

PROJECT WYNYARD QUARTER TMA
SUBJECT KEY FINDINGS FROM WYNYARD QUARTER MONITORING SURVEYS
TO TMA STEERING GROUP
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1 OVERVIEW

This technical note provides a summary of the results of the surveys undertaken in Wynyard Quarter in October and March from 2012 to 2013, and annually in March from 2014 to 2017, based on the methodology provided in I214.11.1 of the Auckland Unitary Plan. It is noted that the surveys provide just a snapshot of traffic conditions and are affected by events occurring within Wynyard Quarter and wider afield. As such, caution should be taken in interpreting trends.

By way of summary the results of these surveys have found the following:

- ◆ Relative to the March 2016 surveys, the reopening of Halsey Street and Viaduct Harbour Avenue to has reopened two of the Wynyard Quarter vehicle entry points. This has resulted in a significant increase in vehicle movements into and out of the Wynyard Quarter during peak hours in March 2017, relative to March 2016.
- ◆ Ongoing partial closures of both Halsey Street and Gaunt Street have continued to dampen traffic flows through the Wynyard Quarter, with the Gaunt Street closure in particular continuing to prevent traffic from routing through the area from east to west (and visa versa).
- ◆ Two-way traffic volumes during the peak hour increased in each survey from 2,657 in October 2012 to 3,022 in March 2014, before falling in 2015 and again in 2016 to a low of 1,787 vehicles due to temporary road closures. In 2017, two-way traffic volumes have almost increased significantly to 2,454 vehicles, due to the reopening of some streets.
- ◆ Except for a large isolated increase in October 2013, morning peak hour inbound traffic volumes into the Wynyard Quarter have reduced in each successive survey, from 1,486 vehicles in October 2012 to 1,188 vehicles in March 2016. The March 2017 surveys see a reversal of this trend, with 1,520 inbound vehicles recorded.
- ◆ Between October 2012 and March 2015, outbound vehicle trips during the evening peak hour have remained relatively constant at 1,572 to 1,688 vehicles. The March 2016 survey results saw a significant drop to 1,114 vehicles, while much of this fall was reversed in 2017, with 1,424 vehicles.
- ◆ Traffic flows in the last six surveys have shown that traffic entering and exiting Wynyard Quarter have an approximately 60/40 inbound/outbound split in the morning peak hour and 40/60 inbound/outbound split in the evening peak hour. This is a more balanced split than typically

seen for office areas, indicating that the Wynyard Quarter has a significant number of recreational, marine, retail and through trips.

- ◆ Active travel has increased at all buildings surveyed, relative to 2016, with all buildings now reporting an active travel mode share of 10% or more. Large increases seen at the Maritime Square and BNZ buildings however were potentially due to adverse weather conditions during the 2016 survey. This could have been a contributing factor to the decrease.
- ◆ Public transport mode share saw a significant increase at the ASB building, continuing a trend seen for the past four surveys. A large increase was also seen at the Maritime Square buildings, although this may be due to the Bayleys office vacating this complex. A smaller increase was also recorded at the BNZ building. The new Fonterra/Bayleys building within the Wynyard Quarter recorded a public transport mode share of over 50% - the highest of the buildings surveyed.
- ◆ Significant reductions in car driver mode shares were recorded at the ASB and Maritime buildings. The former was the continuation of a trend observed in 2016, while the latter may be due to the Bayleys office vacating the Maritime complex. Private car mode share also reduced at the BNZ building, but remains relatively constant at other offices. The new Fonterra/Bayleys building recorded a car driver mode share of 30.5%. The NZI building continues to have the lowest car driver mode share, of 23.7%.

2 BACKGROUND

Section I214.11 of the Auckland Unitary Plan identifies objectives so that Wynyard Quarter can be developed in a sustainable manner. In order to meet these objectives the Unitary Plan has various policies and methods specifically related to Wynyard Quarter. This includes the monitoring of traffic effects both internal and external to Wynyard Quarter, with a methodology specified in I214.11.1 Appendix 1: Methodology for Undertaking Traffic Generation Surveys in Wynyard Quarter.

In order to ensure that existing road infrastructure is capable of accommodating the proposed development associated with Wynyard Quarter, trip generation ceiling targets are specified in Section I214.8.2 of the Unitary Plan. These ceiling targets are for vehicles to and from Wynyard Quarter from all activities and are specified as follows.

- ◆ 3,650 vehicles per hour two way and
- ◆ 2,500 vehicles per hour one way inbound or outbound during the weekday morning peak, (7:00 am to 9:00 am)
- ◆ 2,500 vehicles per hour one way inbound or outbound during the weekday evening peak, (4:00 pm to 6:00 pm).

It is noted that the above ceiling targets were determined based on assumptions regarding the layout of intersections on Fanshawe Street and the expected future traffic volumes on all approaches to these intersections. While some variance in the volumes might be expected, the introduction of a Busway along Fanshawe Street will affect the capacity of the intersections, which could mean that the above targets are unrealistic to accommodate in the manner foreseen.

The targets are linked to the overall Travel Management framework for Wynyard Quarter, which has an aspiration to achieve a 70/30 modal split, where single occupancy private vehicle trips represent no more than 30% of the overall trips to and from Wynyard Quarter. However, it is noted that the work undertaken to determine the 70/30 mode split was not reassessed following changes made during mediation at the Environment Court appeal stage. This process led to more office space being allowed, thereby increasing the number of employees. Also, the analysis did not take into account the potential reduction in vehicle capacity (albeit with an increase in passenger carrying capacity) which would result from the recently proposed busway along Fanshawe Street. If the analysis were to be revisited, it might be found that an 80/20 or even 90/10 travel mode split is necessary to accommodate the potential development that might occur.

The trip generation ceiling targets and mode split aspirations are supported by a focus on providing a people-place, where cycling and walking is encouraged through slowing vehicle movements and providing appropriate facilities, parking space restrictions for new office developments and also through the formation of a voluntary Travel Management Association to provide advice and support in the development of travel management initiatives for Wynyard Quarter.

