

1. Introduction

1.1 Background and Reasons for this AEE

The Applicant, Progressive Enterprises Limited (PEL), is seeking resource consents (land use, drainage works, earthworks (including over earthworks), construction site dewatering and discharge, subdivision, and disturbance of a contaminated site) for a comprehensive mixed-use development at 201 Halswell Road in the suburb of Halswell, Christchurch.

The site comprising approximately 21 hectares is zoned Residential New Neighbourhood and Commercial Core Zone (North Halswell) in the Christchurch District Plan (**District Plan**). These zonings and associated objectives, policies and rules are now fully operative.

The purpose and reasons for this assessment of effects on the environment (**AEE**) is to provide a comprehensive assessment of the actual and potential environmental effects of the proposed development and to assess this proposal against the statutory purposes and principles of the Resource Management Act 1991 (**RMA**) and the relevant provisions of the statutory planning instruments. This assessment has been undertaken to comply with the requirements of section 88 and the Fourth Schedule to the RMA.

The AEE also provides a detailed description of the development of the site and assesses the proposal against the relevant provisions of the District Plan and relevant regional plans in conjunction with the accompanying technical inputs.

1.2 Site Location and Characteristics

1.2.1 Legal

Lot 1 DP 9329 containing 21.1575 hectares of land is comprised in Certificate of Title CB418/237. The site has a 350.63 metre frontage to Halswell Road (State highway 75) and has a section depth of 808.69 metres. The site is currently held in a Trust for the benefit of PEL. A copy of the Title is contained in **Appendix 10**.

1.2.2 Topography and Vegetation

The site is generally flat with a slight fall to the east. An open vertical drain runs along its northern boundary, which passes through a timber lined channel for approximately 200m, then flowing along the northern boundary of 201 Halswell Road being enclosed by open but 'natural' earth banks. The site is predominantly grassed and is currently being grazed. There is very little vegetation on the site. What there is consists of mainly exotic trees and grass. The existing buildings on the site comprising a barn structure at the northern end and an old farm house at the southern end. Both are adjacent to Halswell Road and are to be removed.

Part of the Halswell Road frontage to 201 Halswell Road (the subject site) is obscured by the adjacent sawmill fence which has been erected on the Applicant's property. The sawmill operator also has staff parking on the Applicant's site adjacent to the existing barn. The parking activity has not been authorised by the Applicant and, together with the frontage fence will be removed.

1.2.3 Geotechnical Conditions

The developed geotechnical model for the site consists of a variation of alluvial silty sand and sandy silt layers with an interbedded gravel layer. These layers extend to a depth of around 15m below ground level. The alluvial layers are followed by dense to medium dense glacial gravel layers representing the Riccarton Formation.

Groundwater is understood to be located at around 0.7m bgl, with a +/- 0.2m seasonal fluctuation.

The existing soil conditions are suitable for building development, although a considered foundation design has been established in the application (Technical Report 7) to mitigate any liquefaction risk to an appropriate level.

1.2.4 Road Network

The section of SH 75 that fronts the site has an 80km/hr posted speed limit and currently operates as a two lane, two way rural highway with unprotected cycle lanes. No footpath or kerb and channel are present along the site frontage. The Aidanfield Drive / SH 75 intersection is currently a 'T' intersection with 'Stop sign' controls. A right turn slot is provided in the SH 75 carriageway for east bound traffic.

The formed carriageway within Aidanfield Drive is a split carriageway with a 3.5-metre-wide grass median.

Traffic flows on SH 75 are 18,400 vehicles per day measured in 2015. Morning and afternoon peaks are present.

Currently, access to the site is via unformed gravel entrance to Halswell Road.

1.2.5 Services

The existing services within SH 75 comprise trunk water and wastewater services and overhead power lines. These services will be added to in the manner described in section 2.11 of this AEE.

1.3 Structure of this AEE

This AEE comprises six sections where:

- Section 1: contains the background and reasons for this application;
- Section 2: describes the nature of the proposed land use, earthworks and subdivision applications;
- Section 3: contains an assessment of the relevant statutory instruments, objectives and policies and rules, identifies the details of the resource consents being sought and compliance with the relevant assessment criteria;
- Section 4: contains an assessment of the effects of the development;
- Section 5: contains a description of the consultation undertaken and considers whether any form of notification is necessary; and
- Section 6: contains a summary of conclusions.

Appendices include concept plans of the development and the subdivision, all technical reports undertaken to inform and assess the development, the certificate of title and correspondence with NZTA.

Given the size of the documentation it is bound in three volumes. Volume 1 contains the AEE, the plans and Technical Report No. 1. Volume 2 contains Technical Reports Nos. 2 to 5. Volume 3 contains Technical Reports Nos. 6 to 10, legal instruments, certificate of title, correspondence with NZTA and the relevant District Plan objectives and policies.

1.4 Consenting Framework & Nature of Consents being Sought

A comprehensive consenting strategy has been adopted for the proposed mixed-use development.

The following resource consents are required:

- Land use consent in the Commercial Core Zone for a supermarket and associated retail shops as a non-complying activity:
 - the proposed commercial area extends outside of the District Plan Commercial Core Zone, and intrudes into the Residential New Neighbourhood Zone. The consequence of these breaches of the District Plan, including issues associated with non-compliance with the ODP (Appendix 8.10.4 of the District Plan) would render the development a discretionary activity; however
 - the development defaults to a **non-complying activity** due to the technical application of the District Plan noise provisions (Rule 6.1.5.1.5(NC1)). These are to be measured, and assessed at the Residential New Neighbourhood Zone boundary, despite the noise levels being complied with at each of the proposed residential land use activities proposed.
- Land use consent for a comprehensive residential development as a restricted discretionary activity which complies with the majority of the built form standards in Rule 14.12.2;
- Subdivision consent to create two commercial lots, one lot for the apartment block, and nine super lots as a restricted discretionary activity (Rule 8.5.1.2, and 8.6.11(a));
- Earthworks consent as restricted discretionary activity (Rule 8.9.2.3(RD1)); and
- Regional Council consents, which are able to be unbundled in terms of consideration, as associated with:
 - Discharge: dewatering as a restricted discretionary activity in accordance with LWRP Rule 5.120;
 - Discharge: construction phase stormwater as a restricted discretionary activity in accordance LWRP Rule 5.98B);
 - Landuse: earthworks over the Coastal Confined Aquifer, including placement of a culvert within 50m of a 'surface water body' as a restricted discretionary activity in accordance with LWRP Rule 5.176;
 - Non-consumptive take and use of water from an 'artificial watercourse' being Days Drain, as a restricted discretionary activity in accordance with LWRP Rule 5.126.

