

Appendix B: Tranz Metro (Wellington)

Important Notice

The information presented in this appendix is intended to provide Respondents with an overview of the Tranz Metro (Wellington) business. The information has been developed from publicly available information. All information will need to be confirmed during due diligence. The Council does not warrant the accuracy of the information provided.

Background

Tranz Metro (Wellington) is a trading division of Tranz Rail Holdings Limited. Tranz Metro (Wellington) provides urban services within the area bounded by Paraparaumu, Johnsonville and Upper Hutt, with rural service to Masterton in the Wairarapa.

The urban services are provided by electric multiple units with locomotive hauled services to Masterton. In conjunction with these services, the Capital Connection, owned and operated by Tranz Scenic (a 50/50 partnership between Tranz Rail and West Coast Rail), provides one peak inbound service and one peak outbound service from and to Otaki each weekday. The train originates/terminates at Palmerston North. The greater part of the load for the "Capital Connection" travels wholly within the Wellington Region and is made up largely of commuters. Note: The Capital Connection is not a Tranz Metro (Wellington) service.

The electric multiple unit services and the Wairarapa services are currently provided under contract to Greater Wellington Regional Council.

Trains operate on a track with gauge of 1067mm (3 feet 6 inches). Multiple units operate from an overhead traction system, 1500v DC. Apart from several tunnels constructed because of the terrain, the system is classified as a surface system. All stations are at surface level.

Services

Details of the various services, fares and timetables can be found on the Council's website www.gw.govt.nz/rt/pickroute.cfm.

This information is also included in an attachment to the proposed funding agreement. Peak and off-peak services are identified by individual trip in that agreement.

Hutt Valley

A route from Wellington to Upper Hutt of 32.4 kilometres with a short branch line from Petone to Melling of 2.97km. The route from Wellington is double track to Trentham (29.4km) and single track from there to Upper Hutt (3 km). All of the Melling branch is single track.

The Upper Hutt Line is shared with freight operations serving freight sidings in the Hutt Valley and with a daily service through to Masterton. The Melling branch is solely a passenger line.

The Upper Hutt Line has 17 stations and the Melling branch 2 stations.

Rolling stock is stabled at Upper Hutt, and Wellington.

Services are operated:

Wellington – Upper Hutt
Wellington – Taita
Wellington – Melling
And vice versa.

**Hutt Valley Line Service
Number of Trains**

	Monday – Friday		Sat.	Sun.	Total
	Peak	Off-peak			
Upper Hutt to Wellington	15	23 ₁	34	30	257 ₂
Taita to Wellington	11	-	-	-	55
Wellington to Upper Hutt	12	23 ₁	34	30	242 ₂
Wellington to Taita	14	-	-	-	70
Upper Hutt Service	52	46	68	60	624 ₂

1. Three additional trains operate on Fridays only; not included in figures.

2. Totals include additional Friday Trains

**Melling Service
Number of Trains**

	Monday – Friday		Sat.	Sun	Total
	Peak	Off-Peak			
Melling to Wellington	12	2	-	-	70
Wellington to Melling	12	2	-	-	70
Melling Service	24	4	-	-	140

Paraparaumu

This route is part of the North Island Main Trunk Railway which extends to Auckland. Electrified urban services are currently provided as far as Paraparaumu, a distance of 48.26km although there are plans to extend the electrified route by a further 7.17km to Waikanae and to construct new stations at Raumati South and Lindale.

The route is double track from Wellington to South Junction 32.09km (Muri), single line to North Junction 35.26km (3.5km south of Paekakariki), - double track to McKays Crossing (41.77km) and then single track to Paraparaumu and Waikanae.

This line is shared with both Tranz Scenic 2001 (long distance passenger) and freight services.

