

14 August 2013

Roger Willcocks

RogerW@l-space-design.com

Dear Mr Willcocks

Local Government Official Information and Meetings Act 1987 (LGOIMA)

AT2013 / 037300

Thank you for your email dated 18 July 2013, which Auckland Transport received on the same date, requesting information regarding capacity planning for the new Train / Bus network in South Auckland as follows:

1. " Currently at peak there are 6 trains per hour from Papakura Those trains have 5 carriages each (at most) giving a capacity of 600-650 people.
The new trains will have 6 carriages, giving a capacity of 756 people.
The plan is for "increasing to 6 trains per hour" and talk is about "every 15 minutes" which is 4 trains per hour
<http://www.aucklandtransport.govt.nz/improving-transport/new-network/Pages/details-of-proposed-changes.aspx>
4 trains per hour is at best no improvement on capacity. 6 trains per hour is a 15% to 25% improvement on capacity. If you have data that refutes this, I would like to see it please."
2. Auckland Transport (I have been told at the open day) cannot collect information on the occupancy of the trains. You can say that 1500 people went on the 8:45 train on July 16 but you cannot say that the highest number of people on the train at one time was 560. Without that figure, you cannot determine the % utilisation of the train. Which to me would seem to be a key requirement in determining required capacity increases.

Currently the monthly figures (for Auckland as a whole) seem to be

Bus ~4,500,000

Train ~900,000

So moving 10% of bus users to trains would likely swamp your average capacity increase.

3. I would like copies of the data and models you have used to forecast demand on the South Auckland rail network under the new structure (including bus service changes).

I would also like any information you have on the confidence associated with that data.

4. Finally, I would like any information relating to your contingency planning for increased demand. Specifically:
- How much reserve capacity do you have
 - Does it require/allow for continued use of diesel trains
 - In the event that the reserve capacity is insufficient, what funding and timing provisions are in place for the acquisition of additional capacity.

Planned frequency and capacity

The service levels indicated on Auckland Transport's website at <http://www.aucklandtransport.govt.nz/improving-transport/new-network/Pages/details-of-proposed-changes.aspx> refer to the minimum service levels operating throughout the twelve hour period, quote: "...there will be trains to and from Manukau and Papakura **at least** every 15 minutes between 7am and 7pm, seven days a week" (emphasis added). This does not mean that there will only be a 15 minute service frequency during the peak period. Auckland Transport is planning a train service frequency from Papakura of six trains per hour over the peak period and this level of peak service frequency determined the quantity of trains required to provide the necessary capacity.

Information on the occupancy of trains

You are correct in that Auckland Transport is not currently able to capture train occupancy data on a regular basis. However, Auckland Transport is able to assess train occupancy from survey and train crew data. Counts of the number of passengers on board a single train are collected by the train crew at pre-set locations and this is supplemented by counts of boardings and alightings at each station on each train. The new ticketing system is also an additional tool that can be used to verify these observations based on the time and location of the ticketing transactions. While demand for travel on any single train can be variable, it is possible to calculate the time period individual train occupancy using the different data sources available.

Forecast data and models

The current order for 57 three-carriage EMUs was based on extensive studies that resulted in a series of recommendations that are set out in the Draft Auckland Metro Rail Electrification Working Group Report of August 2009, which is available at www.bettertransport.org.nz/wp-content/uploads/2009/09/electrification-report.pdf. This report was the result of a joint study led by the Ministry of Transport and included The New Zealand Transport Agency (NZTA), KiwiRail, the Auckland Regional Transport Authority (ARTA) and the Auckland Regional Council (ARC). It established the requirements and set the budget for the electrification of the Auckland rail network.

The spreadsheet overleaf shows the current and planned (2016) train capacity for services from Papakura, together with the observed peak demand profile for the Southern line. The additional capacity from Papakura offered by the EMUs is 28% seated and 46% total. Please note that the electrified service timetable will include significantly more services from Manukau which will supplement the capacity offered at train stations north of Puhinui.

