



206 Queen Street West, Hastings Residential & Commercial Development

Parking Assessment

Prepared for Hastings
District Council

November 2022

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1. Introduction

Urban Connection Limited has been commissioned by Hastings District Council to carry out a Parking Assessment in relation to a proposed development at 206 Queen Street West, Hastings, for residential and commercial use.

The assessment is specifically required to address any parking issues that could be generated by the proposal, which proposes 20 residential apartments and two commercial sites.

This assessment is specifically focused on the likely parking demand that the proposed new development is expected to generate, the available parking facilities, access arrangements and any anticipated effects.

2. The Site

The site is located at 206 Queen Street in Hastings, as shown in Figure 1. Vehicular access to the site will be via Queen Street West.



Figure 1: Site Location

3. Proposal

The site is proposed to be developed for 20 residential apartments and two commercial sites. The proposed development will occupy a total area of 2,057 m² (0.206 ha), providing an integrated design of buildings, infrastructure and landscaping.

The building is made up of the following:

1. Café tenancy (90 m²);
2. Commercial tenancy (32 m²);
3. 2 x 2-bedroom apartments (73 m²);
4. 2 x 2-bedroom apartments (75 m²);
5. 2 x 2-bedroom apartments (78 m²);
6. 14 x 1-bedroom apartments (56 m²).

The proposal allows for 17 carparks, including one accessible space, on the ground floor of the building, which are proposed for private use, for the 20 apartments. An additional 18 carparks, including one accessible space, are proposed outside the building: 13 along the northwest building edge and 5 along the southwest building edge. These outside parks are proposed as public car parking.

The proposed site plan illustrating the car parking layout on the ground floor is presented in Figure 2.

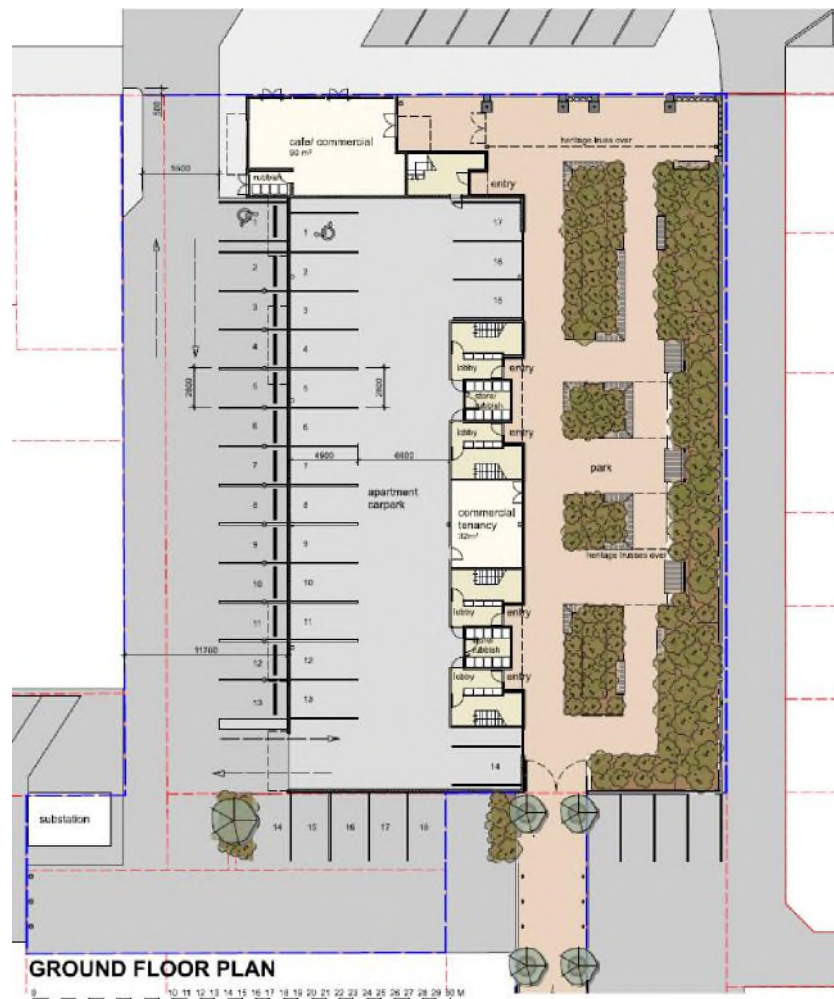


Figure 2: Ground Floor Plan

4. Parking Demand

A parking assessment has been undertaken to understand the likely parking demand that will be generated by the proposed development.