Operational stormwater discharge to land is provided for by **CRC120223**, as subject to approval from Christchurch City Council (the consent holder).

Overall, in terms of the District Plan the proposal falls to be considered as a **Non-Complying activity**. Notwithstanding this activity status, because of the comprehensive consenting strategy approach, all

relevant objectives and policies in the Commercial Core Zone and the Residential New Neighbourhood Zone, have been appropriately addressed and the development is considered to further the direction of the planning framework.

Based on the District Plan zoning split, some 18.9 hectares of the site is zoned Residential New Neighbourhood. However, at least 2.3 hectares is required for stormwater detention purposes, meaning that 16.2 hectares is developable.

Clause 8.3.3.11(b)(i)(A) requires subdivision in the Residential New Neighbourhood Zone to "*achieve a minimum net density of 15 households per hectare*" on that part of the site thus zoned. This equates to 243 household units, based on 16.2ha zoned Residential New Neighbourhood excluding stormwater detention.

The twenty-four dwelling units proposed in the Apartment complex within that part of the site identified as Residential, offset that part of the site that is proposed to be used as carparking that extends into the Residential New Neighbourhood Zone. That is, the 1.0355 ha zoned Residential New Neighbourhood proposed to be used as commercial car parking would equate to 15 units. Therefore, overall there is a net gain of 23 units.

Furthermore, the process by which the 16.76 HH/ha density is to be achieved through the balance of the site is to be via volunteered conditions associated with each super lot created and the apartment complex lot, in association with land use consent obtained for the dwellings as identified in Technical Report 2. The conditions can specify a minimum allotment yield to ensure an overall net density of 15 households per hectare for that area zoned Residential New Neighbourhood is achieved.

The resource consent application extends commercial activity beyond the 2.2 hectares Commercial Core part of the site to a total of 3.3355 hectares. The Residential New Neighbourhood Zone decreases from 18.9 hectares to 17.8645 hectares. However, the nature of the proposed super lot development in addition to the apartment complex allotment means that a density of 16.76 households per hectare will still be achieved.

The building envelope concept and design for each super lot, based around the comprehensive residential development design concept developed by CMA+U Ltd as part of the restricted discretionary activity consent, will enable the developer of each super lot to execute a simple, subdivision consenting path in accordance with the consented comprehensive residential development concept. Such an approach has been successfully used in the \$150M Vinegar Lane mixed-use development in Ponsonby, Auckland.

The development includes a number of laneways, bridleways, pocket parks and covered swimming pool that will be managed by an incorporated society. This society will be formed in accordance with the legal instruments contained in **Appendix 9**. The objectives of the new Society are:

- (a) The ownership of the Common Areas by the Society, including facilities associated with the 'swimming pool complex';
- (b) The proper operation, maintenance, repair, renovation, replacement, landscaping and lighting of the Common Areas and the levying of Members for the purpose of providing funds for and meeting the costs and expenses of such work;
- (c) The full and proper use of the Common Areas by Members;
- (d) The promulgation and enforcement of rules and covenants benefitting the Development; and

- (e) To do any act or thing incidental or conducive to the attainment of any of the above objects.

Overall in terms of the LWRP, the Regional Council consents are to be considered as a **restricted discretionary activity**. Given the restricted discretionary activity status and discrete assessment matters these consents are able to be unbundled from the District Plan consents. Accordingly, though this AEE assesses both the consents, it is considered appropriate to treat each of the regional and district consents separately when considering whether to notify and grant these applications.

2. Development Proposals

2.1 Introduction

As noted in Section 1 the two zones that apply to the site are operative and the proposals the subject of this AEE largely comply with all relevant rules in the two zones, except for a small intrusion of carparking and non-retail portion of the supermarket are sited in the Residential New Neighbourhood Zone.

2.2 Nature of the Proposed Development

The key features of the proposed land use development and subdivision, as shown on the plans in **Appendix 1** and **Appendix 5**, are set out in the following sections.

2.2.1 Commercial Development

The commercial component of the proposal seeks to provide a high amenity and designed contribution to the North Halswell Key Activity Centre (**KAC**) through the provision of a mix of food and beverage outlets, modest provision of small speciality retail, and a supermarket (refer specific detail in Technical Report 6). The nature and scale of the proposed activities are approximately:

- A 3,700m² supermarket including ancillary offices;
- A 200m² café;
- Some 1,900m² of specialty retail tenancies comprising up to 21 tenancies;
- A 400m² tavern;
- A 2,500m² medical centre;
- A 350m² childcare facility;
- 522 carparking spaces for customers, including 24 spaces for the 24 residential 'New York' style apartments, and eight mobility impaired spaces, some of which intrudes into the Residential New Neighbourhood Zone;
- A dedicated loading dock area for the supermarket;
- Continuation of an 8m wide green corridor across the front of the supermarket;
- A future shared space road, with a design to incorporate future public transport movements;
- Subdivision of the commercial area into two lots, with an adjacent allotment for the 'New York' style apartment complex (as located within the Residential new neighbourhood zone);
- Covered outdoor spaces; and
- Extensive landscaping and lawn seating.

The commercial development may be constructed in stages. The staging arrangement has not yet been determined and does not have any bearing on the form and nature of the consents being sought. The supermarket will be branded as a Countdown. It will be open for business between the hours of 7am and 10pm daily. Goods servicing hours will be between 7am and 7pm daily. The speciality retail shops will have goods unloading / loading through the front doors.

The extent of the 'commercial area' extends over the RNNZ. That intrusion is modest, and relates primarily to the proposed Medical Centre and Day Care facilities, which are typically anticipated in residential zones (albeit not at the scale proposed).