3 MONITORING OF TRAFFIC EFFECTS

I214.11.1 of the Unitary Plan was developed to provide a process for the monitoring of traffic generation in Wynyard Quarter, and to provide an indication of the level of traffic generated compared to the vehicle ceiling targets defined in the District Plan. By surveying at repeated intervals, general trends in transport modes and traffic volumes are able to be identified, although with road works and development construction occurring over the last few years, trends are difficult to confirm. Construction traffic and road closures aside, of key importance are the trends in terms of vehicle trips into Wynyard Quarter with reference to the vehicle ceiling targets, the trends in the mode split of office buildings in Wynyard Quarter and also a comparison with the mode split for similar modern offices in the Auckland city centre.

Surveys have been undertaken from October 2012 to March 2017 on behalf of Auckland Transport included the surveying of:

- ◆ All vehicle traffic movements to and from Wynyard Quarter
- ◆ All people and vehicle movements to and from the Air New Zealand building, and the ASB building (October 2013 onwards only), and Fonterra/Bayleys building (March 2017 onwards only) which are located in Wynyard Quarter
- ◆ All people and vehicle movements to and from the Maritime Square Buildings and the Vodafone, Microsoft and KMPG buildings, which are in close proximity to Wynyard Quarter
- ◆ All people and vehicle movements to and from the NZI Building, BNZ Building (March 2013 onwards only) and the Lumley Centre, all of which are located in the lower part of the Auckland city centre.

4 KEY RESULTS AND FINDINGS OF MONITORING SURVEYS

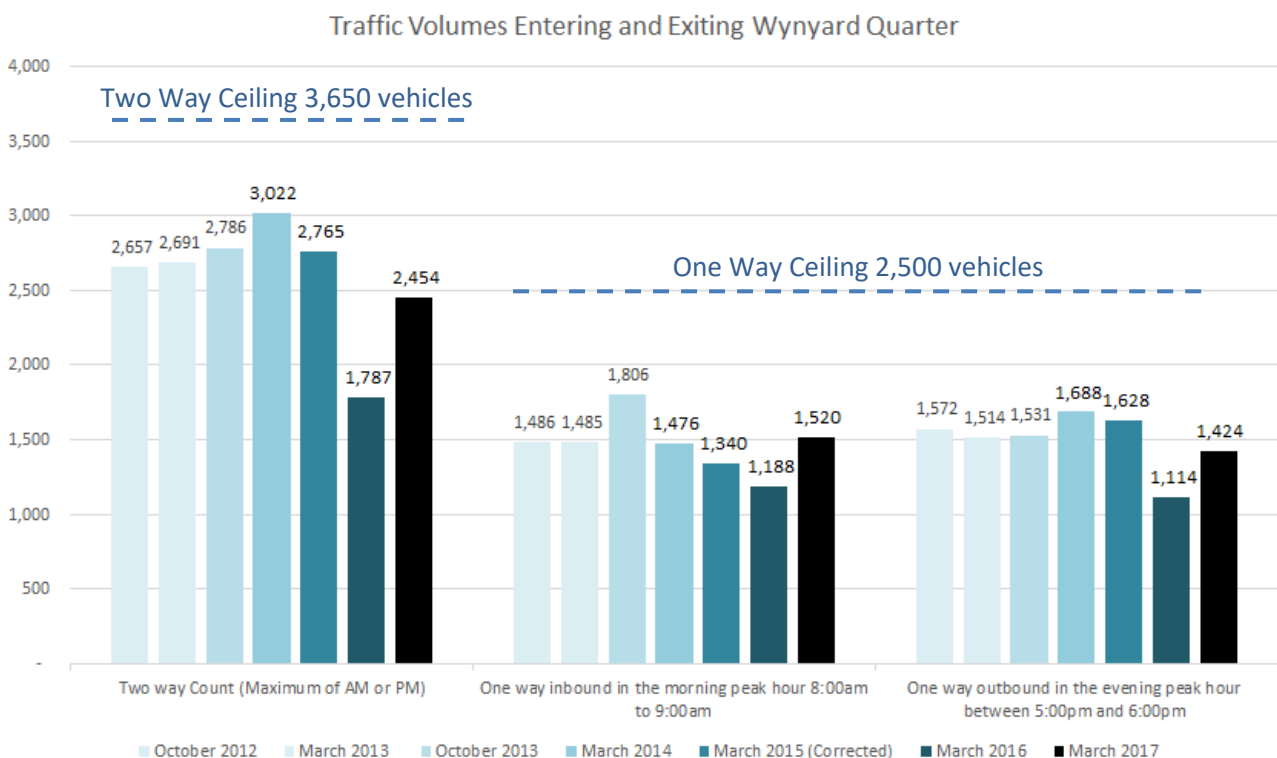
4.1 Traffic Volumes

Figure 1 summarises the results of the traffic movement surveys completed between October 2012 and March 2017. As can be seen during all survey periods the traffic ceilings have not been exceeded. A decrease in traffic was recorded in March 2016 compared to previous surveys, which was a result of the full closure of Halsey Street at this time. In March 2017, traffic volumes have generally returned to their pre-2016 levels, although it is noted that partial closures of internal streets within the Wynyard Quarter may still be suppressing traffic.

During the morning peak hour, there were approximately 1,500 vehicles recorded entering the Wynyard Quarter – the highest recorded volume since October 2013. During the evening peak hour, 1,400 outbound vehicles were recorded, and this is lower than in any previous survey except March 2016.

It should be noted that the March 2015 data was corrected to account for surveys being undertaken on a Monday rather than midweek as per the previous surveys.

Figure 1: Traffic Counts Comparison: One Hour Peak



4.2 Traffic Composition

The traffic volumes recorded include:

- ◆ Vehicles accessing activities and development within Wynyard Quarter

- ◆ Vehicles that travel through Wynyard Quarter to access the city centre and adjacent land uses to Wynyard Quarter such as Viaduct Harbour
- ◆ Vehicles that travel through Wynyard Quarter to access the Westhaven Marina parking area, or travel through to access Shelly Beach Road and the Northern Motorway

Prior to the current programme of road works within the Wynyard Quarter which has closed some streets to traffic, some drivers travelled through Wynyard Quarter without stopping due to available capacity on the road network and perceived travel time benefits, compared to other routes. As Wynyard Quarter is further developed, available capacity and travel time benefits are expected to decrease, and the number of vehicles travelling via the Wynyard Quarter could change if there are alternative comparative routes or modes (albeit if these routes also become congested then re-routing may not occur).

