



255673

Station Feasibility Review – Churton Park

Greater Wellington Regional Council

1 June 2017

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*Bringing ideas  
to life*

# Document control record

Document prepared by:

**Aurecon New Zealand Limited**

Spark Central  
Level 8, 42-52 Willis Street  
Wellington 6011  
PO Box 1591  
Wellington 6140  
New Zealand

**T** +64 4 472 9589

**F** +64 4 472 9922

**E** wellington@aurecongroup.com

**W** aurecongroup.com

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<b>Name</b>		Brock Goodison	<b>Name</b>		H Walters
<b>Title</b>		Civil Engineer, Land Infrastructure	<b>Title</b>		Technical Director, Land Infrastructure

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# 1 Introduction and Scope

## 1.1 Introduction and Scope

Aurecon have been engaged by Greater Wellington Regional Council (GWRC) to investigate the pre-feasibility of constructing a new railway station in a specified area to the north of Churton Park, Wellington. This location has been identified at least in part by the local community as a potential future station to improve public transport connectivity to the Wellington CBD.

The scope of the proposed works includes:

- Overview of potential sites,
- Development of an indicative station layout, and
- High level catchment and connection assessment of the proposed site.

## 1.2 Methodology

Potential sites in the area for a new railway station are limited due to space restrictions, steep and stepped terrain, short lengths of straight rail, and a deep stream channel.

To inform the GWRC's feasibility decision process, Aurecon identified two sites with potential to meet project criteria, and visited each site to assess the potential for development. A preferred site was chosen based on this site visit. Aurecon then developed a concept layout, considered the engineering and environmental issues, and conducted a brief transportation assessment for the chosen site.

## 1.3 Site Description

The subject site is located between Rowells Road and Middleton Road, Churton Park, immediately north of Tunnel No. 2 (Tawa Tunnel) on the NIMT. The site is bisected by Porirua Stream, which is heavily vegetated and has steep banks on both sides. An electrical substation is located immediately outside the tunnel portal, with substation infrastructure on both sides of the rail corridor.

Other than the rail corridor, the site environment on the western side of Porirua Stream comprises bush and unmaintained grass areas, and is bounded by Middleton Road. The site environment on the eastern side of Porirua stream comprises gravel roads, material stockpile areas, and bush, and is bounded by Rowells Road. A selection of photos from the site visit are shown in Figures 1, 2 and 3.



Figure 1: Existing site showing rail bridge adjacent to tunnel portal, looking North





Figure 2: Existing site showing south-eastern area of site, looking East



Figure 3: Existing site showing eastern side of site, looking North-West

#### 1.4 Site Visit

A site visit was undertaken on Friday 31<sup>st</sup> March, 2017, to assess the site topography, environment, and potential for development. The point bar area of the site between the two rail bridges was not inspected, as this area was only accessible through the rail corridor.

#### 1.5 Community Engagement

Aurecon has received input from Bruce Koller of the Churton Park Community Association in email format, which was supplied via GWRC. We have engaged with this person by phone as part of this review, to ensure that we understand a community viewpoint. A record of this phone communication is provided in Appendix B.



### 2.1 Concept Layout

A proposed station layout is shown in Figure 4, and is included in Appendix A. The station would comprise 180m long platforms on each side of the rail corridor, with a small canopy shelter and ticket building. Due to the location of the stream, installation of culverts would be required to allow the construction of the platforms. Alternatively, light-weight platforms could be suspended over the stream to reduce the impacts associated with installing culverts.

It is expected that park and ride would be the primary connection mode to the station (this is expanded on further in Section 3.3). Car parking could be provided for approximately 165 cars on the eastern side of the site. Due to the location of the existing stream, culverts would need to be installed within the stream to provide space for the parking.

We note that it would be possible to provide a greater number of carparks at the site if the site footprint was increased beyond what is currently assumed, or if the extent of stream culverts was increased.

The site is relatively remote, with an enclosed location and little passive surveillance from nearby residences. Therefore, a significant focus on crime prevention through environmental design (CPTED) would be required as part of the design to mitigate this risk. This is noted in Section 2.5.

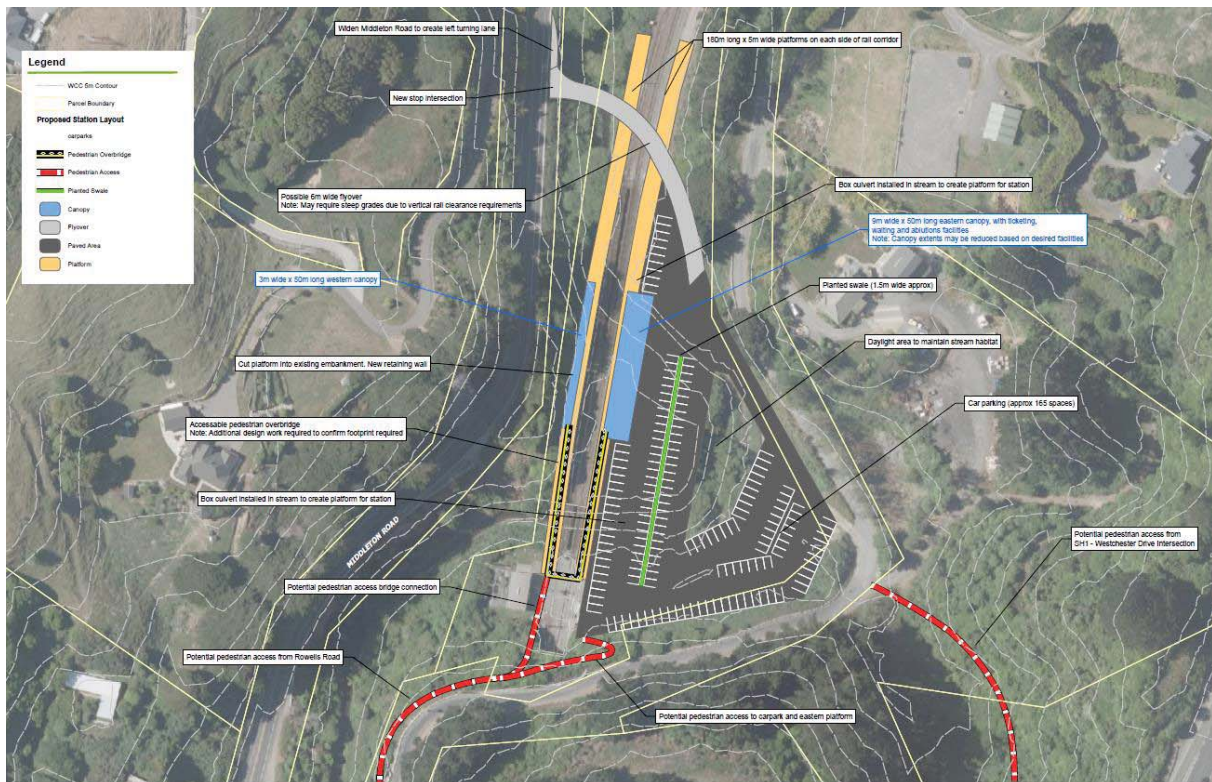


Figure 4: Concept site layout (refer Appendix A for full plan)

### 2.2 Access Routes

Access options to the site are limited given the steep terrain locally and isolated nature of the site. Access for vehicles to the station could be provided by two different options: improvements to Rowells Road, or a new access off Middleton Road.