There is also an intrusion of some 180m² associated with the Supermarket, and carparking associated with the same.

These intrusions relate to the conversion from the broader 'brush strokes' associated with developing an ODP, and the finer grain rational associated with commercial development and associated operational and functional requirements. The overall proposal has carefully balanced and integrated a number of competing aims, within the 'envelope' associated with the Outline Development Plan at Appendix 8.10.4 of the District Plan. The intrusion is necessary to provide for a viable commercial entity within the particular constraints of the site, and no further consideration of alternatives beyond what has already been undertaken is necessary. As discussed further in the AEE, the proposal overall furthers the policy framework of the Plan, without resulting in material adverse effects.

2.2.2 Residential Development within the Residential New Neighbourhood part of the Site

The residential development within the Residential New Neighbourhood zoned part of the Site includes:

- Construction of all roads and laneways as shown on Figures C1 and M4 in **Appendix 5**;
- Provision of 248 single house sites ranging in size from 350m² to 400m²;
- Construction of 248 dwellings in accordance with the design philosophy set out in Technical Report No.2;
- A two level New York style lot apartment comprising 24 units and 64 car parking spaces;
- Removal of an existing dwelling;
- Provision of a covered swimming pool facility;
- Extensive street landscaping; and
- Creation and vesting of 3.1991 hectares of land as reserve and stormwater detention areas.

The staging sequence for the residential development is under consideration but does not affect the consent being sought.

2.2.3 Nature of Proposed Subdivision

The proposed subdivision includes:

- Creation of nine super lot individual titles for that part of the site zoned Residential New Neighbourhood (as consented for residential land uses through this application) which are capable of subdivision to achieve a density exceeding 15 household / hectare);
- Creation of two individual commercial titles;
- Creation of one individual title to facilitate the 'New York' style apartments;
- Formation and vesting as street Lots 101 to 105; and
- Vesting as reserve Lots 50 to 53 as shown on the plan of subdivision.

The overall rationale for this subdivision approach is to achieve compliance with Rule 8.6.11(b)(i)(A). Further subdivision of the residential super lots into 248 individual lots, as associated with the residential land-uses consented under this application will be undertaken by way of later subdivision consent either collectively, or staged for each super lot.

2.3 Design Approach

2.3.1 Introduction

The design of the proposed commercial and residential development as a comprehensive mixed-use development recognises and takes account of the following key parameters:

- The principles and design philosophies of the Outline Development Plan (**ODP**) at Appendix 8.10.4 'North Halswell Development Plan';
- The need to adopt a design style that is reasonably sympathetic to the character of the general area and a number of nearby developments in a manner that maintains the character of the existing and developing Halswell suburb;
- The need to ensure ingress and egress positions will not compromise the efficient functioning of the adjacent road network; and
- Appreciation of key site factors such as orientation, topography and integration.

2.3.2 Commercial Development Design Approach

Technical Report 2A: Commercial Architecture records on page 33 the design principles used:

- Responding to a proposed urban pattern that is legible, connected and pedestrian friendly.
- Developing a language of architectural design which is sympathetic to and connects well with the adjacent residential proposal.
- Reliance on carefully articulated use of colour, materiality and roof form to create visual interest and a pattern of urban development which is engaging, interesting and attractive.
- Is based on sound CPTED principles to ensure that the greater site is safe and provides an inviting environment for all users at any time of the day or night.
- That carefully integrate a variety of uses including retail, child care, residential and supermarket to create a truly diverse liveable community.
- Places a firm priority on reinforcing a diversity of pedestrian environments which support access and activation of the whole site across a range of uses.

Technical Report 2A also provides a succinct overview of the commercial components and their relationship to the proposed residential development:

"The commercial part of the proposal consists essentially of four components, the pub and retail tenancies, the supermarket, the larger scale medical centre and child care facility and the medium density residential development to the west of the commercial area of the site.

The retail components are arranged so they fit inside the boundary of the KAC (see RC 01 Zoning Plan), noting that a small non-retail part of the supermarket building falls just outside the KAC), but such that they form logical through-site north/south connections to the future commercial development to the north.

Car parking is logically oriented to the south so that predictable relationships are provided between road access, parking and safe pedestrian routes on the site. The proposed pedestrian north/south corridors also connect logically across the site from the future northern development to the southern residential proposal. The potential corridor provides an additional link to connect the remainder of the commercial core area over and above the ODP provisions.

Service access is isolated from customer circulation areas and placed carefully out of view in such a way that it can be shared across a range of retail developments including the supermarket.

The medium density townhouses anchor the corner, connect the commercial and residential developments and create a strong street edge and sense of place diagonally opposite the town centre of the residential development.

While the scale and use of the proposed commercial centre buildings is different from the residential subdivision, the residential architectural character and language has been interpreted and applied in a variety of ways such that

there is a visibly connected language of form evident across the whole site development. This approach helps give the development a consistency and legibility while providing scale and variety appropriate to the intended use."

2.3.3 Residential Development Design Approach

It is considered that the dimension often missing in contemporary suburbs is a strong sense of community or collective life. The vision for the proposed Halswell Garden Village involves the combination of three key elements:

1. Seeing 'village life' as a collective dimension to social life as well as being a spatial quality that is woven into the fabric of the development with its lanes, bridleways and pocket parks to encourage a collective life that takes its cues from the proposed village architecture;
2. Celebrating the existing agricultural qualities of the site and Christchurch's architectural tradition of simple gable vernacular building forms; and
3. Embracing the idea of Christchurch's "Garden City" identity.

A contemporary translation of 'village life' is proposed, using small dimensions to ensure intimacy and slow movement occurs so that the lanes and pocket parks are used like outside living rooms for community and social interaction. This use is contemplated with alternative movement networks of walking and cycle paths throughout the entire development (commercial and residential) to reduce reliance on car use for every activity.

"The housing types proposed are inspired by simple vernacular or barn-like building forms. Their design combines timeless and durable building forms with local materials and resources in compact elements that have been carefully tuned to topography, sun, wind and view. Elevations are conceived as a wrapping and intertwining of vertically timber, brick and ribbed steel plating in equal proportion." (Technical Report 2, page 23).

