






Planning | Surveying | Engineering | Environmental

A23016 – Drury Central Stage 2  
Draft Construction Traffic Management Plan  
(CTMP)

## Document Control

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# 1 Introduction

This report has been prepared in support of the application by Kiwi Property Holdings No.2 Limited ('Kiwi Property') for a resource consent application under the Fast-track Approvals Act 2024. This draft CTMP has been prepared to specifically address the proposed subdivision and development within the Stage 2 area of the project only due the extent of construction proposed in this area, and no construction being proposed in the Stage 1 area where only subdivision is proposed. The Drury Centre Stage 2 development involves land use, subdivision, stream works, water permits and discharge consents at 64, 68, 108, 120 and 132 Flanagan Road, Drury (the Subject Site).

The Stage 2 development will consist of the construction of various dwellings, retail stores, commercial buildings, visitor accommodation and community activities with ancillary car parking; bulk earthworks; the construction and installation of reticulation networks; and roading infrastructure to service the project. The proposal also includes provision for various public and privately owned road corridors within the Stage 2 site.

CKL has been engaged by Kiwi Property to provide a Framework Construction Traffic Management Plan (Framework CTMP) for the bulk earthworks and other construction activities required to be undertaken within Stage 2 of the Drury Central Precinct. The bulk earthworks will be required to refine the site to the required finished levels, prior to the construction of the proposed buildings.

The subject site in the Stage 2 area comprises approximately 23ha of land. The proposed development of Stage 2 includes development of the following activities and associated gross floor areas (GFA):

- 63,547sqm of Retail activities
- 33,048sqm of Commercial activities
- 10,216sqm of Community activities
- 17,168sqm of visitor accommodation (consisting of a total of 282 rooms)
- 102 dwellings (consisting of apartments and terrace housing) with a total floor area of 14,938sqm

This Framework CTMP report has been prepared based on information available at the time of writing. A detailed Construction Traffic Management Plan (CTMP) will be provided prior to construction commencing on-site, and it is understood that this detailed CTMP will outline the detailed temporary traffic management methodology. This report addresses the transportation matters of the proposal and includes the following:

- The subject site and its surrounding transport environment;
- Anticipated construction traffic volumes;
- Associated effects of the construction vehicles on the performance and safety of the existing road network;
- Vehicle routing to/from the subject site
- Adequacy and function of the temporary parking and access provisions for heavy commercial vehicles accessing the site during the earthworks phase;
- Consideration of the transportation related provisions within the Auckland Unitary Plan (AUP), including the Drury Precinct transportation requirements; and

These and other matters will be addressed in the detail of the report that follows. By way of summary, it is concluded that the earthworks and construction phases of the proposed development can be completed

such that there will be less than minor effects to the function, capacity and safety of the surrounding transportation network.

This report should be read in conjunction with the 'A23016 – Drury Centre Stage 2 Integrated Transportation Assessment Report' dated 14 March 2025 and prepared by CKL.

## 2 Existing Transportation Environment

### 2.1 Site Location

The Stage 2 area proposed to be developed as part of this consent application is outlined in red Figure 1. The site is irregularly shaped and is generally bound by rural properties to the east and north, Brookfield Road to the south and State Highway 1 (SH1) to the west. The site is located immediately north of the Drury Centre Stage 1 project by Kiwi Property. The site is zoned a mixture of Business – Metropolitan Centre, Business – Mixed Use Zone and Open Space – Informal Recreation Zone.

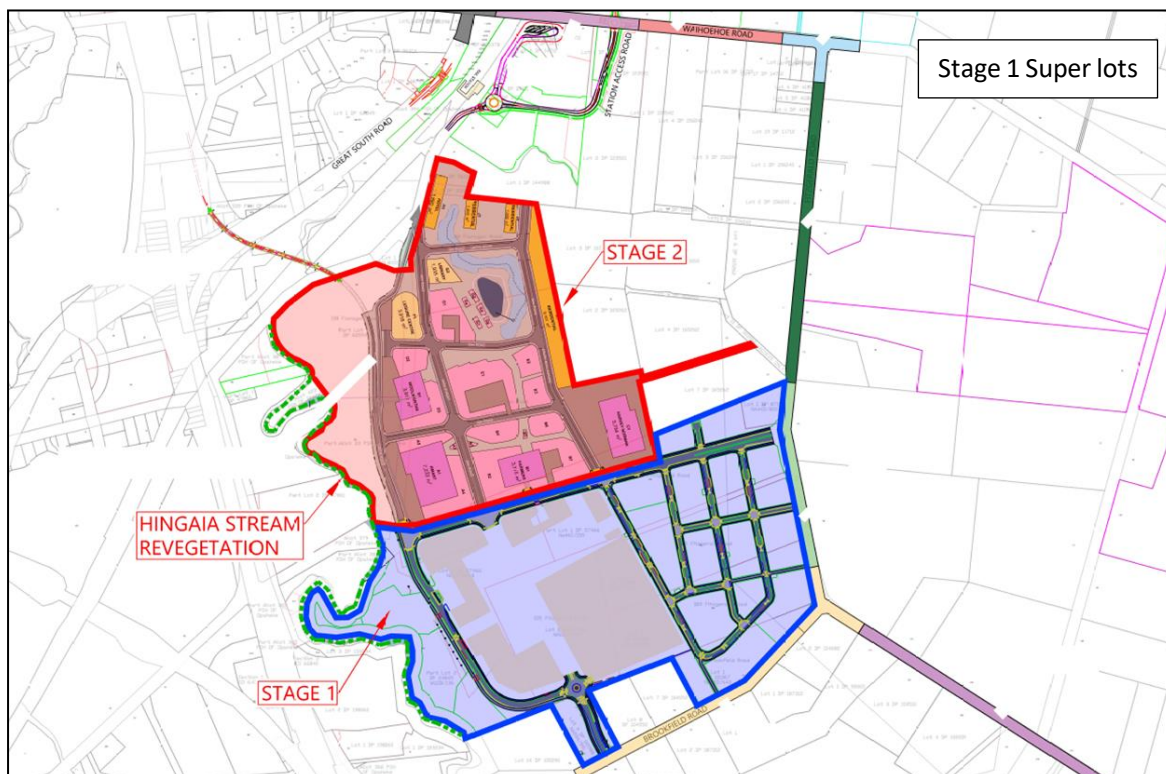


FIGURE 1: SITE LOCATION

The Subject Site is located approximately 30km southeast of Auckland's central business district (CBD), 14km southeast of Manukau, 6km south of Papakura, and within 1km of the existing Drury Town Centre. The site is also located approximately 1km east of the major intersection between State Highway ('SH') 1, SH22 and Great South Road ('GSR'). All roads within the vicinity of the site are currently rural roads with limited active transport facilities but will be urbanised as part of previously consented developments. As part of the Drury South development works, a gravel shared path has recently been constructed on the northern side of Waihoehoe Road north of the site.