Using number plate recognition programmes, it was possible to identify vehicles that entered and exited Wynyard Quarter within a certain timeframe. The number of vehicles identified travelling through Wynyard Quarter to and from any combination of intersections including Halsey Street, Beaumont Street, Daldy Street, Westhaven Drive and Viaduct Harbour Avenue was determined during the March 2013 to March 2017 surveys. Prior to March 2016, a ten minute time period has been used to determine through traffic, however this is long enough to also capture vehicles completing pick up or drop off or undertaking business for a few minutes. For the March 2016 and March 2017 surveys a five minute survey was used in an attempt capture only those vehicles traveling through the Wynyard Quarter without stopping. Only the March 2015 data has been reanalysed using this five minute time threshold, therefore only three years of continuous data may be compared. The results are summarised in Table 1.

Table 1: Vehicles identified as travelling through Wynyard Quarter with a travel time of five minutes or less (including drop off and pick up traffic)

	Vehicles per Hour			Percent of Total Inbound Vehicles		
	March 2015	March 2016	March 2017	March 2015	March 2016	March 2017
Morning Peak Period between 8:00 and 9:00 am	451	262	272	34%	22%	18%
Evening Peak Period between 5:00 and 6:00 pm	338	243	346	21%	22%	24%

As can be seen the number of vehicles travelling through or dropping off and picking up in the Wynyard Quarter decreased between March 2015 and the two following years' surveys. This drop in through traffic is likely due to temporary street closures, restricting the ability of traffic to pass through the Wynyard Quarter.

It is noted that during the morning peak hour, the number of through vehicles has remained consistent between the 2016 and 2017 surveys. Section 4.1 however demonstrated that morning peak hour inbound traffic into the Wynyard Quarter increased by approximately 350 vehicles. Similarly, the 140 additional through vehicles recorded in the evening peak hour is less than the 350 outbound vehicle

increase for the Wynyard Quarter overall. This suggests that much of the increased traffic recorded in 2017 was a result of new trips into the area, likely the result of the new Fonterra and Bayleys buildings.

4.2.1 Traffic Distribution

The results from the surveys from March 2013 onwards identify that in the evening peak periods for all four surveys 56% to 64% of the total traffic entering and exiting Wynyard Quarter was outbound traffic, with the remaining 36% to 44% being inbound. The morning commuter periods were similarly tidal with a 58% to 66% inbound and 34% to 42% outbound split. This trend continues in 2017.

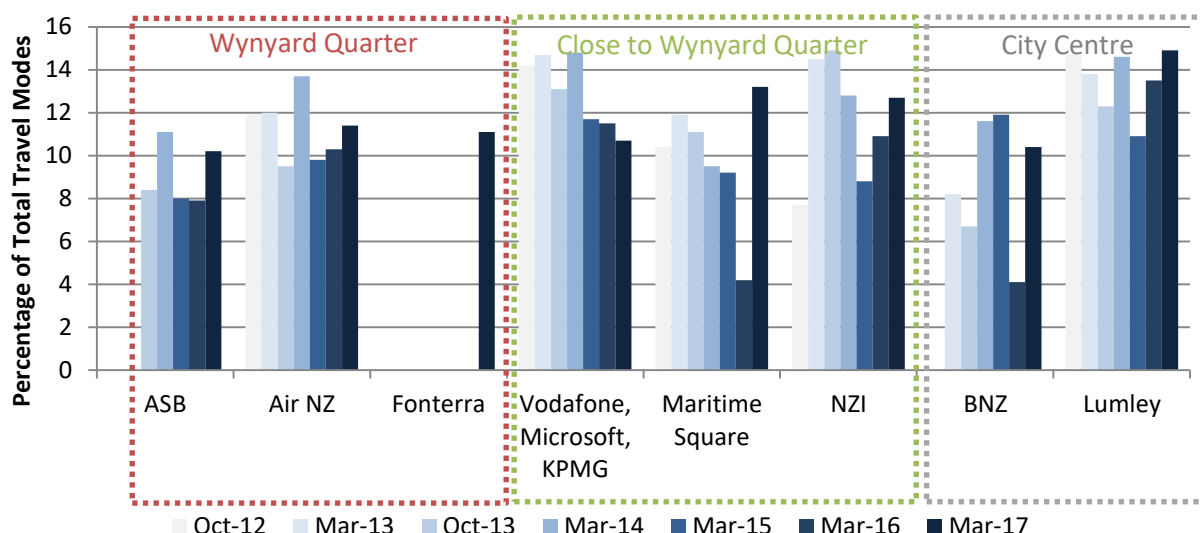
It would generally be expected that for an office or commercial development that 80% to 90% of trips generated in the evening peak would be outbound trips, with the remaining 10% to 20% of trips being inbound. The results of the survey indicate that the recreational, food and maritime elements of Wynyard Quarter, as well as the contribution of traffic travelling through the Quarter, have resulted in more even distributions of traffic.

4.3 Mode Split

4.3.1 Mode Split Comparisons

Travel mode splits during commute times were surveyed from October 2012 onwards for the office buildings as specified in I214.11.1 of the Unitary Plan. The mode splits were determined through pedestrian interviews, pedestrian counts and car park movement surveys for each office. The variation in the mode split proportions over the surveys and between buildings is summarised in the following figures. It is noted that comparison of these mode splits indicates absolute percentage changes only and these have not been analysed to identify any statistical significance.

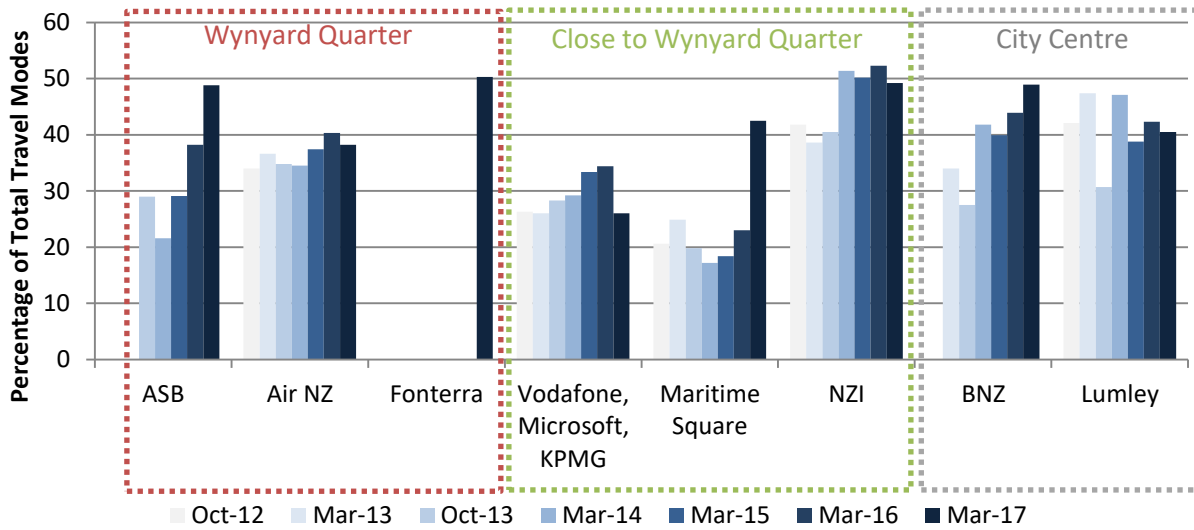
Figure 2: Active Travel Mode Split Comparisons