The site could potentially be considered a Comprehensive Residential Development, given that the development proposes a density of 20 residential units within its 2,057 m² (0.206 ha) area, providing an integrated design of buildings, infrastructure and landscaping.

The Hastings District Plan provides a 100% exemption of on-site parking requirements for Comprehensive Residential Developments (Section 26.1.6D.2.a.ii of the Hastings District Plan). Therefore, the proposed development is potentially exempt from the District Plan requirements.

Nevertheless, understanding likely parking demand and how this will be managed is considered important.

NZTA Research Report 'Trips and Parking related to Landuse November 2011' indicates a parking rate of 1.2 to 1.6 parking spaces per unit for residential multi-unit or suburban developments, respectively.

A parking rate for CBD shopping has been applied rather than pure commercial, to better reflect the variety of uses which could occur in a CBD environment and test a worst-case scenario. This results in 4.9 spaces per 100m² GFA for retail sites.

Table 1: Parking requirements based on NZTA Research Report

Development Type	Parking Rate	Parking Demand
Commercial Café (90 m²)	4.9 spaces per 100 m² GFA	4
Commercial tenancy (32 m²)	4.9 spaces per 100 m² GFA	2
Residential (20 Units)	1.2 – 1.6 spaces per unit	24 - 32
Total		30 - 38

The parking demand based on this approach indicates a required parking demand of 30 to 38 car parking spaces.

Car ownership for Inner City Living is significantly influenced by accessibility through alternative modes to key destinations. Factors such as proximity to work, school and recreation and the quality of public transport, walking, cycling and personal safety are some of the most significant factors which impact on car ownership levels.

The above national parking rate for multi-unit living is averaged across a range of sites which have varying degrees of accessibility, infrastructure and safety, and conversely varying ownership rates.

Car ownership can be taken as a proxy for these factors when assessing the quality of accessibility associated with inner city/multi-unit living arrangements.

Therefore, applying a Hawke's Bay car ownership assessment is considered the most likely representation of inner-city parking demand for Hawkes Bay in the first instance.

This additional analysis has been undertaken using the median total household income in relation

to car ownership.

The median 12-month household income in Hawke's Bay is \$77,700¹. On average, 10% of the households with gross income up to \$100,000 have no motor vehicle, 47% own one vehicle, 34% have two vehicles, and 10% own three or more vehicles².

Applying this data to the 20 residential units proposed on the site indicates that 29 vehicles are expected to be owned by site residents. As an additional 6 vehicles are likely to be associated with the proposed two commercial tenancies, a total of 35 parking spaces would be required by the proposal, when applying this assessment approach.

Table 2: Parking requirements based on Census data

Number of motor vehicles	% 2013 Census	Number of units	Total number of parking spaces required
No vehicle	9.8%	2	0
1 vehicle	46.6%	9	9
2 vehicles	34%	7	14
3+ vehicles	9.6%	2	6
Total	100%	20	29

¹ 2018 MBIE Regional Factsheet

² 2013 Census about transport and communications – latest available

5. Parking Supply

The development provides 17 private spaces for residents and a further 18 public car parking spaces. In total, the site proposes to offer 35 parking spaces.

The two alternative parking demand methods indicate a residential parking demand of between 24 – 32 parking spaces, with the most likely being 29 based on car ownership.

Table 3: Parking evaluation

Scenario	Parking Demand	Parking Supply	Allocation
Car Ownership + Commercial (Most Likely)	35	35	-
National multi-unit Living (Worst-Case)	38	35	-3

Based on the worst-case scenario, the resulting shortfall would range from 0 to 3 parking spaces to meet full demand.

However, it is recognised that only 17 private parking spaces within the apartment building are available for a predicted residential demand of 29. Being a shortfall of 12 parking spaces for this activity.

The 18 public car parks outside the apartment building are intended to support the proposed commercial activities on the site and from within the adjoining CBD environment. For the most part, this demand is present during the day, between 8 am and 5 pm.

After this period, most of these public spaces would become available to support residential needs.

Likewise, when considering the residential demand, it is anticipated that between 7 am and 6 pm, the residential demand would be significantly reduced as residents leave home and go to work, school etc.

The maximum predicted residential demand (29 spaces) would be present overnight. It is also anticipated that the commercial demand will be significantly reduced during this time.

In summary, the actual demand for parking is expected to occur at different times of the day. Therefore, the parking demand is estimated to reach 91% (residential worst-case) of the available supply and is assessed as sufficient.