Further west of the site, the area is largely governed by rural, industrial and commercial activities. It is noted that construction works are underway for developments in vicinity of the site. This includes the Drury East Precinct and the Waihoehoe Precinct.



## 2.2 Road Network

Figure 2 below shows the existing roading network in vicinity of the site.



FIGURE 2: ROADING NETWORK SURROUNDING THE STAGE 2 SITE

### 2.2.1 Waihoehoe Road

Waihoehoe Road provides an east-west connection to the north of the stage 2 development area. It provides the primary arterial connection between the Drury East area, and the western side of Drury including the existing Town Centre, GSR and the SH1 on/off-ramp. Waihoehoe Road generally has an existing cross section of approximately 6.5m with one traffic lane in each direction and the road corridor is marked with a painted centreline and edge lines. At the Waihoehoe Road / Fitzgerald Road intersection an interim roundabout has been constructed to enable access to a construction site to the north of the intersection and manage construction vehicles in the Drury East area. It will eventually be replaced by a signalised intersection. Waihoehoe Road has a posted speed limit of 50km/h east of Drury Interchange, 60km/h between Flanagan Road and Fitzgerald Road, and 80km/h east of Fitzgerald Road and across the subject site. As stated above, a gravel shared path is provided on the northern side of the road corridor. The road characteristics are currently largely typical for that of a rural road corridor with unsealed edges, table drains and limited active mode facilities. Figure 3 below shows the typical existing cross-section of Waihoehoe Road.

It is noted that Waihoehoe Road is a subject of designation 1838. The purpose of designation 1838 is to widen the Waihoehoe Road corridor to serve the proposed future development in vicinity of the Drury East and Drury Centre precincts. Developments in Drury East have already been consented, including Stage 1 of the Drury Centre Precinct. As such, urbanisation of Waihoehoe Road will be undertaken as part of those consents.





**FIGURE 3: WAIHOEHOE ROAD TYPICAL EXISTING CROSS-SECTION**

### 2.2.2 Fitzgerald Road

Fitzgerald Road runs to the east of the subject site. It has a current width of approximately 7m with one traffic lane in each direction. The road corridor is marked with a centreline and edge lines along its entire length. No active mode facilities currently exist along the road corridor, and similarly to Waihoehoe Road, the corridor has typical rural road characteristics including unsealed edges, table drains, and wide grass berms. As stated above, an interim roundabout is provided on Waihoehoe Road at its intersection with Fitzgerald Road. As with Waihoehoe Road, Fitzgerald Road will undergo urbanisation as part of prior consented developments in the area. Figure 4 below shows the typical existing cross-section of Fitzgerald Road.



**FIGURE 4: FITZGERALD ROAD TYPICAL EXISTING CROSS-SECTION**

### 2.2.3 Brookfield Road

Brookfield Road extends along the southern frontage of the Drury Centre Stage 1 site. Brookfield Road has a road reserve width of 20m, a carriageway width of approximately 5m, with one traffic lane in each

direction and is unmarked along its entire length. Similar to the other roads in Drury, the road corridor has unsealed edges, wide grass berms, and no active mode facilities. The intersection between Brookfield Road and Fitzgerald Road is located at the southeastern corner of the Drury Centre Stage 1 site and the intersection takes the form of a give-way controlled T-intersection where Fitzgerald Road is the major approach to this intersection.

As part of the approved Stage 1 consent, the Brookfield Road corridor will be upgraded to an urban standard. The extent of these upgrades was extensively discussed in section 4.4.3 of the original Fast-track ITA. Figure 5 below shows the typical current cross-section of Brookfield Road.



**FIGURE 5: BROOKFIELD ROAD EXISTING CROSS-SECTION**

#### 2.2.4 Great South Road

GSR provides a north-south connection through the wider Drury-Opaheke area. Within the AUP, it is classified as an arterial road corridor. GSR primarily exists as a two-way, two-laned road with an approximately 13m wide carriageway. The carriageway consists of a painted centreline, edge lines, NSAAT lines and flush median near the GSR/Waihoehoe Road intersection. Parking is generally not permitted on either side of the road near the GSR/Waihoehoe Road intersection. The posted speed limit along the road corridor is 50km/h however increases to 60km/h near the SH1 on/off-ramp. Great South Road can be used as an alternative route to SH1 as both roads generally follow the same route. The intersection between GSR and Waihoehoe Road takes the form of a four-legged roundabout with GSR forming the northern and southern legs, Waihoehoe Road existing as the eastern approach and Norrie Road existing as the western approach. Figure 6 below shows the typical cross-section of Great South Road.





**FIGURE 6: GREAT SOUTH ROAD CROSS-SECTION**

It should be noted that the road descriptions provided in section 2.2.1, 2.2.2, and 2.2.3 describe these road corridors in their existing state. As stated above and in the original Fast-track ITA, Waihoehoe Road, Fitzgerald Road and Brookfield Road will undergo significant urbanisation upgrades as part of the Drury Centre Stage 1 upgrades. Additional information of these upgrades is provided in the original Drury Centre Stage 1 Fast-track ITA (23/11/2022), and also the Drury Centre Stage 2 ITA (14/03/2025).

## 2.3 Public Transport

### 2.3.1 Rail Network

Currently, the nearest train station to the proposed development site is the Papakura train station located about 5km north of the Drury SH1 interchange. The Southern train line between Papakura and Britomart currently runs every 10 minutes during weekday peak hours and every 20-30 minutes during off-peak times. However, a new Drury Centre Train Station is currently under construction, and expected to become operational from 2026.

### 2.3.2 Bus Facilities

Bus service 376 is a scheduled service which currently operates between Auranga and Drury to Papakura. The service operates along Great South Road at an approximate 20-minute frequency during weekday peak times and 30-minute frequency during off-peak times and weekends. More recently, the bus service has been altered to include service to the newly constructed residential development within Auranga.

It is understood that bus services within and to/from Drury will improve significantly once further development occurs within the Suburb. A public transport hub will be constructed in proximity to the Drury Centre Railway Station to provide commuters and residents with a highly efficient public transport system.

### 2.3.3 Walking and Cycling Provision

The local road network in Drury East currently lacks provisions for cycling and walking. Apart from the gravel shared path on the northern side of Waihoehoe Road (provided as part of the Drury South development works), there are no other active mode facilities on the surrounding road corridors.

It is understood that work is currently being undertaken by NZTA to extend the Southern Pathway (shared path) along the western side of SH1, from its current extent at the Papakura interchange to the Drury Interchange, with completion expected in 2025.