Services are operated:

Wellington – Paraparaumu
Wellington – Plimmerton
Wellington – Porirua

And vice versa

**Paraparaumu Line Service
Number of Trains**

	Monday – Friday		Sat.	Sun.	Total
	Peak	Off-Peak			
Paraparaumu to Wellington	11	20 ₃	34	30	223
Plimmerton to Wellington	14	8 _{1,2}	0	0	105
Porirua to Wellington	8	0	0	0	40
Wellington to Paraparaumu	9	21 ₃	34	30	217
Wellington to Plimmerton	14	7 ₂	0	0	101
Wellington to Porirua	9	0	0	0	45
Paraparaumu Service	65	56	68	60	731

1. One train does not operate on Mondays
2. Four services Mon – Thur only
3. Four additional Friday only services

Services are stabled at Wellington and Paekakariki. There are 50 stabling/positioning movements per week between Paraparaumu and Paekakariki or vice versa.

Johnsonville

This is a short single line of 10.49km which follows the alignment of the original Manawatu Railway Company line. The line includes 7 tunnels which have restricted clearances and at present are not suitable for Ganz Mavag rolling stock so all services are operated using English Electric stock. All services operate the full distance to Johnsonville, and service the 7 intermediate stops. Crossing places are provided at Wadestown Loop, Ngaio and Khandallah. There is no rolling stock storage on the line so all services are operated from Wellington.

**Johnsonville Line Service
Number of Trains**

	Monday – Friday		Sat.	Sun.	Total
	Peak	Off-Peak			
Johnsonville – Wellington	18	26 ₁	35	30	283
Wellington to Johnsonville	17	27 ₂	34	30	283
Johnsonville Service	35	53	69	60	566

1. Two trains do not operate on Mondays
2. One train does not operate on Mondays

Wairarapa

The Wairarapa services are locomotive hauled carriage stock which operate between Wellington and Masterton (90.98km)

The line is shared with limited freight services beyond Upper Hutt.

Three peak return services operate with up to seven cars. Other services operate as a basic two car trains that are increased as required to meet peaks and/or group travel. As well as conveying passengers to and from the Wairarapa the peak services supplement the electric multiple units (EMU) services through the Hutt Valley.

**Wairarapa Line Service
Number of Trains**

	Monday – Friday		Sat.	Sun.	Total
	Peak	Off-Peak			
Masterton – Wellington	3	2 ₁	2	2	25
Wellington to Masterton	3	2 ₁	2	2	25
Wairarapa Service	6	4	4	4	50

1. *One additional service on Fridays*

Rolling Stock

Description	Number
Two car Ganz Mavag Electric Multiple Units 1981-83	44
Three car English Electric Multiple Units (Hutt and Paraparaumu services) circa 1949-1954	6
Two car English Electric Multiple Units (Johnsonville) circa 1949-1954	12.5
Carriages circa 1940	15
Locomotives	=3

Side views of the electric multiple units are on Tranz Rail’s website www.tranzrail.co.nz, click the drawing reference for locomotives and ferries. Class D and DM are the English Electric Units, EM and ET are the Ganz Mavag units.

Operating Statistics

Annual Passenger Journeys	9.9M
Annual Passenger kms	234.2M
Annual Fare Revenue	\$21.6M
Annual Public Subsidy	\$17.4M
Annual Train Kms	2.6M
Annual Car Kms	8.6M
Annual Car hours	0.206M
Annual Train Hours	81,900
Annual GTK	344.4M
Peak Vehicles	130

Note: - This data relates to the year ended 30 June 2001 and does not include the additional services on the Paraparaumu Line introduced on 5 August and 6 October 2001.

Stations

Wellington	Major structure includes 6 levels of offices plus large concourse, 9 platforms, storage sidings, EMU maintenance facility, external wash. Unit/carriage cleaning shelter. Adjacent freight/marshalling yard and locomotive servicing facility.
Kaiwharawhara	Island Platform (8 cars) no passenger shelter. Unattended. No commuter car parking, accessed by overbridge.

