12969	1639 DIGGERS VALLEY ROAD	Remark lin		0	20042	80											



7/18/100 Mtce & Renewals North (21)	13054	1639 DIGGERS VALLEY ROAD	Rail barrier	10789	10792			Right		Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13055	1639 DIGGERS VALLEY ROAD	Rail barrier	10809	10812			Right		Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13056	1639 DIGGERS VALLEY ROAD	Rail barrier	11094	11100			Right		Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13057	1639 DIGGERS VALLEY ROAD	Rail barrier	11657	11681			Left		Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13058	1639 DIGGERS VALLEY ROAD	Rail barrier	11658	11682			Right		Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13062	1639 DIGGERS VALLEY ROAD	Rail barrier	14845	14865			Left		Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13063	1639 DIGGERS VALLEY ROAD	Rail barrier	16290	16307			Left		Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13065	1639 DIGGERS VALLEY ROAD	Rail barrier	16517	16529			Left		Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13066	1639 DIGGERS VALLEY ROAD	Rail barrier	16546	16552			Left		Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13067	1639 DIGGERS VALLEY ROAD	Rail barrier	17175	17210			Left	Paint next cycle	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13071	1639 DIGGERS VALLEY ROAD	Rail barrier	20992	20996			Right	Paint next cycle	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13072	1639 DIGGERS VALLEY ROAD	Rail barrier	20998	21000			Right	Paint next cycle	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13073	1639 DIGGERS VALLEY ROAD	Rail barrier	21006	21030			Right	Paint next cycle	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13038	1639 DIGGERS VALLEY ROAD	Rail barrier	1444	1449			Right	Needs painting.	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13039	1639 DIGGERS VALLEY ROAD	Rail barrier	1451	1455			Right	Needs painting	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13040	1639 DIGGERS VALLEY ROAD	Rail barrier	1456	1461			Right	Needs painting	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13041	1639 DIGGERS VALLEY ROAD	Rail barrier	1463	1468			Right	Recently painted	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	15689	1639 DIGGERS VALLEY ROAD	Potholes - l	2919				Both		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	6	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	15690	1639 DIGGERS VALLEY ROAD	Potholes - l	3384				Right		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	4	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	15691	1639 DIGGERS VALLEY ROAD	Potholes - l	3550				Centre		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	1	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	15692	1639 DIGGERS VALLEY ROAD	Potholes - l	4010				Both	Bridge approach.	Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	6	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	15693	1639 DIGGERS VALLEY ROAD	Potholes - l	4305				Right		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	2	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	15694	1639 DIGGERS VALLEY ROAD	Potholes - l	4428				Both		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	7	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	15695	1639 DIGGERS VALLEY ROAD	Potholes - l	4870				Centre		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	4	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	13047	1639 DIGGERS VALLEY ROAD	Rail barrier	6982	7031			Right	Needs painting	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13049	1639 DIGGERS VALLEY ROAD	Rail barrier	7466	7473			Left	Needs painting	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13050	1639 DIGGERS VALLEY ROAD	Rail barrier	7474	7484			Left	Needs painting	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13051	1639 DIGGERS VALLEY ROAD	Rail barrier	8892	8919			Left	Needs painting.	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13053	1639 DIGGERS VALLEY ROAD	Rail barrier	9138	9141			Left	Needs painting.	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13060	1639 DIGGERS VALLEY ROAD	Rail barrier	12759	12773			Right	Needs painting.	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13061	1639 DIGGERS VALLEY ROAD	Rail barrier	14818	14829			Left	Needs painting	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	15696	1639 DIGGERS VALLEY ROAD	Potholes - l	14813				Left		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	3	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	15697	1639 DIGGERS VALLEY ROAD	Potholes - l	15935				Left		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	4	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	15698	1639 DIGGERS VALLEY ROAD	Potholes - l	16459				Both		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	8	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	15699	1639 DIGGERS VALLEY ROAD	Potholes - l	16598				Left		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	5	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	15700	1639 DIGGERS VALLEY ROAD	Rail barrier	17288				Left		Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	15701	1639 DIGGERS VALLEY ROAD	Potholes - l	17425				Centre		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	4	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	15702	1639 DIGGERS VALLEY ROAD	Potholes - l	17586				Right		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	4	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	15703	1639 DIGGERS VALLEY ROAD	Potholes - l	17689				Centre		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	2	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	15704	1639 DIGGERS VALLEY ROAD	Potholes - l	17733				Right		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	6	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	15705	1639 DIGGERS VALLEY ROAD	Potholes - l	18627				Both		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	6	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	15706	1639 DIGGERS VALLEY ROAD	Potholes - l	19309				Right	been graded	Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	10	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	15707	1639 DIGGERS VALLEY ROAD	Grading - x	19355	21783	2428		Full Width		Jun-19 UR02.1.1	Unsealed - Surface Grading (Routi	metres	7000	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	13069	1639 DIGGERS VALLEY ROAD	Rail barrier	17613	17622			Left	Needs painting and mi	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13068	1639 DIGGERS VALLEY ROAD	Rail barrier	17513	17530			Left	Needs painting	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	14598	1639 DIGGERS VALLEY ROAD	Rail barrier	17283				Left	Needs painting	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13064	1639 DIGGERS VALLEY ROAD	Rail barrier	16351	16356			Left	Needs paint.	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13047	1639 DIGGERS VALLEY ROAD	Rail barrier	6982	7031			Right	Needs painting	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13040	1639 DIGGERS VALLEY ROAD	Rail barrier	1456	1461			Right	Needs painting	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13039	1639 DIGGERS VALLEY ROAD	Rail barrier	1451	1455			Right	Needs painting	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13038	1639 DIGGERS VALLEY ROAD	Rail barrier	1444	1449			Right	Needs painting.	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13049	1639 DIGGERS VALLEY ROAD	Rail barrier	7466	7473			Left	Needs painting	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13050	1639 DIGGERS VALLEY ROAD	Rail barrier	7474	7484			Left	Needs painting	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13051	1639 DIGGERS VALLEY ROAD	Rail barrier	8892	8919			Left	Needs painting.	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13053	1639 DIGGERS VALLEY ROAD	Rail barrier	9138	9141			Left	Needs painting.	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13060	1639 DIGGERS VALLEY ROAD	Rail barrier	12759	12773			Right	Needs painting.	