The narrow, windy nature of Rowells road, with steep slopes on each side make this road in its current form inappropriate for regular access commuter access to the station. Space for improvements is limited, and any associated widening is likely to be expensive.

Alternatively, a new access could be provided from Middleton Road. This may be by a combination of:

- Widening Middleton Road to provide a left-turning lane
- Providing a right-hand turning lane with painted median



- A flyover/bridge from Middleton Road to the car parking area

Vehicle access from the adjacent State Highway 1 (SH1) or directly from Grenada Village is considered infeasible due to the significant change in elevation between the motorway and the station site.

Cycle and pedestrian access from the west could be provided using either of the above options; however, Middleton Road in its current form may not be appropriate for pedestrian or cycle traffic and may require specific improvements.

Additionally, it may be possible to provide more direct pedestrian access from Grenada Village, via a gully between SH1 and the existing Petopia site, off Westchester Drive. This may be subject to improved pedestrian connectivity between Grenada Village and Westchester Drive, as currently pedestrians must walk via the main Grenada Village roundabout and Grenada Drive, increasing walking time significantly.

Bus connection to the station would be by either of the vehicle access routes identified above.

## 2.3 Environmental Impacts

The proposed works could have a significant impact on the Porirua Stream, due to destruction of habitat and vegetation, and potential discharge of sediment during construction. The existing stream has environmental amenity and habitat value. The proposed layout would reduce the environmental values of the stream, due to the requirement to cover the stream to provide car parking space. However, it may be possible to provide 'daylighting' points along the stream within the site extent to reduce this impact.

Runoff from additional paved areas would likely require treatment and potentially attenuation prior to discharge to the adjacent waterway.

Construction works, including earthworks, in and around the stream could cause erosion and sediment input into the stream, which would need to be strictly managed during construction.

Works within the existing waterway will likely be required which will require specific Resource Consent.

## 2.4 Construction

Construction of the proposed development would require:

- Earthworks, comprising:
  - Cutting away the existing embankment parallel to Middleton Road to make room for the western platform
  - Site levelling for carpark areas
  - Filling around culverts in the stream
- Installation of culverts within the stream
- Potential widening of Middleton Road and associated construction of a flyover/bridge between Middleton Road and the site; or
- Potential improvements to Rowells Road
- Potential relocation of overhead electric lines and supports
- Pavement, surfacing, and drainage works
- Installation of retaining walls, e.g. as support for Middleton Road to provide for the western platform
- Platform construction, which may comprise either compacted fill or light-weight suspended structures, including interfaces with the existing rail bridges
- Shelter and ticket office construction
- Linemarking
- Potential pedestrian access improvements between the proposed site and Grenada Village





Works within the NIMT would be subject to Kiwirail permit requirements, with some work potentially requiring blocks of line. This may be a significant challenge to the construction of the station.

Some of the items above are associated with very high construction costs – specifically, providing safe road access to the station either by improving Rowells Road or constructing a new flyover/bridge from Middleton Road will carry a significant cost.

## 2.5 Safety in Design

Safety in design has been considered at a high level as part of this assessment. However, some safety in design features are not shown on the layout plan for clarity. Safety in design aspects that would need to be considered for the project are:

- Safety barriers around the rail corridor, tunnel and stream
- Crime prevention through environmental design (CPTED)
- Vehicle movements in carpark, especially if buses are used in the carpark
- Construction works around the stream
- Construction excavation works in the western embankment for the western platform
- Construction works around and over the overhead lines
- Construction works around a live rail environment
- Accessibility to the existing bridges for maintenance once platforms are in place
- Demolition of the overbridges and potential Middleton Road access over the overhead lines

## 2.6 Other locations considered

In addition to the nominated site location adjacent to the tunnel portal, a different location further along Rowells Road (to the North) was considered. Figure 5 shows the alternate location considered.



Figure 5: Alternate location plan

While the alternate location is location on a relatively straight line of rail and has space to the east of the rail corridor for parking, it is less desirable than the nominated location because:

- It is bounded by extremely high and steep slopes to the south and east
- It is further along Rowells Road, making access from this road even more difficult
- Road access from Rowells Road is very steep
- It is closer to Takapu Road Station than the nominated location

## 3 Connectivity and Catchment Assessment

### 3.1 Connectivity and Catchment Introduction

A desktop connectivity and catchment assessment was conducted to understand the benefits and drawbacks of constructing a station at the proposed location. The inputs to this study included:

- The site visit conducted on 31<sup>st</sup> March 2017,
- GIS data sourced from Greater Wellington Regional Council, Wellington City Council, and LINZ
- A high level review of relevant local government transport plans; and
- A phone discussion with a member of the Churton Park Community Association, Bruce Koller.

It should be noted that engagement with stakeholders such as the local community, Kiwirail, or Greater Wellington Regional Council's transport planners has not been undertaken as part of this study, other than that noted in this introduction.

The aspects addressed in this study are:

- Proximity of homes to the proposed site, including future development potential
- Likely transportation modes for station connections
- Factors in approximating number of users of a station at Churton Park
- Proximity of site to other railway stations
- Level of service of nearby bus services
- Level of service and timetabling considerations of rail service for the station

This study is developed on the premise that providing improved public transportation from Churton Park, Lincolnshire Farm, and Grenada Village to and from the Wellington CBD would reduce the number of cars used for travelling to the Wellington CBD. This would be a motivating factor for providing improved public transportation links.

It should be noted that this assessment has been conducted at a high level. Aurecon are aware that significant detailed planning for the rail network has been undertaken, including the *Regional Rail Plan 2010-2035* (GWRC, 2013) (and as such the adoption of the Rail Scenario 1 strategy), and the *Wellington Urban Growth Plan* (WCC, 2015). This assessment has not been conducted in the same level of detail as these documents. GWRC may wish to pursue this level of detail in assessing the transportation benefits and costs of a station at Churton Park as a future commission.