Paraparaumu Line

	Two double track tunnels (1,238 & 4,323metres) Two minor bridges
Takapu Road	Separate up and down platforms, passenger shelters each side, 8 cars 63 commuter car parks, accessed from road bridge at south end.
Redwood	Split up and down platforms due to level crossing, passenger shelter each side, 8 cars, 97 commuter car parks, accessed at grade from level crossing.
Tawa	Island platform, older structure, substantial building but no longer attended, large veranda with plenty of under cover waiting area, 8 cars, 40 commuter car parks, accessed from overbridge.
Linden	Unattended, island platform, medium sized shelter, 8 cars No car parking, accessed by either an overbridge or at grade from level crossing.
Kenepuru	Up and down platforms, minimal shelter, 8 cars No car parking, accessed at grade and by overbridge.

Porirua	Recently renovated officered station with substantial building and verandas. Facility shared with Tranz Scenic services. Station yard and signalling frame. 8 cars, 166 commuter car parks, Accessed by subways. Crossing loop. Road bridge over tracks
Paremata	Island platform, older structure, substantial building but no longer attended, large veranda with plenty of under cover waiting area, 8 cars, 162 commuter car parks, accessed by subways Significant double track bridge over Pauatahanui Arm of Porirua Harbour.
Mana	Up and down platforms , minimal shelter, 8 cars 20 commuter car parks, accessed at grade and by subways.
Plimmerton	Island platform, older structure, substantial building but no longer attended, large veranda with ample under cover waiting area, 8 cars, 35 commuter car parks, accessed by subways or at grade from level crossing. Crossing loop
Pukerua Bay	Unattended, island platform, medium sized shelter, 8 cars No significant commuter car parking, accessed at grade and over tracks
Muri	Up and down offset platforms, Minimal shelter, 8 cars No commuter car parking. Accessed at grade and over tracks
South Junction	Commencement of single line section 5 Tunnels (153, 290, 278, 244, 59 metres)
North Junction	End of single line section Road bridge over tracks
Paekakariki	Island Platform with substantial station building which is sublet as a museum. Ample covered platform area, 8+ cars, 50 commuter car parks. Accessed at grade from level crossing or over tracks. Crossing loop.
Mackays Crossing	End of Double line
Raumati South	Proposed site of new station
Paraparaumu	Single platform, Medium sized station building, offices sub let, sufficient covered platform, 8 cars, shared with Tranz Scenic, 205 commuter car parks. End of electrified area. Accessed via overbridge to car park. Crossing loop.
Lindale	Proposed site of new station
Waikanae	Unattended single platform, 2 cars, Minimal shelter, served by Capital Connection, accessed at grade.

50 commuter car parks. Crossing loop

Johnsonville Line

Rail bridge over road.
3 single track tunnels (126, 98, 151 metres)

Wadestown Loop Crossing place only – no passenger pick up or set down

Two tunnels (199 & 127 metres)

Crofton Downs Unattended single platform, 6 cars, minimal shelter, 44 commuter car parks, accessed at grade.

Ngaio Unattended, up and down platforms, 6 cars, minimal shelter down trains only, 25 commuter car parks, Crossing loop. Accessed at grade

Awarua Street Unattended single platform, 6 cars, minimal shelter. No car parks
Accessed by steps.

Simla Cres Unattended single platform, 6 cars, Good shelter, no car parks
Accessed at grade

Khandallah Unattended, up and down platforms, reasonable shelter, 6 cars, 8 commuter car parks, accessed at grade from level crossing. Crossing Loop.

Tunnel 104 metres

Raroa Unattended single platform, minimal shelter, 6 cars, No car parking,
Accessed at grade

Tunnel (119 metres)

Johnsonville Single platform, limited attendance for ticket sales only, ample shelter, 43 commuter car parks. Accessed by steps.

Hutt Valley Line

Tunnel under motorway

Ngauranga Unattended island platform, 8 cars, limited patronage, no demand for commuter car parking. Accessed by subway

Petone Unattended up and Down platforms, old station building on down main, ample shelter on both platforms, 8 cars, 143 commuter car parks, Junction with Melling Branch. Accessed at grade and by subway.