2.4 Landscape Approach

The landscape approach in the four villages in the residential area, as shown on the plans contained in **Appendix 4**, is to create a pedestrian friendly medium intensity residential development that uses appropriate landscape and urban design responses. This includes development of landscape concepts that reflect the European agricultural and industrial history of the area while also paying tribute to the historic use and culture of the three iwi who have inhabited the area.

Technical Report 3 on page CP02 states:

"Material palettes have been selected to develop the genius loci of the site, using local materials and styles such as Port Hill stone which will represent the historic Halswell Quarry nearby and the traditional dry stacked walls that were used around the area.

The use of other design items such as post and rail or timber fencing will help to maintain the semi-rural character of the area.

Visual connections to the Port Hills, a significant natural feature with a rich cultural history, will be maintained and emphasised where possible. Paths meandering through the site are a nod towards the nomadic use of the area by Waitaha, Ngati Mamoe and Ngai Tahu. Planting and furniture in the storm water reserve shall look to evoke the memory of the winding paths through the swamps of these areas that travelling ropu would have taken in the past."

The four villages proposed each have a relatively distinctive character as follows:

- Village A has a more traditional residential character as a link to the Aidanfield and wider Halswell area where exotic tree and hedging species will be used;
- Village B has a connection to the previous agricultural and horticultural activities on the site and surrounding area. A more 'rural' palette of materials and plant species are to be used to reflect this character;
- Village C provides a cultural layer to this village to provide a connection to both Maori and European cultures by the use of timber and steel fencing, fruiting trees and species with connections to Maori medicinal and edible usage; and
- Village D, because it lies adjacent to the large open space stormwater reserve area, will have a more open rural and native feel with recycled hardwood timber post and rail fencing, cobble and permeable paving, fruit trees and liquidambar.

The landscape approach for the commercial area involves:

- Creation of visibility from Halswell Road and Road A (Aidenfield Drive extension);
- Maintaining visual connections through the site;
- Reflecting the local context through the use of historic elements (dry stacked walls) and local materials such as stone, timber, exposed aggregate and native plants;
- Provision of an accessible environment for all ages;
- Use of primary and secondary seating configurations;
- Creation of strong pedestrian connections;
- Provision of green streets and shared spaces to connect the commercial development to the north; and
- Creation of outdoor space to promote interaction between village residents and visitors.

2.5 Form of Building Treatment

2.5.1 Architecture and Residential Building Treatment

The key design intent of the proposed single lot houses is to achieve a contemporary high quality development that both responds to and enhances its urban environment. Extensive glazing has been incorporated into the front facades of the dwellings.

The exterior materials are predominantly painted weatherboards, painted masonry and stained cedar cladding. The roofing is to be profiled metal of light grey, blue and red colours. The colours of the residential building walls are from a traditional palette with a mixture of warm and cool colours.

2.5.2 Architecture and Commercial Building Treatment

The Applicant acknowledges its responsibilities as developer and operator of this important retail resource for the community of Halswell. The design of the proposed supermarket building recognises and has taken account of the following key parameters:

- The need to adopt a design style that is sympathetic to the character of the general area, proposed development and a number of nearby developments;
- The need to ensure ingress and egress positions will not compromise the efficient functioning of the road network;

- Appreciation of site factors including topography and integration with other proposed development;
- The operational requirements of supermarkets where convenient and straightforward customer access to and from the store from the customer carpark is a key prerequisite;
- The need to provide for attractive street frontages;
- The need to take into account the urban design principles contained in the New Zealand Urban Design Protocol; and
- The need to take account of CPTED considerations.

Perspective views of the development are shown in **Appendix 1** in plans RC 05 to RC 19. Plan RC 11 shows in some detail how the pedestrian plaza / vista area in front of the supermarket will result in a continuation of the green corridor linking to the future main street in compliance with the requirements of the ODP.

The proposed development comprises design elements as follows:

1. A supermarket building which acknowledges its relationship with the environment in which it is located, the scale and design of the building reflects functional and operational requirements of the activity, it's relationship with the proposed commercial activities, and prospect of broader integration with the KAC;
2. Provision of a small number of specialty retail shops, a café and a fast food restaurant, including a designed 'glass house' element which provides for a community heart to this component of the retail development, within the broader North Halswell KAC. The space will provide an attractive and comfortable gathering space for a number of tenancies to accommodate centre users throughout the year;
3. Street linkages and pedestrian circulation priority, primarily based on north south connections, which extend the proposed residential development through the proposed commercial development and to logically connect to the remainder of the Halswell KAC further to the north; and
4. Necessary servicing and loading area to support supermarket operations located at the rear of the building to remove conflicts with pedestrian circulation; and
5. Integrated architectural design for the proposed Medical Centre and Day Care centre. For the former, architectural design is carefully modulated such that a similar small scale architectural language is delivered, and for the latter the Day Care is located at the north east of the site where a quiet and calm environment can be created. The outdoor play area faces north and will have access to sun throughout the day and parent drop off will also be located at the edge of the commercial centre so in the least busy part of the site.

The local physical context has been acknowledged in the design through the use of scale, density, materials and colour. This has resulted in a design that is rich in texture while at the same time maintains consistency and integrity as a supermarket building. The retail buildings are articulated in a modern conventional single storey style. The design style of these units has been developed to complement and mirror the architectural style of the proposed supermarket. The development has been carefully designed and sited to reduce the impression of bulk and to introduce details that are common in smaller commercial buildings.

The supermarket facades are composed primarily of natural grey colours with dark green branding colours associated with the supermarket being proposed. This serves to assist with the transition of scale as well as to clearly identify the supermarket brand.

The proposed supermarket building will be located 42m off the formed legal boundary of the proposed collector road. It will be set back 60m at the closest point to the residential zone boundary.

The highest point of the proposed building will be 8.5m. The rooftop plant, screened by the building parapets, has an area of 100m², less than 3% of the total roof area. The supermarket building does not penetrate the allowable 14m height limit.

The retail shops will have a maximum height of 6.5m.

