

AUCKLAND CITY CENTRE LOADING AND SERVICING

User Requirements

Auckland Transport
17 November 2021



About MRCagney

MRCagney is a sustainable transportation consultancy that operates in a unique space for Aotearoa, combining sustainable transport strategy and planning, urban design and research.

We work on projects that shape the way New Zealanders move around their cities and towns, developing approaches that bring sustainable long-term solutions.

We consider how transport infrastructure works together with urban space and how this contributes to broader social, economic, environmental, and cultural outcomes.

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Introduction

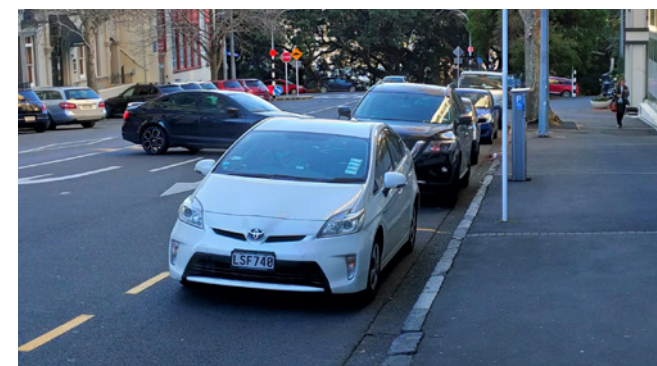
Loading and servicing is a critical activity for the everyday operation of the Auckland City Centre (the City Centre). Loading and servicing, for the purpose of this report, are activities that involve the delivery or collection of goods, carrying out a service like building maintenance, or picking up or dropping off people.

The City Centre is home to a variety of land-uses including retail, offices, housing, entertainment, and hospitality such as cafes, bars and restaurants. All these uses require goods to be picked up and dropped off, services to be undertaken and people to arrive and leave. Often, these activities take place on the street especially in parts of the city where off-street parking spaces are uncommon. Because of the density of the City Centre, loading and servicing demands compete for street space with other street uses such as people space, public transport infrastructure and other demands for parking. This competition for space will increase as the City Centre grows in population and jobs and street space is redesigned to support this growth.

Currently, the City Centre is undergoing a series of significant changes to the built environment with several transformative transportation projects underway at the same time. This includes public projects such as the City Rail Link, Wai Horotiu Queen Street project, and the Wellesley Street Bus Improvements, alongside private developments and underground service works. During the construction of these projects there will be disruption to the current operations of loading and servicing.

To respond to the pressures posed by the ongoing disruption and better manage the demand for on-street space for loading and servicing, it is first necessary to understand the current user requirements of loading and servicing activities in the City Centre. This report presents these user requirements under three categories:

- Goods delivery and pick-up
- Trades and servicing
- People pick-up and drop-off.



Roles and Responsibilities

There are various organisations and industry groups involved in the operation of loading and servicing in the City Centre. Each group has the ability to adapt to changing conditions and help to create a successful system. Below are the roles and responsibilities of each of the key stakeholder groups.

Auckland Transport

AT is the road controlling authority and decides how the carriageway road space is managed. AT controls parking, assigns space to different users, and operates several off-street car parks in the City Centre. The Traffic Control Committee approves any changes to the operation of City Centre streets.

Auckland Council

Auckland Council is the consenting authority and lead urban design body for the City Centre. Auckland Council reviews consents for new developments to ensure that their activities comply with planning rules and their effects can be managed. Recent planning rule changes have reduced the requirements for onsite loading in new developments. The Auckland City Centre has the highest concentrations of people in Auckland and Auckland Council is responsible for designing the public realm to cater for these people.

Delivery industry

There are many delivery companies that operate in the City Centre on a daily basis. These delivery companies can make decisions on the most efficient ways to deliver goods. This includes ensuring full loads to minimise trips, choosing space and energy efficient vehicles, and timing deliveries to minimise impact on the network and people activation times. National Road Carriers is an industry body that plays an important role in representing the delivery industry.

Servicing industry

In the City Centre there are huge range of services that operate ranging from tradespeople, glaziers, fire technicians and indoor plant specialists. These all have similar needs but there are also specialist ones that need to be considered. Much like the delivery industry, service companies can look at efficient ways to operate in the City Centre.

Taxis and rideshare

There are thousands of taxi and rideshare vehicles operating in Auckland. The growth of ride share use has presented new issues with how these services pick up and drop off customers. Currently there are limited controls on how these services operate in the City Centre. Taxi and rideshare respond to demand from the public and have limited scope to change their timing. Drivers of these services need to respect street access and parking controls.

City Centre Businesses

Businesses within the City Centre have a role to play in how deliveries and servicing operate. Businesses can allow out-of-hours deliveries and work with suppliers to minimise trips into the City Centre. Heart of the City represent City Centre businesses.

Methodology

To understand how loading and servicing currently operates in the City Centre, extensive information gathering was undertaken. This involved collating surveys and reports, engaging with stakeholders and drawing on previous project work.

Existing Material

Existing surveys and reports were provided by AT which gave insight into specific City Centre issues related to loading and servicing. General loading and servicing requirements and issues were sourced from local and international sources. The key documents that were used to source information on loading and servicing were:

- Access for Everyone and City Centre Master Plan - Auckland Council
- Gravitas Survey on Loading and Servicing in Auckland CBD - AT
- New South Wales Freight and Servicing Last Mile Toolkit - Transport for NSW
- Queen Street Parking Survey - AT

Stakeholders

The businesses and people who are regularly involved with loading and servicing are key sources of information to understand how these activities are carried out and the issues that they face. A range of stakeholders involved in different aspects of loading and servicing were contacted to assist in the development of these user requirements. These stakeholders included:

- City Centre businesses that require goods to be delivered and services to be carried out at their premises
- Delivery companies including food and drink, and couriers
- Servicing and trade companies including an electrician, and office plant hire company
- Auckland Arts Precinct to understand the access needs of patrons visiting shows
- Rideshare companies who are involved in picking up and dropping off people in the City Centre
- Industry bodies that represent delivery companies and City Centre businesses.

A full list of the stakeholders who were contacted is in Appendix A.



Source: Freight and Servicing Last Mile Toolkit; NSW Government



Source: Loading and Servicing in Auckland CBD, Auckland Transport

General Requirements for Loading and Servicing

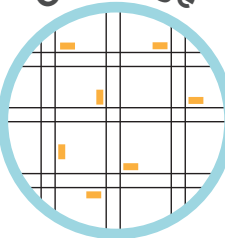
This section contains general considerations for loading and servicing activity in the Auckland City Centre. The more detailed requirements associated with different types of loading and servicing activities are included later in the report.

Street Gradient



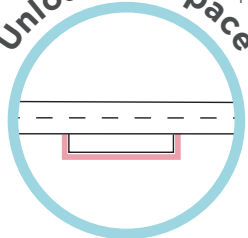
Queen Street is in a valley and consequently there are many surrounding streets that are steep in gradient. Many delivery companies have stated that they are unable to use steeper streets as it is dangerous to unload and use trolleys. Loading zones should be confined to sections of streets that have a gradient of less than 1 in 8 (12.5 per cent)¹.

Coverage



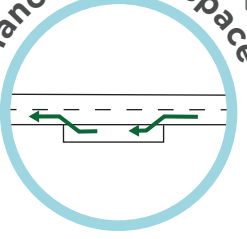
There should be a good coverage of loading zones across the City Centre as many deliveries require loading zones in close proximity to the delivery destination. This is particularly important for areas of the City Centre that have a high number of properties that have limited off-street loading options (see map on Page 9).

Unloading Space



There should be sufficient space adjacent to loading zones on the footpath or kerbside area to unload goods, people or equipment. This is particularly the case for the delivery of bulky goods such as kegs and recycling paper bins. Care should be taken when locating loading zones near to cycle lanes that there is space for unloading that doesn't interfere with the cycle lane.

Manoeuvring Space



Many deliveries are done in trucks which often have limited manoeuvrability. This can limit access to some streets within the City Centre. It is important that any dedicated goods vehicle loading zones can be accessed by typical delivery vehicles.

Times of Operation



Deliveries, pick-ups, and servicing activities currently occur all through the day and therefore loading zones that operate all day are needed to support activity in the City Centre.