Melling Line junction.

Ava	Unattended island platform, minimal shelter, 8 cars, no car parking. Accessed by overbridge. Major bridge over the Hutt River Road overbridge
Woburn	Unattended island platform, 8 cars, junction for Gracefield (freight only) branch, Reasonable shelter, 104 commuter car parks. Accessed by overbridge. Crossing loop.
Waterloo	Purpose built bus/rail interchange station is owned by GWRC. Attended for ticket sales, 8+ cars, up and down platforms, 455 commuter car parks. Accessed at grade and by subway. Road overbridge
Epuni	Unattended island platform, reasonable shelter, 8 cars, No car parking. Accessed by subway. Road overbridge
Naenae	Unattended island platform, large unused building, ample shelter from verandas, no car parking. 8 cars, accessed by subway.
Wingate	Unattended island station, reasonable shelter, 8 cars, no car parking. Accessed by overbridge. Road overbridge
Taita	Unattended island station, large unused building, ample shelter from verandas, 8 cars, 127 commuter car parks. Accessed by subway.
Pomare	Unattended island station, minimal shelter, 8 cars, no car parking Accessed by subway. Rail bridge over road Bridge over Hutt River
Manor Park	Unattended island station, accessed by subway, low patronage, sufficient shelter, 8 cars, no demand for car parking. Accessed by subway from west and at grade track from east. Bridge over Hutt River
Silverstream	Unattended island platform accessed from level crossing, reasonable shelter, 8 cars, 60 commuter car parks. Accessed at grade from level crossing.

Heretaunga	Unattended island platform, accessed by overbridge, 8 cars, reasonable shelter, no car parking
Trentham	Unattended single line station with additional platform serving adjacent race course, ample shelter, 8 cars, 37 car parks. Accessed at grade
Wallaceville	Unattended single line platform, minimal shelter, 8 cars, 42 car parks Accessed at grade
Upper Hutt	Attended single line station with dock. 8+ cars, substantial station building with ample shelter. 156 car parks. End of electrified area. Accessed at grade. Crossing loop.

Wairarapa Line

	Tunnel (572 metres)
Maymorn	Unattended, minimal shelter, 3 car platform, accessed at grade. No car parking Rail bridge over road Tunnel (8,798 metres)
Featherston	Station Building, attended for peak ticket sales, crossing loop, accessed at grade, 7 car platform. 70+ commuter car parks Bridge over Tauherenikau River
Woodside	Unattended, minimal shelter, 4 car platform, accessed at grade, 42 commuter car parks. Station for Greytown. Bridge over Waiohine River
Matarawa	Flag station, no platform, accessed at grade. No formal car parking.
Carterton	Station building sublet, attended for ticket sales, ample shelter, 7 car platform, 44 commuter car parks, accessed at grade Bridge over Waingawa River.
Solway	Unattended, minimal shelter, no platform, 10 commuter car parks accessed at grade.
Renall St	Unattended, minimal shelter, 3 car platform, no formal car parks accessed at grade
Masterton	Substantial station partly sub let, ample shelter, crossing loop, 10 car platform, turntable, attended for ticket sales, 65 commuter car parks.

Signalling

Johnsonville Line	Single Line Automatic with manual override from Wellington
Paraparaumu Line	Double Line Automatic: Wellington – South Junction, North Junction - Mackays Crossing
CTC	South Junction - North Junction, Mackays – Waikanae
Hutt Valley Line	Double Line Automatic : Wellington – Trentham
CTC	(Controlled from Upper Hutt or Wellington) Trentham – Upper Hutt
Wairarapa Line	CTC to Featherston then Track Warrant
Melling Line	Open section

Appendix C

Tranz Metro Routes on following two pages.