As part of the Drury Centre Stage 1 development, it is proposed to upgrade the external road corridors in vicinity of the site (Waihoehoe Road, Fitzgerald Road and Brookfield Road) and also the internal road corridors within the Stage 1 development site to provide a high-quality, and well-connected active mode network within and around the site that will be constructed prior to the proposed earthworks commencing.

## 2.4 Traffic Volumes

The most recent traffic volumes obtained from the Auckland Transport (AT) Open GIS Database website were collected along Waihoehoe Road and Great South Road. Traffic data for Flanagan Road, Fitzgerald Road, Cossey Road, Fielding Road and Fitzgerald Road was not available on the AT Open GIS database, hence has been obtained from Mobile Roads which is based on council maintained RAMM data.

These traffic volumes are summarised in Table 1 below.

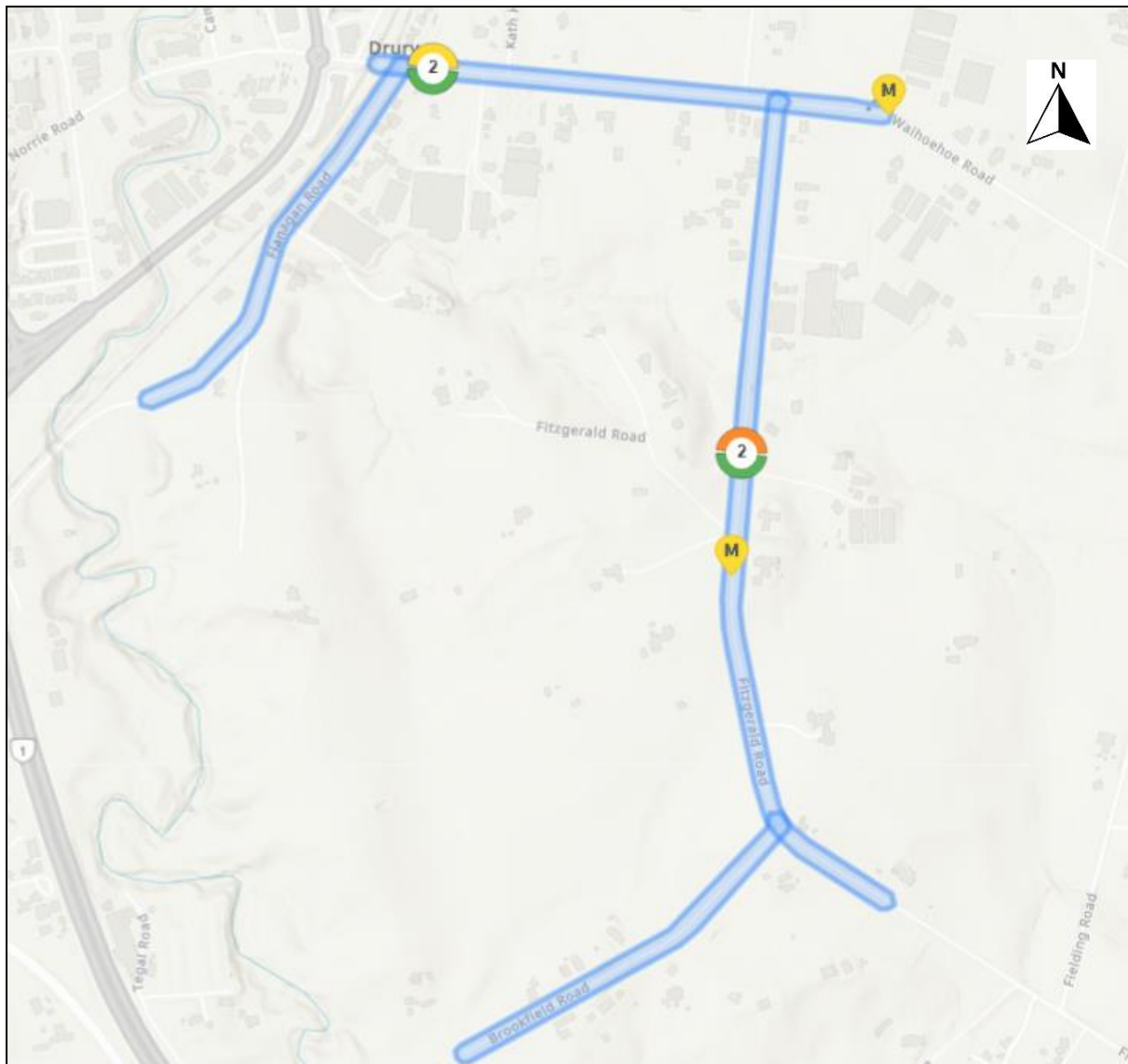
**TABLE 1: TRAFFIC VOLUMES**

Road	Location	Daily (vpd)	Peak Hour
Waihoehoe Road	Between GSR and Flanagan Road	3,643	380
Fitzgerald Road	-	1,616	162
Cossey Road	-	693	69
Fielding Road	-	1,017	102
Flanagan Road	Flanagan Road intersection	179	2
Great South Road	Between Waihoehoe Road and Firth Street	18,346	1,695
SH1 northbound	North of the SH22 on/off-ramp.	38,167	3,817
SH1 southbound	North of the SH22 on/off-ramp.	37,269	3,727
SH22	Between Mercer Street and SH1 intersection.	28,320	2,832

## 2.5 Road Safety

### 2.5.1 CAS Analysis

A search was made of the New Zealand Transport Authority (NZTA) Crash Analysis System for all reported crashes that had occurred along the site frontage on Flanagan Road, Fitzgerald Road, Waihoehoe Road west of Fitzgerald Road, and the full length of Brookfield Road, over the last five-year period from 2020 to 2024 (including all crashes from 2025). The search area is shown in Figure 7.



**FIGURE 7: ROAD SAFETY RECORD**

The search found that six crashes had been reported within the study area of which one resulted in serious injuries, three resulted in minor injuries, and the two remaining crashes resulted in property damage only.

The crash resulting in serious injuries occurred where a vehicle travelling south on Fitzgerald Road lost control and crashed into a bank. The driver was under the influence of alcohol.

The first crash resulting in minor injuries occurred where a learner driver travelling west on Waihoehoe Road approached the moderate bend just before the intersection with Fitzgerald Road. The driver has lost control around the bend, crashing into a fence and a tree. The curve has advisory speeds of 50km/h while the learner driver was travelling at approximately 70km/h during heavy rain conditions.