¹Specification for on-site loading areas within developments from Chapter E27 Transport in the Auckland Unitary Plan

Types of Vehicles used for Loading and Servicing

Loading and servicing activities involve the transfer of goods, equipment, and people within the City Centre or between other parts of Auckland and the City Centre. There is a wide range of vehicles used for different aspects of loading and servicing and these vehicles have different access requirements. Before planning loading and servicing solutions it is important to understand the dimensions and other features of the vehicles being used. Electric bicycles (e-bikes) and even e-scooters are increasingly being used for goods delivery and by takeout food delivery services.

The adjacent table summarises some common types of vehicles used for loading and servicing activities in the City Centre, along with their dimensions and any other important features.

Typical Use	Vehicle type	Length	Width	Height	Other features
Goods Delivery and Pick-up Construction, Trades and Services Public Pick-up and Drop-off	Electric bicycle/ Cargo bike	1.8-2.5 m	1.0-1.3 m	2.2 m*	Cargo bikes may have three wheels and be slightly wider
	Medium Rigid Truck	8.8 m	3.0 m	-	Can have a hydraulic platform at the rear for lowering equipment to street level
	Small Rigid Truck	6.4 m	3.0 m	-	
	Van (Toyota Hiace)	5.9 m	2.0 m	2.3 m	Sliding side door
	Ute (Hilux Double Cab Ute)	5.3 m	1.8 m	1.7 m	Vehicle tray access required from the rear
	SUV (Toyota RAV4)	4.6 m	1.9 m	1.7 m	
	Car (Toyota Prius)	4.5 m	1.8 m	1.5 m	Common as rideshare vehicle, hybrid and full electric options
	Wheelchair accessible van	No standard dimensions.			Requires additional space behind the vehicle for loading and unloading a passenger with a wheelchair

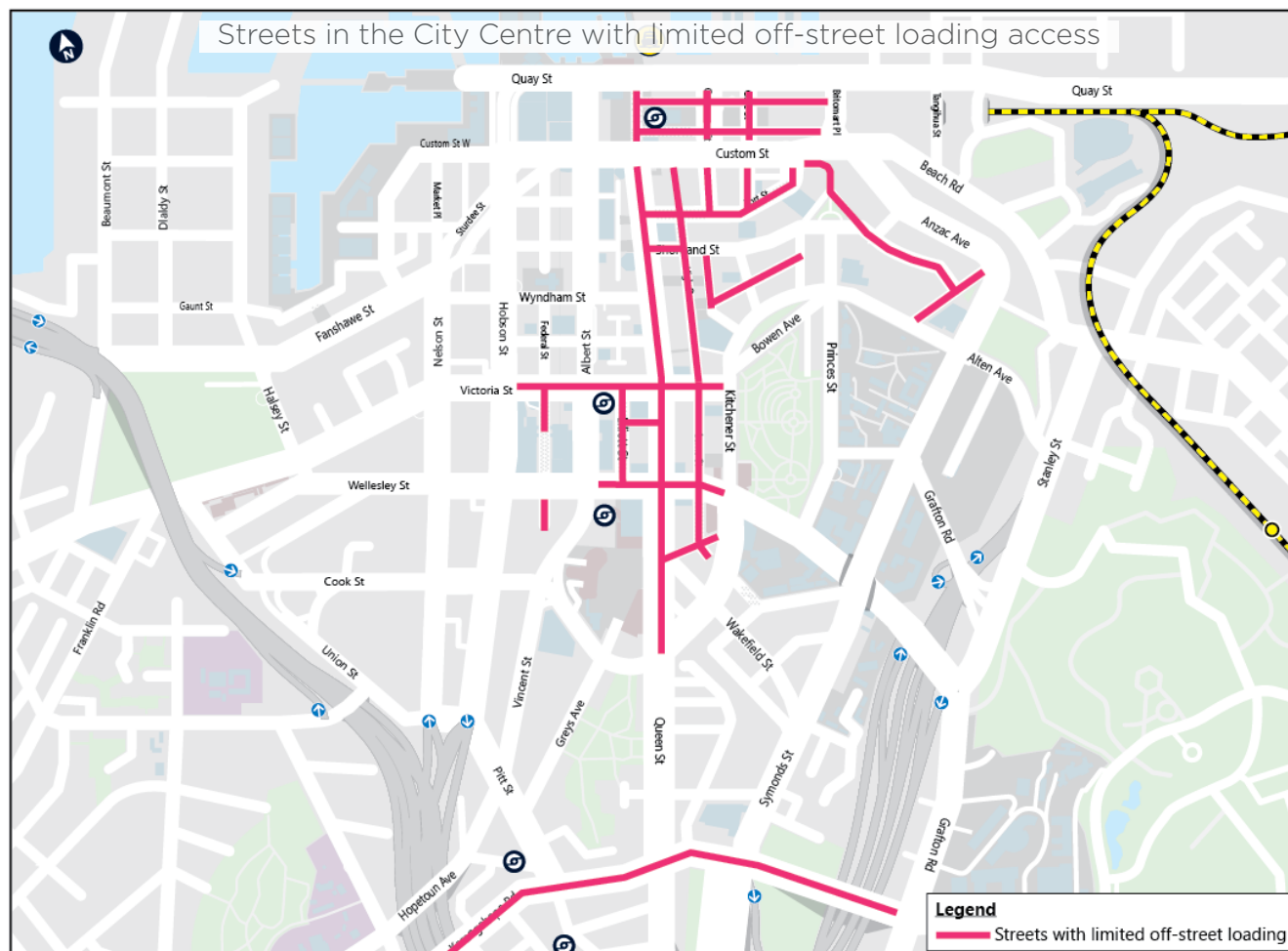
* Including rider



On-Street Loading and Servicing

Parts of the City Centre have greater reliance on on-street parking spaces. This is generally where there are older premises that have limited off-street vehicle access such as on Queen Street. Most buildings constructed in the last 60 years have off-street vehicle access as this has been a requirement of planning consent.

The adjacent map indicates areas of the City Centre where there is limited availability of off-street loading and servicing facilities. The Queen Street Valley, Britomart, and Karangahape Road are key areas where there is high commercial activity but also a limited amount of off-street loading and servicing capability. In these areas the impacts of disruption on loading zones are likely to be more acute.



User Requirements for Goods Delivery and Pick-up

Everyday there is a huge variety of goods that are delivered and picked up in the Auckland City Centre. This section will explain the detailed user requirements associated with the delivery and pick-up of a range of common goods in the City Centre. The report will first cover deliveries then collection of goods.

The type of goods involved often determines the type of vehicle used, for example beer kegs will be delivered and collected by truck but sandwiches might be delivered by van. This can affect the locations that are suitable for picking up and dropping off. The type of goods can also determine the time of day that deliveries occur, for example clothing items for retail tend to arrive around 9am just before shops open.

Traffic associated with goods delivery and pick-up is forecast to increase worldwide due to increases in online shopping and expectations for same-day delivery². Some of Auckland's high street retailers have adapted to using their stores as distribution centres to cater for this increase in online shopping. This section explores the requirements of the various types of goods delivery and pick-up occurring in the City Centre.

The adjacent table details the quantity of daily deliveries to the Auckland City Centre.

Delivery type	Approximate trips per day in City Centre ³
Couriers	4,400
Construction	200
Quick Service Restaurants	100
Supermarkets	400
Waste and recycling (pick-ups)	200
Fuel	80



² Transport for New South Wales, 2020. Freight and Servicing Last Mile Toolkit: A guide to planning the urban freight task, Chippendale: New South Wales Government.

³ National Road Carriers - based on membership feedback 2017-2019

Goods Delivery

This section explains the requirements for different types of delivery including packages, office supplies, food and drink, and fashion and retail. While there are similarities, each type has its own specific requirements related to nature of the product and type of vehicle needed to deliver it. The focus of this report is on the final leg of the delivery process, typically referred to as “last-mile” freight operations.

Parcel/Courier

Characteristics

Courier services are used for business-to-business freight and deliveries to inner-city residents. Often, courier vans carry multiple parcels to be delivered to different locations⁴. Couriers generally carry higher volumes of smaller parcels that in most cases can be delivered by hand however in some instances, trollies will be used if the goods are too heavy.