WELLINGTON URBAN RAIL NETWORK

LEGEND

- Double track urban (electrified)
- Single track urban (electrified)
- Single track urban (not-electrified)
- Single track other
- Main Roads
- State Highway
- Urban area



2 km 0 4 km 8 km

PARAPARAUMU LINE ①

Paraparaumu	48.26
Paekakariki	38.80
Muri	31.23
Pukerua Bay	30.35
Pikmaerton	24.48
Mana	23.16
Paremafa	21.87
Porirua	17.74
Keneperu	16.16
Linden	14.91
Tawa	13.75
Redwood	13.17
Takapu Rd	11.89
Kaiwharawhara	2.55
Wellington	0.00

JOHNSONVILLE LINE ②

Johnsonville	10.49
Rarua	9.33
Khandallah	7.89
Boxhill	7.34
Simla Crescent	6.89
Awarua Street	6.01
Ngaio	5.42
Crofton Downs	4.77
Wellington	0.00

MELLING BRANCH ③

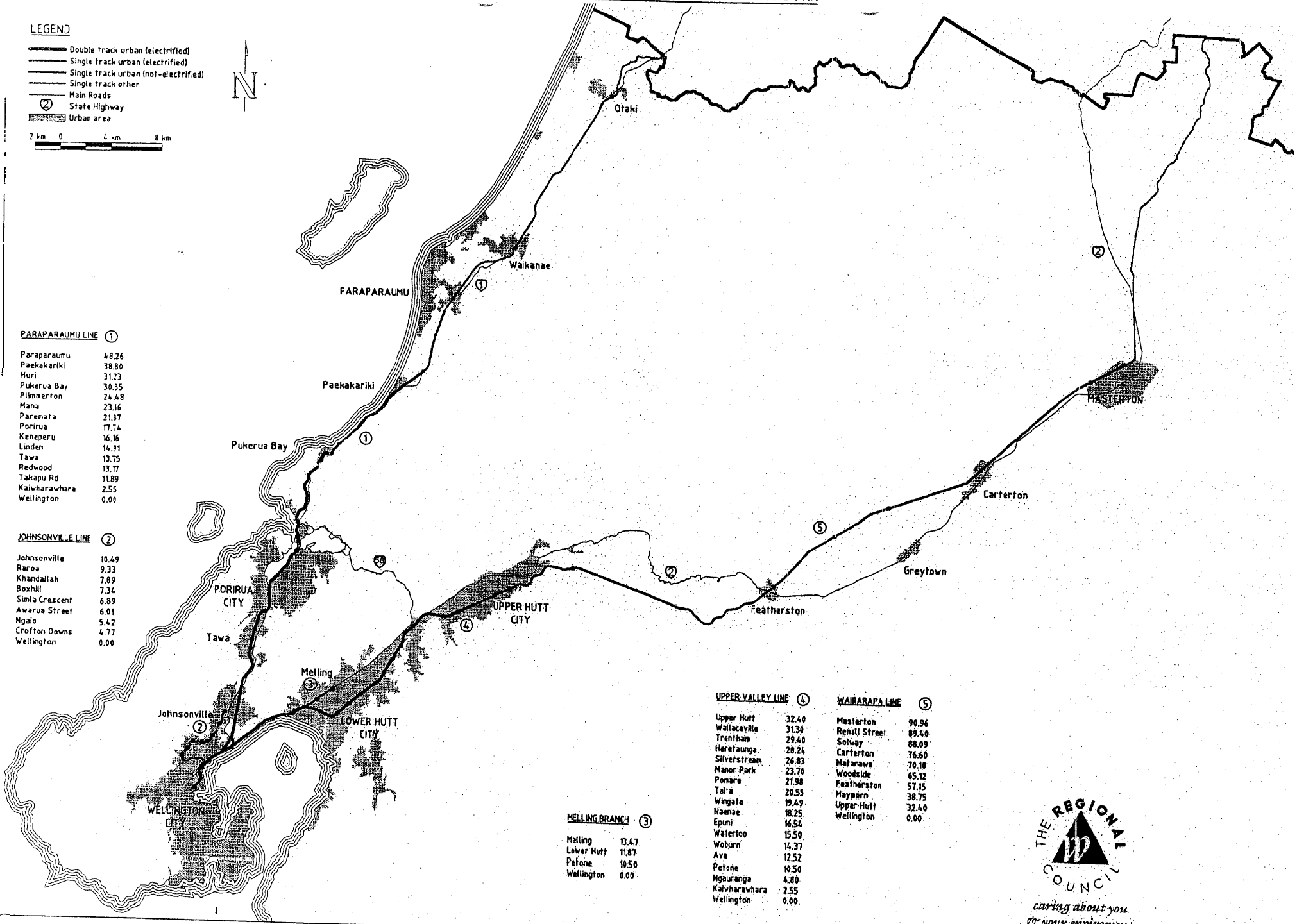
Melling	13.47
Lower Hutt	11.87
Pelone	10.50
Wellington	0.00