With the exception of the Vodafone buildings, all of the surveyed buildings demonstrated an increase in active mode travel in 2017, relative to 2016. This was particularly evident at the Maritime and Lumley buildings, where active modes increased to new highs of 13% and 15%, respectively. It is noted however that poor weather in the 2016 surveys is likely to have affected active mode counts at the

Maritime and BNZ buildings. For the first time, all buildings surveyed reported active travel mode shares of 10% or greater.

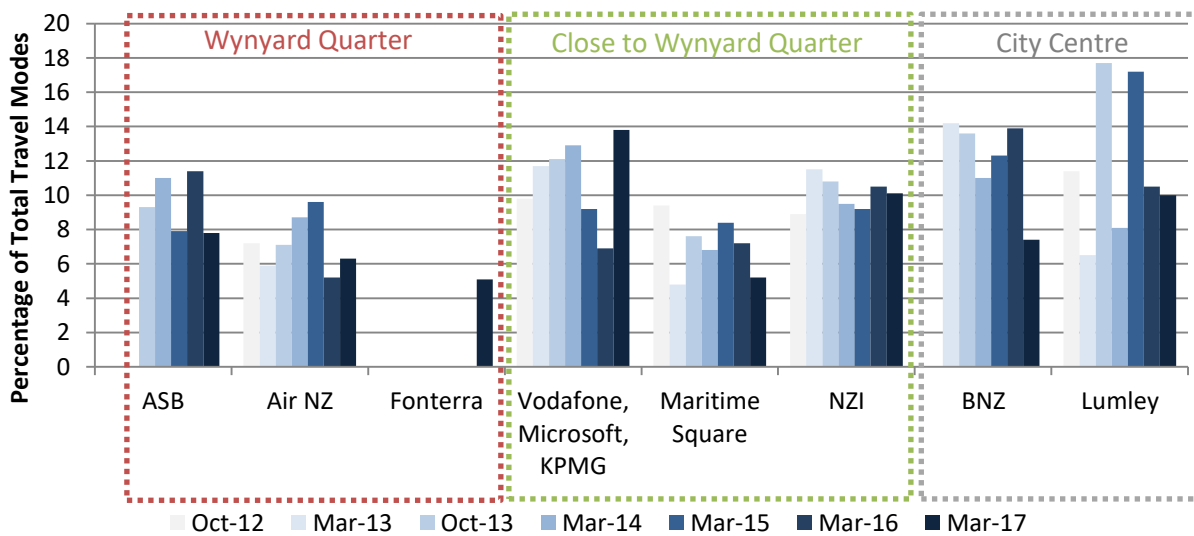
Figure 3: Public Transport Mode Split Comparisons



In March 2017, significant increases in public transport mode share were recorded at the ASB and Maritime buildings, although the latter may in part be due to the Bayleys office vacating this complex. Conversely, a drop in public transport mode share was seen at Vodafone, again likely to be due to the partial vacating of this building. An increase was also seen at the BNZ building, continuing a generally increasing trend at this site.

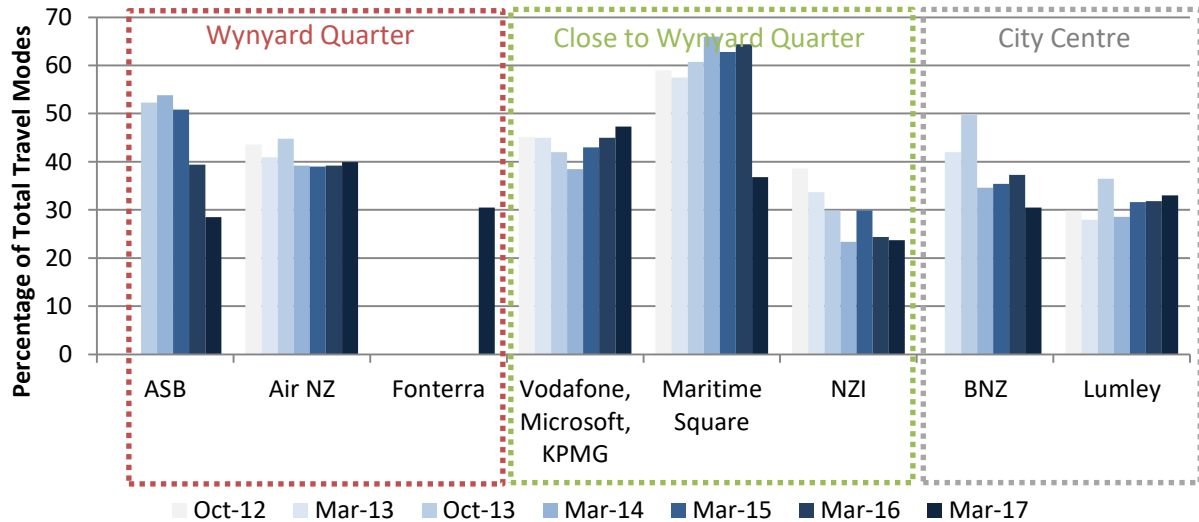
Public transport mode share at the new Fonterra/Bayleys buildings was over 50% - the highest of the surveyed buildings. It is of note that when part of the Maritime complex of buildings, the Bayleys office was part of a complex that traditionally had a 20% public transport mode share. Now part of the Fonterra development, this mode share is now 50%. This suggests that Bayleys staff may have changed their travel behaviours after the move.