Delivery Method

Small vehicles, including hightop and transit vans, usually classified as Light Commercial Vehicles (LCV) not exceeding 3.5 tonnes. Courier companies deliver in ‘runs’ from their distribution centres outside of the City Centre with goods grouped by sub-sections of Auckland. Couriers also deliver to PO box lobbies and carry internal mail for companies.

Parking Requirements

Couriers have short delivery times and prefer to park close to delivery locations for

efficient deliveries. On-street facilities which provide easy access to multiple delivery locations are useful as they save time.

Delivery Window

Information provided by New Zealand Couriers shows couriers operate throughout the day, starting as early as 5:30 am, with peak courier volumes in the city at 8:30 am, 10:00 am and 11:00 am⁵.

Office supplies

Characteristics

Office supplies include items such as desks, computer chairs, and computer equipment which can typically be bulky and heavy items. Higher demand for office supplies is concentrated in commercial areas and around office buildings.

Delivery Method

Small trucks or vans are typically used to carry items, with trollies used to transport items from the vehicle to offices.

Parking Requirements

Delivering office supplies can take some time due to the bulky nature of the goods. Prefer to park close to delivery locations as items are heavy and/or bulky.

Delivery Window

Office supplies are generally picked up and delivered during business hours but may be as late as 9:00 pm if completing an office fit out. Truck traffic in the City Centre typically peaks at 8:30 am, 10:00 am and 11:00 am.



⁴ Transport for New South Wales, 2020. Freight and Servicing Last Mile Toolkit: A guide to planning the urban freight task, Chippendale: New South Wales Government.

⁵ New Zealand Couriers, personal communication, June 1 2021.

New Zealand Couriers

Case Study

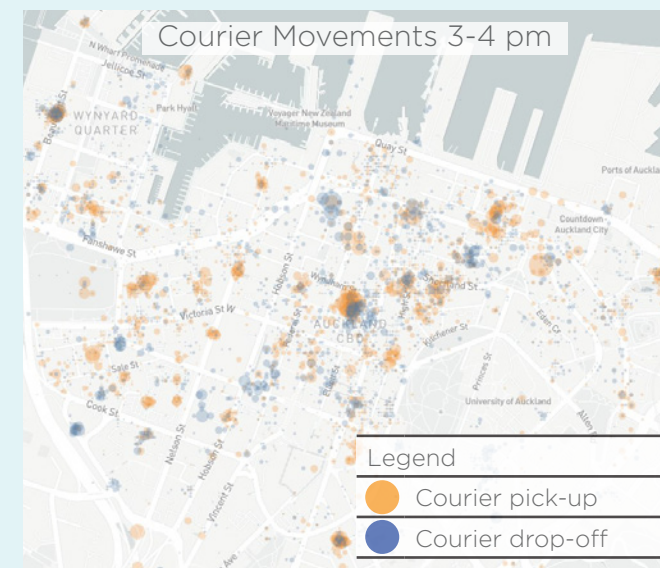
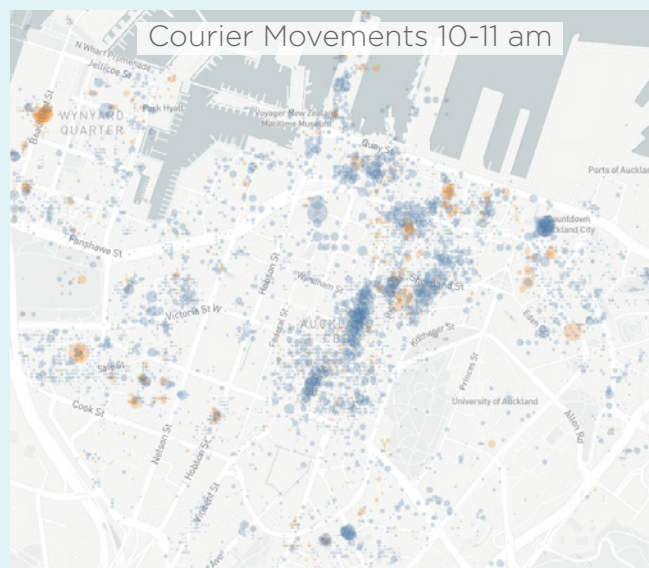
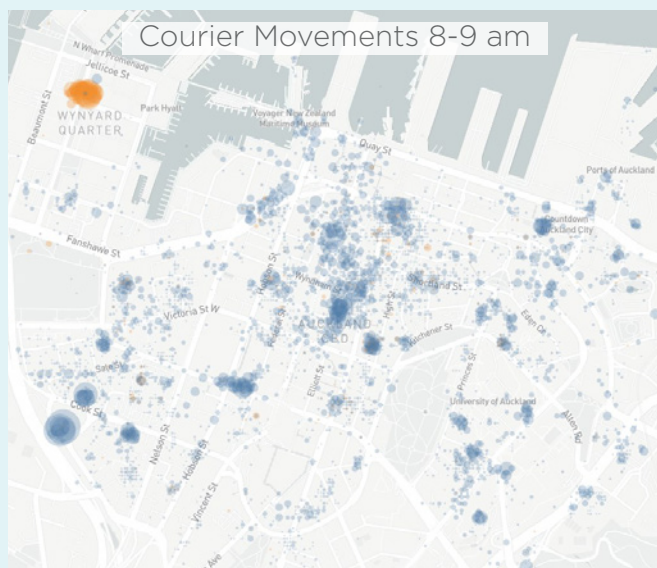
New Zealand Couriers has over 28 couriers in the Auckland Central area, with 12 of these individual couriers focusing on the CBD. Each courier covers a separate area of the city. In addition, some drivers work across the City Centre to clear PO box lobbies and contract bag services like internal mail systems, or to act as a back up for deliveries.

Deliveries to the CBD start as early as 5:30am so that drivers have a better chance of finding parking. Getting deliveries done early is easier as some loading zones convert to parking after 11am.

Most vehicles are either hightop vans or transit vans and use hand or flatdeck trolleys for moving packages from the van to the customer.

New Zealand Couriers has noticed that since the pandemic there has been an increase in collections for online orders in the City Centre. One retailer used to send a handful of parcels but now send up to 1,000 parcels per day. The retailer wants couriers to collect their parcels as late as possible while still ensuring that orders get to customers overnight.

This means that collection occurs around 5pm to get to the distribution hub in time for overnight delivery. For this particular collection it is a constant challenge finding an available loading zone. The loading zones must be on the flat as they collect parcels in a carry cage.



Source: New Zealand Couriers

Urgent Couriers

Case Study

Urgent Couriers provide a range of courier services throughout New Zealand, with a particular focus on same day deliveries in Auckland. Some services enable delivery in as little as 15 minutes. The company has recently invested in five electric cargo bikes to keep up with the changing nature of business-to-business deliveries.

Traditional deliveries using vans and cars has started to become unprofitable because of growing congestion and rising petrol prices. Following international trends, the company chose electric cargo bikes for their reputation of being faster and cheaper than vans or cars.

The electric bikes will serve a large part of central Auckland from the City Centre to Balmoral Road and across to Herne Bay and Newmarket. In some locations, the bikes will be fed by vans, but they will mostly be used for business-to-business deliveries. When not in use, the bikes will be stored in an Auckland Council car park. The bikes will be more space-efficient than alternatives, as two vehicle parking spaces will hold all five bikes.

While the electric bike roll-out has not yet begun, Urgent Couriers expects that they will be very cost competitive and will mean they can avoid increasing charges to customers over time.



Source: Urgent Couriers, personal communication, October 21 2021

Goods Delivery

Food and Drink

Characteristics

Ranges from small deliveries such as cafe supplies and household groceries, to larger food orders for restaurants and convenience stores. Also includes large, heavy items like beer kegs. Takeout restaurant and café delivery has been growing in popularity over the last five years with the introduction of delivery services such as Uber Eats and Menulog. This has been critical for many restaurants during Covid lockdown restrictions.

Delivery Method

Small vehicles and small to medium rigid trucks including Class 2 trucks. For bulk deliveries pallets are sometimes used to transport goods between the vehicle and destination which will require a pallet jack trolley. Most deliveries are unloaded from the vehicle by hand and wheeled to the customer by hand truck. Takeout food delivery services are mostly carried out by private vehicle however increasingly e-bikes are being used for this particularly in the City Centre.