2.6 On-Site and Street Lighting

Exterior lighting on the supermarket site will be provided to ensure an average of 35 lux in accordance with the provisions of NZ Standard AS/NZ Road Lighting Part 3: Pedestrian Area (Category C) is achieved. The lighting will be designed to ensure that light spill onto adjoining properties does not exceed 8 lux.

2.7 Acoustic Design

The Acoustic Assessment (**Technical Report 5**) details the acoustic investigations which have been carried out and identifies any mitigation required for the proposal to comply with the District Plan noise standards. This report concludes a number of measures associated with ensuring noise effects are appropriately managed. These are categorised as:

- Design:
 - Control of mechanical plant from all commercial tenancies to achieve appropriate levels at residential dwellings.
 - A 1.8m high noise control fence at the north boundary of the supermarket loading bay, and on the north and west boundaries of the preschool play area.
 - Dwellings within 40 m of the nearest marked lane of Halswell Road must be provided with façade sound insulation complying with CDP rule 6.1.7.2.1.
- Operational:
 - Limitation of evening activities (bar, restaurant) to between 0700 and 2200, acknowledging that individual resource consents will likely be sought to extend hours for specific premises as subject to the leasing process for individual tenancies and fitouts.
 - Limitations on noise levels for the bar and outdoor music.
 - Controls on service delivery times, noting supermarket deliveries such as bread do not warrant limitation.

2.8 Signage in the Commercial Development

All building signage has been designed as an integral part of the building envelopes. The signage is depicted on the elevations, refer to Technical Report 2A RC25 and RC26.

The signage to be provided is detailed in the table below. The locations of the freestanding pylon signs are shown on the site plan (Technical Report 2A RC25).

Location	Type & Size	Number	Area	Total Area
Supermarket north west wall	Countdown Brand sign	1	38.46m ²	55.23m ²
	Countdown Open sign	1	6.83m ²	
	Countdown Logo sign (Wapple)	1	6.9m ²	
	Click & Collect sign	1	3.04m ²	
Supermarket south-west wall	Countdown Brand sign	1	38.46m ²	45.36m ²
	Countdown Logo sign (Wapple)	1	6.9m ²	
Retail Spaces	Under verandah signs	22	0.9m ²	19.8m ²
Pub, Glasshouse & courtyard signs		5	1.25m ²	6.25m ²
		1	1.25m ²	
Medical Centre	Wall signs	1	5m ²	5m ²
Childcare Centre	Wall sign	1	29.7m ² per side	59.4m ² both sides
Free-standing tenancy sign	3.3m (w) x 9m (h)			
Free-standing supermarket pylon	3.3m (w) x 9m (h)	1	29.7m ² per side	59.4m ² both sides

The total area of signage is 254m². The wall signs and pylon signs will be internally lit LED lights and will be switched off outside opening hours. The only other signage associated with the commercial development will be small entry and exit signs and internal carpark signage to identify circulation direction.

2.9 Signage in the Residential Development

All signage is proposed in the commercial area of the site to the north of Road A.

Given that the commercial component of the development extends into the undeveloped Residential New Neighbourhood zone, the following signage is affixed within a modest portion of the Residential New Neighbourhood zone as contained by Road A and Road B as associated with the proposed commercial area:

Signage within the RNNZ (as associated with the commercial development, medical centre and Day Care) totals 117.46m² includes:

- (i) Countdown Brand sign 38.46m².
- (ii) Countdown Logo sign 6.9m².
- (iii) One (1) Pylon Sign (double sided) 59.4m², and 9m in height.

(iv) Signage associated with the medical centre and Day Care (wall signs 4 x 1.25m², 3 x under verandah signs 0.9m², and Day Care sign 5m²):

2.10 Traffic and Transportation Elements

2.10.1 Roading Layout

The proposed overall public road layout complies with the principles and general structure of the ODP as shown on **Figure C1** Sheet 1.

The proposed development will be accessed via a new signalised intersection on Halswell Road, opposite Aidenfield Drive. From this access, an east-west 'collector' type route (**Road A**) will run through the site, connecting with a north-south collector route (**Road B**) that will provide connectivity to the future urban areas to the north and south. Three further local street links are proposed, terms **Roads C, D** and **E**. Each of the streets above are to be public streets, vested with the Council.

The position of the collector road A (Aidanfield Drive extension) separating the KAC from the residential area has been varied to a degree to accommodate customer carparking for the commercial area. This road re-alignment does not enable any proposed retail building to encroach over the ODP KAC boundary, apart from a modest intrusion by the proposed supermarket building. The encroachment by the medical centre and the childcare centre building into the Residential New Neighbourhood Zone is not considered to be an issue as both activities are contemplated in this zone. Discussions with City Council officers have confirmed such a re-alignment is not a significant issue.

The provision of Road B will require the provision of a culvert spanning Days Drain.

The internal residential subdivision roads have been positioned to suit the pattern of the proposed 350m² to 400m² lots. Appendix C of **Technical Report 4** contains all the proposed road cross section drawings and respective widths proposed are compliant with the City Council's Infrastructure Design Standards, Part 8: Roading.

2.10.2 Commercial Parking, Access and Servicing

Site Access

The main accesses to the commercial development will be off the Aidanfield Drive extension. No direct access off Halswell Road is proposed.

Within the retail/mixed use area, two north-south links will provide a future green link and a future shared space link to the adjacent site to the north. One of these two links will be available for bus use in the future (operating potentially as a transit mall), when land to the north is available for the proposed KAC's public transport hub.

Vehicle Parking

It is proposed to provide a total of 522 customer parking spaces, inclusive of eight mobility spaces, as shown on Plan RC 01 in **Appendix 1**. It is considered in **Technical Report 1** that that level of parking is necessary to meet demand.