The second crash resulting in minor injuries occurred where a driver travelling west on Waihoehoe Road when a young pedestrian walking home from school has run out onto the road. The driver was unable to stop in time resulting in a collision between the vehicle and the pedestrian. As mentioned earlier, Waihoehoe Road currently lacks provision for pedestrians given its current rural environment.

The third minor crash resulting in minor injuries occurred where a vehicle travelling on Fitzgerald Road has struck some metal debris on the road causing it to lose control and spin out onto the opposing movement

lane. This has resulted in a collision with a vehicle travelling in the opposite direction. The driver was found to be travelling at an excessive speed inappropriate for the rainy weather conditions.

Overall, no crashes were reported that involved the subject site. The crashes that have occurred are due to driver error and not due to any road safety issues. No common crash trends or factors have been identified and as such, no specific road safety issues have been identified in relation to the subject site.

The Waka Kotahi MegaMaps database has been used to identify both the personal and collective risk ratings for the roads described above.

Collective risk is the measure of how likely a crash is to happen along a given stretch of road network.

Personal risk relates to the chance that if a crash does occur that it involves a given individual. It is not unusual to see higher personal risks on a road, particularly when there are low traffic numbers.

Table 2 below shows a summary of the MegaMaps Risk Ratings for surrounding roads.

**TABLE 2: MEGAMAPS RISK RATINGS**

Road	Collective Risk	Personal Risk
Flanagan Road	Low	Low
Fitzgerald Road	Medium	Medium
Brookfield Road	Low	Low
Waihoehoe Road (east of Fitzgerald Rd)	Low Medium	Low
Waihoehoe Road (west of Fitzgerald Rd)	Medium	Medium

The associated risk ratings of medium collective and personal risks for Fitzgerald Road aligns with the road safety record given that over the past five years, one serious injury and one minor injury crash has occurred along the search area of this road corridor. The associated risk rating of low collective risk and personal risk along Brookfield Road aligns with the crash record given that no injury crashes have occurred along the road corridor over the past five years.

The Medium collective and personal risk along the western section of Waihoehoe Road does not align with the observed crash record given that only one minor injury crash has occurred over the past five years.

Based on the analysis above, no specific road safety issues have been identified in relation to the subject site. To further improve safety, it is understood that the proposed development includes significant upgrades to the existing road network which will have a further positive impact on road safety in vicinity of the site.



## 3 Proposal

### 3.1 Site Layout

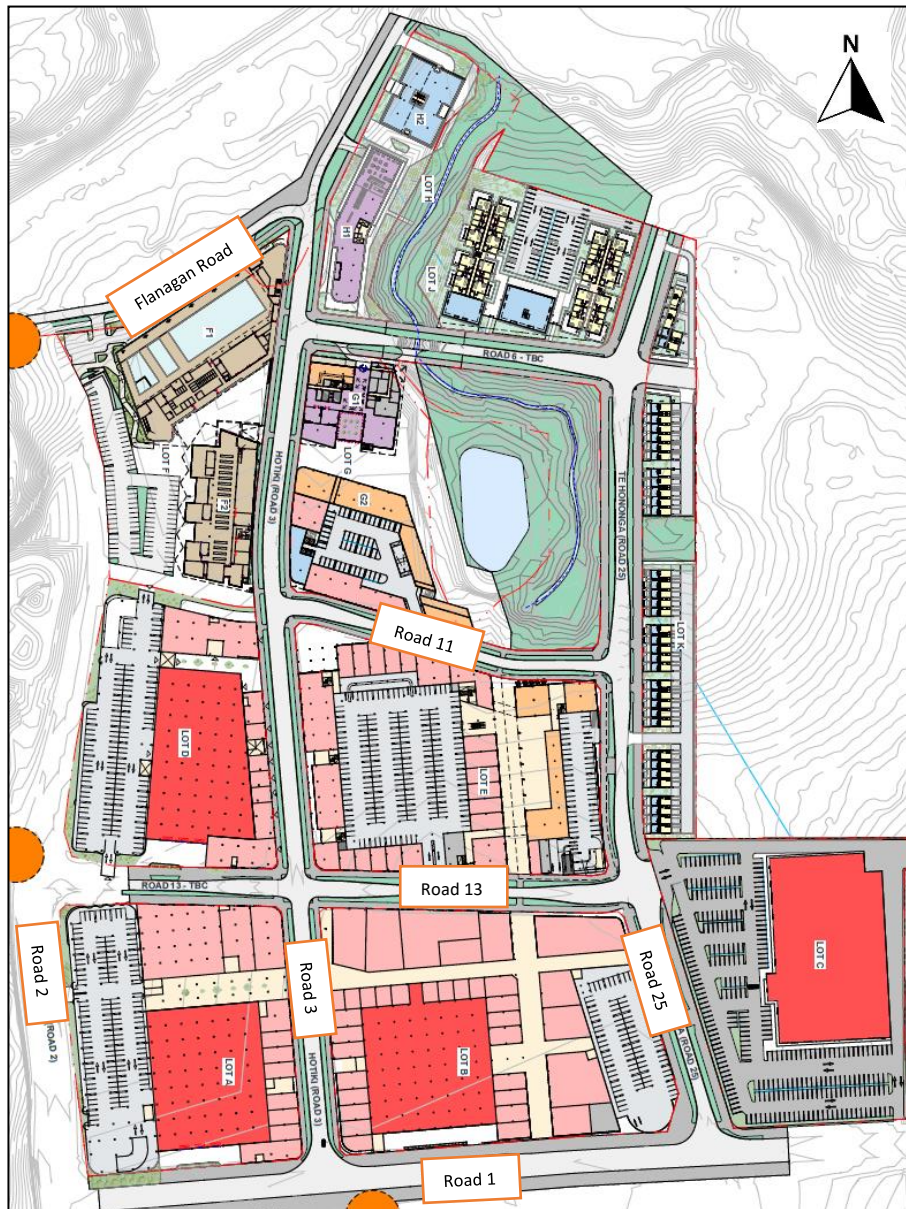
Kiwi Property is proposing to undertake bulk earthworks at the subject site to facilitate Stage 2 of the Drury Centre project to refine the site to the required finished levels. Following the bulk earthworks, construction will commence on the various commercial, retail, residential and community centre buildings proposed within the Drury Centre Stage 2 site.

The Drury Centre Stage 2 development will consist of the construction of various dwellings, retail stores, commercial buildings, visitor accommodation and a community centre (including a library and an aquatic centre) with ancillary car parking; bulk earthworks; the construction and installation of reticulation networks; and roading infrastructure to service the project. The proposal also includes provision for various public and privately owned road corridors within the Stage 2 site.