As an example, if the commercial demand is reduced by 50% after 5 pm, a total of 3 parking spaces would be required. If 100% of residential demand were present at 5 pm, a total of 29 parks would be required. This is a total of 32 parks to be accommodated with a supply of 35, resulting in a net surplus of 3 parks under this scenario. It is noted that, in reality, the commercial demand past 5 pm is likely to be further reduced.

6. Parking Management

The mixed-use site has changing needs with regard to parking demand throughout the course of the day.

Based on mixed commercial/residential needs during the day and predominantly residential demand at night, Council may consider allocating 15 of the public carparks to residential parking during the evening/night time hours.

This could be managed through on-site parking restrictions and or private lease arrangements.

Furthermore, while it has been demonstrated that sufficient on-site parking is available to meet the demands presented by the development, it is also noted that Queen Street West, fronting the site, offers approximately 13 on-street parking spaces.

In addition, there is a paid carpark adjacent to the site, which can be accessed via King Street North.

The on-street and paid parking are also expected to be available to support the commercial/retail activities during the day, and any additional overspill residential parking, on occasion, could be expected to occur predominately overnight when traffic flows and commercial parking demand are reduced.

7. Parking Design

35 perpendicular parking spaces, including 2 accessible spaces, are proposed to be offered on the site. Car parking dimensions are required to comply with Appendix 71 of the Hastings District Plan.

The parking spaces are 4.9 m long and 2.8 m wide.

The private parking spaces (within the ground floor of the building) provide a manoeuvring aisle of 6.6 m.

Parking spaces along the northwest building edge provide a manoeuvring aisle of 6.8 m, and being spaces 2.8 m wide, provides sufficient space for appropriate manoeuvring.

As previously recommended, both the public and private parking facilities provide one accessible parking space each, easing access for people with wheelchairs, walking frames or pushchairs.

Consideration should also be given to supporting infrastructure for electric vehicles, especially for residential purposes.

8. Vehicular Access

8.1. Pedestrian Safety

The site is intended to be served with a single vehicle access point, using the existing vehicle access from Queen Street West, as shown below in Figure 3.



Figure 3: Existing vehicle access point

At this access location, the footpath runs hard up against the building line, and intervisibility can be restricted between exiting vehicles and users on the footway.

To improve visibility between users, a localised build-out has been outlined within the accessway against the building line. This effectively pulls vehicles away from the building line. Similarly, detail will be required to encourage people to maintain at least 0.5 m off the building line when approaching the crossing point, albeit most people will naturally position themselves at least 0.3 m from a building line.

This proposed detail, illustrated in Figure 4, improves visibility with path users to the immediate left-hand side of the vehicle access. It should be noted that this visibility outcome could be achieved through either a hard-formed kerb line or low-height landscaping.

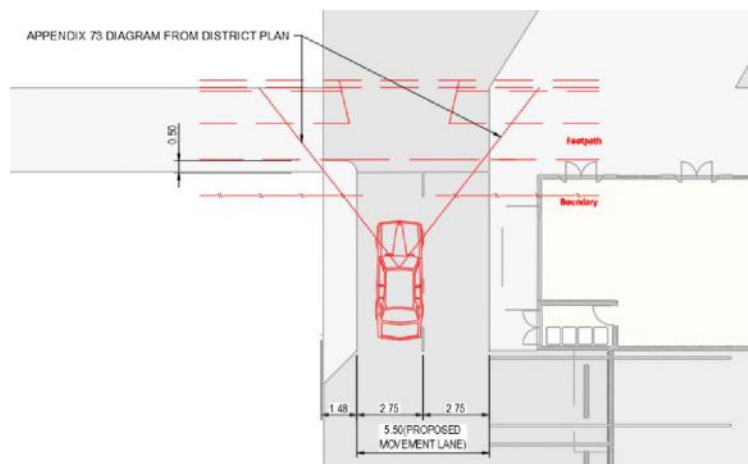


Figure 4: Intervisibility Splay for Pedestrians on Queen Street West

8.2. Internal Vehicle Tracking

Internal vehicle tracking has been undertaken using a 12.5 m Single Unit Truck in accordance with the Hastings District Plan. This is the largest service vehicle that would be expected to enter the site.

Vehicle tracking is illustrated below and is based on the planned Queen Street West parking upgrade planned by Hastings District Council.

In the interim (prior to the upgrade of the footpath build-out), service vehicles entering the site are likely to be required to pull wide onto the other side of the road in order to perform a left turn into the site. This situation is not unusual and is not considered an issue when taking into account the frequency of left-turning service vehicles relative to opposing vehicle volume and speed on Queen Street West.