Figure 4: Car Passenger/Taxi Mode Split Comparisons



Car passenger/taxi mode shares have generally reduced in 2017 relative to past years. Exceptions were the Vodafone building, where a large increase was recorded, and the Air New Zealand where a much smaller increase was recorded.

Figure 5: Car Driver Mode Split Comparisons



Significant reductions in car driver mode shares were recorded at the ASB and Maritime buildings. The former was the continuation of a trend observed in 2016, while the latter may be due to the Bayleys office vacating the Maritime complex. Private car mode share also reduced at the BNZ building, but remains relatively constant at other offices.

The new Fonterra/Bayleys building recorded a car driver mode share of 30.5%. The NZI building continues to have the lowest car driver mode share, of 23.7%.

4.3.2 Detailed Mode Split Proportions

Figure 6 below summarises the transport mode splits observed during the March 2017 surveys. For buildings outside Wynyard Quarter, the 'Car Driver' (red) category provides the total number of car drivers, regardless of their parking location. With those buildings within Wynyard Quarter, that is, Air New Zealand, ASB and Fonterra/Bayleys, the car driver category is divided into car drivers who parked within Wynyard Quarter (orange), and those that drove and parked outside Wynyard Quarter (yellow) (as per I214.11.1 requirements). Also shown in Figure 8 (as denoted with a blue dashed line) is the 70/30 mode split target.

Figure 6: Mode Split Results: March 2017

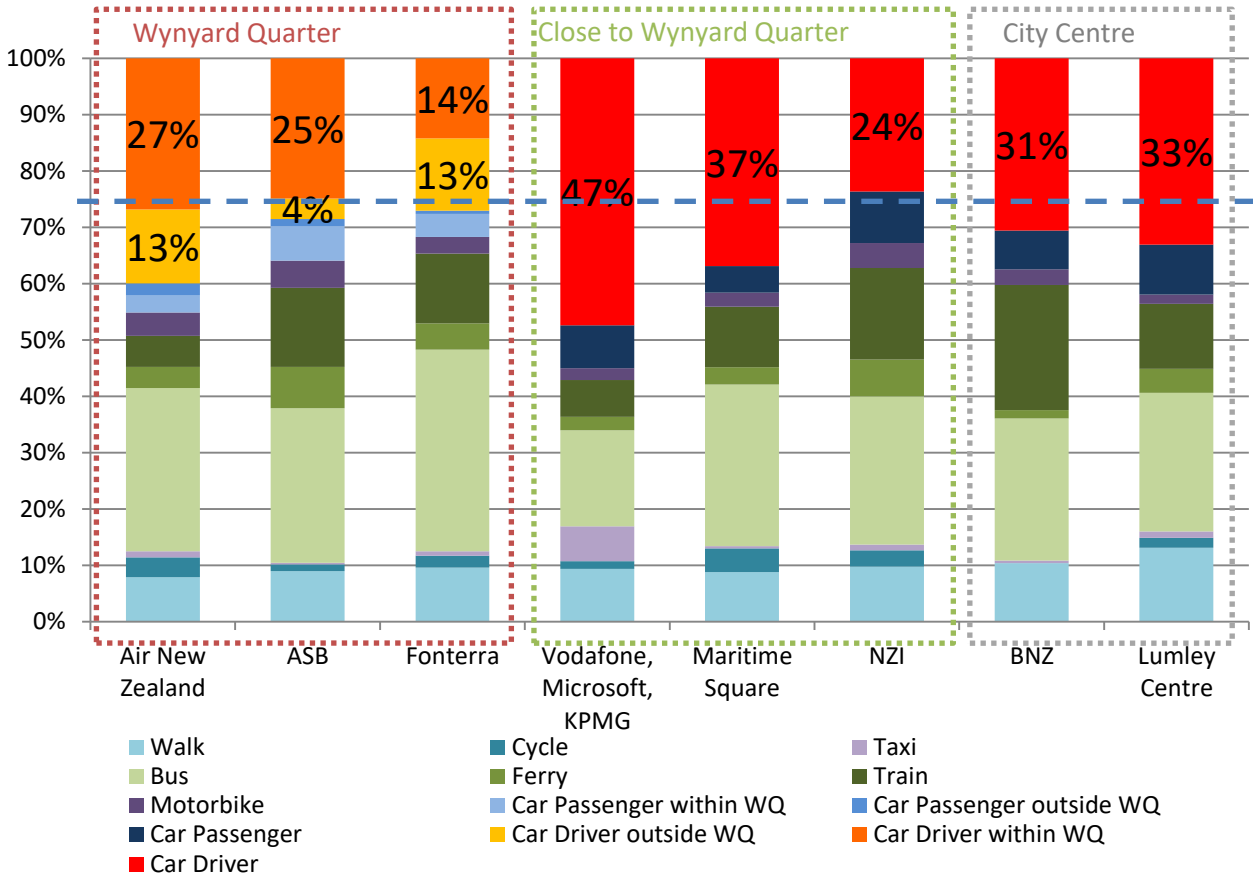


Figure 7 to Figure 12 below show the modal split results from the March 2016 to October 2012 surveys, respectively.