UPPER VALLEY LINE ④

Upper Hutt	32.40
Wallaceville	31.30
Trentham	29.40
Heretaunga	28.24
Silverstream	26.83
Manor Park	23.70
Ponare	21.98
Talia	20.55
Wingate	19.49
Naenae	18.25
Epuni	16.54
Waterloo	15.50
Woburn	14.37
Ava	12.52
Pelone	10.50
Ngaranga	4.80
Kaiwharawhara	2.55
Wellington	0.00

WAIRARAPA LINE ⑤

Masterton	90.96
Renall Street	89.40
Solway	88.09
Carterton	76.60
Mataraua	70.10
Woodside	65.12
Featherston	57.15
Maysorn	38.75
Upper Hutt	32.40
Wellington	0.00



WELLINGTON URBAN RAIL SCHEMATIC

PARAPARAUMU LINE

To Waikanae and north	
+ ##	Paraparaumu 48.26
@@	Mackays 41.77
##	Paekakariki 38.80
@@	North Junction 35.26
@@	South Junction 32.09
##	Muri 31.23
##	Pukerua Bay 30.35
+ ##	Plimmerton 24.48
##	Mana 23.16
+ ##	Paremata 21.87
+ ##	Porirua 17.74
##	Kenepuru 16.16
##	Linden 14.91
##	Tawa 13.75
##	Redwood 13.17

JOHNSONVILLE LINE

+ #	Johnsonville 10.49
#	Raroa 9.33
##	Khandallah 7.89
#	Boxhill 7.34
#	Simta Cres 6.89
#	Awarua St 6.01
##	Ngaio 5.42
#	Crofton Downs 4.77

WAIRARAPA LINE

To Woodville and north	
#	Masterton 90.96
#	Renall St 89.40
#	Solway 88.09
#	Carterton 76.60
#	Matarawa 70.10
#	Woodside 65.12
+ #	Featherston 57.15
#	Maymorn 38.75
+ ##	Upper Hutt 32.40
#	Wallaceville 31.30
##	Trentham 29.40
##	Heretaunga 28.24
##	Silverstream 26.83
##	Manor Park 23.70
##	Pomare 21.98
+ ##	Taita 20.55
+ ##	Wingate 19.49
##	Naenae 18.25
##	Epuni 16.54
+ ##	Waterloo 15.50
##	Woburn 14.37
##	Ava 12.52
+ ##	Petone 10.50
##	Ngauranga 4.80

UPPER VALLEY LINE

MELLING BRANCH

#	Melling 13.47
#	Lower Hutt 11.87

Takapu Rd 11.89

Kaiwharawhara 2.59

Wadestown Loop 3.09
(No public access)

+ #####	WELLINGTON	0.00
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LEGEND

- Electrified
- Not electrified
- # Station 1 Platform
- ## Station Multiple Platforms
- @ Junction
- + Bus Connection- Private operator