Furthermore, growth planning information for the Churton Park and Lincolnshire Farm areas has been reviewed only at a high level. The likely future number of residences has instead been estimated using zoning information and density estimates from the *Lincolnshire Farm Structure Plan* (Wellington City Council [WCC], 2006), and referenced against the *Wellington Urban Growth Plan* (WCC, 2015). We recommend that GWRC review the estimated future number of residences in this assessment to confirm the validity of this aspect of the review.

### 3.2 Proximity of Residences to Station

The number of potential residential parcels within 500m, 1 km, and 2 km radii of the site were assessed, to estimate the potential number of users of a station at Churton Park. 2 km was chosen as



the outer limit at which people would choose to walk to the station; furthermore, this is approximately the distance of the proposed station from the nearby Takapu Road Station. The radii are shown in Figure 6. This proximity plan is also supplied in Appendix A.

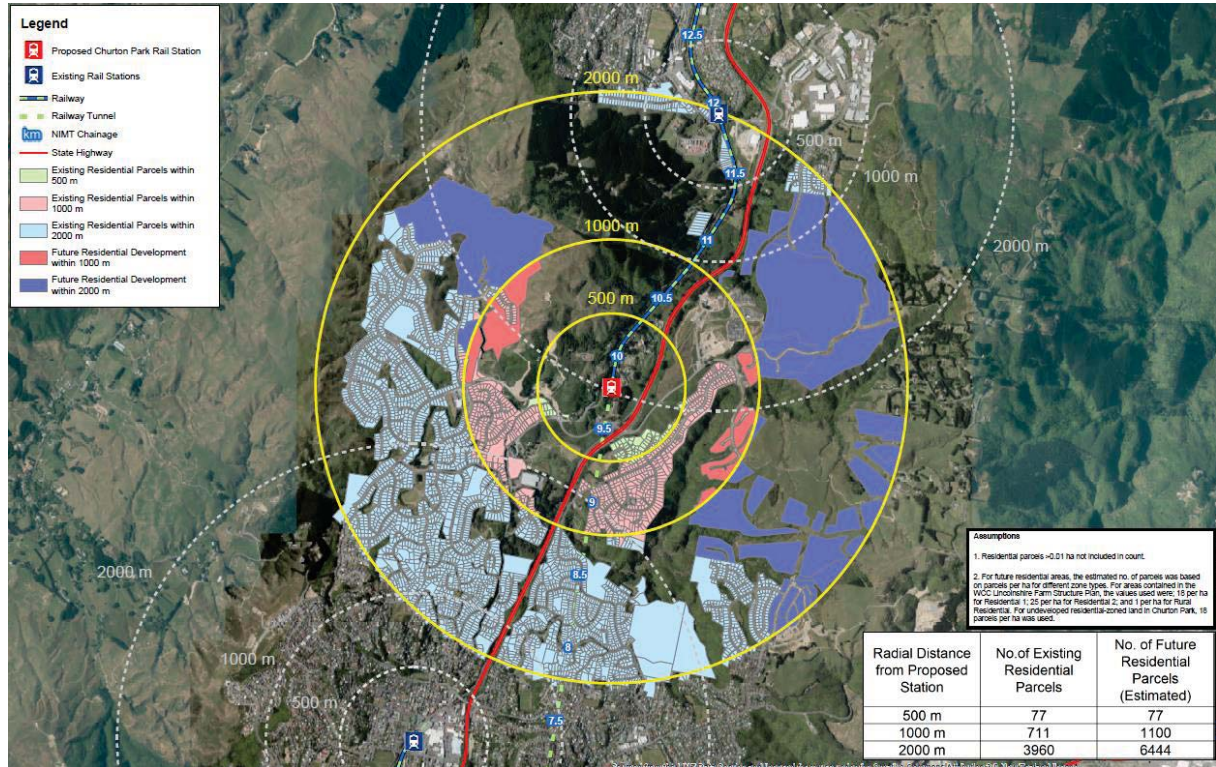


Figure 6: Proximity of residential parcels to identified station location

Some areas in the vicinity of the site (specifically the Stebbings Valley and Lincolnshire Farm developments) are zoned for residential or urban development, but have not been divided into parcels in the GIS information procured for this assessment. In these areas, the number of potential dwellings have been estimated using the densities assumed in the *Lincolnshire Farm Structure Plan* (WCC, 2006), and referenced against the *Wellington Urban Growth Plan* (WCC, 2015).

The number of residential land parcels within the radii identified above are stated in Table 1.

Table 1: Number of existing and estimated future number of residential parcels within 500 m, 1 km and 2 km of the site

Distance from site	Number of existing residential parcels	Estimated number of future residential parcels
500 m	77	77
1 km	711	1100
2 km	3960	6444

It is noted that a significant number of households outside the 1km radius are closer in proximity (as the crow flies) to the Johnsonville and Takapu Stations (refer section 3.5). Journey mapping for these suburbs is beyond the scope of this initial review.

### 3.3 Likely Transportation Modes for Station Connections

We believe that park and ride using cars would be the predominant method for residents to get to the station before boarding the train. The basis for this is:

- Most households in the station catchment area are understood to own at least one car
- The hilly nature of routes to most nearby residences (and future development) make it less appealing for people to travel home from the station by foot or bicycle



- Users of buses from Churton Park and Grenada Village would likely continue on the bus to Wellington, or transfer to a train at Johnsonville Station, instead of travelling by bus to a station at the identified location

### **3.4 Factors in Approximating Number of Users of a Station at Churton Park**

Given the assumed park and ride connection mode to a station at Churton Park, the number of users of the station will be strongly proportional to the number of carparks provided. The number of potential users of the station could be estimated from the number of carparks, allowing for additional users through carpooling, kiss and ride, walking, cycling, and potentially bus connections.

### **3.5 Proximity of Site to Other Railway Stations**

The site is approximately 2.0 km from Takapu Road station, and 2.7 km from Johnsonville Station (straight-line distance). The nearby railway stations are shown in Figure 7 (refer Appendix A). As shown in Figure 6, there are significant residential areas, including areas still to be developed, that are closer to the identified location than to Takapu Road or Johnsonville Stations. However, the magnitude of this advantage may be relatively small, as park and ride users would still experience a relatively short journey by car to either of the existing stations.

It should be noted that the park and ride facilities at Johnsonville Station and Takapu Road station are often at capacity, reducing opportunities for park and ride user growth in the wider area. Anecdotally, we understand that train users at Johnsonville station resort to parking in the nearby supermarket carpark, risking parking fines, to park and ride.