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	13061	1639 DIGGERS VALLEY ROAD	Rail barrier	14818	14829			Left	Needs painting	Jun-19 TF06.1.1	Railings Painting (Cyclic)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	11446	1833 KAUAPEPE ROAD	Potholes - l	1429				Centre		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	3	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11447	1833 KAUAPEPE ROAD	Potholes - l	1229				Left		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	1	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11448	1833 KAUAPEPE ROAD	Potholes - l	398				Right		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	1	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	14428	1833 KAUAPEPE ROAD	Remark lin	0	27	53		Both		Jun-19 TD01.1.5	Remark - 75mm EL white 220micr kilometre		0.053	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	3933	2129 PAPONGA ROAD	Running cc	0	1170	1170	4.8	30 Full Width		Jun-19 UR02.2	Unsealed - GAP20 or GAP30 Supp m³		66	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	9157	2129 PAPONGA ROAD	Grading - x	0	5000	5000		Full Width		May-19 UR02.1.1	Unsealed - Surface Grading (Routi	metres	5000	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	9368	2129 PAPONGA ROAD	Grading - x	12800	15604	2804		Full Width		May-19 UR02.1.1	Unsealed - Surface Grading (Routi	metres	2804	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10405	2129 PAPONGA ROAD	Potholes - l	10453				Left		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	3	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10407	2129 PAPONGA ROAD	Potholes - l	11267				Right		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	5	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10408	2129 PAPONGA ROAD	Potholes - l	11330				Left		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	1	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	10409	2129 PAPONGA ROAD	Sign face cl	13439				Left		May-19 SG01.1.1	Sign Mtce (Routine)	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	10409	2129 PAPONGA ROAD	Sign face cl	13439				Left		May-19 SG02.2	Sign - Relocate existing sign panel	each	1	3021.1.1.2405 - Traffic Services Maintenance	122
7/18/100 Mtce & Renewals North (21)	11738	2129 PAPONGA ROAD	Potholes - l	6696				Both		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	7	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11739	2129 PAPONGA ROAD	Running cc	4000	7500	3500	4.8	30 Full Width		Jun-19 UR02.2	Unsealed - GAP20 or GAP30 Supp m³		403	3015.1.1.4922 - Unsealed Road Metaling	211
7/18/100 Mtce & Renewals North (21)	11741	2129 PAPONGA ROAD	Potholes - l	11261				Right		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	4	3118.1.1.2405 - Unsealed pavement mtce	112
7/18/100 Mtce & Renewals North (21)	11742	2129 PAPONGA ROAD	Potholes - l	14450				Left		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi	each	5	3118.1.1.2405 - Unsealed pavement mtce	112

7/18/100 Mtce & Renewals North (21)	14429	2129 PAPONGA ROAD	Remark lin	0	31	61	Both		Jun-19 TD01.1.5	Remark - 75mm EL white 220micr kilometre	0.061	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14694	2129 PAPONGA ROAD	Grading - x	0	15660	15660	Full Width		Jun-19 UR02.1.1	Unsealed - Surface Grading (Routi metres	15660	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	13579	2129 PAPONGA ROAD	Rail barrier	1136	1163		Right		Jun-19 TF06.1.1	Railings Painting (Cyclic) each	1	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	13580	2129 PAPONGA ROAD	Rail barrier	1256	1269		Right		Jun-19 TF06.1.1	Railings Painting (Cyclic) each	1	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	13581	2129 PAPONGA ROAD	Rail barrier	5420	5435		Centre		Jun-19 TF06.1.1	Railings Painting (Cyclic) each	1	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	13582	2129 PAPONGA ROAD	Rail barrier	5564	5593		Right		Jun-19 TF06.1.1	Railings Painting (Cyclic) each	1	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	13584	2129 PAPONGA ROAD	Rail barrier	6679	6686		Right		Jun-19 TF06.1.1	Railings Painting (Cyclic) each	1	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	13585	2129 PAPONGA ROAD	Rail barrier	7195	7203		Right		Jun-19 TF06.1.1	Railings Painting (Cyclic) each	1	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	13586	2129 PAPONGA ROAD	Rail barrier	7643	7662		Right		Jun-19 TF06.1.1	Railings Painting (Cyclic) each	1	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	13587	2129 PAPONGA ROAD	Rail barrier	8284	8298		Left		Jun-19 TF06.1.1	Railings Painting (Cyclic) each	1	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	13588	2129 PAPONGA ROAD	Rail barrier	8411	8424		Left		Jun-19 TF06.1.1	Railings Painting (Cyclic) each	1	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14715	2129 PAPONGA ROAD	Potholes - l	12566			Right		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	3	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	14716	2129 PAPONGA ROAD	Potholes - l	11902			Right		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	1	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	14717	2129 PAPONGA ROAD	Potholes - l	11847			Right		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	3	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	14718	2129 PAPONGA ROAD	Potholes - l	11240			Right		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	4	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	14719	2129 PAPONGA ROAD	Potholes - l	11181			Right		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	5	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	14720	2129 PAPONGA ROAD	Potholes - l	8928			Both		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	6	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	14721	2129 PAPONGA ROAD	Potholes - l	8292			Right		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	8	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	14722	2129 PAPONGA ROAD	Potholes - l	8104			Right		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	2	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	14723	2129 PAPONGA ROAD	Potholes - l	7569			Left		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	2	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	14724	2129 PAPONGA ROAD	Potholes - l	6130			Right		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	4	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	14725	2129 PAPONGA ROAD	Potholes - l	4178			Right		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	10	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	14726	2129 PAPONGA ROAD	Potholes - l	3725			Left		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	7	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	14727	2129 PAPONGA ROAD	Potholes - l	3177			Right		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	20	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	14728	2129 PAPONGA ROAD	Potholes - l	2421			Left		Jun-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	10	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	13589	2129 PAPONGA ROAD	Rail barrier	8775	8787		Right		Jun-19 TF06.1.1	Railings Painting (Cyclic) each	1	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	13590	2129 PAPONGA ROAD	Rail barrier	8787	8792		Right		Jun-19 TF06.1.1	Railings Painting (Cyclic) each	1	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	13591	2129 PAPONGA ROAD	Rail barrier	8877	8901		Right		Jun-19 TF06.1.1	Railings Painting (Cyclic) each	1	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	13593	2129 PAPONGA ROAD	Rail barrier	14815	14823		Left	Recentl painted	Jun-19 TF06.1.1	Railings Painting (Cyclic) each	1	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14714	2129 PAPONGA ROAD	Grading - x	0	4000	4000	Full Width	Hit and miss clusters.	Jul-19 UR02.1.1	Unsealed - Surface Grading (Routi metres	4000	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	10502	2278 RUNARUNA ROAD	Potholes - l	555			Left		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	2	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	10503	2278 RUNARUNA ROAD	Potholes - l	964			Right		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	2	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	10504	2278 RUNARUNA ROAD	Potholes - l	1065			Left		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	2	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	10505	2278 RUNARUNA ROAD	Potholes - l	1646			Left		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	4	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	10506	2278 RUNARUNA ROAD	Potholes - l	1821			Left		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	1	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	10507	2278 RUNARUNA ROAD	Potholes - l	2151			Left		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	6	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	10508	2278 RUNARUNA ROAD	Potholes - l	3338			Centre		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	3	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	10509	2278 RUNARUNA ROAD	Potholes - l	3386			Left		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	1	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	10510	2278 RUNARUNA ROAD	Potholes - l	3567			Right		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	2	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	10511	2278 RUNARUNA ROAD	Potholes - l	3668			Left		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	3	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	10512	2278 RUNARUNA ROAD	Potholes - l	5294			Left		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	15	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	10513	2278 RUNARUNA ROAD	Potholes - l	5384			Right		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	1	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	10514	2278 RUNARUNA ROAD	Potholes - l	5426			Left		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	4	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	10515	2278 RUNARUNA ROAD	Potholes - l	5529			Left		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	8	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	10516	2278 RUNARUNA ROAD	Potholes - l	8224			Right		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	6	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	10517	2278 RUNARUNA ROAD	Potholes - l	8638			Right		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	2	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	10518	2278 RUNARUNA ROAD	Potholes - l	8776			Left		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	2	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	10519	2278 RUNARUNA ROAD	Potholes - l	9022			Centre		May-19 UR01.1.1	Unsealed - Pothole Repairs (Routi each	1	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	11569	2278 RUNARUNA ROAD	Running cc	200	6060	9376	30	Full Width	May-19 UR02.2	Unsealed - GAP20 or GAP30 Supp m³	197	3015.1.1.4922 - Unsealed Road Metaling 211