Location	Type & Size	Number	Area	Total Area
Supermarket north west wall	Countdown Brand sign	1	38.46m ²	55.23m ²
	Countdown Open sign	1	6.83m ²	
	Countdown Logo sign (Wapple)	1	6.9m ²	
	Click & Collect sign	1	3.04m ²	
Supermarket south-west wall	Countdown Brand sign	1	38.46m ²	45.36m ²
	Countdown Logo sign (Wapple)	1	6.9m ²	
Retail Spaces	Under verandah signs	22	0.9m ²	19.8m ²
Pub, Glasshouse & courtyard signs		5	1.25m ²	6.25m ²
		1	1.25m ²	
Medical Centre	Wall signs	1	5m ²	5m ²
Childcare Centre	Wall sign	1	29.7m ² per side	59.4m ² both sides
Free-standing tenancy sign	3.3m (w) x 9m (h)			
Free-standing supermarket pylon	3.3m (w) x 9m (h)	1	29.7m ² per side	59.4m ² both sides

The total area of signage is 254m². The wall signs and pylon signs will be internally lit LED lights and will be switched off outside opening hours. The only other signage associated with the commercial development will be small entry and exit signs and internal carpark signage to identify circulation direction.

2.9 Signage in the Residential Development

All signage is proposed in the commercial area of the site to the north of Road A.

Given that the commercial component of the development extends into the undeveloped Residential New Neighbourhood zone, the following signage is affixed within a modest portion of the Residential New Neighbourhood zone as contained by Road A and Road B as associated with the proposed commercial area:

Signage within the RNNZ (as associated with the commercial development, medical centre and Day Care) totals 117.46m² includes:

- (i) Countdown Brand sign 38.46m².
- (ii) Countdown Logo sign 6.9m².
- (iii) One (1) Pylon Sign (double sided) 59.4m², and 9m in height.

(iv) Signage associated with the medical centre and Day Care (wall signs 4 x 1.25m², 3 x under verandah signs 0.9m², and Day Care sign 5m²):

2.10 Traffic and Transportation Elements

2.10.1 Roading Layout

The proposed overall public road layout complies with the principles and general structure of the ODP as shown on **Figure C1** Sheet 1.

The proposed development will be accessed via a new signalised intersection on Halswell Road, opposite Aidenfield Drive. From this access, an east-west 'collector' type route (**Road A**) will run through the site, connecting with a north-south collector route (**Road B**) that will provide connectivity to the future urban areas to the north and south. Three further local street links are proposed, terms **Roads C, D** and **E**. Each of the streets above are to be public streets, vested with the Council.

The position of the collector road A (Aidanfield Drive extension) separating the KAC from the residential area has been varied to a degree to accommodate customer carparking for the commercial area. This road re-alignment does not enable any proposed retail building to encroach over the ODP KAC boundary, apart from a modest intrusion by the proposed supermarket building. The encroachment by the medical centre and the childcare centre building into the Residential New Neighbourhood Zone is not considered to be an issue as both activities are contemplated in this zone. Discussions with City Council officers have confirmed such a re-alignment is not a significant issue.

The provision of Road B will require the provision of a culvert spanning Days Drain.

The internal residential subdivision roads have been positioned to suit the pattern of the proposed 350m² to 400m² lots. Appendix C of **Technical Report 4** contains all the proposed road cross section drawings and respective widths proposed are compliant with the City Council's Infrastructure Design Standards, Part 8: Roading.

2.10.2 Commercial Parking, Access and Servicing

Site Access

The main accesses to the commercial development will be off the Aidanfield Drive extension. No direct access off Halswell Road is proposed.

Within the retail/mixed use area, two north-south links will provide a future green link and a future shared space link to the adjacent site to the north. One of these two links will be available for bus use in the future (operating potentially as a transit mall), when land to the north is available for the proposed KAC's public transport hub.

Vehicle Parking

It is proposed to provide a total of 522 customer parking spaces, inclusive of eight mobility spaces, as shown on Plan RC 01 in **Appendix 1**. It is considered in **Technical Report 1** that that level of parking is necessary to meet demand.

All on-site parking spaces are 2.6m wide and associated manoeuvring aisles 7.5m in width. The mobility spaces will be located on one side of the main entry to the supermarket. All dimensions will allow for a 99th percentile car to circulate in the parking area and access all carparks.

Servicing and Loading

A supermarket loading and servicing area will be provided on the north-eastern side of the supermarket building. It will be screened by a 2m high security fence. The truck dock will be accessed in a forward direction via Aidanfield Drive through the customer carpark and exit in the same way.

The bulk of the goods to be delivered to the supermarket will occur by way of two articulated truck arrivals per day. Some other smaller goods vehicles (single axle trucks and vans) will also visit the site to deliver perishable items such as bread and milk to the supermarket. The retail shops will be serviced by smaller trucks and vans via the front doors.

The pallet and rubbish storage areas for the supermarket will be located behind the supermarket within the security fenced truck dock area. Separate rubbish storage areas are located behind the two specialty retail blocks. These will be similarly screened from view and locked.

Neither the childcare facility nor the medical centre developments will have dedicated loading spaces as they will be predominantly serviced by panel vans. A loading zone space for each activity can be marked out if required.

2.10.3 Pedestrian Facilities

Pedestrians are catered for, with footpaths around and through the commercial and residential area. The dedicated 8m wide footpath across the front of the supermarket will directly link to the future 'main street' to the north and have a dual function as part of the green corridor as identified in the ODP in the District Plan.

There are no protected cycle lanes provided in the vicinity of the site but access to the commercial area for cyclists is available through the pedestrian walkways and the street crossings. Bike stands for a total of 52 bicycles will be provided to cater for visitor and long stay cyclists. The apartment complex will have 24 bicycle parking spaces in a secure bicycle storage area.

There is a regular bus service along Halswell Road and the nearest bus stops are located immediately opposite the site. Additional bus stops within the development on Roads A and B can be provided if required. Both Roads A and B have been designed to accommodate buses.

2.10.4 Residential Parking and Access

Site Access

Convenient site access for the proposed dwelling sites is to be provided in general accordance with the ODP. The design characteristics and features of both the internal roads and laneways within the development are outlined in detail in section 3.2.3 of **Technical Report 1**.

Vehicle Parking

Each residential unit will have a minimum of one carpark space either as an open air pad or in a garage. Visitor spaces will be available on the immediately adjoining public roads to be formed and vested as part of the overall development.

Bridleways

These meander through the development and are designed to be shared by pedestrians and cyclists. They will have a hard packed gravel surface and a fencing style 1.2m high allowing passive surveillance.