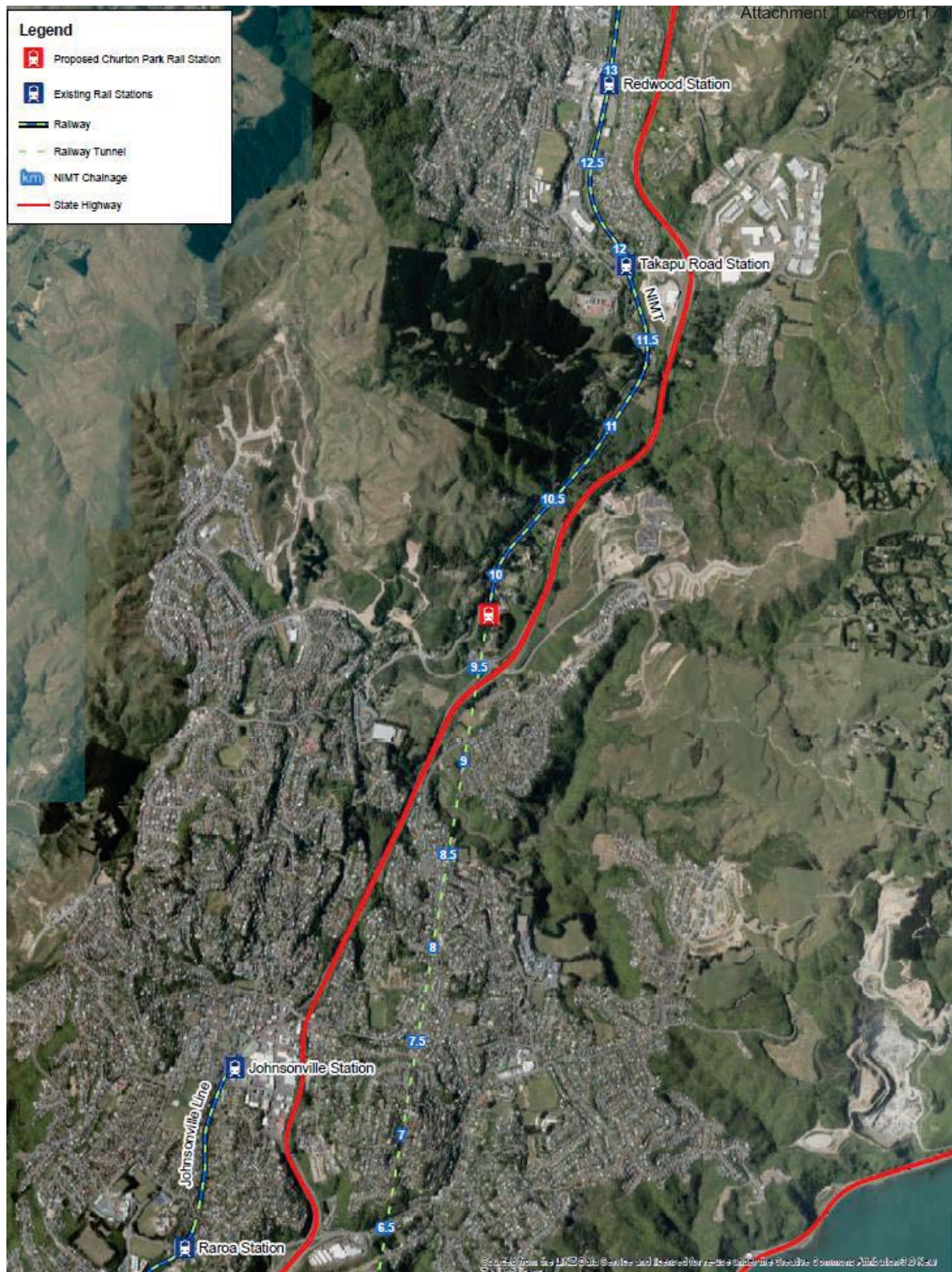


Figure 7: Location of nearby railway stations

### 3.6 Level of Service of Bus Services

There are currently well-used bus services to the Churton Park community which allow direct trips to the Wellington CBD via Johnsonville without transfers. It is understood that proposed changes to Wellington's bus network would mean that Churton Park residents would need to transfer buses in Johnsonville on their commute to the CBD.

It is also understood that buses to Churton Park are often full at peak times, making the bus services less convenient and appealing. This is especially true if commuters are denied boarding due to buses being at capacity.

### 3.7 Level of Service and Timetabling Considerations of Rail Service for Station

Train services from a station at Churton Park would operate on the NIMT, and would therefore operate on a separate line to services from Johnsonville Station. With a distance from the site to Wellington Station of approximately 10 km, and no other stops in between, it is feasible that trip times from a station at Churton Park could be as little as 10-15 minutes. This would provide a high level of service to users of the station.

However, it should be noted that commuter services on the NIMT from stations further north would be impacted due to the slowing, stop/boarding, and acceleration time required. This would impact commuters from nearby suburbs such as Tawa, and from wider network locations such as Porirua and the Kapiti Coast. It is noted that detailed modelling for train movements under the current scenario and the future Rail Scenario 1 have been undertaken as part of *Wellington Regional Rail Plan 2010-2035* (GWRC, 2013).

The detailed modelling of journey times and associated delays is beyond the scope of this initial review.

### 3.8 Alternative Transport Network Improvement Options

A station at Churton Park would provide accessible and convenient park and ride services for approximately 165 vehicles. It is recommended that prior to progressing the current design further, alternate public transport connection improvements be considered, including:

- Construct more parking facilities at Johnsonville Station (potentially with a multi-storey carpark)
- Construct more parking facilities at Takapu Road Station (potentially with a multi-storey carpark)
- Improve bus services to and from Churton Park, Grenada Village and Lincolnshire Farm

## 4 Discussion

A viable station site is located between Rowells Road and Middleton Road, Churton Park, immediately north of Tunnel No. 2 (Tawa Tunnel) on the NIMT. However, connection to this station by any mode of transport other than light vehicles and bus is likely to be limited.

Any station would likely be expensive and with significant environment impact given:

- The likely need to culvert the existing Porirua Stream, and
- Roading connection requirements (either via flyover or major access road upgrade).

There is good provision on the proposed site for car parking.

The Churton Park, Grenada Village and Lincolnshire Farm areas are growing residential areas, with an estimated ~6500 residences predicted to be within 2km of the site under a maximum probable development (current zoning) scenario (refer Section 3.2).

It is likely that park and ride using light vehicles would be the main connection mode to a station at Churton Park (refer Section 3.3). The number of users of the station would therefore be strongly driven by the number of carparks available at the station, although users from other modes would also be expected (refer Section 3.4).