7/18/100 Mtce & Renewals North (21)	11744	2278 RUNARUNA ROAD	Grading - x	0	9375	9375		Full Width	May-19 UR02.1.1	Unsealed - Surface Grading (Routi metres	9375	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	14380	2278 RUNARUNA ROAD	Remark Int	10			Left		Jun-19 TD01.2.2	Remark - GIVE WAY Int complete each	1	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14442	2278 RUNARUNA ROAD	Remark lin	0	2990	72	Both		Jun-19 TD01.1.5	Remark - 75mm EL white 220micr kilometre	0.072	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14443	2278 RUNARUNA ROAD	Remark Int	10			Left		Jun-19 TD01.2.1	Remark - STOP Int complete (max each	1	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	9252	2543 WEST COAST ROAD (KOHUKOI Channel sw		13000	14500	1500	Both		May-19 DR08.6	Channel Sweeping High Leaf Fall kilometre	1500	3031.1.1.2405 - Routine Drainage Maintenance 113
7/18/100 Mtce & Renewals North (21)	10285	2543 WEST COAST ROAD (KOHUKOI Sign straigh		14450			Right		May-19 SG01.1.1	Sign Mtce (Routine) each	1	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	10286	2543 WEST COAST ROAD (KOHUKOI Sign face cl		14450			Right		May-19 SG01.1.1	Sign Mtce (Routine) each	2	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	11501	2543 WEST COAST ROAD (KOHUKOI EMP replac		12249			Left		Jun-19 TF03.1	Flexible Marker Posts Replace anc each	4	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	11520	2543 WEST COAST ROAD (KOHUKOI Sign face cl		21163			Both	Asset updated 3/7/19.	Jun-19 SG01.1.1	Sign Mtce (Routine) each	2	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	11564	2543 WEST COAST ROAD (KOHUKOI Grading - x		25000	39000	14000	Full Width	Just grade the flats, hit	Jun-19 UR02.1.1	Unsealed - Surface Grading (Routi metres	14000	3118.1.1.2405 - Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	11212	2543 WEST COAST ROAD (KOHUKOI Channel sw		19096	19211	115	Right		May-19 DR01.1.1	Drainage Mtce (Routine) each	1	3031.1.1.2405 - Routine Drainage Maintenance 113
7/18/100 Mtce & Renewals North (21)	11213	2543 WEST COAST ROAD (KOHUKOI Channel sw		19191	19301	110	Left		May-19 DR08.6	Channel Sweeping High Leaf Fall kilometre	1	3031.1.1.2405 - Routine Drainage Maintenance 113
7/18/100 Mtce & Renewals North (21)	11570	2543 WEST COAST ROAD (KOHUKOI Running cc		25170	25770	600	30	Full Width	May-19 UR02.2	Unsealed - GAP20 or GAP30 Supp m³	76	3015.1.1.4922 - Unsealed Road Metaling 211
7/18/100 Mtce & Renewals North (21)	11214	2543 WEST COAST ROAD (KOHUKOI Channel sw		18891	19011	120	Right		May-19 DR08.7	Channel Hand Cleaning (Lined SW metres	120	3031.1.1.2405 - Routine Drainage Maintenance 113
7/18/100 Mtce & Renewals North (21)	11215	2543 WEST COAST ROAD (KOHUKOI Channel sw		18300	18400	100	Left		May-19 DR08.7	Channel Hand Cleaning (Lined SW metres	100	3031.1.1.2405 - Routine Drainage Maintenance 113
7/18/100 Mtce & Renewals North (21)	11216	2543 WEST COAST ROAD (KOHUKOI Channel sw		17975	18175	200	Right		May-19 DR08.7	Channel Hand Cleaning (Lined SW metres	200	3031.1.1.2405 - Routine Drainage Maintenance 113
7/18/100 Mtce & Renewals North (21)	11217	2543 WEST COAST ROAD (KOHUKOI Channel sw		17216	17334	118	Right		May-19 DR08.7	Channel Hand Cleaning (Lined SW metres	118	3031.1.1.2405 - Routine Drainage Maintenance 113
7/18/100 Mtce & Renewals North (21)	11245	2543 WEST COAST ROAD (KOHUKOI Channel sw		18053	18207	154	Right		May-19 DR08.7	Channel Hand Cleaning (Lined SW metres	154	3031.1.1.2405 - Routine Drainage Maintenance 113
7/18/100 Mtce & Renewals North (21)	11246	2543 WEST COAST ROAD (KOHUKOI Channel sw		17470	17885	415	Right		May-19 DR08.7	Channel Hand Cleaning (Lined SW metres	415	3031.1.1.2405 - Routine Drainage Maintenance 113
7/18/100 Mtce & Renewals North (21)	11247	2543 WEST COAST ROAD (KOHUKOI Channel sw		17334	17429	95	Left		May-19 DR08.7	Channel Hand Cleaning (Lined SW metres	95	3031.1.1.2405 - Routine Drainage Maintenance 113
7/18/100 Mtce & Renewals North (21)	12556	2543 WEST COAST ROAD (KOHUKOI Running cc		25206	39720	14514	30	Full Width	Jun-19 UR02.2	Unsealed - GAP20 or GAP30 Supp m³	198	3015.1.1.4922 - Unsealed Road Metaling 211
7/18/100 Mtce & Renewals North (21)	12649	2543 WEST COAST ROAD (KOHUKOI Remark Int		4733			Both		Jun-19 TD01.3.2	Remark - Arrows single beaded each	2	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	12912	2543 WEST COAST ROAD (KOHUKOI Remark lin		0	5220	12255	Centre		Jun-19 TD01.1.1	Remark - 100mm CL white dash 2 kilometre	12.255	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	12913	2543 WEST COAST ROAD (KOHUKOI Remark lin		0	5220	124	Both		Jun-19 TD01.1.8	Remark - 100mm Continuity Line kilometre	0.124	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	12914	2543 WEST COAST ROAD (KOHUKOI Remark lin		0	5220	929	Centre		Jun-19 TD01.1.2	Remark - 100mm CL white solid 2 kilometre	0.929	3021.1.1.2405 - Traffic Services Maintenance 122

7/18/100 Mtce & Renewals North (21)	12926	2543	WEST COAST ROAD (KOHUKOI Remark Int	0	5342	72	Both		Jun-19	TD01.1.8	Remark - 100mm Continuity Line ' kilometre	0.072	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	12927	2543	WEST COAST ROAD (KOHUKOI Remark Int	0	5342	68	Both		Jun-19	TD01.1.8	Remark - 100mm Continuity Line ' kilometre	0.068	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	12928	2543	WEST COAST ROAD (KOHUKOI Remark Int	0	5342		Centre		Jun-19	TD01.2.6	Remark - LIMIT LINES White & Yel each	1	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	12929	2543	WEST COAST ROAD (KOHUKOI Remark Int	25208			Centre		Jun-19	TD01.2.6	Remark - LIMIT LINES White & Yel each	1	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	12930	2543	WEST COAST ROAD (KOHUKOI Remark Int	25208			Centre		Jun-19	TD01.3.2	Remark - Arrows single beaded each	1	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	12931	2543	WEST COAST ROAD (KOHUKOI Remark Int	0	5342	80	Centre		Jun-19	TD01.1.8	Remark - 100mm Continuity Line ' kilometre	0.08	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	12946	2543	WEST COAST ROAD (KOHUKOI Remark Int	0	5342	28	Both		Jun-19	TD01.1.8	Remark - 100mm Continuity Line ' kilometre	0.028	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	12947	2543	WEST COAST ROAD (KOHUKOI Remark Int	0	5342	68	Both		Jun-19	TD01.1.8	Remark - 100mm Continuity Line ' kilometre	0.068	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	12948	2543	WEST COAST ROAD (KOHUKOI Remark Int	21801			Both		Jun-19	TD01.2.6	Remark - LIMIT LINES White & Yel each	1	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	12949	2543	WEST COAST ROAD (KOHUKOI Remark Int	21801			Both		Jun-19	TD01.3.2	Remark - Arrows single beaded each	2	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	12950	2543	WEST COAST ROAD (KOHUKOI Remark Int	21773			Both		Jun-19	TD01.4.5	Remark - Single 5.0m standard ba each	24	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	12951	2543	WEST COAST ROAD (KOHUKOI Remark Int	12270			Both		Jun-19	TD01.2.6	Remark - LIMIT LINES White & Yel each	1	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	12952	2543	WEST COAST ROAD (KOHUKOI Remark Int	12270			Both		Jun-19	TD01.3.2	Remark - Arrows single beaded each	2	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	12970	2543	WEST COAST ROAD (KOHUKOI Sign straight	5826			Right		Jun-19	SG01.1.1	Sign Mtce (Routine)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14484	2543	WEST COAST ROAD (KOHUKOI Remark Int	0	5220	46133	Both		Jun-19	TD01.1.5	Remark - 75mm EL white 220micr kilometre	46.133	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14090	2543	WEST COAST ROAD (KOHUKOI Rail barrier	0	100		Left	Unpainted armco.	Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14091	2543	WEST COAST ROAD (KOHUKOI Rail barrier	2573	2586		Left	Unpainted armco	Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14093	2543	WEST COAST ROAD (KOHUKOI Rail barrier	10097	10109		Right	Unpainted armco	Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14094	2543	WEST COAST ROAD (KOHUKOI Rail barrier	10269	10282		Right	Unpainted armco	Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14098	2543	WEST COAST ROAD (KOHUKOI Rail barrier	10889	10914		Right		Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14103	2543	WEST COAST ROAD (KOHUKOI Rail barrier	12252	12267		Left	Unpainted armco	Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14105	2543	WEST COAST ROAD (KOHUKOI Rail barrier	12327	12341		Left	Unpainted armco	Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14106	2543	WEST COAST ROAD (KOHUKOI Rail barrier	12328	12342		Right	Unpainted armco	Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14110	2543	WEST COAST ROAD (KOHUKOI Rail barrier	15145	15163		Left	Unpainted armco	Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14114	2543	WEST COAST ROAD (KOHUKOI Rail barrier	16459	16490		Right		Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14115	2543	WEST COAST ROAD (KOHUKOI Rail barrier	16482	16516		Right		Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14118	2543	WEST COAST ROAD (KOHUKOI Rail barrier	21660	21666		Right	Recently painted	Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14119	2543	WEST COAST ROAD (KOHUKOI Rail barrier	22617	22619		Left		Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14120	2543	WEST COAST ROAD (KOHUKOI Rail barrier	25153	25169		Left	Unpainted armco	Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14830	2543	WEST COAST ROAD (KOHUKOI CP1 Single	14053			Right	Jun-19	Jul-19	DR03.1	Sump cleaning CP1 (Single)	each	1 3031.1.1.2405 - Routine Drainage Maintenance 113
7/18/100 Mtce & Renewals North (21)	14831	2543	WEST COAST ROAD (KOHUKOI CP1 Single	14123			Right	Jun-19	Jul-19	DR03.1	Sump cleaning CP1 (Single)	each	1 3031.1.1.2405 - Routine Drainage Maintenance 113
7/18/100 Mtce & Renewals North (21)	14832	2543	WEST COAST ROAD (KOHUKOI CP1 Single	14190			Right	Jun-19	Jul-19	DR03.1	Sump cleaning CP1 (Single)	each	1 3031.1.1.2405 - Routine Drainage Maintenance 113
7/18/100 Mtce & Renewals North (21)	14833	2543	WEST COAST ROAD (KOHUKOI CP1 Single	14239			Right	Jun-19	Jul-19	DR03.1	Sump cleaning CP1 (Single)	each	1 3031.1.1.2405 - Routine Drainage Maintenance 113
7/18/100 Mtce & Renewals North (21)	14834	2543	WEST COAST ROAD (KOHUKOI CP1 Single	21764			Right	Jun-19	Jul-19	DR03.1	Sump cleaning CP1 (Single)	each	1 3031.1.1.2405 - Routine Drainage Maintenance 113
7/18/100 Mtce & Renewals North (21)	14835	2543	WEST COAST ROAD (KOHUKOI CP1 Single	21821			Left	Jun-19	Jul-19	DR03.1	Sump cleaning CP1 (Single)	each	1 3031.1.1.2405 - Routine Drainage Maintenance 113
7/18/100 Mtce & Renewals North (21)	15662	2543	WEST COAST ROAD (KOHUKOI Remark Int	5338			Centre		Jun-19	TD01.3.2	Remark - Arrows single beaded each	2	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	15665	2543	WEST COAST ROAD (KOHUKOI Remark Int	0	5342	28	Right		Jun-19	TD01.1.8	Remark - 100mm Continuity Line ' kilometre	0.028	3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14092	2543	WEST COAST ROAD (KOHUKOI Rail barrier	2573	2586		Right	Unpainted armco	Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14095	2543	WEST COAST ROAD (KOHUKOI Rail barrier	10519	10546		Right	Recently painted	Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14096	2543	WEST COAST ROAD (KOHUKOI Rail barrier	10628	10631		Left	Recently painted	Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14099	2543	WEST COAST ROAD (KOHUKOI Rail barrier	11120	11130		Right	Recently painted	Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14100	2543	WEST COAST ROAD (KOHUKOI Rail barrier	11120	11130		Left	Recently painted	Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14109	2543	WEST COAST ROAD (KOHUKOI Rail barrier	14913	14943		Left	Unpainted armco	Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	2 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14113	2543	WEST COAST ROAD (KOHUKOI Rail barrier	16029	16042		Left		Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14116	2543	WEST COAST ROAD (KOHUKOI Rail barrier	16582	16627		Left	Unpainted armco	Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14117	2543	WEST COAST ROAD (KOHUKOI Rail barrier	17387	17400		Left		Jun-19	TF06.1.1	Railings Painting (Cyclic)	each	1 3021.1.1.2405 - Traffic Services Maintenance 122
7/18/100 Mtce & Renewals North (21)	14673	2543	WEST COAST ROAD (KOHUKOI Side drains	6194	6199	5	Left		Jun-19	DR01.1.1	Drainage Mtce (Routine)	each	1 3031.1.1.2405 - Routine Drainage Maintenance 113

Contract	Dispatch I	Road	Road	Fault	Start	End	Length	Width	Depth	Side	Programme	Notes	Maint Notes	Claim Num	Item Num	Item Number	Units	Claim Quar	Account 2	Notes
7/18/100 Mtce & Renewals North (21)	2827	1656	DUNCAN ROAD (KAINGAROA)	Running cc	8500	10500	2000	4.5	30	Full Width				May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		46	3015.1.1.4922 - Unsealed Road Metaling 211	
7/18/100 Mtce & Renewals North (21)	4425	1656	DUNCAN ROAD (KAINGAROA)	Running cc	11457	11497	40		2	30	Left		1 truck and trailer and	May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		46	3015.1.1.4922 - Unsealed Road Metaling 211	
7/18/100 Mtce & Renewals North (21)	7254	1656	DUNCAN ROAD (KAINGAROA)	Running cc	10500	10500	2000	4.6	30	Full Width				May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		46	3015.1.1.4922 - Unsealed Road Metaling 211	
7/18/100 Mtce & Renewals North (21)	11122	1656	DUNCAN ROAD (KAINGAROA)	Running cc	8500	10500	2000	4.5	30	Full Width				May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		119	3015.1.1.4922 - Unsealed Road Metaling 211	
7/18/100 Mtce & Renewals North (21)	11160	1656	DUNCAN ROAD (KAINGAROA)	Grading - x	1577	4577	3000			Full Width				May-19	UR02.1.1	Unsealed - Surface Grading (Routi metres		3000	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	11162	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	8749					Right				May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		3	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	11163	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	8939					Left				May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		3	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	11165	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	10333					Left				May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		2	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	11166	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	10412					Left				May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		1	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	11167	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	10607					Left				May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		3	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	11169	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	12969					Both				May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		15	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	11170	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	13645					Right				May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		2	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	11171	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	13797					Left				May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		5	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	11173	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	14870					Both				May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		6	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	11175	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	14920					Centre				May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		1	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	11176	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	14958					Left				May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		1	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	11177	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	15178					Left				May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		15	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	11178	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	15506					Both				May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		4	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	11179	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	15589					Both				May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		10	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	12484	1656	DUNCAN