Figure 7: Mode Split Results: March 2016

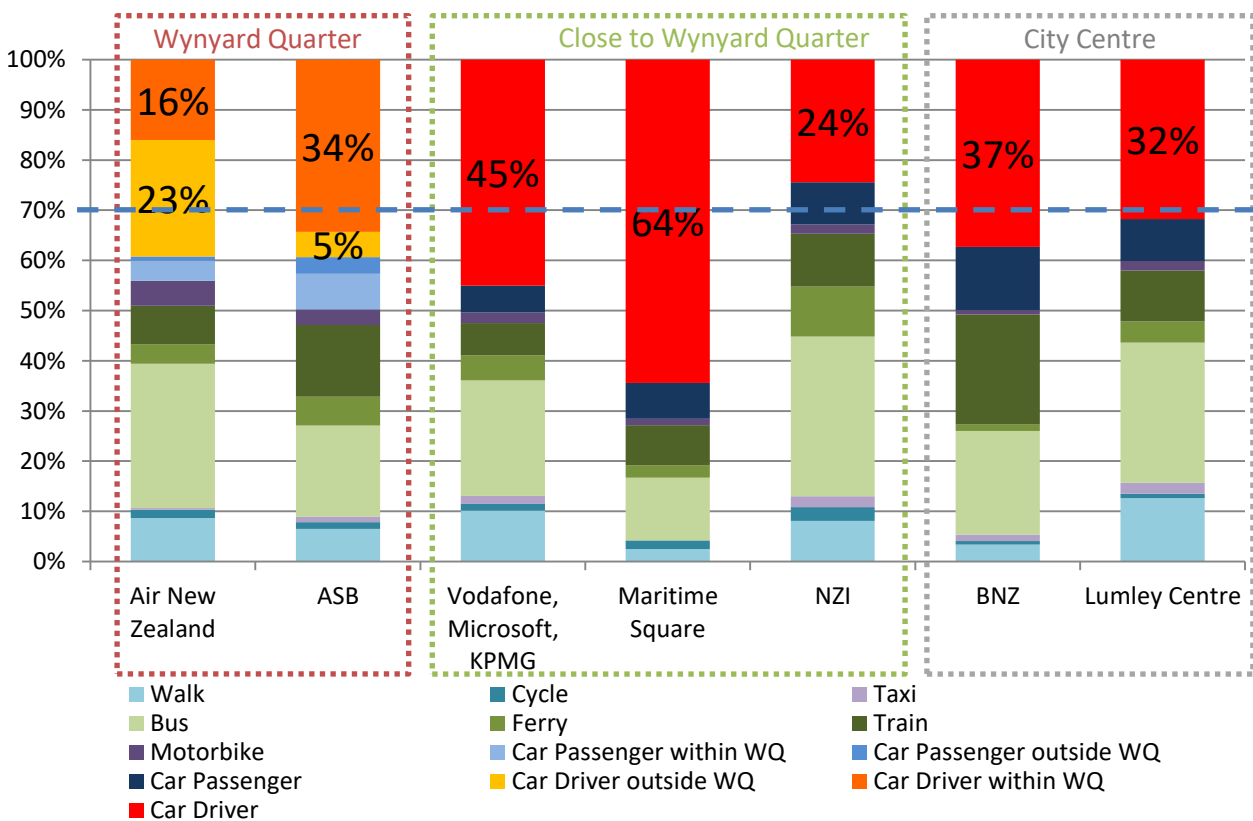


Figure 8: Mode Split Results: March 2015

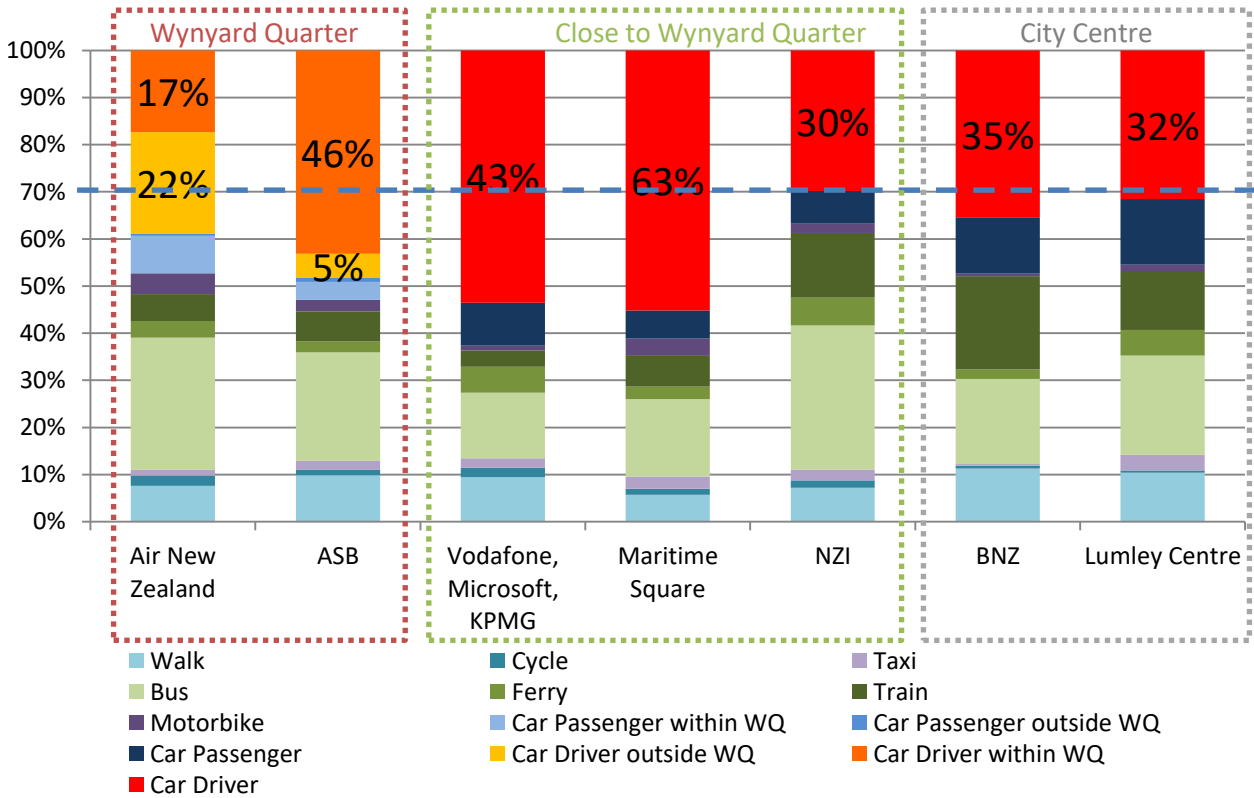