2.10.5 Modifications to the Surrounding Road Network

As shown on the Halswell Road / Aidanfield Drive Concept Plan in **Appendix 2** it is proposed to signalise the Aidanfield Drive / Halswell Road intersection to facilitate the extension of Aidanfield Drive as a collector road through the site. The intersection works cost will be borne by the Applicant. The key features of these works are:

- Two through lanes in each direction on Halswell Road;
- Right turn slots on the Aidanfield Drive approaches;
- Aidanfield Drive extension with two through lanes, one in each direction;
- Removal of part of the Aidanfield Drive median; and
- Free left turns at each intersection corner.

2.11 Essential Services

2.11.1 Stormwater

it is proposed to reticulate the whole site to collect stormwater runoff via kerb / channel, sumps and a pipe network. **Technical Report 4** Section 9.2 states:

"Stormwater runoff from the first 25mm rainfall depth (the first flush) from all commercial and residential zones (roof and road runoff) will be discharged to a first flush basin located within the eastern corner of the subdivision."

The volume requiring stormwater treatment is calculated to be 3000m³. There are two options for the treatment and detention of stormwater, with each option being dependent on future stormwater facility construction work time frames (Section 9.0).

Option 1, assumes that the downstream stormwater network, as envisaged in the Outline Development Plan 8.10.4 is in place, as is the Council's Halswell Commons Road stormwater facility.

The report in section 9.2 then states:

"All primary stormwater runoff beyond the first flush volume will be diverted away from the first flush basin to a landscaped and aesthetically pleasing open channel. The open channel will be sited to the east of the first flush basin and will discharge to the Halswell Commons stormwater facility which has been designed with sufficient capacity to accept the 201 Halswell Road development discharges. The stormwater network will have the capacity to convey the 20% AEP (1 in 5 year) critical duration rainfall runoff and will adhere with the CCC IDS Part 5: Stormwater Land Discharge."

Option 2, assumes that the downstream network is not established and that an interim stormwater discharge facility is required within the property boundary of 201 Halswell Road (the subject site):

“Onsite first flush treatment and detention storage will be provided and discharge to Days Drain, located within the property boundary. The first flush basin design requirements will not alter from that discussed in Option 1. The first flush basin will be constructed during Stage 1 of the development and it is expected to have capacity to detain the 2% AEP, 36 hour duration runoff from the commercial area. Should the Council treatment and detention facility construction be delayed beyond the construction of future Stages, then a temporary onsite detention basin will be constructed and will remain under operation until the future stormwater facilities are constructed and commissioned.”

2.11.2 Wastewater

Also in **Technical Report 4**, section 8 identifies that the development will be serviced by a low pressure sewer that will tie in with the Halswell Commons development DN 400 PE rising main along the new Augustine Drive, to the north as agreed with Council officers. All lots will be connected to wastewater services as shown on the Indicative Services Plan contained in Appendix A of **Technical Report 4**.

2.11.3 Water

As described in section 10 of **Technical Report 4** it is proposed to make two primary connections to the existing 1990 DN 200 PN12 u PVC in Halswell Road and to the Mills Road subdivision to the south. All lots created will have water connections as shown on Eliot Sinclair Drawing No. 426962/M4/Rev A.

2.11.4 Utility Services

Power, telephone, and gas lines will be installed underground to service all residential lots and the commercial development at the time of road construction. Details of these services are described in Section 11 of **Technical Report 4**.

2.12 Contamination

Technical Report 9 describes the nature of the investigations undertaken across the site. In summary it identifies that the disused woolshed area adjoining the north-eastern boundary may be contaminated and a resource consent under the regional plan is necessary. In addition, the presence and future demolition of a farm house in the western corner of the site also presents a potential soil contamination issue. Such a consent application is being applied for as part of this application.

Technical Report No. 10 in **Appendix 15** contains standard best practice contamination site management plan.

2.13 Geotechnical Ground Conditions

Technical Report 7 concludes that there are no geotechnical hazards that would preclude site development subject to appropriate engineering design. This conclusion was peer reviewed by Geotech Consulting Ltd (Refer **Appendix 8**) who state:

“Our conclusion is that the geotechnical report 201 Halswell Road Geotechnical Site Investigation and Assessment by Tonkin & Taylor Ltd, dated November 2017 (1002584.v4), does adequately identify the ground conditions, geotechnical hazards and required geotechnical work for the subdivision of this site. We concur that the site can be regarded as

T2 – equivalent in terms of liquefaction hazard and the proposed mitigation for building foundations, earthworks and infrastructure that are recommended by Tonkin & Taylor should be adhered to.”

2.14 Earthworks

As the site is relatively flat the extent of earthworks required is reasonably minor as related to the following.

The earthworks and foundation design strategy for the development, will provide a TC2-equivalent level of seismic performance across the residential areas site-wide:

- Strip topsoil, in conjunction with appropriately designed surface water management measures will help to mitigate the current surface water ponding issues at the site.
- Contour and adequately compact the surface of Layer 1a soils, as required.
- Import and compact hardfill as required to satisfy the earthworks balance. Any imported hardfill is placed in the areas of the site closest to the stormwater basin and Days Drain, as these are the areas which will benefit most from additional ground strengthening.
- Place two layers of geogrid reinforcement within the fill in areas of the site closest to Days Drain and the stormwater basin. We note that the extent of these zones is likely to be in the order of 20 m from an open slope face and will be subject to detailed design depending on final site contouring levels and additional ground investigations to be carried out in these areas during future design phases. Geogrid details will also be subject to detailed design.

Topsoil will be stockpiled for reuse where practical.

Details of the earthworks sequence are shown on Eliot Sinclair drawing numbers dwg426962 M2/1/D and dwg426962 M2/2/D and explained in section 5 of **Technical Report 4**. The proposed sediment and erosion control measures to be adopted for the site works represent industry best practice and are in accordance with ECAN requirements. Earthworks consent is applied for as part of this application.