It is understood that bulk earthworks across the entire site will be completed first, and then the proposed development of buildings will be undertaken generally in 11 stages with some of these stages containing several sub stages as outlined below and also shown in Figure 12 below:

- Stage 1: Lot C
- Stage 2: Lot B
- Stage 3: Lot A
- Stage 4: Lot K (This Lot will be split into three sub-stages)
- Stage 5: Lot E
- Stage 6: Lot G
- Stage 7: Lot D
- Stage 8: Lot F
- Stage 9: Lot J
- Stage 10: Lot H
- Stage 11: Esplanade reserve

Once the bulk earthworks within the site are completed, construction of the buildings proposed within the Drury Centre Stage 2 development is expected to commence generally as per the staging schedule outlined above. The proposed site layout and approximate alignment of the roading corridors within the Drury Centre Stage 2 site is shown in Figure 8 below.



**FIGURE 8: DRURY CENTRE STAGE 2 DEVELOPMENT SITE**

The Road 1 corridor extending along the southern property boundary of the subject site will provide vehicular access for heavy commercial vehicles (HCVs) visiting the site throughout the bulk earthworks and construction phases. Road 1 was consented as part of the Stage 1 Fast-track application and will be constructed prior to the commencement of the earthworks phase of Stage 2.

The proposed development includes several new public and private road corridors within the Stage 2 development site and these corridors form three key intersections onto Road 1. These intersections will also be constructed prior to the commencement of the bulk earthworks phase of Stage 2 and will form key access points for construction vehicles associated with Stage 2. It should be noted that each of these intersections will operate as a signalised T-intersection until the northern legs of these intersections are operational to provide access to HCVs travelling into/out of the Stage 2 site.

These intersections have been designed to TDM standards and have been approved by Auckland Transport during the Fast Track Consenting of Stage 1. The consented intersection designs for each of these three intersections are shown in Figure 9, Figure 10, Figure 11 respectively.