Parking Requirements

The parking duration required varies depending on the size of the order and the type of goods. Small orders are quick

and easy to deliver while larger deliveries may require multiple trips. Most bulk food deliveries tend to use on-street loading zones and for unloading trucks there needs to be additional space behind the truck for access. Typically, parking is required within 50 -100 metres of the delivery destination. Takeout food delivery requires parking for the pick-up and the drop-off. This is mostly very short durations but restaurants are often located in areas of the City Centre will very limited on-street parking options.

Delivery Window

Deliveries mainly happen between 6:00 am and 2:00 pm on weekdays. On Saturday's afternoon deliveries are used by some hospitality businesses. The delivery of some goods may be time sensitive, particularly if it requires chilling. Restaurants prefer to receive deliveries in the morning to ensure food is fresh for lunch and dinner services. Takeout food delivery tends to occur around mealtimes with the busiest time in the evenings.



Bidfood Logistics

Case Study

Bidfood Logistics is a food delivery company that deliver to a range of quick service restaurants and convenience stores around the Auckland City Centre. They have 15 medium-size trucks which operate everyday mostly between 6am and 2pm. Most of their customers do not have space for off-street loading docks, so most deliveries rely on on-street loading zones. Each truck delivers to as many customers as they can from each loading zone but as they have bulky and chilled goods 50 meters is about the maximum distance between parking space and customer site. Each truck will move around the City Centre stopping multiple times to deliver to all customers on their run. They use hand trolleys to move products from the loading zone to their customers.

In recent years deliveries have become more difficult as loading zones have been converted to bus stops or simply coned off with no replacements. Bidfood Logistics stated that it would be helpful if there were more 24 hour loading zones and better enforcement to ensure they are not being used by private cars.



Mojo Cafes

Case Study

Mojo Cafes operate in 12 different locations in the Auckland City Centre. Each café receives around six deliveries from different suppliers each day of products such as coffee and milk. Most deliveries are in the mornings between 7am and 11am and all but two of the 12 cafes utilise on-street loading zones. This proves difficult as loading zones are often full and many have been removed.

The Downtown car park building is useful for servicing the café in the HSBC building as there are dedicated loading zones on the ground level and free 15 min parking, although trucks and some vans can't fit in the building.

The café at AUT on Symonds Street is the most difficult to access as there is only one loading zone nearby and the on-street parking is usually full. Their deliveries are mostly done by vans and trucks, and they use trolleys to transport goods from the vehicle to the café. The maximum distance their delivery staff would want to park from café to deliver goods would be 200 meters. All cafes also need to be regularly visited by Mojo staff which is usually done in a regular car. They mainly use on-street parking for this or car parks like Downtown.

Staff have noticed that finding loading zones and available parking has become more and more difficult in the City Centre.

The increase in bus lanes and cycle lanes has removed a lot of parking and loading spaces. The O'Connell Street shared space works well for deliveries but there are concerns

about fast moving vehicles close by to where outdoor café seating is located, and would prefer to see the road closed to traffic after 9am.



Source: <https://mojo.coffee/products/vulcan-lane>

Goods Delivery

Fashion and Retail

Characteristics

Retail shops require goods to be transported from a warehouse or another store and delivered to the City Centre premise. These deliveries are concentrated around streets with retail shops and many of these have a lack of off-street parking requiring deliveries to occur on-street. Retail stores can vary in size from large chain stores such as electronic goods stores, to small boutiques.

Delivery Method

There is a range of delivery methods for retail. Some smaller retailers deliver goods themselves to cut down on costs. Courier companies are sometimes used to transport goods from warehouses to shops. Larger stores and chain stores have their own vehicles to move products between stores.

Parking Requirements

Goods are typically delivered in bulk and may require longer stays in on-street loading zones. Larger or chain stores, or retailers located within a shopping centre will typically have off-street loading docks for longer deliveries.

Delivery Window

Deliveries can take place throughout the day, with it tending to occur within contractually agreed hours. Smaller retailers often prefer

to accept deliveries prior to opening to the public for the day in order to have time to process the delivery.



Goods Pick Up

The delivery of goods accounts for the most activity however the pick-up of goods is still an important aspect of loading and servicing in the City Centre. This section explains the requirements for the pick-up of different types of goods including packages and general retail items.

Characteristics

Most businesses within the City Centre require packages to be picked up by couriers. This can range from business to business, residential needs, or retail stores getting online orders picked up. Some retailers in the City Centre act as a distribution centre, for example, shops that have an online store, or sharing of stock between two stores of the same retail business. Click and Collect is also a growing function of many retail businesses. Click and Collect is used across a wide range of different retail from supermarket shopping to electronics and whiteware. Some reusable items such as beer kegs also require to be picked up after they have been used.

Collection Method

Packages are mostly collected by couriers using cars and vans and on-street loading zones are used for the majority of this activity. Couriers will carry out collections and deliveries as they drive around the City Centre. New Zealand Couriers has 12 vans operating in the City Centre daily and have shared data showing the locations with the highest pick-up activity.

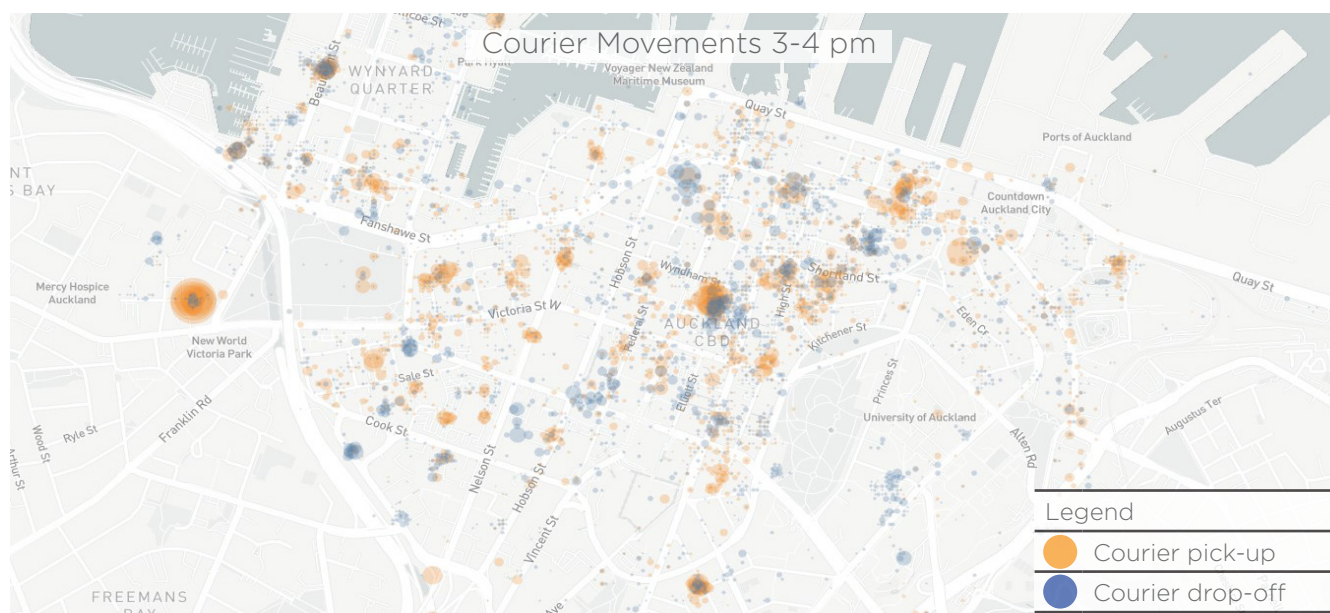
This is around Victoria Park, Queen Street, Karangahape Road and Wynyard Quarter areas.

For Click and Collect many customers either live or work in the City Centre and can walk to stores for collection however for some bulky items private vehicles will be used.

Kegs and heavier items will be picked up in trucks.

Collection Timing

Collection times are generally business hours, around 9am – 6pm, Monday to Saturday, in order to have an employee present to facilitate the pick-up of the goods. Data from New Zealand Couriers shows pick-up activity increases from midday with peak activity occurring between 3-5pm. The image below highlights the distribution of courier pick-up activity between 3-4pm across the City Centre.