2.15 Days Drain Upgrade

The existing man-modified Days Drain has wooden sides as depicted in **Figure 3** of **Technical Report 4**. From historic aerial photographs it is apparent that this drain was installed as a simple farm drain to drain surrounding farmland. There are also shallow drainage ditches that run across the site into the drain. ECAN concur with this assessment. The drain runs 800m along the northern boundary of the site and is to be altered as part of the site redevelopment. It is proposed that the 400m length of the drain that runs within the commercial part of the site be piped and the balance is to be recontoured and landscaped to create an open and more natural channel.

Technical Report 4 section 7 states:

“Council has indicated verbally, during a meeting on the 19th April 2017, that the downstream open and naturalised section of the drain will be sited within a 20 m wide easement, 10 m of the easement being within the 201 Halswell Road boundary and the other 10 m being within the adjoining property. This section of the drain is primarily within the 201 Halswell Road boundary, with only a small batter on the top of bank being within the neighbouring property

and only in isolated sections. Therefore, the drain can be naturalised within the 201 Halswell Road site without undertaking work within the neighbouring property and remaining work can be carried out during construction of the neighbouring subdivision. Potentially, it is recognised that Council may prefer the full realignment to be undertaken at the same time; however, this can be negotiated, following the issue of consent, with the neighbouring owners.

Of note, the Days Drain 20m wide easement is not shown on any current ODP plans. Eliot Sinclair (2017) noted that an old Halswell Commons plan (drawing E.18948 Sheet 6 Revision R2) prepared by Davie Lovell Smith, showed Days Drain running within the Halswell Commons southern boundary. Eliot Sinclair informed Council that the existing Drain was in fact within the 201 Halswell Road property boundary; however, Council stated that the upgraded Drain would be sited within a 20m wide corridor and the Halswell Commons drawing was representing their portion of the drainage corridor."

"The Days Drain upgrade will tie in with the future construction of downstream CCC stormwater treatment and detention facilities, to be located within Halswell Commons and to the east of Sparks Road. The Drain will eventually be diverted away from Hendersons Road and will be realigned so that it runs through part of the neighbouring Halswell Commons and will discharge to the new CCC wetland facility located on the eastern side of Sparks Road." (Source: meeting with CCC on 19th April 2017)

Technical advice for the AEE consider it best practice to pipe Days Drain through the commercial area:

- "The section of the drain adjacent to Halswell Timber is confined within a wooden box retaining structure. Naturalising the drain will require removal of this structure resulting in both the Timber yard and development commercial area buildings being subject to a significantly increased risk of lateral spreading damage.
- It is not considered feasible to leave the existing wooden retaining because it is not visually pleasing and is unlikely to provide sufficient structural support for the new adjacent commercial buildings.
- The layout of the proposed commercial area and the adjacent timber yard may potentially result in significant shading of the drain resulting in the potential for algal growth and less than desirable aquatic habitat.
- It is not considered ideal to have the drain open within the vicinity of the timber yard and the commercial area due to an increased risk of contamination (from the timber yard) and wind-blown rubbish/litter entering the drain.
- Boffa Miskell carried out an ecological assessment of Days Drain and deemed it to be of poor ecological condition "with low-very low ecological value." (page 15 of Technical Report No.4)

In terms of overall effects, it is considered that creating an open and naturalised channel over that part of the drain where it is practical to do so is a positive environmental outcome and offsets any dis-benefits of piping part of the existing man-made box drain. Further, the amenity of the adjacent residential areas will be enhanced by the naturalisation of some 400m of the existing drain.

2.16 Ground Water & Aquifer Pressures

There are no springs on site, the site is not being lowered but rather the finished surface will be raised slightly and the cut and fill depths show this. Subsoil cut depths for underlying metal courses are not deeper than 0.9m below ground level in the northern commercial corner where groundwater is lowest and the majority of the site is being filled, roading cut depths range from 0.7 to 0m below ground level. The 1.2m deep Days Drain water depth has only 100mm base flow in winter. Tonkin & Taylor CPT bore logs show no confining layer.

Groundwater has been assessed as being around 0.7m +/-0.2m. Excavations associated with the construction programme (that is below ground construction works) will only be undertaken in the months of December, January, February and March, when groundwater levels are at their furthest from the surface.

The extent of excavations below 0.7m is limited to the trenching and placement of stormwater services under the proposed roading network. Trenching depths will be to a maximum of 3.5m bgl. The provision of stormwater services does not extend to those areas notated as 'Contamination Management Areas' in Technical Report 10. Accordingly, the limited extent of excavation that does expose groundwater will not occur in areas identified as contaminated or potentially contaminated.

All other service provision, including roading metal depths will not intersect with groundwater.

The placement of stormwater pipes will be undertaken in discrete sections to limit the exposed groundwater and carry out dewatering.

There is no known impermeable capping layer, however potentially there could be an aquifer pressure resulting from the removal of the potentially low permeability silt soils above the groundwater, allowing the groundwater table to rise within the trenches. Nonetheless, experience from Halswell Commons when laying sewer pipes showed that this is not severe and can be dealt with via standard dewatering operations.

2.17 Construction Management Plan

Given the nature, location and size of the proposed development it is considered appropriate that as a condition of approval the Applicant will be required to prepare a Construction Management Plan (CMP) for the construction works. A CMP, generally submitted at the time of the building consent application, would address the following elements:

- the overall manner in which construction will be carried out;
- construction timetable;
- disposal of surplus material;
- dust management;
- vibration of construction equipment;
- means of compliance with NZS 6803:1999 'Acoustic – Construction Noise' and NZS 6803P:1984 'The Measurement and Assessment of Noise from Construction, Maintenance and Demolition Work';
- maintenance of access to immediately adjoining private properties;
- ensuring pedestrian safety along public footpaths;
- any need for restrictions on the surrounding road network for the transportation of plant, machinery and materials;
- site perimeter security;
- advising adjoining landowners and occupiers of planned construction activities; and
- handling and addressing of complaints.

The CMP will be supported by clear and objective limits and controls within the conditions of consents, including noise and vibration standards. The conditions of consent will require the CMP to be certified by the Council to ensure that it includes the matters required by the conditions of consent.

In addition, an Erosion, Sediment and Dust Management Plan (**Technical Report 4**) and Contamination Site Management Plan (**Technical Report 10**) are part of this application.

HALSWELL ROAD

KAC ODP ZONE