FIGURE 9: ROAD 2/ROAD 1 CONSENTED INTERSECTION DESIGN



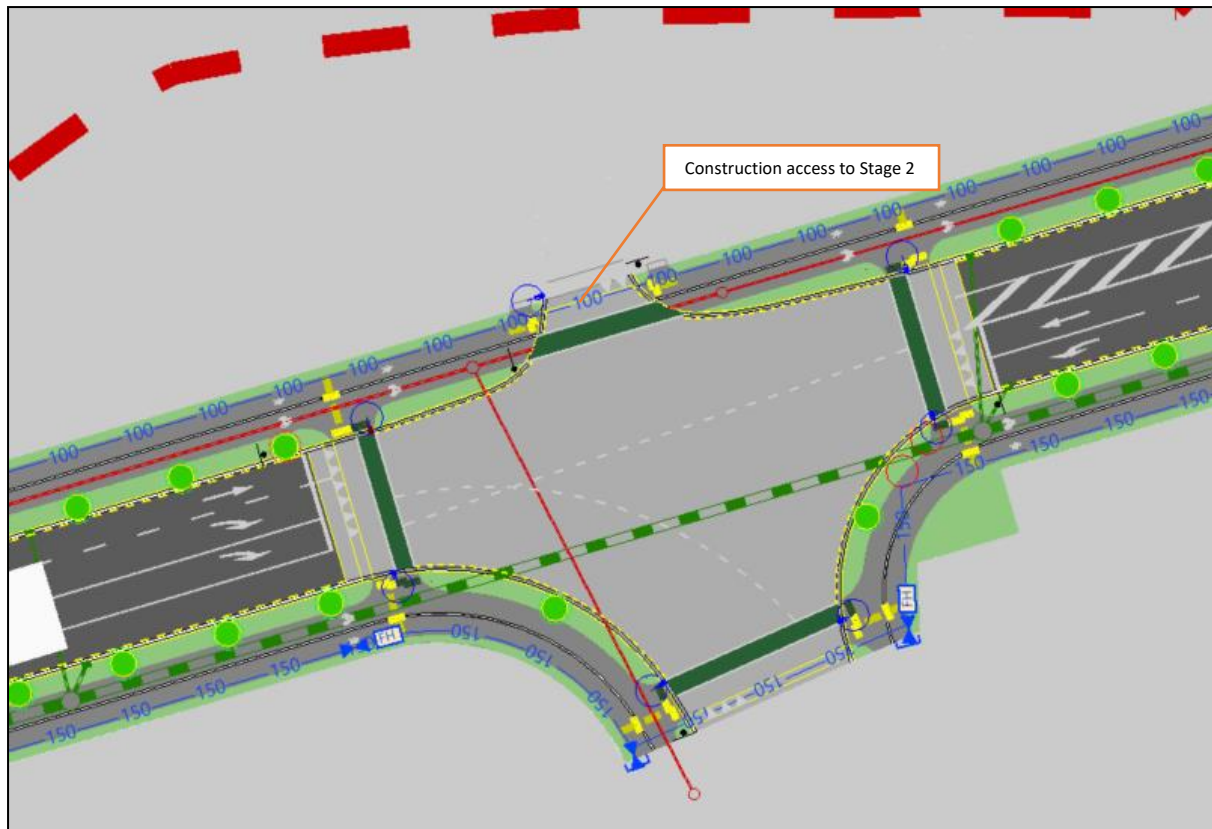


FIGURE 10: ROAD 3/ROAD 1 CONSENTED INTERSECTION DESIGN

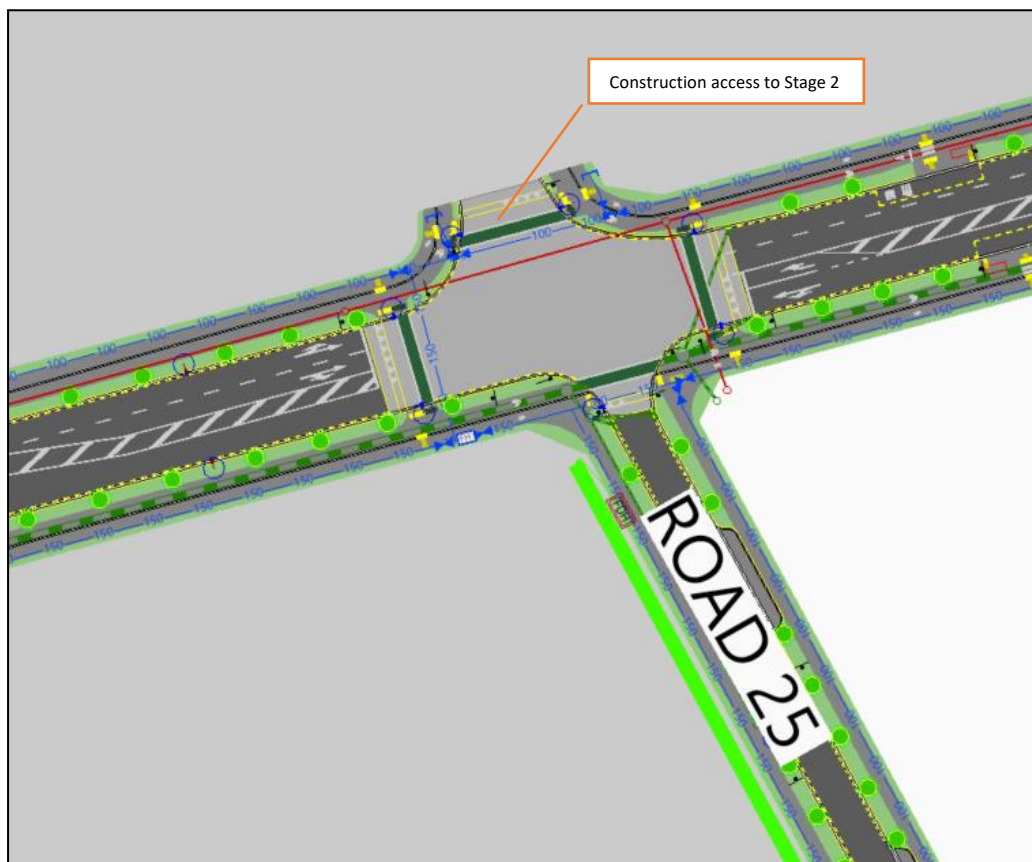
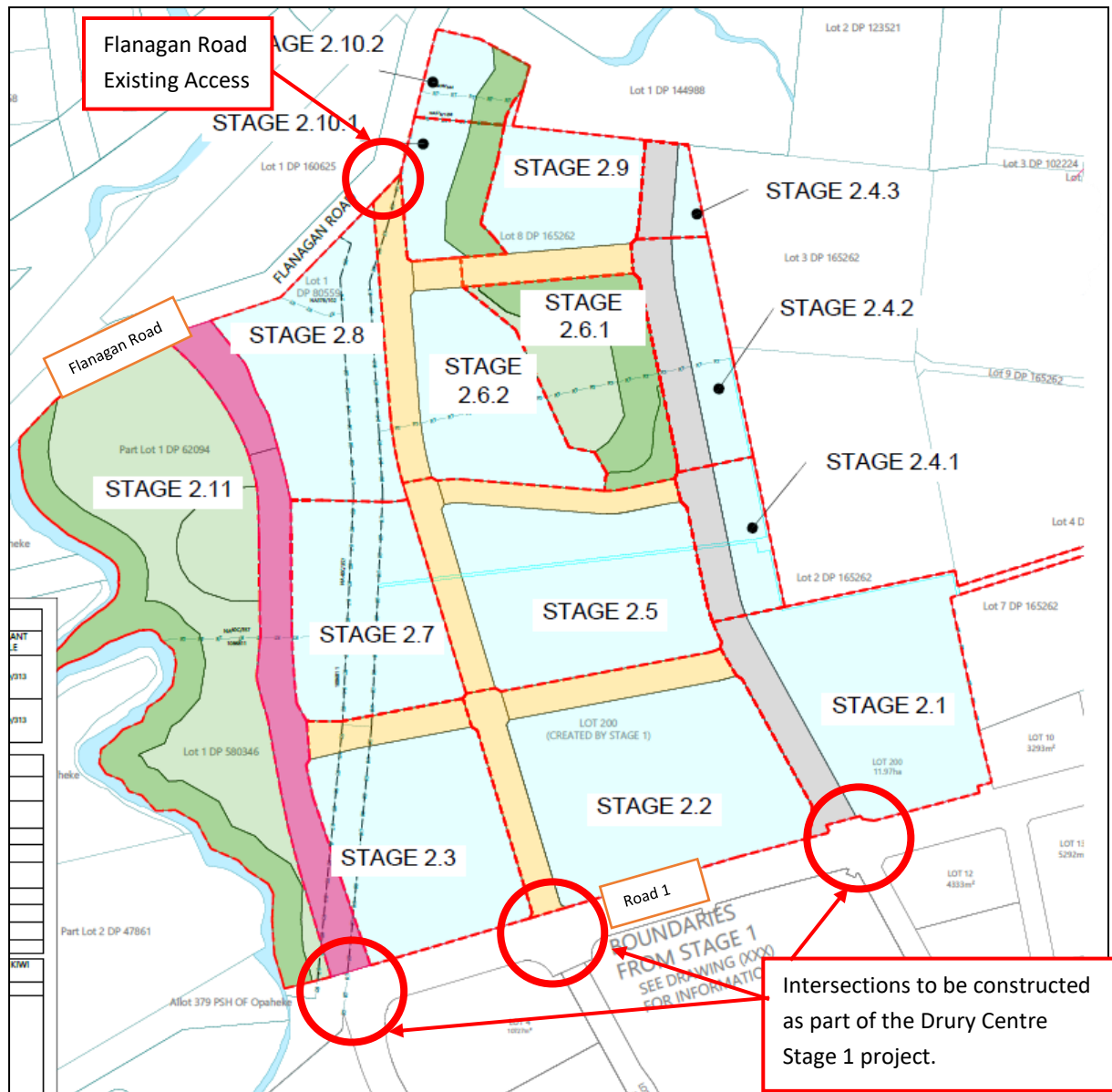


FIGURE 11: ROAD 25/ROAD 1 CONSENTED INTERSECTION DESIGN



## 4 Earthworks Access

The subject site has frontage to both Flanagan Road and Road 1 which will be constructed as part of the Drury Centre Stage 1 development. As stated above, vehicular access for HCV's travelling to/from the site will be provided from the three intersections between the internal road corridor and Road 1. One additional access will be provided into/out of the subject site via Flanagan Road. An overview showing each of the proposed accesses for construction traffic is shown in Figure 12.



**FIGURE 12: EARTHWORK ACCESS LOCATIONS**

All vehicles will travel into and out of the subject site using the four access points identified in Figure 12 above. The three access points from Road 1 will operate via a signalised cross-roads intersection. The access from Flanagan Road will be provided via a temporary vehicle crossing until the Road 3 corridor is constructed between Road 1 and Flanagan Road at its southern and northern ends respectively. Once the Road 3 corridor is constructed, the access will be provided via a priority-controlled t-intersection, however access will be restricted to construction vehicles only.

The subject site currently exists entirely as farmland. Once the internal road corridor is constructed, temporary vehicle crossings will be provided from the internal road corridor into each of the different

stages. Details around these temporary vehicle crossings will be provided as part of the detailed CTMP once a contractor has been appointed.