Source: New Zealand Couriers Limited

Construction, Trades and Services

Trades and services are important for all businesses and residents within the City Centre. Construction is significant activity within the City Centre that impacts access to streets and the availability of parking. Construction, trades and services can be generalised as those where skilled labour is undertaken. Trades and services are necessary for maintenance, renovations, construction, and day-to-day operation. The need for trades and services within the City Centre will continue to grow as more people live and work there. While some trades and services business are based in the City Centre, most are based elsewhere and must travel to the City Centre for work. As a result, these workers need a place to park their vehicle while carrying out their work. Vans and utes are the most common vehicles for trades and services providers, but cars are also used especially when equipment is not required for the trade or servicing activity.

In 2017, AT, in collaboration with Gravitass, conducted a survey of loading and servicing businesses that operate in the City Centre of Auckland. The survey captured the characteristics of loading and servicing including the duration, location and timing of parking, along with the issues faced by loading and servicing businesses. This survey along with information from stakeholders provide much of the evidence for the

Group	Type	Characteristics
Construction	Construction workers	Construction worker accessing building sites
	Building plant maintenance	Maintenance of build-ing plant such as heating, cooling, elevators etc.
Trades	Plumbing	Servicing plumbing infrastructure in buildings
	Building	Renovations and fit-outs
	Electrical	Servicing or installing electrical equipment
	Painting	Internal and external building painting
	Security systems	Maintenance of security systems and security personnel services
Services	Fire control	Maintenance of fire systems
	Internal & external cleaning	Internal cleaning often happens outside of business hours, external cleaning requires a lot of equipment and occurs during the day
	Indoor plants	General care of indoor plants or outdoor green spaces, some variation in requirements depending on scale
	Moving services	Moving services are required by businesses moving premises and residents moving home.
	Rubbish and recycling	The collection of rubbish and recycling by council and private operators.

requirements of trades and servicing in the City Centre.

With such a diverse range of activities, the following requirements are split into three groupings of similar activities: trades, services, and construction. Construction could be grouped with trades, however, there are some specific differences that justify it to be as a separate grouping.

The adjacent table describes some of the variety of individual types of trade and service activities and shows which group each is classified under. Following these classifications, the requirements for each of the three groupings are explained in more detail.

Construction, Trades and Services

Construction

Increased construction activity in Auckland City Centre has resulted in more construction workers needing to access locations around the city. Workers on construction sites include labourers, engineers, traffic management crew, architects, and surveyors. These workers require access to city centre locations where construction activity is taking place.

What vehicles are used?

Depending on the worker accessing the building site, a range of vehicle types are used. Commonly vans and utes are used by those taking equipment to a construction site, while if equipment can be stored on site, some workers can arrive by private vehicle or public transport. Heavy trucks are also used for transporting material to and from construction sites.

Where does parking happen?

Construction activity and hence parking demand is distributed throughout the city wherever development is occurring. Currently the Wynyard Quarter and around Albert Street are hubs for construction activity. Some sites take over on-street parking space in front of the development site for the pick-up and drop-off of tools and materials.

Most parking will occur elsewhere and construction sites should have a Construction Management Plan which explains how trades and service vehicle parking is to be managed.

What is the duration of parking?

Common parking durations for construction activities vary from between 30 minutes and a full day (6+ hours). Often this depends on the type of work activity being carried out.

When does construction activity occur?

There is highest demand for construction access on weekdays between 9:00 am and 4:00 pm coinciding with the end and start of the morning and afternoon peak traffic periods. Construction activity is reduced on weekends.



Construction, Trades and Services

Trades

Tradespeople are an essential function of the City Centre carrying out a range of specialist services. All City Centre buildings require trades services at times. Typically, trades businesses are located outside of the City Centre where equipment and materials are stored and tradespeople will drive to the City Centre for jobs. Easy access to equipment such as tools and stock stored in their vehicles is critical for tradespeople.

What vehicles are used?

Vans are the most common vehicle used for trade activities in the City Centre, however utes and trucks are also used.

Where does parking happen?

All City Centre businesses require trades services at some point. Some job sites have on-site parking that trades can use, however sometimes this is not made available so public parking are commonly used. Also many sites such as shops on Queen Street don't have any on-site parking and tradespeople will have to find public parking. Typically, due to the equipment required from the work vehicle, a tradesperson would not want to park more than 75 m from a job site. At times a tradesperson will park in a loading zone close to the job site to unload equipment, before finding a longer-term

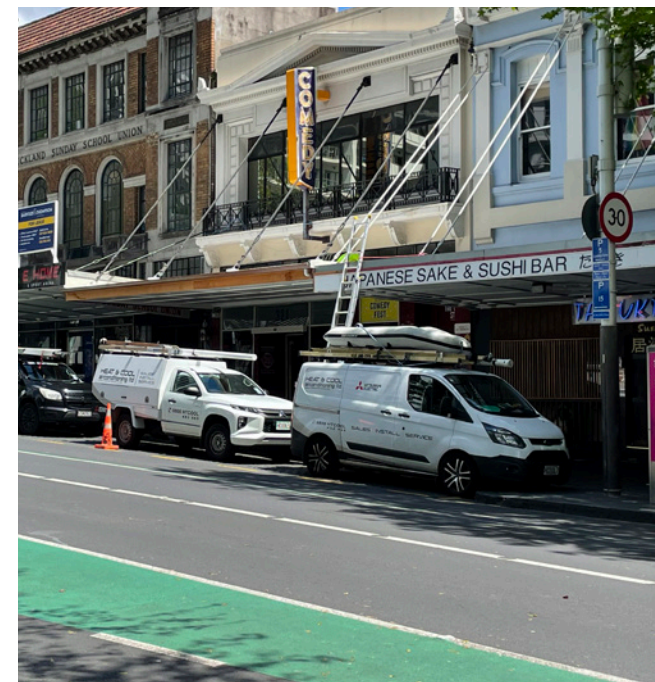
parking space further from the job locations. Public car parking buildings are often not able to be used because many trade vehicles have ladders or equipment on their roofs and most car park buildings have low height clearances.

What is the duration of parking?

The required parking durations for trades activities varies depending on the complexities of the particular job. Typically, they will range from between 1 hour and a full day (6+ hours).

When does trades activity occur?

Similar to construction activity, trades activity is most likely to occur on weekdays between 9:00 am and 4:00 pm with some activity occurring two hours either side of this.



The Occidental

Case Study

The Occidental is a Belgian-style bar and restaurant located on Vulcan Lane, just off Queen Street. The building was built in 1870 as a hotel and restaurant. Vulcan Lane is a pedestrian mall that has very limited vehicle access. The Occidental receives around six deliveries per day, ranging from fresh and frozen food to drinks including beer kegs. Deliveries are mostly completed in the morning with two deliveries before 7am and the rest between 10am and midday. There is a large delivery on Saturday afternoons of beer kegs and boxed alcohol. Deliveries occur from three loading zones, located on Queen Street and High Street, that are all within 60 meters of the restaurant.

Being a bar and restaurant, The Occidental also requires a range of services including cleaning, rubbish collection, scheduled maintenance of equipment, gas refilling, and beer line cleaning. Most of these services are programmed to occur in the morning, however unplanned maintenance may occur at any time depending on the urgency. Rubbish and recycling collection is handled by Rubbish Direct, who drive their truck into the lane around 7am and pick up from multiple venues. Cleaners also usually park in the lane but come early in the morning and are usually gone before 7am.

On Monday mornings around 7am a truck parks in the lane to refill gas tanks for cooking. Some of these services can use the nearby loading zones, however maintenance and beer line cleaning require parking for

up to an hour or more and look for nearby parking. The Occidental has noticed that many tradespeople are unwilling to take jobs due to the difficulties with parking close to the venue.



Source: The Occidental, personal communication, October 20 2021.

Construction, Trades and Services

Services

Services are a group of activities that take place routinely in the City Centre and include cleaning, fire system checks, rubbish and recycling collection, residential and office moving services, and indoor plant maintenance. In comparison to trades, services generally require less equipment, however, some service activities do require hand trolleys for moving equipment.

Rubbish and recycling is collected from businesses including offices, retailers and hospitality venues and residential buildings, and transporting it to the relevant refuse centre.

What vehicles are used?

A range of vehicles are used including cars, vans, utes and small trucks depending on the service and equipment needs.

Large, specially designed, trucks are used for most rubbish and recycling collection. These trucks can feature mechanical arms to pick up rubbish wheelie bins, or have a rear opening where rubbish bags can be loaded.