ROAD (KAINGAROA)	Grading - x	8400	15830	7430			Full Width				Jun-19	UR02.1.1	Unsealed - Surface Grading (Routi metres		7430	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	16063	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	2754					Centre				Jul-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		10	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	16065	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	8750					Right				Jul-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		1	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	16066	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	8857					Left				Jul-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		1	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	16067	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	8941					Left				Jul-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		3	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	16069	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	12979					Right				Jul-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		6	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	16070	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	13797					Left				Jul-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		5	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	16071	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	14879					Both				Jul-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		10	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	16148	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	15705					Both				Jul-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		50	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	16149	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	15496					Right				Jul-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		65	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	16150	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	15335					Left				Jul-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		10	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	16151	1656	DUNCAN ROAD (KAINGAROA)	Potholes - l	15263					Right				Jul-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		12	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	986	1862	KOHUMARU ROAD	Running cc	6355	6930	575	4.8	30	Full Width		This dispatch is approv		May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		39	3015.1.1.4922 - Unsealed Road Metaling 211	
7/18/100 Mtce & Renewals North (21)	11031	1862	KOHUMARU ROAD	Running cc	7561	7611	50		5	30	Full Width		Bare spots where corn	May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		39	3015.1.1.4922 - Unsealed Road Metaling 211	
7/18/100 Mtce & Renewals North (21)	11032	1862	KOHUMARU ROAD	Running cc	8703	8753	50		5	30	Full Width		Bare spot where corne	May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		39	3015.1.1.4922 - Unsealed Road Metaling 211	
7/18/100 Mtce & Renewals North (21)	11033	1862	KOHUMARU ROAD	Running cc	9581	9651	70		5	30	Full Width		Barespot where corne	May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		39	3015.1.1.4922 - Unsealed Road Metaling 211	
7/18/100 Mtce & Renewals North (21)	11034	1862	KOHUMARU ROAD	Running cc	10475	10595	120	4.5	30	Full Width		Bare spot where corne		May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		38	3015.1.1.4922 - Unsealed Road Metaling 211	
7/18/100 Mtce & Renewals North (21)	11035	1862	KOHUMARU ROAD	Running cc	10789	10989	200	4.5	30	Full Width		Barespot where corne		May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		38	3015.1.1.4922 - Unsealed Road Metaling 211	
7/18/100 Mtce & Renewals North (21)	11036	1862	KOHUMARU ROAD	Running cc	11323	11539	216		5	30	Full Width			May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		92	3015.1.1.4922 - Unsealed Road Metaling 211	
7/18/100 Mtce & Renewals North (21)	11042	1862	KOHUMARU ROAD	Grading - x	4350	19953	15603			Both				Jun-19	UR02.1.1	Unsealed - Surface Grading (Routi metres		15603	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	12581	1862	KOHUMARU ROAD	Potholes - l	19947					Both				Jun-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		8	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	12582	1862	KOHUMARU ROAD	Potholes - l	19720					Left				Jun-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		9	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	12583	1862	KOHUMARU ROAD	Potholes - l	19134					Left				Jun-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		10	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	12584	1862	KOHUMARU ROAD	Potholes - l	19088					Left				Jun-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		3	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	12585	1862	KOHUMARU ROAD	Potholes - l	16476					Left				Jun-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		2	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	12586	1862	KOHUMARU ROAD	Potholes - l	10556					Both				Jun-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		5	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	12587	1862	KOHUMARU ROAD	Potholes - l	10453					Right				Jun-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		1	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	12588	1862	KOHUMARU ROAD	Potholes - l	9524					Both				Jun-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		20	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	12589	1862	KOHUMARU ROAD	Potholes - l	9419					Right				Jun-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		6	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	12590	1862	KOHUMARU ROAD	Potholes - l	9241					Both				Jun-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		10	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	12592	1862	KOHUMARU ROAD	Running cc	84	4302	4218		6	30	Full Width		Road needs grading th	Jun-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		72	3015.1.1.4922 - Unsealed Road Metaling 211	
7/18/100 Mtce & Renewals North (21)	11222	1957	MARTIN ROAD (KAEO)	Grading - x	2420	9361	6941			Both		Hit and miss grading. C		Jun-19	UR02.1.1	Unsealed - Surface Grading (Routi metres		6941	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/100 Mtce & Renewals North (21)	11113	1957	MARTIN ROAD (KAEO)	Ftpth vege	0	1	1			Centre		This is for the footpat		May-19	DW2.1	DW - Labourer hour		5	1.1420.02.2407 - BOI/Wh Actual	
7/18/100 Mtce & Renewals North (21)	11113	1957	MARTIN ROAD (KAEO)	Ftpth vege	0	1	1			Centre		This is for the footpat		May-19	DW1.19	DW - Truck (4 - 6 m3) hour		1	1.1420.02.2407 - BOI/Wh Actual	
7/18/100 Mtce & Renewals North (21)	14879	1957	MARTIN ROAD (KAEO)	CP1 Single	1074					Left	Jun-19			Jul-19	DR03.1	Sump cleaning CP1 (Single) each		1	3031.1.1.2405 - Routine Drainage Maintenance 113	
7/18/100 Mtce & Renewals North (21)	16087	1957	MARTIN ROAD (KAEO)	Grading - x	2461	9361	6900			Full Width				Jul-19	UR02.1.1	Unsealed - Surface Grading (Routi metres		7000	3118.1.1.2405 - Unsealed pavement mtce 112	
7/18/101 Mtce & Renewals South (22)	21671	2196	PUKETOTARA ROAD	Running cc	5277	6777	1500	5.7	30	Full Width		Becoming bare to clay		May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		280	4015.1.1.4922 - Unsealed Road Metaling 211	
7/18/101 Mtce & Renewals South (22)	21673	2196	PUKETOTARA ROAD	Running cc	6885	7885	1000	5.7	30	Full Width		Bare down to clay.		May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		118	4015.1.1.4922 - Unsealed Road Metaling 211	
7/18/101 Mtce & Renewals South (22)	21674	2196	PUKETOTARA ROAD	Running cc	8000	9200	1200	5.7	30	Full Width		Bare and becoming ou		May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		187	4015.1.1.4922 - Unsealed Road Metaling 211	
7/18/101 Mtce & Renewals South (22)	21675	2196	PUKETOTARA ROAD	Running cc	10000	11000	1000	5.7	30	Full Width		Bare and flat needs bu		May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		118	4015.1.1.4922 - Unsealed Road Metaling 211	
7/18/101 Mtce & Renewals South (22)	21676	2196	PUKETOTARA ROAD	Running cc	11250	12250	1000	6.7	30	Full Width		Bare and needing resh		May-19	UR02.2	Unsealed - GAP20 or GAP30 Supp m³		119	4015.1.1.4922 - Unsealed Road Metaling 211	
7/18/101 Mtce & Renewals South (22)	20494	2196	PUKETOTARA ROAD	Potholes - l	11630					Left		grader		May-19	UR01.1.1	Unsealed - Pothole Repairs (Routi each		8	4118.1.1.2405 - Unsealed pavement mtce 112	
7/18/101 Mtce & Renewals South (22)	20493	2196	PUKETOTARA ROAD	Potholes - l	11474					Left										

Contract	Dispatch I	Road	Fault	Start	End	Length	Width	Depth	Side	Programme	Notes	Maint Note	Claim Num	Item Numb	Item Number	Units	Claim Quar	Account 2	Notes