## 5 Traffic Effects

The bulk earthworks for the entire Drury Centre Stage 2 site are anticipated to be undertaken in one stage across the 2025/2026 summer season. Over this time, an estimated 50,000 cubic metres of earthworks will be completed across the subject site. The earthworks activities assessed as part of this consent include all earthworks associated with development of the roading corridors, public drainage and esplanades. It is expected that during the earthworks phase, any cut material removed from one area of the site will be used as fill material in another area, and any excess cut material will be stored on adjacent land holdings.

It is expected that further minor earthworks will also be required and carried out within the individual lots at a later stage. These minor earthworks include installing civil workings such as building foundations, retaining walls, and private drainage. The earthworks have been balanced as much as practicable with most of the cut material to be utilised as fill material in other parts of the site, and any remaining fill material to be transported to the surrounding land holdings owned by Kiwi Property.

It is understood that all proposed bulk earthworks will be undertaken within the standard earthworks season which typically ranges from 1 October to 30 April. This time period typically consists of approximately 165 working days between Monday – Saturday, and including a 2-week Christmas shutdown and typical public holidays such as Labour Day, Auckland Anniversary Day, Waitangi Day etc.

A summary of the trips associated with the Truck and Trailer movements are shown in Table 3 below. During the earthworks phase of construction, general truck trips associated with typical earthwork operations including fuel and materials deliveries to site are anticipated to generate approximately 5 trucks to and from the site per day for the duration of the earthworks season. Additionally, it is expected that there would be 20 regular vehicles consisting of employee, consultants and council personnel travelling to and from the site. A summary of the HCVs and regular vehicle movements to and from the site during the bulk earthworks phase is shown in Table 3 below.

**TABLE 3: ANTICIPATED WORK SCHEDULE FOR THE BULK EARTHWORKS ACTIVITY**

Year	Months	Lot Number(s) and stage	Truck + trailer numbers (vpd)	Additional earthwork operations (vpd)	Regular vehicle movements
2025/2026	October 2025 – April 2026	All lots – bulk earthworks	25	5	20

Once the bulk earthworks within the site are completed, the civil works and construction of the buildings will begin. It is understood that employees will work on-site Monday – Saturday throughout the year. No work is expected to be carried out on Sundays. Vehicle movements associated with the civil and building activities are outlined in Table 4 below.

**TABLE 4: TRUCKS (EXCLUDING TRUCK AND TRAILERS) AND CARS**

Year	Lot Number(s) and stages	Truck numbers per year	Truck numbers per day	Car number per year	Car number per day	Total vehicles per day	Vehicle movements per day
2025/2026	All lots – bulk earthworks	4,740	30	2,160	20	50	100
2026	Lot 38 Civil Works	1,560	5	6,240	20	25	50
2027	Lots 32, 38 - civils and building	3,120	10	12,480	40	50	100
2028	Lots 31, 32 - civils and building	3,120	10	12,480	40	50	100
2029	Lots 34, 31 - civils and building	3,120	10	12,480	40	50	100
2030	Lots 36, 34 - civils and building	3,120	10	12,480	40	50	100
2031	Lots 35, 36 - civils and building	3,120	10	12,480	40	50	100
2032	Lots 33, 35 - civils and building	3,120	10	12,480	40	50	100
2033	Lots 37, 39 - civils and building	3,120	10	12,480	40	50	100
2034	Lot 40 - buildings	1,560	5	6,240	20	25	50

The expected number of truck and trailers travelling to/from the site is expected to be the highest during the 2025/2026 bulk earthworks season and between 2027 – 2033 with approximately 30 HCV per day and 20 regular vehicles, and 10 HCV per day and 40 regular vehicles travelling to and from the site per day respectively. It should be noted that these numbers represent vehicles travelling to and from the site. As such, during the peak times, there will be a total of 100 (50\*2) vehicle movements into and out of the site.

Typical work hours are expected to be between 7AM-6PM, and it has been conservatively assumed that all regular vehicle movements will occur in the AM and PM peak when employees travel to and from the site, but all truck movements will occur evenly across the 11-hour working day. As such, the proposed construction activities will generate an additional 40 vehicle movements during the AM and PM peak respectively.

It is expected that all these construction vehicles will travel to and from the site using the Waihoehoe Road, and Fitzgerald Road corridors which currently have an average annual daily traffic (AADT) of 2,543 and 1,616 vehicles per day. Assuming that 10% of these volumes occur during the peak hour results in a peak

hour volume of 254vph and 162vph along Waihoehoe and Fitzgerald Road respectively. The carrying capacity of a two-way, two-lane road is approximately 1,600vph in each lane. Given the low existing traffic volumes, the addition of forty vehicle movements during the peak hour is still well below half the carrying capacity of these roads.

In conclusion, the additional traffic volumes are not expected to have any adverse impact on the efficient operation of the local road network.

## 6 Site Access

As stated above, the Drury Centre Stage 2 site is accessible via the three intersections onto Road 1 and via the one existing vehicle crossing onto Flanagan Road. Given that all construction vehicle movements will be accommodated either within the existing vehicle crossing, or intersections that have already been approved by Auckland Council and will be constructed as part of the Drury Centre Stage 1 development, an assessment of these access locations has not been completed as part of this CTMP. It is expected that all proposed construction access points provide a safe location for construction vehicles to enter and exit the site.

### 6.1 Visibility

The Unitary Plan does not outline specific sight distance requirements for vehicle crossings onto road corridors. As such, the RTS 6: *Guidelines for visibility at driveways* (RTS 6) document has been used to determine the visibility of the proposed access. As stated above, site access is via Road 1 and Flanagan Road. Road 1 will have a posted speed limit of 50km/h and Flanagan Road has a speed limit of 70km/h.

To ensure a conservative assessment against the RTS 6 requirements, it is proposed to assess the operating speeds as 10km/h above the posted speed limit. For a low volume driveway (up to 200 vehicle manoeuvres per day), a non-arterial road corridor with an operating speed of 60km/h and 80km/h requires a minimum sight distance of 55m and 105m respectively.

As stated above, it is expected that the three intersections onto Road 1 provide compliant visibility in all directions given a detailed assessment of these intersections has been completed as part of the Drury Centre Stage 1 works and EPA has been obtained for each of these three intersections. Additionally, as shown in Figure 13, the existing vehicle crossing off Flanagan Road provides greater than 105m visibility in both directions, hence complying with the visibility requirements outlined in the AUP.