There are two existing railway stations, Takapu Road and Johnsonville, within 2.7 km of the site. While most residents in the subject areas live within reasonable proximity of these stations (that would allow reasonably convenient park and ride services), park and ride capacity issues at these stations may be limiting current use and future growth of park and ride services at these stations (refer Section 3.5).

Proposed changes to bus networks from Churton Park to the Wellington CBD may mean that bus users need to transfer buses in Johnsonville on their way to and from the CBD. The potential decrease in level of bus service perceived and/or experienced by the Churton Park community is understood to be a factor in the community interest for a station at Churton Park (refer Section 3.6).



Train services from a station at Churton Park to Wellington would likely have a travel time between 10 and 15 minutes, providing a high level of service to users. However, the additional stop on the NIMT would have a timetabling impact on train services from all other stations further north along the NIMT (refer Section 3.7).

Future changes to transport modes (such as autonomous vehicles) may see a reduction in the need for park and ride car parking spaces, among other impacts on public transport connectivity. This would change the viability of a station at the identified location, but would not affect the feasibility of the station in the short to medium term.

There is a clear need to provide convenient public transport options to the growing communities of Churton Park, Grenada Village and Lincolnshire Farm. A station at Churton Park would provide accessible and convenient rail transport for the community, with park and ride services for approximately 165 vehicles, and a total user base likely to be in excess of that number. However, the cost to construct a station at Churton Park is likely to be high, due to the unfavourable topography and poor road connections to the station area. The high construction costs may outweigh the benefits of the station. Furthermore, there are alternative options to provide increased park and ride capacity within a reasonable distance of the subject communities.

## 5 Conclusions

Based on this feasibility assessment, we provide the following conclusions:

- a) The proposed station would provide accessible and convenient rail transport for the community, with park and ride services for approximately 165 vehicles, and a total user base likely to be in excess of that number.
- b) The proposed station is likely to be difficult and costly to construct, due to the unfavourable topography and poor road connections. It would potentially have a significant environmental impact, which would need to be mitigated.
- c) A significant portion of the construction costs for the proposed station are likely to be due to providing safe and reliable to the road access to the station, by either improving Rowells Road or constructing a new access over the rail corridor and Porirua Stream from Middleton Road.
- d) The primary transportation advantages of the station would be improved park and ride capacity for the growing community, and a short trip time to the Wellington CBD. Use of these services would cause a reduction in the number of people commuting to Wellington using private cars, having a positive benefit on the road network and the environment.
- e) It is recommended that alternate upgrades such as improvements to park and ride facilities at Johnsonville and/or Takapu Road stations, and additional bus connections to these stations should be progressed ahead of a station at Churton Park as these could be expected to provide access for additional passengers at a lesser cost.

## 6 References

Greater Wellington Regional Council (2013). *Wellington Regional Rail Plan 2010-2035 (2013 Revised Edition)*. Retrieved from <http://www.gw.govt.nz/assets/Transport/Public-transport/Train-docs/WellingtonRegionalRailPlan2010-2035.pdf>

Wellington City Council (2015). *Wellington Urban Growth Plan 2014-2043*. Retrieved from <http://wellington.govt.nz/~media/your-council/plans-policies-and-bylaws/plans-and-policies/a-to-z/wgtn-urban-growth/wgtn-urban-growth-plan2015.pdf>

Wellington City Council (2006). *Lincolnshire Farm Structure Plan*. Retrieved from <http://www.russellproperties.co.nz/sites/default/files/linc-structureplan.pdf>