Where does parking happen?

Paid on-street parking is the most common parking used for servicing, followed by paid off-street parking and loading zones.

Parking should ideally be within 100 meters of the destination. Moving services need parking closer than 100 meters and regularly face challenges when servicing older residential and office buildings that don't have off-street loading areas.

For longer periods of parking, some service activity workers will use off-street parking buildings if their vehicle can fit.

Where off-street facilities are unavailable, rubbish and recycling are collected from the street. Rubbish is typically stored for collection in rubbish bags, wheelie bins or skip bins which in some parts of the City Centre are left on the footpath ready for collection.

What is the duration of parking?

While the specific service that is being carried out will determine the parking duration needed, generally parking times are between 30 minutes and 2 hours. Some services may need parking for a full day (6+ hours).

Rubbish and recycling collection either use loading zones or stop briefly in traffic lanes to load vehicles.

When does servicing activity occur?

Similar to construction activity, services activity is most likely to occur on weekdays between 9:00 am and 4:00 pm with some

activity occurring two hours either side of this. Hospitality businesses are likely to prefer service activities to be carried out before 10:30 am to reduce disruption during opening hours. Servicing activities are likely to occur on a regular schedule such as daily, weekly, fortnightly or monthly at times which can be dictated by the client.

According to the Heart of the City, rubbish and recycling is collected from businesses and households in the City Centre at the following times:

- Monday to Saturday 5pm - 5.30pm and 12am (midnight) - 4am
- Sunday 12am (midnight) - 4am



The Urban Garden

Case Study

The Urban Garden provides indoor plants to offices and workplaces, tailored to the unique environment of each building. The Urban Garden provides three types of service to their clients:

- Design - assistance in choosing the types of plants to suit the client's space.
- Installation - delivery and installation of plants and decorative containers.
- Maintenance - regular care and monitoring of the plants and their containers.

The Urban Garden use small trucks when installing or replacing plants. Ideally they would like to park within 100m of the site they are visiting because the plants have to be moved on trolleys. They have noticed that many of the footpaths in the City Centre are poor quality which adds an extra challenge to moving the plants on trolleys. They also try to avoid steep streets.

Most of their jobs in the City Centre provide on-site loading zones but for around 20% of jobs they rely on on-street loading zones. This is challenging as many of them have a five-minute limit which isn't enough time to deliver the plants.

Accessing the City Centre for plant maintenance is slightly easier. For maintenance jobs they use a car and park in

a parking building. They will often be in the City Centre for a whole day visiting different buildings to care for the plants and using the car park as a base.

Being able to book a loading zone, even if it was priced, would be a good option for The Urban Garden.

This would provide them with certainty that they will be able to get close to their destination and be able to complete installation. In the past they've had to abandon jobs when they haven't been able to find a park.



Source: The Urban Garden, personal communication, October 22 2021

Pick-up and Drop-off

Pick-up and drop-up (commonly referred to as PUDO) of people is a common activity within the City Centre that can involve a variety of trip purposes. PUDO can be split into two categories: taxi and rideshare services and general public pick-up and drop-off. Taxi and rideshare is where a customer pays to be transported in a private vehicle, while general public PUDO involves individuals using their own vehicles to pick up or drop off passengers.

PUDO can play an especially important role for those with limited mobility who may find it difficult to walk as compared to parking at a nearby off-street car park or use of public transport. These two forms of PUDO share many characteristics but also have some key differences in how they are treated in the City Centre and how they can be managed.

The adjacent map highlights the areas of the City Centre where higher pick-up and drop-off activity is expected.

This section is split into two subsections that explain the requirements for each type of pick-up and drop-off activity – general public, and taxi and rideshare.



Pick-up and Drop-off

General Public

Who is getting dropped off?

Pick-up and drop-off of the general public using private vehicles is commonly undertaken by those who cannot or do not want to use public transport, visitors and residents of the City Centre. Visitors to the City Centre include international and domestic tourists as well as locals from other parts of Auckland. People with mobility problems may need to be dropped off close to their destination to avoid longer trips from a parking space further away.

What type of vehicles?

General public drop off is mostly done in smaller private vehicles but also private utes and vans. Vans can be important for those who use wheelchairs to be dropped off and may rely on on-street parking due to the height restrictions of off-street car parking buildings.

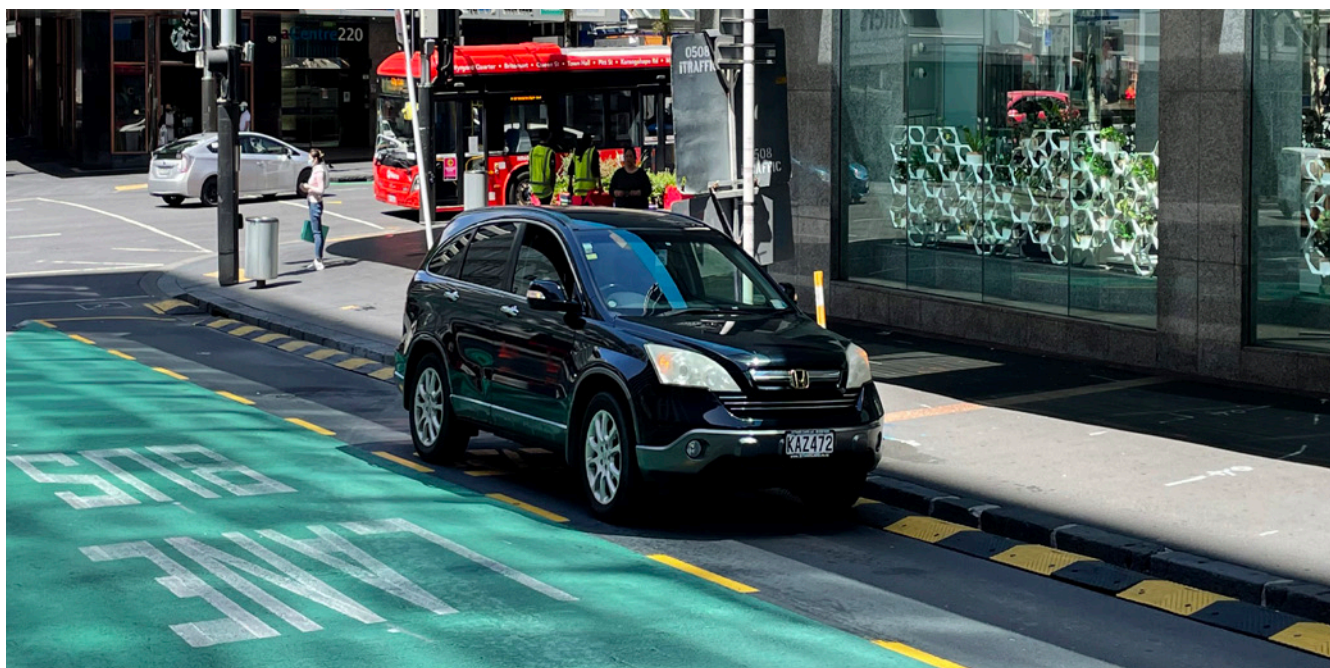
Where does this happen?

PUDO occurs throughout the City Centre wherever vehicles can access parking spaces. General purpose loading zones are used for PUDO activity, but drivers will also park in paid-parking spaces, and sometimes bus stops and areas of broken yellow lines to let passengers out.

Several of Auckland's main tourist attractions and event locations are in the City Centre creating high demand for PUDO. The Auckland Visitor Survey 2019 showed that 43% of domestic visitors and 48% of international visitors to Central Auckland visited Queen Street with the next two highest visited locations being the Sky Tower and Downtown Waterfront/Viaduct area (ATEED - Research and Insights Unit, 2020). The Aotea Precinct – containing arts venues of The Civic, Auckland Town Hall and Aotea Centre, and Spark Arena also have high PUDO activity.

When does this happen?

Pick-up and drop-off by general public happens throughout the day with more drop-offs likely in the morning and more pick-ups likely in the evening during the working week. Higher activity is likely also later in the evenings on Thursdays, Fridays and Saturdays when events such as stage shows, concerts and dining are more common.