FIGURE 13: VISIBILITY FROM FLANAGAN ROAD VEHICLE CROSSING

## 6.2 Vehicle Crossing Surfacing

Rule E27.6.4.2 of the AUP requires that all vehicle crossings onto a sealed road corridor must be formed using materials similar to the existing road surface or better. The three intersections off Road 1 will be sealed. However, the existing Flanagan Road vehicle crossing is currently unsealed. It is proposed to leave this vehicle crossings unsealed resulting in a non-compliance against the AUP. As stated earlier, this vehicle crossing is only temporary in nature, and will only serve construction vehicles during the construction phase of the development. Once the Road 3 corridor is constructed, the existing vehicle crossing will be transformed into a priority controlled intersection with sealed surfacing. Additionally, a wash bay will be located in close proximity of this temporary vehicle crossings to prevent gravel and dirt being tracked onto the road. As such, this non-compliance is deemed to be only temporary, and given the proposed mitigations, it is unlikely to have any adverse impact on the safe and efficient operation of the road corridors.

# 7 Parking

## 7.1 Vehicle Parking

The Unitary Plan does not outline a minimum number of vehicle parking spaces. Given the large scale of the subject site, it is expected that all employee vehicles working on the site during the earthworks phase of the project can be accommodated within the site, hence having no adverse effect on the safe and efficient operation of the road corridor. Given that the parking will only be temporary in nature for the earthworks phase of the proposed development, and the carpark will only be accessed by employees

working on-site, (regular users), the parking spaces will not be sealed or formally marked as it is expected employees will be aware of the parking arrangements on-site. It is expected that the appointed contractor will also consider implementing the use of staff shuttles/mini-buses to encourage higher vehicle occupancy, and therefore reduce parking demand on-site.

## 7.2 Loading Space

Table E27.6.2.27 of the Unitary Plan requires construction activities greater than 90,000sqm to provide a minimum of three loading spaces plus one space for every additional 40,000sqm. The Subject Site has a total land area of 23ha (230,000sqm), hence is required to provide a minimum of seven loading spaces.

A laydown area will be provided in proximity to each of the proposed vehicle access locations. Given the large size of the site there will be plenty of space to provide the loading spaces and the design will be developed with the contractors to ensure that the arrangements are best suited to and efficiently serve the site.

Loading spaces will have a minimum dimension of 23m x 3.5m in order to sufficiently accommodate the 23m AT HPMV truck and trailer design vehicle.

In addition to the loading space, the laydown area is also expected to provide a manoeuvring area suitable for large HCVs to ensure all vehicles enter and exit the site in a forward's direction and also a wash bay facility. This laydown area will also temporarily store tools, materials, equipment and vehicles when not in use within the site.

Rule E27.6.3.6 of the Unitary Plan also requires loading and parking spaces and manoeuvring areas to be formed, drained and provided with an all-weather surface. Construction loading spaces and laydown areas are proposed to be unsealed. This non-compliance is not expected to have any adverse impact on vehicle movements into/out of the site as the site will only be accessed by construction vehicles, and employees working within the site during the earthworks phase. Wheel washers are proposed to ensure that any associated debris does not cause adverse effects on the local road network.

## 8 Road Safety Effects

The road safety report interrogated in Section 2.5 suggests that there are no discernible existing road safety issues associated with this part of the road network. As discussed extensively in Section 5, the earthworks phase of the proposed development is not expected to be a notable traffic generator and therefore unlikely to affect the existing road safety record or have a practical impact on the safe and efficient operation of the road corridor.

## 9 Construction Effects

It is standard practice as part of the resource consent that a detailed Construction Traffic Management Plan (CTMP) is developed to outline how deliveries and truck movements to and from the site will be managed and mitigated. The CTMP will be provided once a contractor has been appointed for the subject site and will include the following:

- Construction dates and hours of operation including any specific non-working hours for traffic congestion, noise, etc;
- Diagrams identifying which routes trucks will use to travel to and from the site;

- Temporary traffic management signage / details to appropriately manage vehicles and pedestrians in the vicinity of the site; and
- Details of site access / egress over the entire construction period noting that all access points to be located so that appropriate visibility is achieved onto the adjacent road network.

As stated above, this Framework CTMP has identified two non-compliance with the relevant rules from E27 of the AUP. This non-compliance relates to the surface of the construction loading spaces and laydown areas located within the site, and the unsealed vehicle crossing onto Flanagan Road. However, with the mitigation measures proposed in section 6.2 and 7.2, these non-compliances are unlikely to have any adverse effects on the safe and efficient operation of the road corridor.

Additionally, given the large size of the subject site, it is expected that all employee vehicles and construction vehicles travelling to and from the site can be sufficiently accommodated within the site, reducing the likelihood of these vehicles having adverse effects on the road corridor.

Based on construction planning and traffic management associated with similar developments, it is considered that construction activities can be managed appropriately to avoid any significant adverse traffic effects on the road corridor. Additionally, it should be noted that any potential adverse effects caused by the construction activities will be temporary in nature.

## 10 Mitigation Summary

In order to minimise any adverse effects of the proposed construction activities, several mitigation measures will be used. These measures have been extensively discussed above, and are also summarised below:

- Construction access is provided from signalised intersections (onto Road 1) and from an existing vehicle crossing onto Flanagan Road (low AADT volumes).
- All loading and unloading of construction material, equipment, and machinery will occur within the site in the dedicated laydown areas.
- All construction and employee vehicles will be accommodated within the site given the large scale of the site.
- Staff travelling to and from the site will be encouraged to use staff shuttles or carpool with colleagues to reduce parking demand on-site.

## 11 Conclusion

This Draft CTMP has been prepared to assess the transportation and traffic related impacts of the proposed construction works to be undertaken by Kiwi Property for development of the Drury Centre Stage 2 site located at 64, 68, 108, 120 and 132 Flanagan Road, Drury, Auckland.

The bulk earthworks are expected to be completed between 1 October 2025 and 30 April 2026. Access to the site will be provided via four locations (three to be constructed as part of the Stage 1 development and one existing access onto Flanagan Road). Civil works within the site will occur over the next 10 years until 2034, however it is understood that the works under this CTMP scope will be primarily confined on-site.

During the construction works, the site will be accessible four vehicle crossings. Three of these vehicle crossings provide access onto Road 1, and the remaining vehicle crossing provides access onto Flanagan

Road. The three vehicle crossings onto Road 1 will exist as the northern legs of signalised four-legged intersections.

With the additional traffic volumes associated with the construction activities, the peak hour volumes along all road corridors in vicinity of the site are still well below the typical carrying capacity of the road. As such, the additional traffic volumes are unlikely to have a significant adverse impact on the safe and efficient operation of the road corridor.

Several mitigation measures have been outlined in this report, which aim to reduce the potential for adverse traffic effects that may arise as a result of the proposed construction activities. With these mitigation measures, and the appropriate traffic management which will be discussed in detail in the detailed CTMP once a contractor has been appointed, it is concluded that there are no traffic engineering or transport planning reasons to preclude approval of the proposed development.

CKL