

Local transport context paper for Waipapa Taumata Rau's Sustainability Strategy Development

1. Overview

The University's reach goes far beyond the boundaries of the Auckland supercity, with facilities located across the North Island of Aotearoa New Zealand. In 2019 the University's estate accommodated around 43,500 students (approximately 34,000 equivalent full-time students (EFTS)) and 14,000 staff (>5,000 Full Time Equivalent (FTE)) and many additional stakeholders commute to carry out University activities. The catchment area of our stakeholders is vast, and transport to and around our campuses and wider estate must be analysed to assess the baseline carbon footprint regarding commuting and local transport (including fleet).

The local transport choices made can have consequences on the environment, the economy, and the health of our communities. The carbon footprint for commuting travel counts within the Scope 3 (indirect emissions) in the University's carbon emissions audit. In order to reduce the impact on the environment and to protect our future we need our stakeholders to make conscious and informed decisions about the need to travel, and if so their mode of local transport, specifically relating to the impact on carbon emissions and sustainability.

2. Our Commitment to Sustainable Local Transport and Fleet

Taumata Teitei seeks to be world-leading in extending the reach and significance of the Sustainable Development Goals (SDGs). Earth systems, biodiversity, water, food, land, human economic systems and unplanned urbanisation are under such pressure that we need to find a way towards sustainable prosperity.

The Transport related SDGs include:

Goal 11: Make cities inclusive, safe, resilient and sustainable

11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.

11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality...

Transport is an important component of the carbon footprint of a modern University and has the potential to impact greatly on sustainability.

Te Rautaki Tūāpapa (The University of Auckland Estate Strategy 2030) commits to work with our partners, Auckland Transport, and Auckland Council, to improve transport links and facilitate sustainable transport options for commuting to, and travel between, our campuses. It also pledges to create sustainable University fleet transport solutions.

Our impact

The University is New Zealand's largest physical University, one of New Zealand's largest employers and one of Auckland's largest landowners. What the university does matters. It is necessary to gather and analyse commuting and fleet data to assess the impact of local travel choices on carbon and sustainability. Commuting and fleet analysis will be included in the remit of the future carbon inventory. The relevant data is not yet collected and will be a future action related to the net-zero carbon strategy.

3. Our Journey So Far: Progress Towards More Sustainable Transport

Why is Sustainable Transport Important?

Carbon and other emissions are a by-product of hydrocarbon powered transportation. A reduction in using fossil fuel powered vehicles, or an increase in efficiency through carpooling or mass transit, will lower the carbon and environmental footprint from each trip.

Congestion is the result of too many people travelling at the same time, and is associated with reduced air quality, stress, lost productive time, and road safety issues for pedestrians and cyclists. Reduction in congestion caused by commuting can improve environmental and sustainability outcomes.

Choice means having the ability to choose whether, where and how we travel. This is linked to the flexible working policy and the use of Space within the University. A choice to work from home or to work in an alternative nearby University location, may reduce the overall commute, thereby reducing carbon emissions and could positively impact mental health (reduce stress) and improve equity. The choice of how we travel such as public transport, electric vehicle or carpooling will impact the carbon profile of the commute.

Fleet vehicles. The University has fleet vehicles distributed across several Faculties and Service Divisions. Fleet vehicles create carbon emissions. Te Rautaki Tūāpapa commits to creating sustainable University fleet transport solutions. There is a need to convert fleet to electric vehicles and review usage, a centralised management system will improve any inefficient utilisation of the overall University fleet.

Contractors. Contractors should be encouraged to reduce the carbon emissions related to travel to and around the University.

Covid 19. The Covid-19 pandemic has shown us that working remotely and avoiding travel is possible and can be productive. Remote working suits some people and some positions and has opened opportunities to reduce University Travel and associated sustainability costs.

Where we are today (University context)

Travel modes

In a survey by Gravitas on behalf of Auckland Transport conducted in March/April 2018 (Gravitas Research and Strategy Ltd, 2018) (the most recent survey before the Covid-19 pandemic disrupted travel patterns), 59% of City campus students used public bus, 15% train, 1% ferry, 18% walk/run and 2% cycle/scooter. That equates to 95% of student transport choice as the main mode of travel to city campus was more sustainable than private car. The equivalent was

90% for Grafton campus and 84% for Newmarket campus student travel. The trend between the 2018 and previous 2016 survey has shown a decrease in University of Auckland student travel by private car. However, there was no criteria to identify whether the private car was an electric vehicle.