Arts Precinct

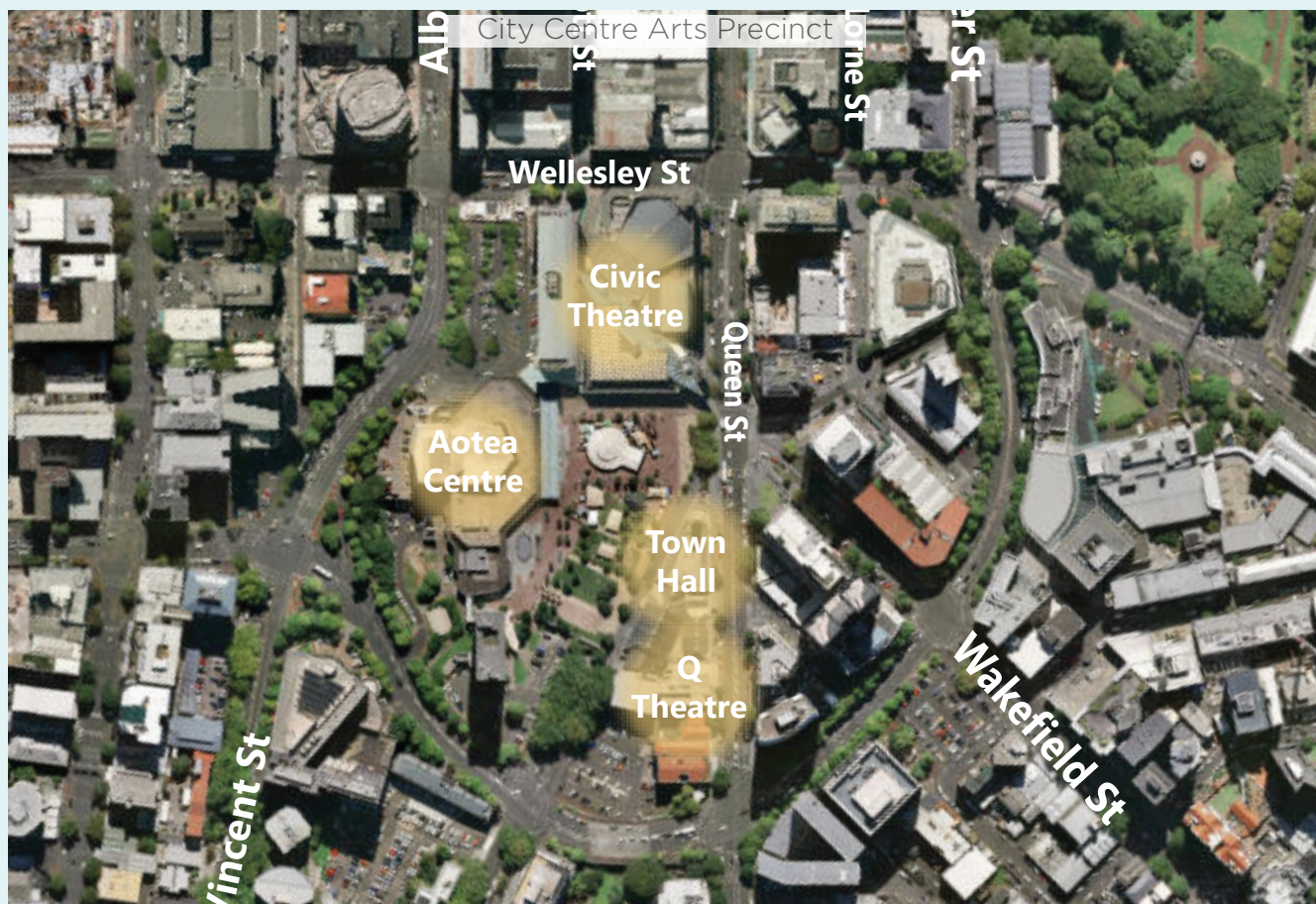
Case Study

The Arts Precinct is located in the heart of Auckland City Centre with multiple venues including Q Theatre, Auckland Town Hall, Civic Theatre, Aotea Centre, and Herald Theatre. Many of these venues host events at similar times, meaning the precinct can be very busy, particularly at the beginning and end of events and shows. At full capacity, the venues in the area can collectively hold over 8,600 patrons. Auckland Live manage most of these venues and have recognised that transport and access is a significant barrier for people with mobility issues. A recent survey by Auckland Live showed that 11% of people attending shows identified as having mobility and access issues. On busy nights such as during Auckland Arts Festival there could be around 6,000 people attending shows in the Arts Precinct. Approximately 600 of these patrons would be likely to have some type of access need.

Auckland Live doesn't have statistics on how people travel to venues in the Arts Precinct however they have stated that driving and parking is the most common. The Civic Car Park provides close access to many of the precinct's venues for those travelling by car however, this car park often reaches full capacity on busy evening show nights. People who have difficulty walking, or who cannot walk long distances look to get dropped off as close as they can by either

another person or, taxi or rideshare vehicle. Loading zones can act as pick-up drop-off zones for event patrons getting dropped off by taxi, rideshare or friends. In The Auckland Live survey people with mobility issues have stated that having pick-up and drop-off space near to the venue is critical and

can be a factor in them attending the show. Auckland Live stated that since the arrival of convenient rideshare services, pick-up and drop-off to shows has increased and is likely to continue to do so.



Visiting the Civic Theatre

Gloria's Story

Gloria loves going to musicals but gets stressed about how to get to and from shows. She is just recovering from her fourth stroke and is worried that the long walk between the theatre and the car park will wear her out and put her at risk of another one.

Gloria went to a show at the Civic recently and made use of the loading zones for being dropped-off and picked-up, on recommendation from a friend. She'd never noticed the loading zone before but thought it might suit her needs.

The last show Gloria attended was with her daughter, who drove her to and from the show. They were both nervous about finding the loading zone, but quickly located it now that they knew to look out for it – it's lucky there are drop off zones on both sides of the road, so Gloria's daughter didn't need to worry about which way to come.

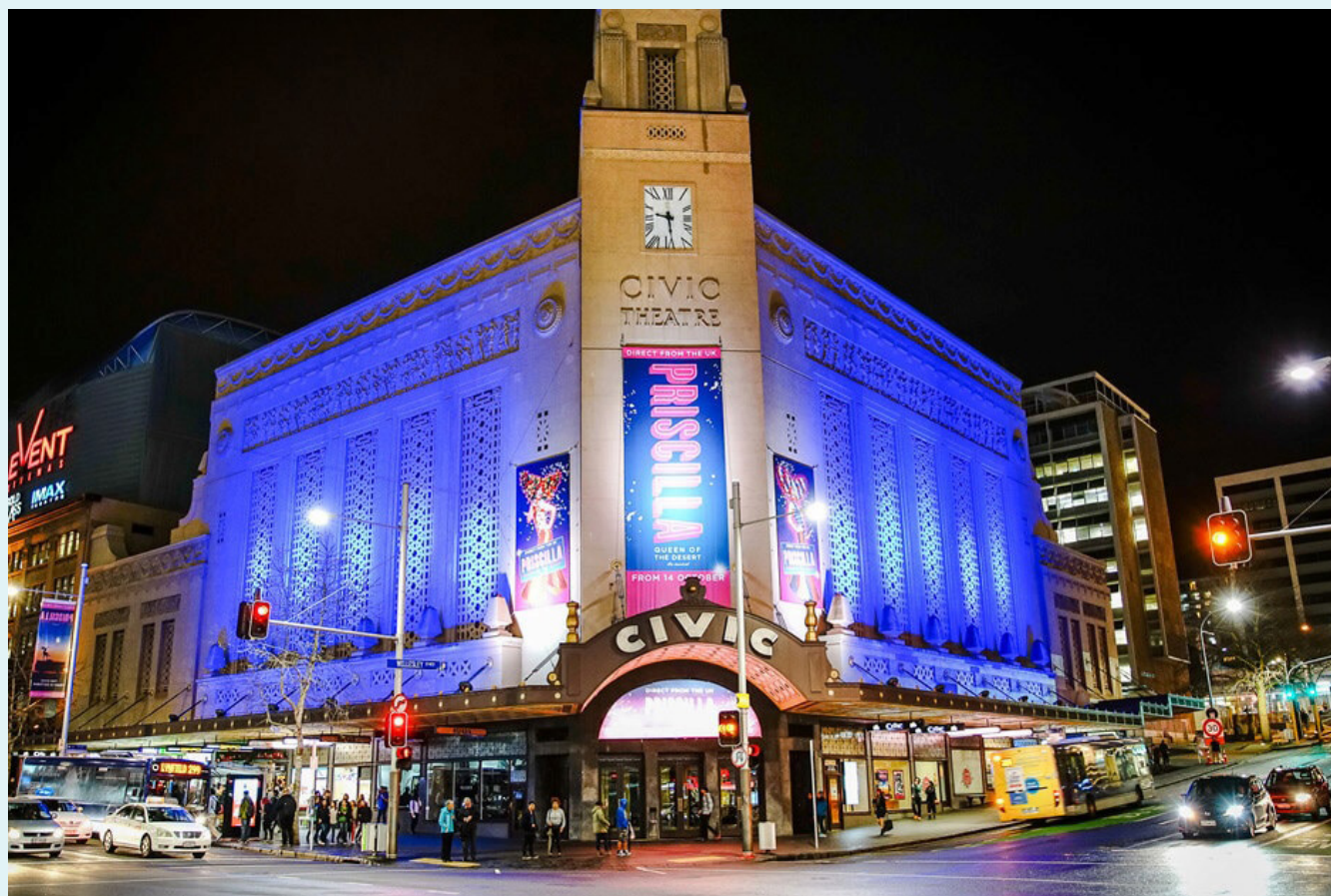
When they arrived at the drop off zone, Gloria felt very rushed. There were lots of cars around and Gloria's daughter told her to be fast so that she could get out of the way of the next car. The stress didn't last long though, once inside Gloria spotted an usher who helped her find a place to sit and wait for her daughter to park the car.