# Appendix A

# GIS Plans and Site Layout

## **GIS Plans**

**Zoning Plan**

**Ground Slope Plan**

**Nearby Railway Stations Plan**







**Nearby Bus Services Plan**

**Residential Parcel Proximity Plan**











## **Site Layout**

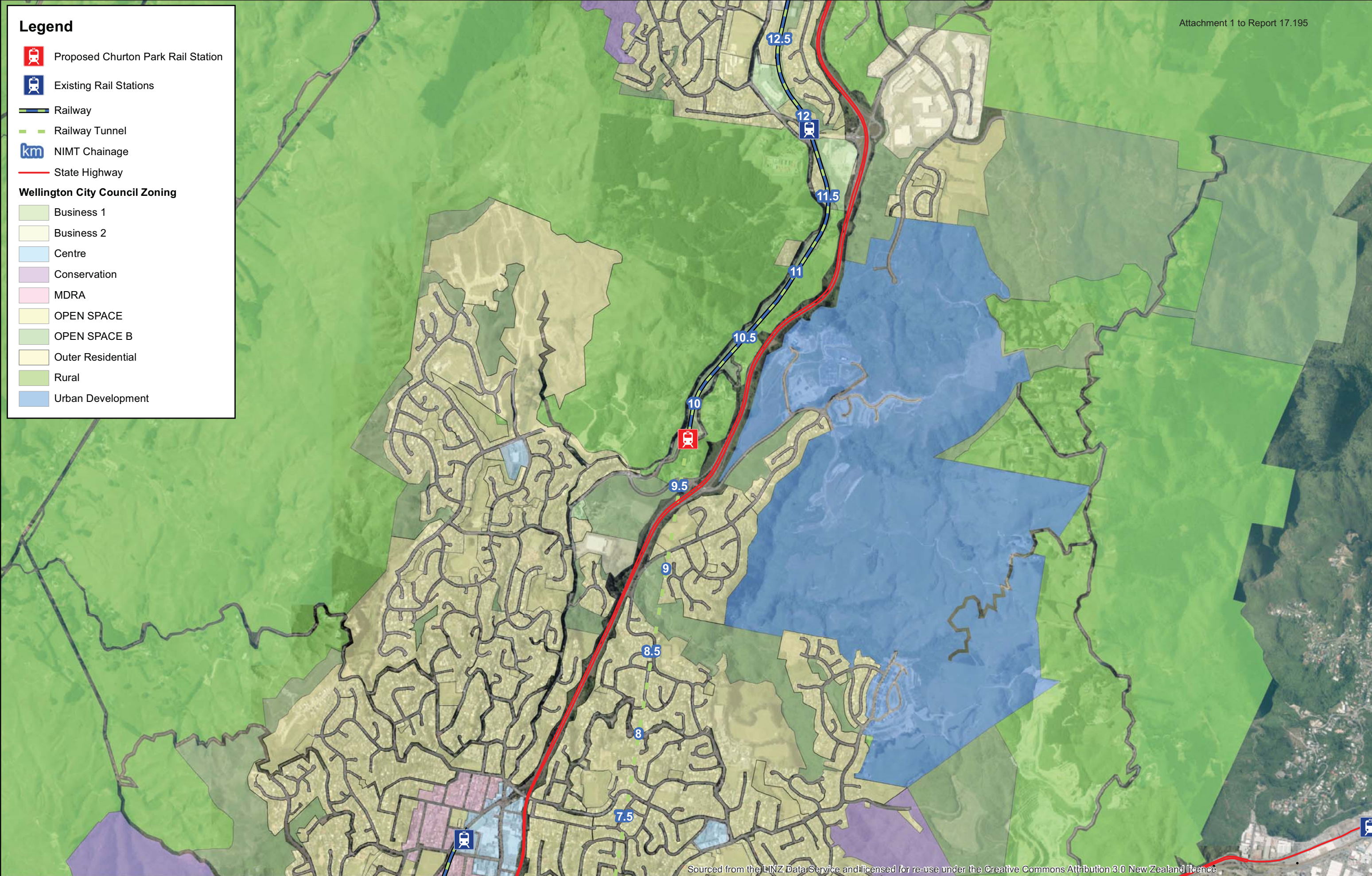


**Legend**

-  Proposed Churton Park Rail Station
-  Existing Rail Stations
-  Railway
-  Railway Tunnel
-  NIMT Chainage
-  State Highway

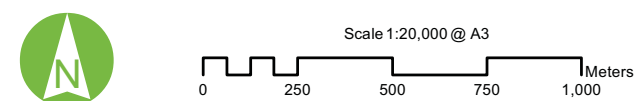
**Wellington City Council Zoning**

-  Business 1
-  Business 2
-  Centre
-  Conservation
-  MDRA
-  OPEN SPACE
-  OPEN SPACE B
-  Outer Residential
-  Rural
-  Urban Development



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Revision: 1.0 27/03/2017

# Greater Wellington Regional Council Churton Park Railway Station

Project Number: 255673 Projection: NZTM

FIGURE 01: Zoning Plan

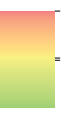
**Legend**

-  Proposed Churton Park Rail Station
-  Railway
-  Railway Tunnel

**Ground Slope**

**Value**

High : 76.1067

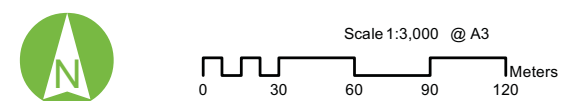


Low : 0



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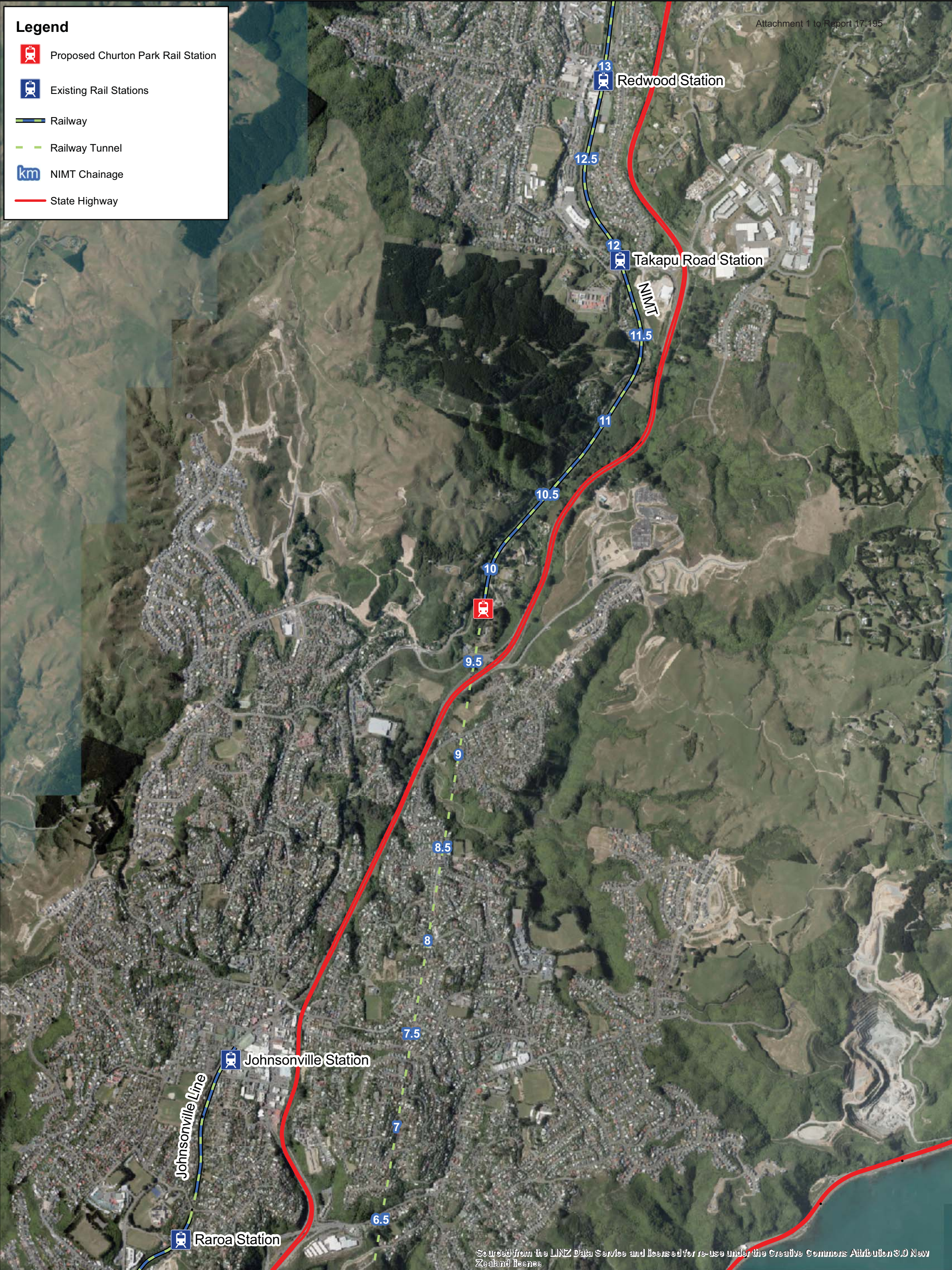
### Greater Wellington Regional Council Churton Park Railway Station

Project Number: 255673 Projection: NZTM

FIGURE 02: Ground Slope

**Legend**

-  Proposed Churton Park Rail Station
-  Existing Rail Stations
-  Railway
-  Railway Tunnel
-  NIMT Chainage
-  State Highway