7/18/100 Mtce & Renewals North (21)	10061	1754 HENDERSON BAY ROAD	Grading - x	133	5689	5556			Both		Few corrugation hit an		May-19	UR02.1.1	Unsealed - Surface Grading (Routi	metres	5556	3118.1.1.2405	- Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	14584	1754 HENDERSON BAY ROAD	Grading - x	40	5689	5649			Full Width		Full grade		Jun-19	UR02.1.1	Unsealed - Surface Grading (Routi	metres	5649	3118.1.1.2405	- Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	14697	2236 RARAWA BEACH ROAD	Grading - x	28	3581	3553			Full Width				Jun-19	UR02.1.1	Unsealed - Surface Grading (Routi	metres	3553	3118.1.1.2405	- Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	10481	2411 TE HAPUA ROAD	Grading - x	3155	5879	2724			Both		A few corners corrugat		May-19	UR02.1.1	Unsealed - Surface Grading (Routi	metres	2724	3118.1.1.2405	- Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	12193	2411 TE HAPUA ROAD	Potholes - l	190					Right				Jun-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	3	3118.1.1.2405	- Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	12194	2411 TE HAPUA ROAD	Potholes - l	5899					Centre				Jun-19	UR01.1.1	Unsealed - Pothole Repairs (Routi	each	1	3118.1.1.2405	- Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	12198	2411 TE HAPUA ROAD	Grading - x	5876	10538	4662			Both		Isolated corrugations c		Jun-19	UR02.1.1	Unsealed - Surface Grading (Routi	metres	4662	3118.1.1.2405	- Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	12199	2411 TE HAPUA ROAD	Grading - x	3155	5876	2721			Both		Isolated corrugations f		Jun-19	UR02.1.1	Unsealed - Surface Grading (Routi	metres	2721	3118.1.1.2405	- Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	12200	2411 TE HAPUA ROAD	Grading - x	54	2080	2026			Full Width		Full grade corrugation:		Jun-19	UR02.1.1	Unsealed - Surface Grading (Routi	metres	2026	3118.1.1.2405	- Unsealed pavement mtce 112
7/18/100 Mtce & Renewals North (21)	15790	2411 TE HAPUA ROAD	Running co	0	5000	5000		5	30 Full Width				Jun-19	UR02.2	Unsealed - GAP20 or GAP30 Supp	m³	72	3015.1.1.4922	- Unsealed Road Metaling 211
7/18/100 Mtce & Renewals North (21)	12192	2424 TE PAKI STREAM ROAD	Grading - x	0	3200	3200			Full Width		Road needs full grade i		Jun-19	UR02.1.1	Unsealed - Surface Grading (Routi	metres	3200	3118.1.1.2405	- Unsealed pavement mtce 112





## **Appendix D – Existing Internal Audit Records**

Road Name	Road	Start	End	Asset ID	Cyc Act Ty	Cyc Act Fre	Cyc Act Sta	Due Date	First Date Ok	Last Date Okay	Completed	Completed Date	Missed Date	Next Recor	Next Due Date	Audited	Audit Resu	Audit Resu	Audit Com	Audited Date	Contract	Length
HOREKE ROAD (1785)	1785	0	15971	2104	Drainage Ir	Drainage 1	Last	10/08/2018	3/08/2018	17/08/2018	TRUE	20/09/2018		15464	26/09/2019	FALSE					7/18/101 N	15971
HOREKE ROAD (1785)	1785	0	2601	8587	Sealed Net	Sealed 3 M	Last	30/05/2019	23/05/2019	7/06/2019	TRUE	3/04/2019		18519	10/07/2019	TRUE	1	Pass		5/04/2019	7/18/101 N	2601
HOREKE ROAD (1785)	1785	0	15971	15464	Drainage Ir	Drainage 1	Current	26/09/2019	19/09/2019	3/10/2019	FALSE			15465	1/10/2020	FALSE					7/18/101 N	15971
HOREKE ROAD (1785)	1785	0	2601	18519	Sealed Net	Sealed 3 M	Current	10/07/2019	3/07/2019	17/07/2019	FALSE			21464	10/10/2019	FALSE					7/18/101 N	2601
HOREKE ROAD (1785)	1785	2601	11570	12830	Unsealed N	Unsealed 1	Missed	10/08/2018	7/08/2018	15/08/2018	FALSE		6/09/2018	12831	11/09/2018	FALSE					7/18/101 N	8969
HOREKE ROAD (1785)	1785	2601	11570	12833	Unsealed N	Unsealed 1	Missed	27/11/2018	22/11/2018	30/11/2018	FALSE		24/12/2018	12834	29/01/2019	FALSE					7/18/101 N	8969
HOREKE ROAD (1785)	1785	2601	11570	12838	Unsealed N	Unsealed 1	Last	13/06/2019	10/06/2019	18/06/2019	TRUE	17/06/2019		12839	15/07/2019	FALSE					7/18/101 N	8969
HOREKE ROAD (1785)	1785	2601	11570	12839	Unsealed N	Unsealed 1	Current	15/07/2019	10/07/2019	18/07/2019	FALSE			12840	14/08/2019	FALSE					7/18/101 N	8969
HOREKE ROAD (1785)	1785	11570	15469	10361	Sealed Net	Sealed 1 M	Last	8/07/2019	3/07/2019	11/07/2019	TRUE	4/07/2019		10362	7/08/2019	FALSE					7/18/101 N	3899
HOREKE ROAD (1785)	1785	11570	15469	10362	Sealed Net	Sealed 1 M	Current	7/08/2019	2/08/2019	12/08/2019	FALSE			10363	6/09/2019	FALSE					7/18/101 N	3899
HOREKE ROAD (1785)	1785	15469	15971	8590	Sealed Net	Sealed 3 M	Last	4/07/2019	27/06/2019	11/07/2019	TRUE	4/07/2019		8591	4/10/2019	FALSE					7/18/101 N	502
HOREKE ROAD (1785)	1785	15469	15971	8591	Sealed Net	Sealed 3 M	Current	4/10/2019	27/09/2019	11/10/2019	FALSE			18514	13/01/2020	FALSE					7/18/101 N	502
OPARA ROAD (2083)	2083	0	3077	1842	Unsealed N	Unsealed 2	Missed	13/07/2018	9/07/2018	19/07/2018	FALSE		8/09/2018	13742	26/09/2018	FALSE					7/18/101 N	3077
OPARA ROAD (2083)	2083	0	3077	2220	Drainage Ir	Drainage 1	Last	27/07/2018	20/07/2018	3/08/2018	TRUE	9/08/2018		15698	15/08/2019	FALSE					7/18/101 N	3077
OPARA ROAD (2083)	2083	0	3077	13746	Unsealed N	Unsealed 2	Last	6/05/2019	30/04/2019	10/05/2019	TRUE	16/05/2019		13747	18/07/2019	FALSE					7/18/101 N	3077
OPARA ROAD (2083)	2083	0	3077	13747	Unsealed N	Unsealed 2	Current	18/07/2019	12/07/2019	24/07/2019	FALSE			16628	18/09/2019	FALSE					7/18/101 N	3077
OPARA ROAD (2083)	2083	0	3077	15698	Drainage Ir	Drainage 1	Current	15/08/2019	8/08/2019	22/08/2019	FALSE			15699	20/08/2020	FALSE					7/18/101 N	3077
WAIMAMAKU BEACH ROAD	2498	0	4125	1981	Unsealed N	Unsealed 1	Missed	13/07/2018	10/07/2018	18/07/2018	FALSE		9/08/2018	15020	6/09/2018	FALSE					7/18/101 N	4125
WAIMAMAKU BEACH ROAD	2498	0	4125	2376	Drainage Ir	Drainage 1	Last	13/07/2018	6/07/2018	20/07/2018	TRUE	23/08/2018		16022	29/08/2019	FALSE					7/18/101 N	4125
WAIMAMAKU BEACH ROAD	2498	0	4125	15027	Unsealed N	Unsealed 1	Last	14/06/2019	11/06/2019	19/06/2019	TRUE	17/06/2019		15028	16/07/2019	TRUE	2	Pass - Roor	Nothing pr	20/06/2019	7/18/101 N	4125
WAIMAMAKU BEACH ROAD	2498	0	4125	15028	Unsealed N	Unsealed 1	Current	16/07/2019	11/07/2019	19/07/2019	FALSE			15029	15/08/2019	FALSE					7/18/101 N	4125
WAIMAMAKU BEACH ROAD	2498	0	4125	16022	Drainage Ir	Drainage 1	Current	29/08/2019	22/08/2019	5/09/2019	FALSE			16023	3/09/2020	FALSE					7/18/101 N	4125
WAIOTEMARAMA GORGE RC	2510	0	9682	2383	Drainage Ir	Drainage 1	Last	20/07/2018	13/07/2018	27/07/2018	TRUE	9/08/2018		16036	15/08/2019	TRUE	8	Fail - Multi	No detaile	28/08/2018	7/18/101 N	9682
WAIOTEMARAMA GORGE RC	2510	0	9682	15092	Unsealed N	Unsealed 1	Missed	19/11/2018	14/11/2018	22/11/2018	FALSE		14/12/2018	15093	19/12/2018	FALSE					7/18/101 N	9682
WAIOTEMARAMA GORGE RC	2510	0	9682	15098	Unsealed N	Unsealed 1	Last	13/06/2019	10/06/2019	18/06/2019	TRUE	10/06/2019		15099	15/07/2019	FALSE					7/18/101 N	9682
WAIOTEMARAMA GORGE RC	2510	0	9682	15099	Unsealed N	Unsealed 1	Current	15/07/2019	10/07/2019	18/07/2019	FALSE			15100	14/08/2019	FALSE					7/18/101 N	9682
WAIOTEMARAMA GORGE RC	2510	0	9682	16036	Drainage Ir	Drainage 1	Current	15/08/2019	8/08/2019	22/08/2019	FALSE			16037	20/08/2020	FALSE					7/18/101 N	9682
WHAREPUNGA ROAD (2563)	2563	0	6976	2405	Drainage Ir	Drainage 1	Last	2/11/2018	26/10/2018	9/11/2018	TRUE	20/11/2018		16080	26/11/2019	FALSE					7/18/101 N	6976
WHAREPUNGA ROAD (2563)	2563	0	6976	15233	Unsealed N	Unsealed 1	Missed	14/08/2018	9/08/2018	17/08/2018	FALSE		10/09/2018	15234	13/09/2018	FALSE					7/18/101 N	6976
WHAREPUNGA ROAD (2563)	2563	0	6976	15234	Unsealed N	Unsealed 1	Missed	13/09/2018	10/09/2018	18/09/2018	FALSE		10/10/2018	15235	15/10/2018	FALSE					7/18/101 N	6976
WHAREPUNGA ROAD (2563)	2563	0	6976	15242	Unsealed N	Unsealed 1	Last	17/06/2019	12/06/2019	20/06/2019	TRUE	17/06/2019		15243	17/07/2019	FALSE					7/18/101 N	6976
WHAREPUNGA ROAD (2563)	2563	0	6976	15243	Unsealed N	Unsealed 1	Current	17/07/2019	12/07/2019	22/07/2019	FALSE			15244	16/08/2019	FALSE					7/18/101 N	6976
WHAREPUNGA ROAD (2563)	2563	0	6976	16080	Drainage Ir	Drainage 1	Current	26/11/2019	19/11/2019	3/12/2019	FALSE			16081	1/12/2020	FALSE					7/18/101 N	6976

Road Name	Road	Start	End	Asset ID	Cyc Act Ty	Cyc Act Fre	Cyc Act Sta	Due Date	First Date Okay	Last Date Okay	Completed	Completed Date	Missed Date	Next Recor	Next Due Date	Audited	Audit Resu	Audit Resu	Audit Comi	Audited Date	Contract	Length
ORAKAU ROAD (2201)	2201	0	16442	2222	Drainage Ir	Drainage 1	Last	16/11/2018	9/11/2018	23/11/2018	TRUE	13/12/2018		15702	19/12/2019	FALSE					7/18/101 N	16442
ORAKAU ROAD (2201)	2201	0	272	10338	Sealed Net	Sealed 3 M	Last	20/05/2019	13/05/2019	27/05/2019	TRUE	28/05/2019		10339	29/08/2019	FALSE					7/18/101 N	272
ORAKAU ROAD (2201)	2201	0	272	10339	Sealed Net	Sealed 3 M	Current	29/08/2019	22/08/2019	5/09/2019	FALSE	19416		19416	2/12/2019	FALSE					7/18/101 N	272
ORAKAU ROAD (2201)	2201	0	16442	15702	Drainage Ir	Drainage 1	Current	19/12/2019	12/12/2019	30/12/2019	FALSE	15703		15703	24/12/2020	FALSE					7/18/101 N	16442
ORAKAU ROAD (2201)	2201	272	16442	13748	Unsealed N	Unsealed 1	Missed	7/09/2018	4/09/2018	12/09/2018	FALSE		4/10/2018	13749	31/10/2018	FALSE					7/18/101 N	16170
ORAKAU ROAD (2201)	2201	272	16442	13756	Unsealed N	Unsealed 1	Last	17/06/2019	12/06/2019	20/06/2019	TRUE	17/06/2019		13757	17/07/2019	FALSE					7/18/101 N	16170