In September 2021, Auckland Transport conducted a student survey to determine the impact of COVID-19 on travel patterns. It concluded that 24% of respondents were worried about catching COVID-19 by using public transport and 9% were actively avoiding public transport, leading to more solo driving by private car. Again, there was no criteria to identify whether the private car was an electric vehicle.

It is estimated that 30% of staff commuting is by private car (based on staff numbers/parking licences issued). There is no data currently collected to determine the proportion of electric vehicles being used. Public transport and walking remain the preferred mode of travel for many University staff (no data is currently collected so based on 30% driving figure estimation).

Cycling and other modes sit at around 2% for students and staff (determined for students as part of the 2018 Gravitas survey and based on cycle counts on campus).

There needs to be a thorough assessment of current local travel modes used to commute to, and travel between campuses. The relevant data is not yet collected and will be a future action related to the net-zero carbon strategy.

Car parking

As noted above it is estimated that 30% of staff still use private cars for travel to and from the university. While travelling in a private car is a convenient way to travel, the impact on carbon emissions, supply and demand pressure on car parking space and congestion on the road network in central Auckland requires a balanced consideration of other travel modes.

The University of Auckland has its main campus within the City Centre, and its Grafton and Newmarket campuses on the fringe. The University owns or controls approximately 2,800 car parking spaces in these campuses, the majority held for staff use. Traffic congestion around these campuses has increased in recent years and, with high growth in the central area and limited opportunity to increase road capacity, will not improve without a further shift in travel mode away from the private car. Car parking policies and charging models can influence (by incentive and disincentive) the choice of private transport vehicle used to commute to campus. At the present time the charging model is effectively a discount on the rates charged by other parking providers and could be regarded as encouraging travel by private vehicle. Auckland Transport are working on the challenge to encourage drivers to shift to other modes of transport.

Electric vehicles

The University has built a fast-charging station within sector 400 for fleet vehicles, with departments beginning to invest in an electric and/or hybrid fleet. Property Services will create a proposal for sustainable University fleet transport solutions and a management model which will include a transition to electric vehicles and an integrated approach to maximise fleet efficiency. The move to electric vehicles is in line with the recent government procurement policy to switch to electric vehicles.

Motorcycles

Motorcycles also generate carbon emissions. Data will need to be collected to assess the usage of motorcycles and the carbon emissions and sustainability factors associated with this mode of transport.

Cycling (including fleet cycles)

The University provides cycle racks throughout our various campuses, with most major buildings containing showers. Additional cycle spaces, storage and end of trip facilities will be a feature of all new build and refurbishment projects. Departments are beginning to provide fleet bikes for staff to use which gives anecdotal evidence that the appetite to cycle is increasing.

Public Transport

Public transport is continuing to improve, with the “New Network” providing more frequent services, free transfers and better capacity. The City, Newmarket and Grafton campuses are on major bus routes and close to rail links.

Auckland transport offers discounts for tertiary students, generally 20% via the AT HOP card and concessions. There are also off-peak travel discounts. Travel by Super Gold card holders is free off peak.

Auckland Transport and the Central Government are completing the Central rail link which will provide more capacity and additional stations on the rail network. Light rail around the University environs is also being explored

Various operators have begun to offer public hire scooters and bikes around Auckland.

4. Our Responsibilities for Local Transport (opportunities for improvement in sustainability outcomes)

Accountability

The University has a high profile and has mana to lead and champion positive change. The University needs to lead by example and set ambitious targets for sustainable local transport improvements.

The University should encourage the use of sustainable transport options for students, staff, suppliers, and stakeholders and provide the appropriate incentives and disincentives to influence behaviour change.

The University will be transparent to stakeholders and publicly report on transport related sustainability targets and achievements. This will start with a data collection exercise to understand the current commuting landscape, transport choices and baseline carbon emissions and related sustainability factors. Commuting and local transport analysis will be included in the remit of the future carbon inventory. The relevant data is not yet collected and will be a future action related to the net-zero carbon strategy that will commence in 2022.

Education and student experience

We need to keep working to ensure that there is a great on campus experience for students and staff and encourage all our stakeholders to increase their physical presence to foster communities and promote activities that utilise the quality facilities provided at the University; both academically and socially. The Property Services function are working on the “Future of Spaces” and sustainability is a major component of the space agenda. Student experience is enhanced when the university becomes vibrant and easy to access. A vibrant campus experience will need to incorporate sustainable transport to and between campus locations.