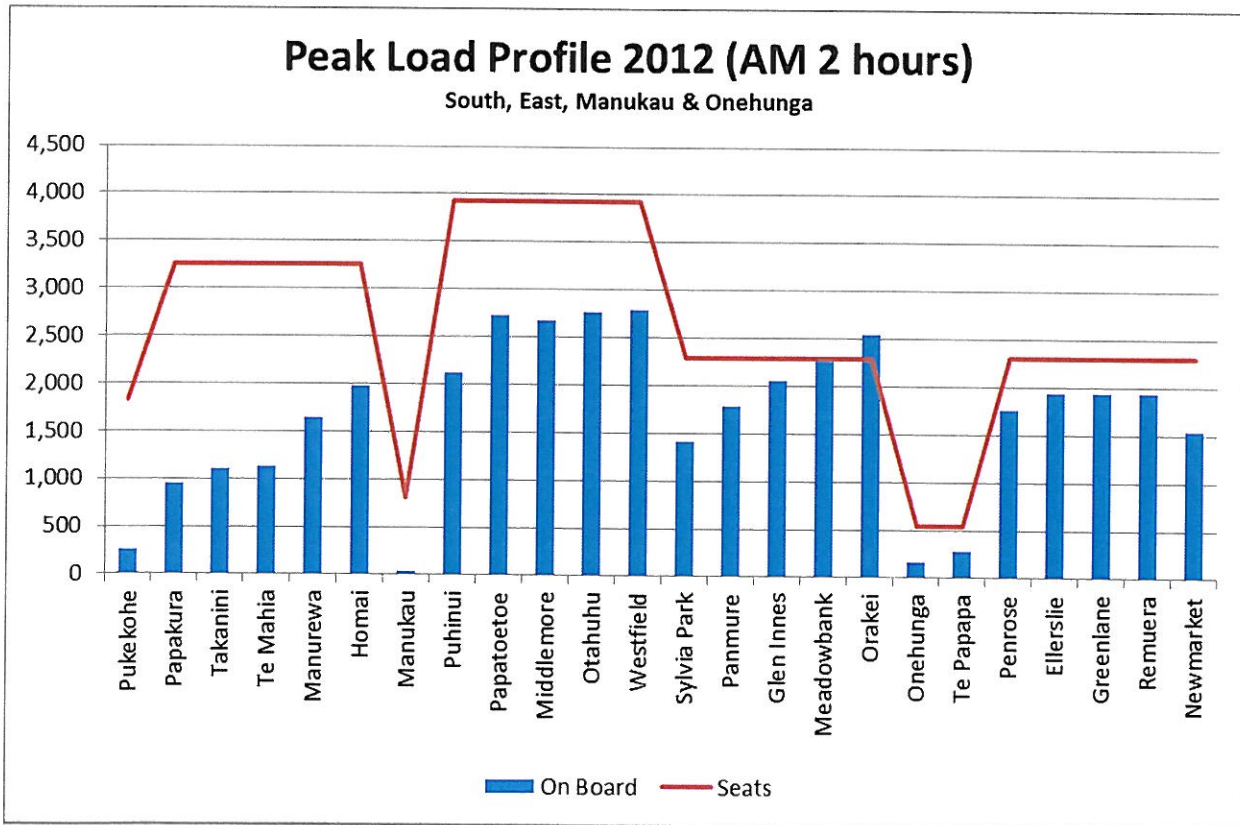


Morning 2-hour peak period (arrivals at Britomart between 07:00am and 09:00am)

Currently Supplied				
Papakura	Britomart	Train Type	Seats	Seats + Standing
06:10	07:03	SX5	238	333
06:25	07:18	SA4	250	350
06:31	07:24	SA4	250	350
06:44	07:37	SA4	250	350
06:51	07:44	SA5	312	437
07:05	07:58	SA4	250	350
07:10	08:03	SA5	312	437
07:24	08:17	SA5	312	437
07:31	08:24	ADK4	244	342
07:45	08:38	SA5	312	437
07:51	08:44	ADK4	244	342
08:03	08:56	SA5	312	437
AM Peak Total			3,286	4,602

Planned Electrified				
Papakura	Britomart	Train Type	Seats	Seats + Standing
06:20	07:00	EMU3	234	375
06:30	07:10	EMU3	234	375
06:40	07:20	EMU3	234	375
06:50	07:30	EMU3	234	375
07:00	07:40	EMU6	468	750
07:10	07:50	EMU6	468	750
07:20	08:00	EMU6	468	750
07:30	08:10	EMU6	468	750
07:40	08:20	EMU6	468	750
07:50	08:30	EMU6	468	750
08:00	08:40	EMU3	234	375
08:10	08:50	EMU3	234	375
AM Peak Total			4,212	6,750

28.2% 46.7%



Patronage demand assumptions are derived on an in-house basis using very large Auckland Public Transport computer models which run on a licenced software system which under our licence agreement we are not able to pass on. Therefore in order to supply copies of the data and models used to forecast demand on the South Auckland rail network under the new structure as requested, Auckland Transport would have to extract information and then create the information in a format specifically for you. Under the Local Government Official Information and Meetings Act, Auckland Transport is not required to create information to match a particular request. Therefore, as the information requested cannot be made available without substantial collation or research, Auckland Transport proposes to refuse this particular request under section 17 (f) of the LGOIMA. However, if the information we have supplied is not sufficient for your purposes, in discharge of our obligation under s17(B) of the LGOIMA, we would invite you to either refine or re-cast your request.

Data Confidence levels

Auckland Transport's computer modelling tends to rely on the base model calibration statistics resulting during the model build process. Forecasts are principally scaled by land use forecasts and population and employment forecasts which are based on Auckland Council forecasts, which in turn rely on Statistics NZ forecasts. These forecasts are thus consistent with National estimates.

Contingency Planning

As part of any planning for multi-million dollar investments, a series of test scenarios are run as part of the whole evaluation. These include, but are not limited to, scenarios where patronage grows at a greater or lesser rate than assumed. The current order of EMUs is considered to have sufficient capacity to meet demand to 2021 by which time service levels are planned to increase as a result of the CRL and more trains will be then required to supply the service levels needed. In the meantime, the main restriction on increasing peak service levels is the capacity of Britomart which will reach its limit in 2016. However, should demand increase to the extent that service levels might become inadequate Auckland Transport has the option of increasing the size of the trains (from 3-car to 4-car) by the insertion of an intermediate carriage or, by supplementing the service levels with alternative service options that do not need to use Britomart.

Should you believe that we have not responded appropriately to your request, you have the right in accordance with section 27(3) of the LGOIMA to make a complaint to the Office of the Ombudsmen to seek an investigation and review of the decision.

If you have any further queries please contact Auckland Transport on 355 3553 quoting Official Information request number AT2013/037300

Yours sincerely



Mark Lambert

Group Manager Public Transport