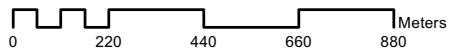


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Scale 1:17,500 @ A3







### Greater Wellington Regional Council Churton Park Railway Station




Project Number: 255673 Projection: NZTM

**FIGURE 03:** Nearby Railway Stations

**Legend**

-  Proposed Churton Park Rail Station
-  Railway
-  Railway Tunnel
-  Bus Stops

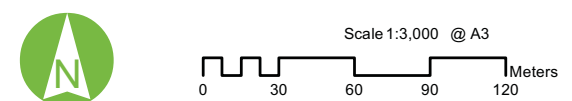
**Bus Service**

-  210 (Johnsonville - Titahi Bay)
-  211 (Porirua - Courtenay Place)
-  97N (Polytech Link: Whitireia Porirua - Weltec Petone - Porirua Station)



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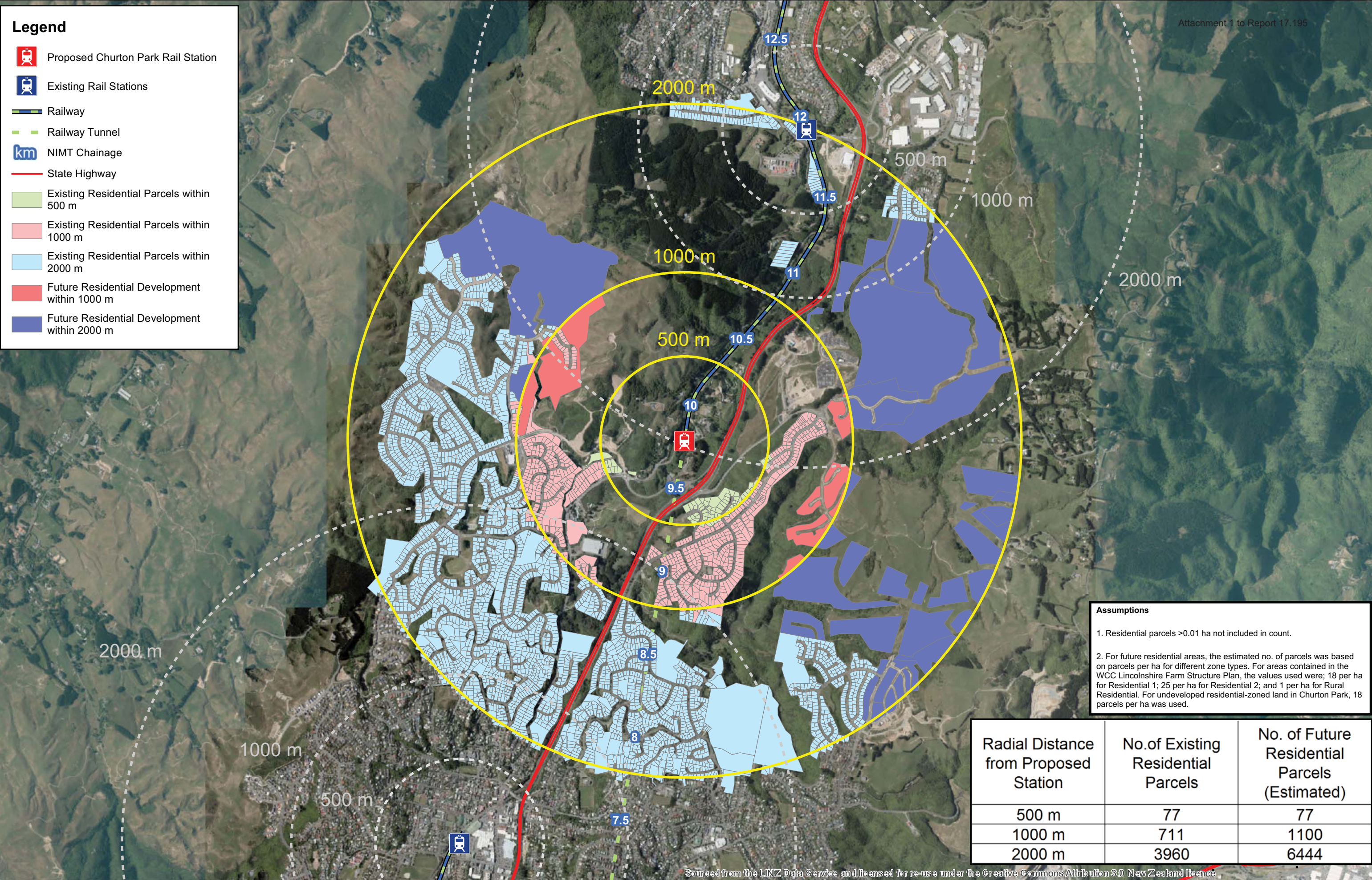


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### Greater Wellington Regional Council Churton Park Railway Station

Project Number: 255673 Projection: NZTM

FIGURE 04: Nearby Bus Services



**Legend**

- Proposed Churton Park Rail Station
- Existing Rail Stations
- Railway
- Railway Tunnel
- NIMT Chainage
- State Highway
- Existing Residential Parcels within 500 m
- Existing Residential Parcels within 1000 m
- Existing Residential Parcels within 2000 m
- Future Residential Development within 1000 m
- Future Residential Development within 2000 m

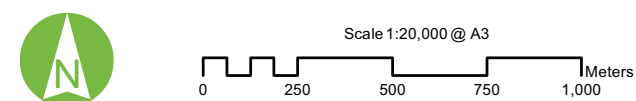
**Assumptions**

1. Residential parcels >0.01 ha not included in count.
2. For future residential areas, the estimated no. of parcels was based on parcels per ha for different zone types. For areas contained in the WCC Lincolnshire Farm Structure Plan, the values used were; 18 per ha for Residential 1; 25 per ha for Residential 2; and 1 per ha for Rural Residential. For undeveloped residential-zoned land in Churton Park, 18 parcels per ha was used.