ORAKAU ROAD (2201)	2201	272	16442	13757	Unsealed N	Unsealed 1	Current	17/07/2019	12/07/2019	22/07/2019	FALSE			13758	16/08/2019	FALSE					7/18/101 N	16170
PIPIWAI ROAD (2164)	2164	0	13073	1871	Unsealed N	Unsealed 1	Missed	6/07/2018	3/07/2018	11/07/2018	FALSE		9/08/2018	13992	7/08/2018	FALSE					7/18/101 N	13073
PIPIWAI ROAD (2164)	2164	0	13073	2254	Drainage Ir	Drainage 1	Last	17/05/2019	10/05/2019	24/05/2019	TRUE	17/06/2019		15768	22/06/2020	FALSE					7/18/101 N	13073
PIPIWAI ROAD (2164)	2164	0	13073	13992	Unsealed N	Unsealed 1	Missed	7/08/2018	2/08/2018	10/08/2018	FALSE		3/09/2018	13993	17/09/2018	FALSE					7/18/101 N	13073
PIPIWAI ROAD (2164)	2164	0	13073	14000	Unsealed N	Unsealed 1	Last	10/06/2019	5/06/2019	13/06/2019	TRUE	18/06/2019		14001	18/07/2019	FALSE					7/18/101 N	13073
PIPIWAI ROAD (2164)	2164	0	13073	14001	Unsealed N	Unsealed 1	Current	18/07/2019	15/07/2019	23/07/2019	FALSE			14002	19/08/2019	FALSE					7/18/101 N	13073
PIPIWAI ROAD (2164)	2164	0	13073	15768	Drainage Ir	Drainage 1	Current	22/06/2020	15/06/2020	29/06/2020	FALSE			15769	16/06/2021	FALSE					7/18/101 N	13073
TAPUHI ROAD (2384)	2384	0	11310	2331	Drainage Ir	Drainage 1	Last	24/05/2019	17/05/2019	31/05/2019	TRUE	3/07/2019		15929	8/07/2020	FALSE					7/18/101 N	11310
TAPUHI ROAD (2384)	2384	0	358	9610	Sealed Net	Sealed 3 M	Last	26/04/2019	16/04/2019	3/05/2019	TRUE	1/05/2019		9611	30/07/2019	FALSE					7/18/101 N	358
TAPUHI ROAD (2384)	2384	0	358	9611	Sealed Net	Sealed 3 M	Current	30/07/2019	23/07/2019	6/08/2019	FALSE			18325	31/10/2019	FALSE					7/18/101 N	358
TAPUHI ROAD (2384)	2384	0	11310	15929	Drainage Ir	Drainage 1	Current	8/07/2020	1/07/2020	15/07/2020	FALSE			15930	2/07/2021	FALSE					7/18/101 N	11310
TAPUHI ROAD (2384)	2384	358	11310	1942	Unsealed N	Unsealed 1	Missed	6/07/2018	3/07/2018	11/07/2018	FALSE		9/08/2018	14661	7/08/2018	FALSE					7/18/101 N	10952
TAPUHI ROAD (2384)	2384	358	11310	14661	Unsealed N	Unsealed 1	Missed	7/08/2018	2/08/2018	10/08/2018	FALSE		3/09/2018	14662	6/09/2018	FALSE					7/18/101 N	10952
TAPUHI ROAD (2384)	2384	358	11310	14670	Unsealed N	Unsealed 1	Last	9/07/2019	4/07/2019	12/07/2019	TRUE	11/07/2019		14671	8/08/2019	FALSE					7/18/101 N	10952
TAPUHI ROAD (2384)	2384	358	11310	14671	Unsealed N	Unsealed 1	Current	8/08/2019	5/08/2019	13/08/2019	FALSE			14672	9/09/2019	FALSE					7/18/101 N	10952
WAIKARE ROAD (2491)	2491	0	23437	2368	Drainage Ir	Drainage 1	Current	19/04/2019			FALSE			16005	29/04/2020	FALSE					7/18/101 N	23437
WAIKARE ROAD (2491)	2491	0	7985	17512	Sealed Net	Sealed 1 M	Last	12/07/2019	9/07/2019	17/07/2019	TRUE	4/07/2019		18025	5/08/2019	FALSE					7/18/101 N	7985
WAIKARE ROAD (2491)	2491	0	7985	18025	Sealed Net	Sealed 1 M	Current	5/08/2019	31/07/2019	8/08/2019	FALSE			19083	4/09/2019	FALSE					7/18/101 N	7985
WAIKARE ROAD (2491)	2491	7985	16764	1972	Unsealed N	Unsealed 1	Missed	4/07/2018	29/06/2018	9/07/2018	FALSE		9/08/2018	14924	3/08/2018	FALSE					7/18/101 N	8779
WAIKARE ROAD (2491)	2491	7985	16764	14924	Unsealed N	Unsealed 1	Missed	3/08/2018	31/07/2018	8/08/2018	FALSE		30/08/2018	14925	12/09/2018	FALSE					7/18/101 N	8779
WAIKARE ROAD (2491)	2491	7985	16764	14932	Unsealed N	Unsealed 1	Last	13/06/2019	10/06/2019	18/06/2019	TRUE	12/06/2019		14933	15/07/2019	FALSE					7/18/101 N	8779
WAIKARE ROAD (2491)	2491	7985	16764	14933	Unsealed N	Unsealed 1	Current	15/07/2019	10/07/2019	18/07/2019	FALSE			14934	14/08/2019	FALSE					7/18/101 N	8779
WAIKARE ROAD (2491)	2491	16764	17882	9102	Sealed Net	Sealed 3 M	Last	30/04/2019	18/04/2019	7/05/2019	TRUE	30/04/2019		9103	1/08/2019	FALSE					7/18/101 N	1118
WAIKARE ROAD (2491)	2491	16764	17882	9103	Sealed Net	Sealed 3 M	Current	1/08/2019	25/07/2019	8/08/2019	FALSE			18275	4/11/2019	FALSE					7/18/101 N	1118
WAIKARE ROAD (2491)	2491	17882	23437	1973	Unsealed N	Unsealed 1	Missed	4/07/2018	29/06/2018	9/07/2018	FALSE		9/08/2018	14937	3/08/2018	FALSE					7/18/101 N	5555
WAIKARE ROAD (2491)	2491	17882	23437	14937	Unsealed N	Unsealed 1	Missed	3/08/2018	31/07/2018	8/08/2018	FALSE		30/08/2018	14938	12/09/2018	FALSE					7/18/101 N	5555
WAIKARE ROAD (2491)	2491	17882	23437	14940	Unsealed N	Unsealed 1	Missed	5/11/2018	31/10/2018	8/11/2018	FALSE		30/11/2018	14941	5/12/2018	FALSE					7/18/101 N	5555
WAIKARE ROAD (2491)	2491	17882	23437	14941	Unsealed N	Unsealed 1	Missed	5/12/2018	30/11/2018	10/12/2018	FALSE		7/01/2019	14942	10/01/2019	FALSE					7/18/101 N	5555
WAIKARE ROAD (2491)	2491	17882	23437	14947	Unsealed N	Unsealed 1	Last	12/06/2019	7/06/2019	17/06/2019	TRUE	12/06/2019		14948	12/07/2019	TRUE	2	Pass - Roor Vegetation	18/06/2019	7/18/101 N	5555	
WAIKARE ROAD (2491)	2491	17882	23437	14948	Unsealed N	Unsealed 1	Current	12/07/2019	9/07/2019	17/07/2019	FALSE			14949	13/08/2019	FALSE					7/18/101 N	5555

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DIGGERS VALLEY ROAD (1633)	1639	0	21878	742	Drainage Ir	Drainage 1	Last	19/11/2018	12/11/2018	26/11/2018	TRUE	27/11/2018		7862	3/12/2019	FALSE				7/18/100 N	21878	
DIGGERS VALLEY ROAD (1633)	1639	0	21878	5126	Unsealed N	Unsealed 1	Last	25/06/2019	20/06/2019	28/06/2019	TRUE	21/06/2019		5127	25/07/2019	FALSE				7/18/100 N	21878	
DIGGERS VALLEY ROAD (1633)	1639	0	21878	5127	Unsealed N	Unsealed 1	Current	25/07/2019	22/07/2019	30/07/2019	FALSE			5128	26/08/2019	FALSE				7/18/100 N	21878	
DIGGERS VALLEY ROAD (1633)	1639	0	21878	7862	Drainage Ir	Drainage 1	Current	3/12/2019	26/11/2019	10/12/2019	FALSE			7863	8/12/2020	FALSE				7/18/100 N	21878	
KAUAEPEPE ROAD (1833)	1833	0	2244	438	Unsealed N	Unsealed 1	Missed	5/07/2018	2/07/2018	10/07/2018	FALSE		9/08/2018	5602	17/08/2018	FALSE				7/18/100 N	2244	
KAUAEPEPE ROAD (1833)	1833	0	2244	805	Drainage Ir	Drainage 1	Last	14/12/2018	7/12/2018	21/12/2018	TRUE	8/02/2019		7988	14/02/2020	FALSE				7/18/100 N	2244	
KAUAEPEPE ROAD (1833)	1833	0	2244	5612	Unsealed N	Unsealed 1	Last	19/06/2019	14/06/2019	24/06/2019	TRUE	17/06/2019		5613	19/07/2019	FALSE				7/18/100 N	2244	
KAUAEPEPE ROAD (1833)	1833	0	2244	5613	Unsealed N	Unsealed 1	Current	19/07/2019	16/07/2019	24/07/2019	FALSE			5614	20/08/2019	FALSE				7/18/100 N	2244	
KAUAEPEPE ROAD (1833)	1833	0	2244	7988	Drainage Ir	Drainage 1	Current	14/02/2020	7/02/2020	21/02/2020	FALSE			7989	15/02/2021	FALSE				7/18/100 N	2244	
PAPONGA ROAD (2129)	2129	0	15660	914	Drainage Ir	Drainage 1	Last	14/12/2018	7/12/2018	21/12/2018	TRUE	15/02/2019		8206	21/02/2020	FALSE				7/18/100 N	15660	
PAPONGA ROAD (2129)	2129	0	15660	6378	Unsealed N	Unsealed 1	Last	25/06/2019	20/06/2019	28/06/2019	TRUE	20/06/2019		6379	25/07/2019	FALSE				7/18/100 N	15660	
PAPONGA ROAD (2129)	2129	0	15660	6379	Unsealed N	Unsealed 1	Current	25/07/2019	22/07/2019	30/07/2019	FALSE			6380	26/08/2019	FALSE				7/18/100 N	15660	
PAPONGA ROAD (2129)	2129	0	15660	8206	Drainage Ir	Drainage 1	Current	21/02/2020	14/02/2020	28/02/2020	FALSE			8207	22/02/2021	FALSE				7/18/100 N	15660	
PAPONGA ROAD (2129)	2129	15606	15660	193	Sealed Net	Sealed 3 M	Last	5/07/2018	28/06/2018	12/07/2018	TRUE	21/08/2018			9/09/2018	FALSE				7/18/100 N	54	
RUNARUNA ROAD (2278)	2278	0	9376	960	Drainage Ir	Drainage 1	Last	11/12/2018	4/12/2018	18/12/2018	TRUE	22/01/2019		8298	29/01/2020	FALSE				7/18/100 N	9376	
RUNARUNA ROAD (2278)	2278	0	9376	6776	Unsealed N	Unsealed 1	Last	27/06/2019	24/06/2019	2/07/2019	TRUE	26/06/2019		6777	29/07/2019	FALSE				7/18/100 N	9376	
RUNARUNA ROAD (2278)	2278	0	9376	6777	Unsealed N	Unsealed 1	Current	29/07/2019	24/07/2019	1/08/2019	FALSE			6778	28/08/2019	FALSE				7/18/100 N	9376	
RUNARUNA ROAD (2278)	2278	0	9376	8298	Drainage Ir	Drainage 1	Current	29/01/2020	21/01/2020	5/02/2020	FALSE			8299	29/01/2021	FALSE				7/18/100 N	9376	
RUNARUNA ROAD (2278)	2278	9326	9376	232	Sealed Net	Sealed 1 M	Missed	6/07/2018	3/07/2018	11/07/2018	FALSE		9/08/2018	3994	21/08/2018	FALSE				7/18/100 N	50	
RUNARUNA ROAD (2278)	2278	9326	9376	3994	Sealed Net	Sealed 1 M	Last	7/08/2018	2/08/2018	10/08/2018	TRUE	21/08/2018			6/09/2018	FALSE				7/18/100 N	50	
WEST COAST ROAD (KOHUKC)	2543	0	12351	313	Sealed Net	Sealed 1 M	Missed	4/07/2018	29/06/2018	9/07/2018	FALSE		9/08/2018	4514	21/08/2018	FALSE				7/18/100 N	12351	
WEST COAST ROAD (KOHUKC)	2543	0	39720	1082	Drainage Ir	Drainage 1	Last	29/01/2019	21/01/2019	5/02/2019	TRUE	14/03/2019		8542	19/03/2020	FALSE				7/18/100 N	39720	
WEST COAST ROAD (KOHUKC)	2543	0	12351	4524	Sealed Net	Sealed 1 M	Last	20/06/2019	17/06/2019	25/06/2019	TRUE	18/06/2019		4525	22/07/2019	FALSE				7/18/100 N	12351	
WEST COAST ROAD (KOHUKC)	2543	0	12351	4525	Sealed Net	Sealed 1 M	Current	22/07/2019	17/07/2019	25/07/2019	FALSE			4526	21/08/2019	FALSE				7/18/100 N	12351	
WEST COAST ROAD (KOHUKC)	2543	0	39720	8542	Drainage Ir	Drainage 1	Current	19/03/2020	12/03/2020	26/03/2020	FALSE			8543	19/03/2021	FALSE				7/18/100 N	39720	
WEST COAST ROAD (KOHUKC)	2543	12351	25167	314	Sealed Net	Sealed 1 M	Missed	9/07/2018	4/07/2018	12/07/2018	FALSE		9/08/2018	4527	21/08/2018	FALSE				7/18/100 N	12816	