After the show, Gloria and her daughter got dinner at a restaurant nearby while they

waited for the crowds to die down. Gloria waited outside the Civic while her daughter brought the car round to the drop off zone.

Overall, Gloria found using the loading zone helpful for getting to and from the show. She has heard that these loading zones had to be relocated due to bus service changes

on Wellesley Street. She hopes the new locations are easily accessible so she can keep attending shows at the Civic.



Source: <https://www.aucklandlive.co.nz/venue/the-civic>

Pick-up and Drop-off

Taxi & Rideshare

Who is getting dropped off?

Taxi and rideshare services are commonly used by City Centre workers, residents, and by people attending night-time events and entertainment.

What type of vehicles?

Taxi and rideshare services are generally smaller passenger vehicles but can include larger vans. The most common rideshare vehicle is the Toyota Prius.

Where does this happen?

Taxis and rideshare vehicles are permitted to use Small Passenger Service Vehicle (SPSV) parking areas. According to the AT website there are approximately 75 daytime and 71 evening/night-time taxi/SPSV spaces in the City Centre.

Rideshare users tend to enter their exact destination, or as close to it as an app will allow. However, if there is congestion close to the destination, as is often the case with larger events like concerts, users will end their journey early and walk the final stretch. As passengers rate their journeys with app-based services, there is pressure on drivers to get as close to the destination as possible.

Similar to general public PUDO, major destinations in the City Centre experience

higher demand for taxi and ride hail services. These include:

- Downtown - Britomart, the Viaduct, and Fort Street precincts
- Midtown - the Civic Theatre, Town Hall cinemas, restaurants and bars
- Karangahape Rd – restaurants, bars and music venues
- Wynyard Quarter – Theatre, bars and restaurants

When does this happen?

A survey conducted as part of the Queen St Pilot found activity for taxis and rideshare was highest in the evening between 8:40-10:00 pm followed by between 6:10-6:40 pm. However, it should be noted that the survey ended at 10pm, therefore the busiest period could be after 10pm. Public transport is often slower, less frequent, and less convenient at this time for both accessing the City Centre and travelling home.



Summary of Key Findings

The work undertaken for this report has identified the user requirements, constraints, and common issues associated with loading and servicing activity in the City Centre. The development of this work involved a comprehensive analysis of loading and servicing activity in the City Centre. This included reviews of previous work completed by AT, issues that have been raised with AT by local businesses and the delivery and servicing industry, qualitative surveys with businesses that regularly carry out work in the City Centre, and engagement with a variety of stakeholders.

The key findings for this work are shown below and have been separated into those which apply to loading and servicing activities generally, as well as three categories with more specific needs: Goods delivery and pick-up; trades and services; and Pick-up/Drop-off.

General

- The City Centre currently has fairly good coverage of loading zones, and these are concentrated in areas that have limited off-street loading capacity. However, there is a lot of construction disruption, and this is causing challenges for many delivery, service and pick-up and drop-off activities.
- There are large areas of the City Centre that have private off-street loading facilities however these are not always available or being used.
- In a 2021 Queen Street survey, 32% of illegal parking instances were trucks, suggesting there is difficulty in finding a convenient places to park, or that loading zones provide insufficient time for deliveries. Between Mayoral Drive and Wellesley Street is an illegal parking hotspot.
- There is high demand for loading zones and a lack of enforcement was a recurring theme. There is significant impact when loading zones are not available, including missed appointments, repeat visits to jobs, increased costs, and increased congestion. This was mentioned as a specific issue on Karangahape Road.
- Trolleys are commonly used for many different categories of delivery, pickup and servicing. There needs to be adequate footpath space for unloading and accessing buildings.
- Many people interpret the five-minute time restriction on loading zones as a literal limit on parking. It is not well understood that while loading you may stay longer.
- Some businesses are willing to adapt. There is uptake of electric delivery vehicles, a courier is investing in electric cargo-bikes for deliveries, some service companies are using car park buildings where possible instead of on-street.



Summary of Key Findings

Goods Delivery and Pick-Up

- Most deliveries are concentrated in the mornings however there are deliveries throughout the day. Shared space streets work well for quick deliveries before 11am.
- Bulk food and drink delivery companies are concerned about a lack of loading zone space in the City Centre. One company suggested a system whereby loading zones could be booked and reserved as a way to manage demand and give certainty to the delivery driver and customer.
- There is an increasing amount of pick-up activity in the City Centre. This is mostly concentrated in the late afternoons – between 4pm and 5pm.
- It is increasingly common for small businesses to deliver stock themselves and often in a private car. This is a challenge as they may not be recognised as a goods vehicle, and some get infringements.
- A wide range of goods are delivered and bulky or heavy products need parking that is close by on a relatively flat surface.
- Takeout food delivery services are increasingly using e-bikes to deliver in the City Centre to avoid issues with finding car parking.

Construction, Trades and Services

- Nearly half of the trade or mobile services businesses surveyed by AT had turned down business in the City Centre due to parking or loading issues. (Auckland Transport, Gravitas, 2017).
- Tradespeople usually have a lot of equipment and product and often need to trip back and forth to their van. Many jobs in the Queen Street Valley require use of on-street parking.
- Tradespeople often can't use car park buildings because of the height of their vehicles. They often have ladders or other equipment on the roof, however some have shifted to using vehicles that can access car park buildings.
- There is a range of trades and services that operate daily in the City Centre. Almost of all of these arrive by vehicle and vans are the most common vehicle.

Pick-up and Drop-off

- Transport and access is a significant barrier for people with mobility issues visiting the City Centre.
- There is an increasing number of people using rideshare to travel to shows and entertainment due to the convenience of the service.
- There are hot spots for people pick-up and drop-off around the city. This varies by time of day and day of week.
- It is not clear to drivers and people getting dropped off where the appropriate locations for PUDO are.

Appendix A: Stakeholders Contacted in Developing User Requirements

As discussed in the methodology, the development of these user requirements involved conversations and contact with a range of stakeholders that are involved with different aspects of loading and servicing. A list of the stakeholders contacted is below.

- Heart of the City – Tania Loveridge
- National Road Carriers – Jason Heather
- Northern Lights Electrical – John Graham
- New Zealand Couriers – Clayton Pinkney
- Bidfood Logistics – David Blythe
- Auckland Live – David Bavage and Amy Mansfield
- Mojo Café – Donna Hutchins
- The Urban Garden – David Sanders
- Urgent Couriers – Steve Bonnici
- The Occidental Bar and Restaurant – Brian Collins
- Coca Cola – Bevan Woodgate
- Uber – Anonymous driver
- Karangahape Road Business Association – Jamey Holloway