Radial Distance from Proposed Station	No. of Existing Residential Parcels	No. of Future Residential Parcels (Estimated)
500 m	77	77
1000 m	711	1100
2000 m	3960	6444

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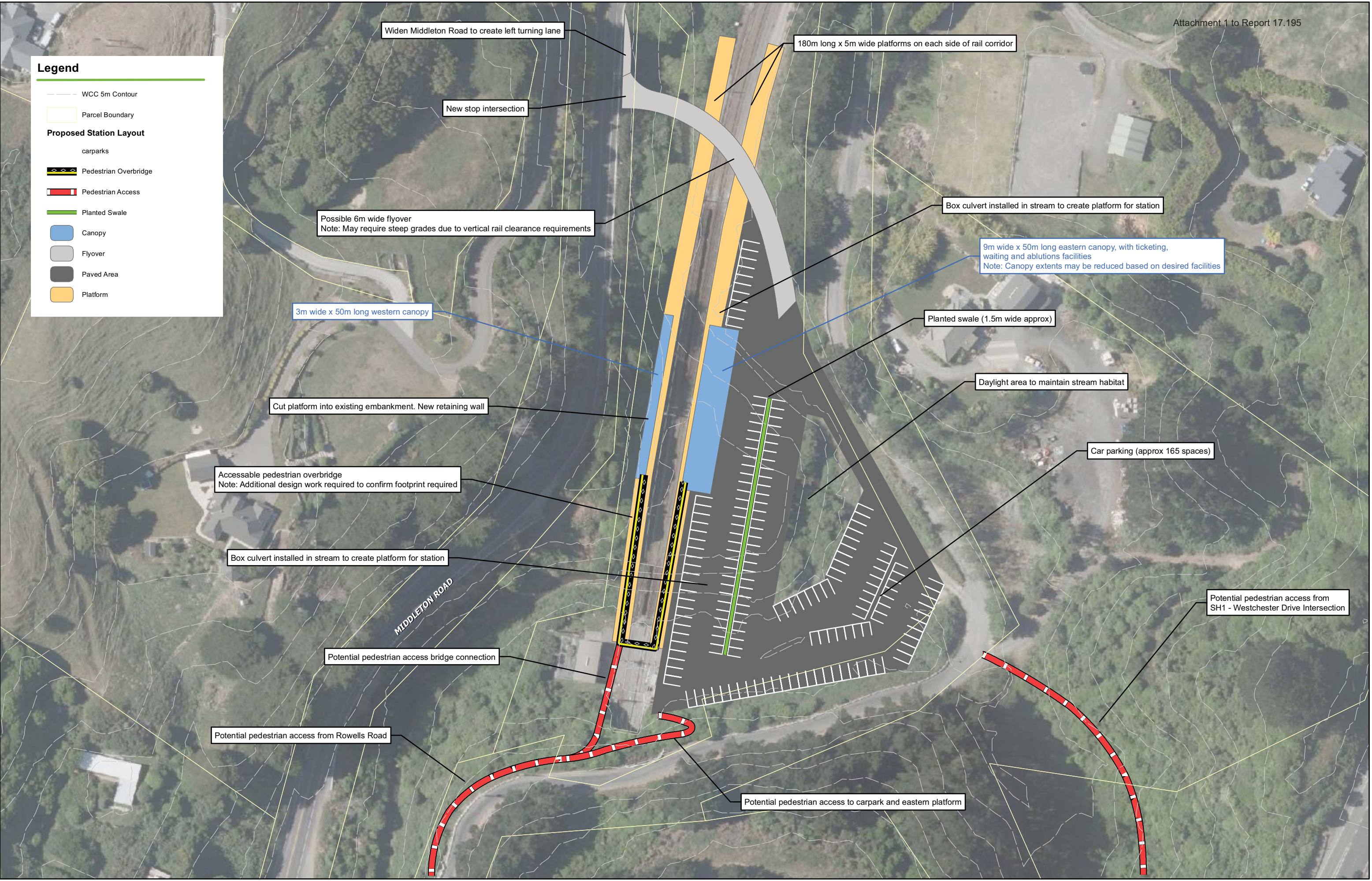
Revision: 1.0 27/03/2017

**Legend**

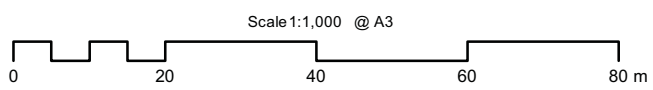
- WCC 5m Contour
- Parcel Boundary

**Proposed Station Layout**

- carparks
- Pedestrian Overbridge
- Pedestrian Access
- Planted Swale
- Canopy
- Flyover
- Paved Area
- Platform



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Project Number: 255673 Projection: NZTM

### Greater Wellington Regional Council Churton Park Railway Station

FIGURE 07: Concept Station Layout

# Appendix B

# Conversation Record

**Conversation Record with member of Churton Park Community Association**

Project number	<b>255673</b>	Conversation date	<b>7 April 2017</b>
Project name	<b>Feasibility Review – Churton Park</b>	Recorded by	<b>BG</b>
Meeting/subject	<b>Community Association perspective for station feasibility (phone call)</b>	Total pages	<b>1</b>

Name	Organisation	Contact details
Bruce Koller	Churton Park Community Association	Withheld
Brock Goodison	Aurecon	Brock.Goodison@aurecongroup.com

This is a record of a discussion by phone to understand community association perspective for potential railway station at Churton Park. A summary of points asserted by Mr Koller during the discussion are:

- It is common for Churton Park residents to drive their car to bus stops within Churton Park, and then bus to the Wellington CBD. Bus commute time 30-40 mins.
- Residents commuting back to Churton Park by bus from the Wellington CBD are often faced with full buses, meaning they can't get on and have to wait for the next bus
- Churton Park residents are keen users of public transport
- Planned changes to bus network would establish a hub at Johnsonville. The impact on Churton Park residents would be that they would need to change buses at Johnsonville to get to the Wellington CBD.
- The expected travel time on the train from the proposed station to Wellington Station would be 10 minutes.
- Most households in Churton Park would have at least one car
- The benefits of the proposed station would be:
  - Station would be close to Churton Park and Grenada Village
  - Lots of room for parking, taking pressure of parking at Takapu Road and Johnsonville Stations
  - Train mode would appeal to older residents compared with buses, as buses are often cramped at peak times
  - Would increase train ridership, reducing number of people driving to Wellington CBD
- Further understanding of future walkways in the area's residential developments could be gained by discussing with the developer of the area
- In Johnsonville, it is common for commuters to park in the nearby supermarket carpark, where they would be at risk of fines
- The envisaged layout for the proposed station would be similar to Takapu Road – small canopy, as most people would wait in their cars until the train arrived if it was raining
- There is a local community interest in the health of the Porirua Stream. The organisation especially interested in this is the Glenside Progressive Association
- Acknowledged that improvements would need to be made to Rowells Road to allow access, or a new road access created off Middleton Road



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**Aurecon New Zealand LimitedAurecon New Zealand Limited**

Spark Central  
Level 8, 42-52 Willis Street  
Wellington 6011  
PO Box 1591  
Wellington 6140  
New Zealand

**T** +64 4 472 9589

**F** +64 4 472 9922

**E** wellington@aurecongroup.com

**W** aurecongroup.com

**Aurecon offices are located in:**

Angola, Australia, Botswana, China,  
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