Figure 9: Mode Split Results: March 2014

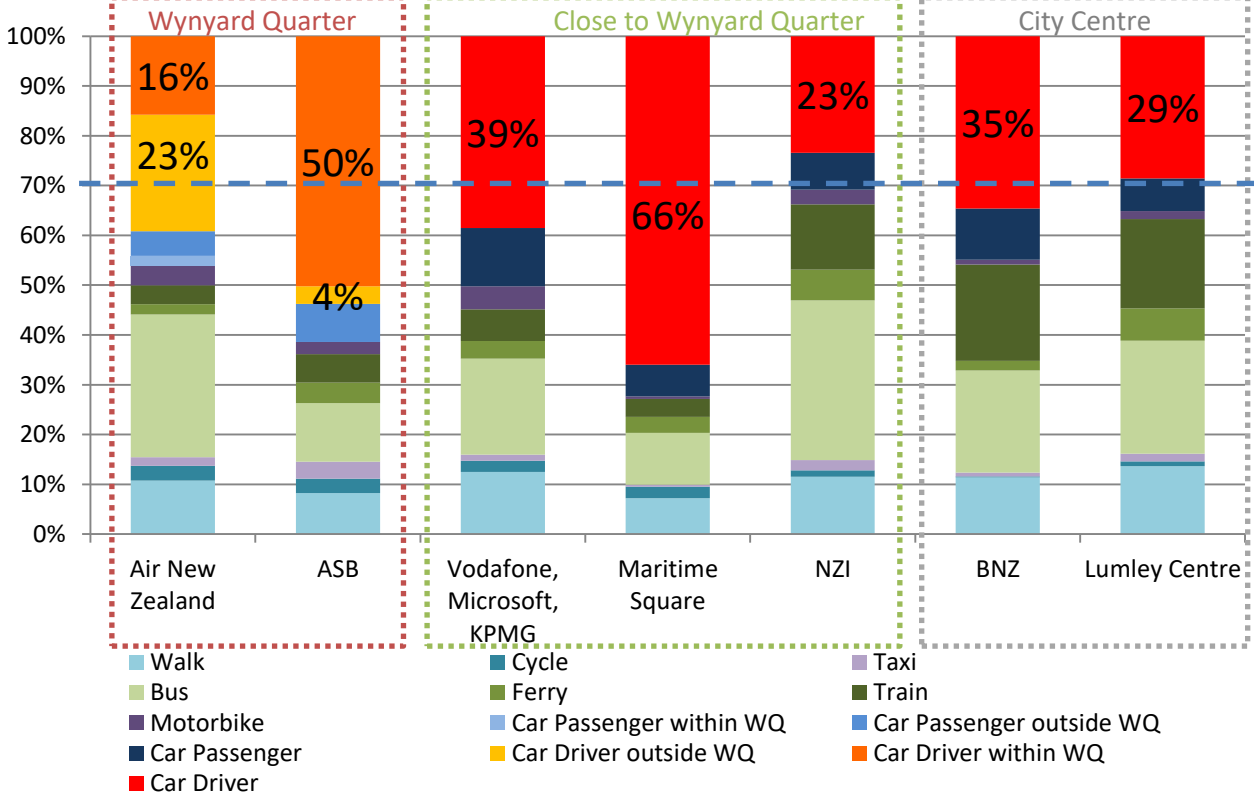


Figure 10: Mode Split Results: October 2013

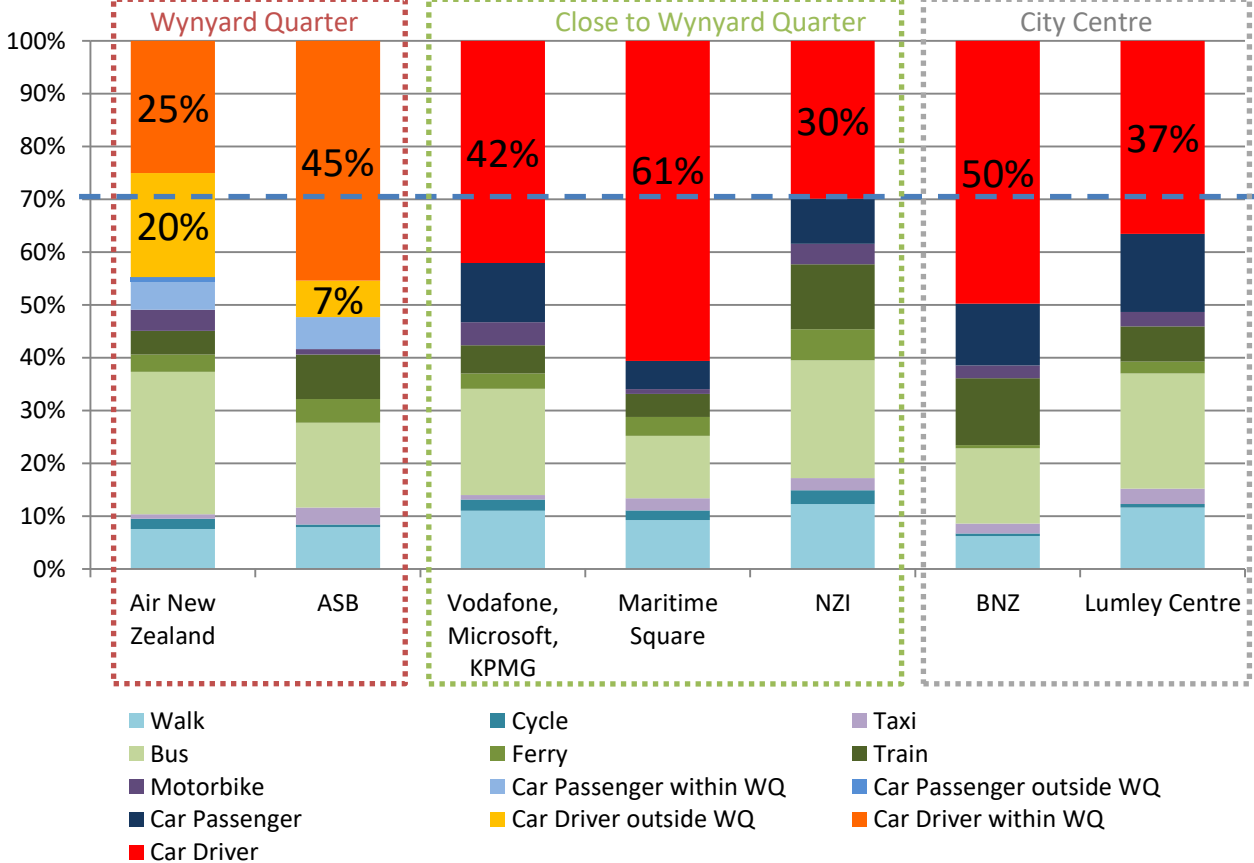


Figure 11: Mode Split Results: March 2013