Research and innovation

There may be opportunities for travel and transport related research and innovation within the University. Sustainable transport research would be beneficial to the University and society as a whole. Research may provide sustainable solutions to commuting and help reduce carbon emissions and improve sustainability factors.

Partnerships and engagement

The University has a close relationship with both Auckland Council, Auckland Transport and nearby tertiary educational institutions. The collective relationship can influence the public transport infrastructure and options available for travel to University locations including additional public transport routes or timetable schedules.

The Ministry of Transport, Waka Kotahi NZ Transport Agency is working with Auckland Council, Auckland Transport, Kāinga Ora and Mana Whenua to look at how light rail can work best for the city. The future light rail network is proposed to have a potential university connection.

Potential partnerships with sustainable vehicle vendors could facilitate the usage of e-vehicles in the University fleet and provide incentives for staff, students, and associated stakeholders.

Enabling our environment

University buildings and campuses will be more attractive, functional, and safer with more pedestrians and less vehicles. Buildings can embrace a street where vehicle movements are lower, creating beautiful streetscapes and an attractive and accessible campus. There is a masterplan for sector 200, including the Building 201 redevelopment and Wynyard Street, that will pedestrianise the area and connect spaces to enhance teaching, learning and social experiences and promote a biodiverse, healthy and sustainable environment where vehicles are largely eliminated. Future masterplanning will incorporate sustainability principles including connected space and sustainable wayfinding between buildings and campuses.

What we have done (recent successes)

The University has made progress towards more sustainable local transport through a number of recent initiatives.

1. Surveyed condition and utilisation of University bike racks, annual bike count surveys conducted since 2017. The provision of bike parking and racks has increased by 21% since 2017, condition is good, and utilisation does not exceed capacity. Utilisation rate sits at approximately 40% year on year. A growth in bike usage can be accommodated.
2. Improved cycle parking, including conversion of car parking spaces to cycle parking and storage, and additional end of trip facilities have been implemented.
3. New projects such as the building 201 project incorporate end of trip facilities and secure cycle storage.

4. Bike store access permissions have been relaxed to allow all staff and student access into card-controlled cages without a cumbersome request procedure, to reduce barriers and encourage bike usage.
5. Partnered with e-bike companies to offer discounts as a staff benefit.
6. Departmental scooter and bike fleets have appeared which highlights the appetite for sustainable transport.
7. Partnered with Auckland Transport to remove on street carparking and increase pedestrian accessibility (including Grafton Road).
8. Supported Auckland Transport's New Network public transport changes and lower CBD speeds.
9. Beginning conversion of University fleet to electric and hybrid.
10. 6 x EV charging points in sector 400. Additional facilities will be considered during masterplanning.
11. Removal of public parking from Alfred Street.
12. Supported Auckland Transport initiatives to have car share car parks in and around the University.
13. Public realm improvements, including new buildings embracing the street.
14. Green building design in latest building concepts. Achieve Greenstar 6 Design rating for building 201 with the highest scope so far issued in NZ awarded in 2021: likewise the masterplanning for sector 200 and the greening of the campus are also part of creating a distinctive sense of place and connecting spaces.

5. Suggested next steps for Local Transport and sustainability

- The priority is to collect and analyse data on commuting patterns to and between campuses and evaluate the resultant carbon emission and sustainability impacts. Commuting carbon emissions need to be added to the University carbon inventory and included in our net-zero carbon planning to commence in 2022.
- The use of University space and linkages to the future size, shape, and composition of the University, as well as the staff flexible working policy implications need to be evaluated to determine local transport sustainability solutions and targets.
- Property Services function will assess the current University fleet network including type of vehicle, utilisation and management options. A deliberate transition to electric or hybrid vehicles must be planned and costed.
- Create a University Sustainable Local Transport Plan which is equitable to students and staff.
- Review the University transport policy.
- Review the University carparking policy and charging. Consider a charging approach that incentivises sustainable practices, car sharing, carpooling, and sustainable behaviours. The introduction of technology to enable greater flexibility in charging practices is an essential enabler.
- End of trip facilities and secure storage for bicycles and Personal Mobility Devices will be further rolled out as we refurbish spaces and build new buildings across the University.

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