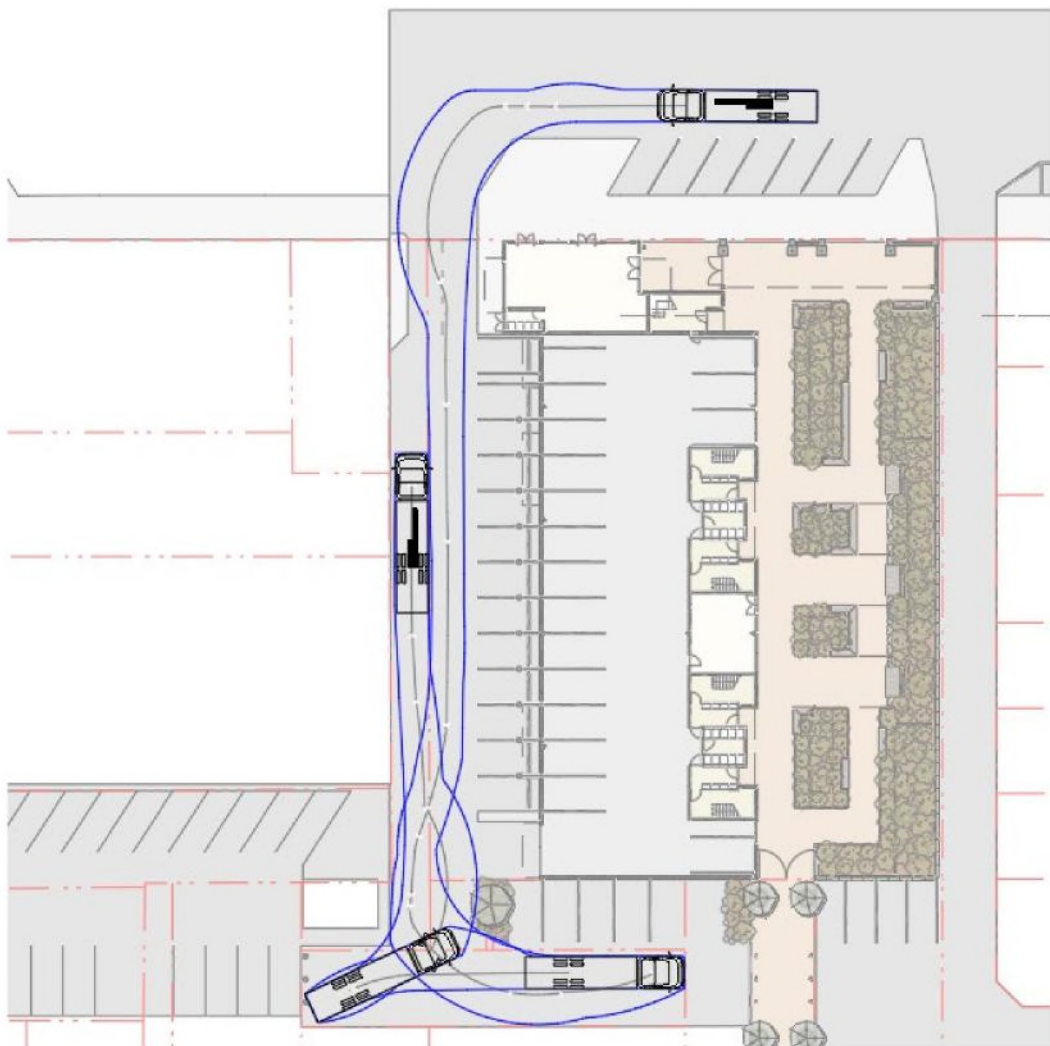


Figure 5: Vehicle Tracking - 12.5 m Rigid

9. Conclusion

On the basis of the assessment detailed above, it is concluded that through appropriate on-site parking management, the proposed development can accommodate the parking demands that would be generated from the site.

35 parking spaces will be provided on-site. Based on the parking assessment, a mixed-use demand of 35 spaces is considered to be full demand. However, based on the mixed-use nature of the site, demand at the site varies, with maximum demand estimated at 32 parks, being 91% of available supply. This maximum demand is likely to occur early morning and early evening when full residential demand and partial commercial demand are present.

On the limited occasion when this supply may be exceeded, there is available overspill parking available within Queen Street, directly fronting the site.

10. Disclaimer

This report has been prepared by Urban Connection Limited for Hastings District Council and may only be used and relied on by Hastings District Council for the purpose agreed between Urban Connection Limited and Hastings District Council as set out in this report. By default, this means that Hastings District Council can use and rely on this report for the purposes of supporting the consent application.

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			Name	Signature
0	3 June 2022	Jaspreet Singh	Aaron Campion	<i>A. Campion</i>
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