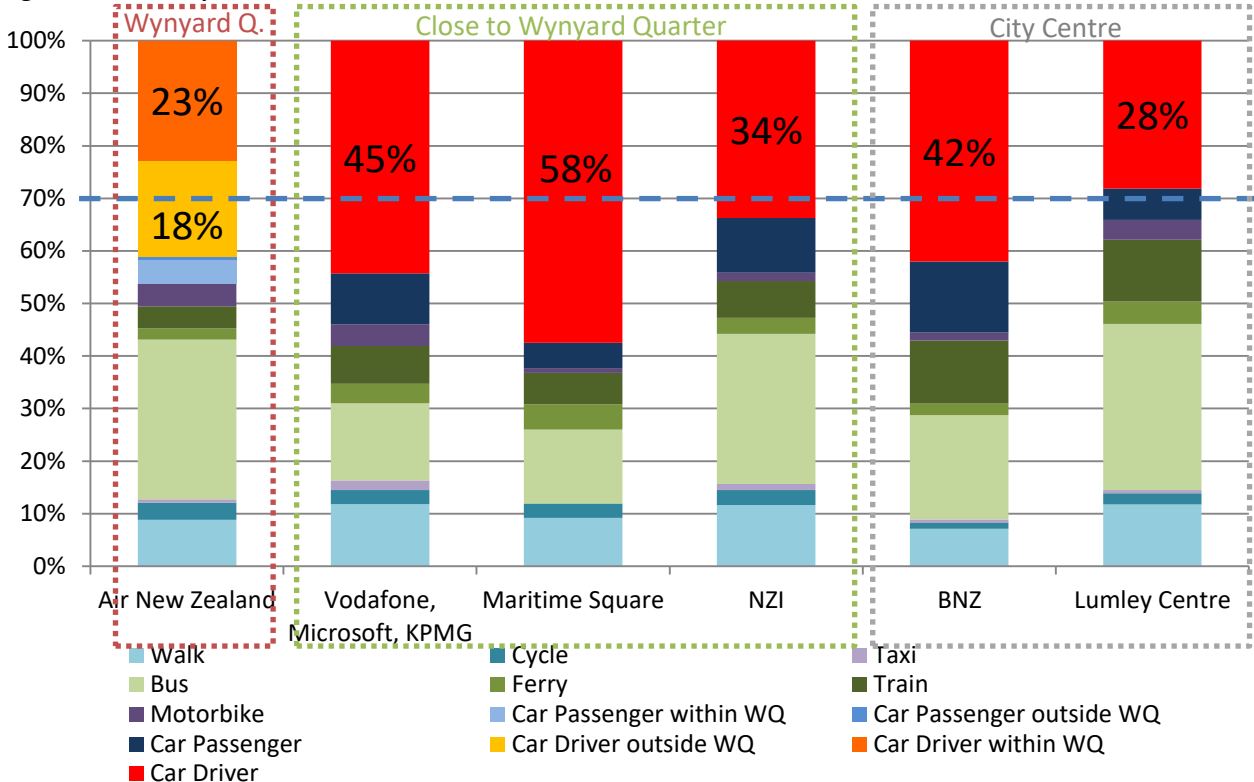
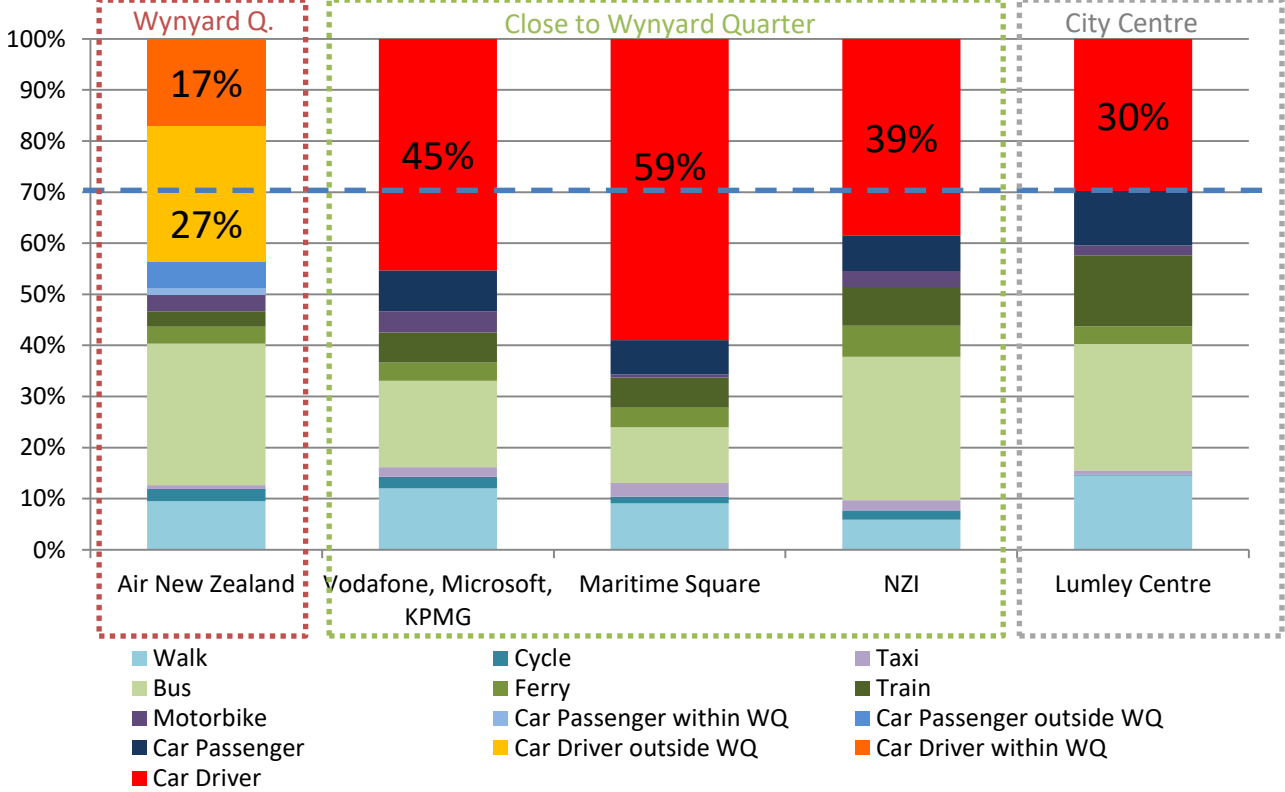


Figure 12: Mode Split Results: October 2012



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