WEST COAST ROAD (KOHUKC)	2543	12351	25167	4537	Sealed Net	Sealed 1 M	Last	20/06/2019	17/06/2019	25/06/2019	TRUE	18/06/2019		4538	22/07/2019	FALSE				7/18/100 N	12816	
WEST COAST ROAD (KOHUKC)	2543	12351	25167	4538	Sealed Net	Sealed 1 M	Current	22/07/2019	17/07/2019	25/07/2019	FALSE			4539	21/08/2019	FALSE				7/18/100 N	12816	
WEST COAST ROAD (KOHUKC)	2543	25167	39720	673	Unsealed N	Unsealed 1	Missed	9/07/2018	4/07/2018	12/07/2018	FALSE		9/08/2018	7608	8/08/2018	FALSE				7/18/100 N	14553	
WEST COAST ROAD (KOHUKC)	2543	25167	39720	7618	Unsealed N	Unsealed 1	Last	20/06/2019	17/06/2019	25/06/2019	TRUE	17/06/2019		7619	22/07/2019	FALSE				7/18/100 N	14553	
WEST COAST ROAD (KOHUKC)	2543	25167	39720	7619	Unsealed N	Unsealed 1	Current	22/07/2019	17/07/2019	25/07/2019	FALSE			7620	21/08/2019	FALSE				7/18/100 N	14553	

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DUNCAN ROAD (KAINGAROA	1656	0	15890	748	Drainage Ir	Drainage 1	Last	4/09/2018	28/08/2018	11/09/2018	TRUE	25/09/2018		7874	1/10/2019	FALSE					7/18/100 N	15890
DUNCAN ROAD (KAINGAROA	1656	0	1577	2810	Sealed Net	Sealed 1 M	Last	24/06/2019	19/06/2019	27/06/2019	TRUE	20/06/2019		2811	24/07/2019	FALSE					7/18/100 N	1577
DUNCAN ROAD (KAINGAROA	1656	0	1577	2811	Sealed Net	Sealed 1 M	Current	24/07/2019	19/07/2019	29/07/2019	FALSE			16493	23/08/2019	FALSE					7/18/100 N	1577
DUNCAN ROAD (KAINGAROA	1656	0	15890	7874	Drainage Ir	Drainage 1	Current	1/10/2019	24/09/2019	8/10/2019	FALSE			7875	6/10/2020	FALSE					7/18/100 N	15890
DUNCAN ROAD (KAINGAROA	1656	1577	15890	16156	Unsealed N	Unsealed 1	Last	3/07/2019	28/06/2019	8/07/2019	TRUE	2/07/2019		17160	2/08/2019	FALSE					7/18/100 N	14313
DUNCAN ROAD (KAINGAROA	1656	1577	15890	17160	Unsealed N	Unsealed 1	Current	2/08/2019	30/07/2019	7/08/2019	FALSE			17597	3/09/2019	FALSE					7/18/100 N	14313
KOHUMARU ROAD (1862)	1862	0	20085	814	Drainage Ir	Drainage 1	Last	7/08/2018	31/07/2018	14/08/2018	TRUE	17/08/2018		8006	23/08/2019	FALSE					7/18/100 N	20085
KOHUMARU ROAD (1862)	1862	0	20085	5685	Unsealed N	Unsealed 1	Missed	25/03/2019	20/03/2019	28/03/2019	FALSE		23/04/2019	5686	7/05/2019	FALSE					7/18/100 N	20085
KOHUMARU ROAD (1862)	1862	0	20085	5688	Unsealed N	Unsealed 1	Last	9/07/2019	4/07/2019	12/07/2019	TRUE	5/07/2019		5689	8/08/2019	FALSE					7/18/100 N	20085
KOHUMARU ROAD (1862)	1862	0	20085	5689	Unsealed N	Unsealed 1	Current	8/08/2019	5/08/2019	13/08/2019	FALSE			5690	9/09/2019	FALSE					7/18/100 N	20085
KOHUMARU ROAD (1862)	1862	0	20085	8006	Drainage Ir	Drainage 1	Current	23/08/2019	16/08/2019	30/08/2019	FALSE			8007	28/08/2020	FALSE					7/18/100 N	20085
KOHUMARU ROAD (1862)	1862	19957	20085	107	Sealed Net	Sealed 3 M	Last	17/07/2018	10/07/2018	24/07/2018	TRUE	17/08/2018			21/09/2018	FALSE					7/18/100 N	128
MARTIN ROAD (KAEO) (1957	1957	0	9361	845	Drainage Ir	Drainage 1	Last	13/07/2018	6/07/2018	20/07/2018	TRUE	17/07/2018		8068	19/07/2019	FALSE					7/18/100 N	9361
MARTIN ROAD (KAEO) (1957	1957	0	2420	3376	Sealed Net	Sealed 3 M	Last	7/05/2019	30/04/2019	14/05/2019	TRUE	3/05/2019		3377	8/08/2019	FALSE					7/18/100 N	2420
MARTIN ROAD (KAEO) (1957	1957	0	2420	3377	Sealed Net	Sealed 3 M	Current	8/08/2019	1/08/2019	15/08/2019	FALSE			19145	11/11/2019	FALSE					7/18/100 N	2420
MARTIN ROAD (KAEO) (1957	1957	0	9361	8068	Drainage Ir	Drainage 1	Current	19/07/2019	12/07/2019	26/07/2019	FALSE			8069	24/07/2020	FALSE					7/18/100 N	9361
MARTIN ROAD (KAEO) (1957	1957	2420	9361	5927	Unsealed N	Unsealed 1	Last	5/07/2019	2/07/2019	10/07/2019	TRUE	2/07/2019		5928	6/08/2019	TRUE	4 Fail - Missii	Drainage is	4/07/2019		7/18/100 N	6941
MARTIN ROAD (KAEO) (1957	1957	2420	9361	5928	Unsealed N	Unsealed 1	Current	6/08/2019	1/08/2019	9/08/2019	FALSE			5929	5/09/2019	FALSE					7/18/100 N	6941
PUKETOTARA ROAD (2196)	2196	0	13165	2266	Drainage Ir	Drainage 1	Last	8/02/2019	31/01/2019	15/02/2019	TRUE	7/03/2019		15793	12/03/2020	FALSE					7/18/101 N	13165
PUKETOTARA ROAD (2196)	2196	0	4712	10833	Sealed Net	Sealed 1 M	Last	4/07/2019	1/07/2019	9/07/2019	TRUE	10/07/2019		10834	9/08/2019	FALSE					7/18/101 N	4712
PUKETOTARA ROAD (2196)	2196	0	4712	10834	Sealed Net	Sealed 1 M	Current	9/08/2019	6/08/2019	14/08/2019	FALSE			17474	10/09/2019	FALSE					7/18/101 N	4712
PUKETOTARA ROAD (2196)	2196	0	13165	15793	Drainage Ir	Drainage 1	Current	12/03/2020	5/03/2020	19/03/2020	FALSE			15794	12/03/2021	FALSE					7/18/101 N	13165
PUKETOTARA ROAD (2196)	2196	4712	5218	11893	Sealed Net	Sealed 3 M	Last	30/04/2019	18/04/2019	7/05/2019	TRUE	30/04/2019		18527	1/08/2019	FALSE					7/18/101 N	506
PUKETOTARA ROAD (2196)	2196	4712	5218	18527	Sealed Net	Sealed 3 M	Current	1/08/2019	25/07/2019	8/08/2019	FALSE			21793	4/11/2019	FALSE					7/18/101 N	506
PUKETOTARA ROAD (2196)	2196	5218	13165	1883	Unsealed N	Unsealed 1	Missed	27/07/2018	24/07/2018	1/08/2018	FALSE		23/08/2018	14092	10/09/2018	FALSE					7/18/101 N	7947
PUKETOTARA ROAD (2196)	2196	5218	13165	14101	Unsealed N	Unsealed 1	Last	22/07/2019	17/07/2019	25/07/2019	TRUE	10/07/2019		14102	9/08/2019	FALSE					7/18/101 N	7947
PUKETOTARA ROAD (2196)	2196	5218	13165	14102	Unsealed N	Unsealed 1	Current	9/08/2019	6/08/2019	14/08/2019	FALSE			14103	10/09/2019	FALSE					7/18/101 N	7947



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HENDERSON BAY ROAD (17	1754	0	5689	416	Unsealed	N	Unsealed	1 Missed	4/07/2018	29/06/2018	9/07/2018	FALSE	9/08/2018	5421	17/08/2018	FALSE				7/18/100	N	5689
HENDERSON BAY ROAD (17	1754	0	5689	778	Drainage	Ir	Drainage	1 Last	19/09/2018	12/09/2018	26/09/2018	TRUE	28/09/2018	7934	4/10/2019	FALSE				7/18/100	N	5689
HENDERSON BAY ROAD (17	1754	0	5689	5431	Unsealed	N	Unsealed	1 Last	19/06/2019	14/06/2019	24/06/2019	TRUE	14/06/2019	5432	19/07/2019	FALSE				7/18/100	N	5689
HENDERSON BAY ROAD (17	1754	0	5689	5432	Unsealed	N	Unsealed	1 Current	19/07/2019	16/07/2019	24/07/2019	FALSE		5433	20/08/2019	FALSE				7/18/100	N	5689
HENDERSON BAY ROAD (17	1754	0	5689	7934	Drainage	Ir	Drainage	1 Current	4/10/2019	27/09/2019	11/10/2019	FALSE		7935	9/10/2020	FALSE				7/18/100	N	5689
RARAWA BEACH ROAD (223	2236	0	3583	564	Unsealed	N	Unsealed	1 Missed	3/07/2018	28/06/2018	6/07/2018	FALSE	9/08/2018	6704	2/08/2018	FALSE				7/18/100	N	3583
RARAWA BEACH ROAD (223	2236	0	3583	951	Drainage	Ir	Drainage	1 Last	20/09/2018	13/09/2018	27/09/2018	TRUE	28/09/2018	8280	4/10/2019	FALSE				7/18/100	N	3583
RARAWA BEACH ROAD (223	2236	0	3583	6707	Unsealed	N	Unsealed	1 Missed	5/11/2018	31/10/2018	8/11/2018	FALSE	30/11/2018	6708	5/12/2018	FALSE				7/18/100	N	3583
RARAWA BEACH ROAD (223	2236	0	3583	6714	Unsealed	N	Unsealed	1 Last	21/06/2019	18/06/2019	26/06/2019	TRUE	18/06/2019	6715	23/07/2019	FALSE				7/18/100	N	3583
RARAWA BEACH ROAD (223	2236	0	3583	6715	Unsealed	N	Unsealed	1 Current	23/07/2019	18/07/2019	26/07/2019	FALSE		6716	22/08/2019	FALSE				7/18/100	N	3583
RARAWA BEACH ROAD (223	2236	0	3583	8280	Drainage	Ir	Drainage	1 Current	4/10/2019	27/09/2019	11/10/2019	FALSE		8281	9/10/2020	FALSE				7/18/100	N	3583
TE HAPUA ROAD (2411)	2411	0	10538	620	Unsealed	N	Unsealed	1 Missed	2/07/2018	27/06/2018	5/07/2018	FALSE	9/08/2018	7180	1/08/2018	FALSE				7/18/100	N	10538
TE HAPUA ROAD (2411)	2411	0	12467	1018	Drainage	Ir	Drainage	1 Last	25/09/2018	18/09/2018	2/10/2018	TRUE	9/10/2018	8414	15/10/2019	FALSE				7/18/100	N	12467
TE HAPUA ROAD (2411)	2411	0	10538	7190	Unsealed	N	Unsealed	1 Last	27/06/2019	24/06/2019	2/07/2019	TRUE	26/06/2019	7191	29/07/2019	FALSE				7/18/100	N	10538
TE HAPUA ROAD (2411)	2411	0	10538	7191	Unsealed	N	Unsealed	1 Current	29/07/2019	24/07/2019	1/08/2019	FALSE		7192	28/08/2019	FALSE				7/18/100	N	10538
TE HAPUA ROAD (2411)	2411	0	12467	8414	Drainage	Ir	Drainage	1 Current	15/10/2019	8/10/2019	22/10/2019	FALSE		8415	20/10/2020	FALSE				7/18/100	N	12467
TE HAPUA ROAD (2411)	2411	10538	12467	4276	Sealed	Net	Sealed	3 M Last	17/07/2019	10/07/2019	24/07/2019	TRUE	10/07/2019	18290	17/10/2019	FALSE				7/18/100	N	1929
TE HAPUA ROAD (2411)	2411	10538	12467	18290	Sealed	Net	Sealed	3 M Current	17/10/2019	10/10/2019	24/10/2019	FALSE		20359	24/01/2020	FALSE				7/18/100	N	1929
TE PAKI STREAM ROAD (242	2424	0	3738	626	Unsealed	N	Unsealed	1 Missed	2/07/2018	27/06/2018	5/07/2018	FALSE	9/08/2018	7230	1/08/2018	FALSE				7/18/100	N	3738
TE PAKI STREAM ROAD (242	2424	0	3738	1024	Drainage	Ir	Drainage	1 Last	25/09/2018	18/09/2018	2/10/2018	TRUE	3/10/2018	8426	9/10/2019	FALSE				7/18/100	N	3738
TE PAKI STREAM ROAD (242	2424	0	3738	7240	Unsealed	N	Unsealed	1 Last	27/06/2019	24/06/2019	2/07/2019	TRUE	26/06/2019	7241	29/07/2019	FALSE				7/18/100	N	3738
TE PAKI STREAM ROAD (242	2424	0	3738	7241	Unsealed	N	Unsealed	1 Current	29/07/2019	24/07/2019	1/08/2019	FALSE		7242	28/08/2019	FALSE				7/18/100	N	3738
TE PAKI STREAM ROAD (242	2424	0	3738	8426	Drainage	Ir	Drainage	1 Current	9/10/2019	2/10/2019	16/10/2019	FALSE		8427	14/10/2020	FALSE				7/18/100	N	3738