

Memorandum
22 December 2025

Memo to: Knight Investments Limited - Daniel Nakhle
Memo From: Nick Rae

Re: Fast-track Approvals Act 2024 Referral Application – Ardmore Business Park Project – Urban Design Considerations

This report has been prepared in relation to a fast-track referral application by Knight Investments for the proposed Ardmore Business Parks ('the Project') at Ardmore, Takanini, Auckland.

The Project

The Project Area is approximately 511 hectares (gross and inclusive of the total land area associated with the Ardmore Airport).

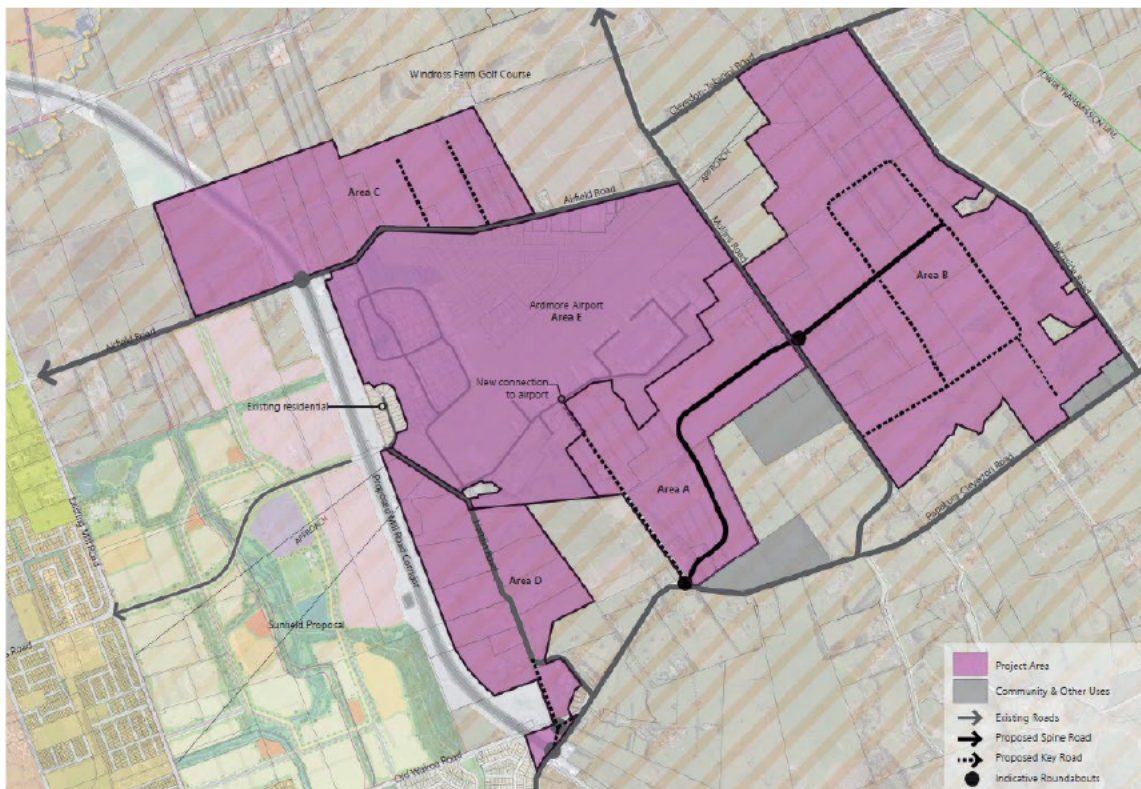


Figure A - Project Area

Of this total it is anticipated that

- (a) The net developable area will be between 193-276 hectares, which excludes significant ecological areas ("SEA"), streams, stormwater management areas and that part of the Airport used for existing operations/runways and activities that are already under construction
- (b) The likely gross floor area for future activities/buildings would be between 67 hectares and 136 hectares, with additional land also for yards, individual site landscaping and car parking etc.

The Project at a broad level includes

- (a) The construction and development of a business park for light industry/service type activities
- (b) A green/blue network providing riparian planting, stormwater management and wastewater disposal and protection of existing SEAs
- (c) Upgrades to existing roads and intersections
- (d) New roading connections to the Airport and the wider site
- (e) Land modification works and infrastructure.

The sites that form part of the Project Area are attached to this letter.

Scope

The scope of this report is to:

- assess the Project with regard to urban design matters (to the extent relevant to the proposed industrial park)
- consider anticipated and known effects, and
- identify options, if required, to manage those effects.

Transurban has visited the project area and understands its condition and existing elements generally.

Transurban's design experts Anna Lum, Fabio Namiki and Nick Rae have worked collaboratively with the applicant and technical specialists from various disciplines (mainly transportation and engineering) to inform the urban design of the Project. These initial technical inputs have been considered together with best practice urban design principles to create a development concept diagram which identifies future potential lots, new roads and stormwater features, resulting in gross and net developable areas within the known constraints of the site.

The illustrative Concept Plan represents what the proposal could look like, subject to detailed design. Further analysis, design options and solutions will be required to finalise the Concept Plan/overall site layout as part of the substantive application process.



Figure B - Ardmore Business Park Concept Plan

Methodology

In preparing this report, Transurban has drawn on the following:

- Visited the Project area and surrounding areas on three occasions to understand the current condition and identify and understand the existing features and qualities.
- Reviewed the ecological identification of likely streams and wetlands, which confirmed our assumptions as key factors considered in the design.
- Mapped the existing contours to understand topography and existing falls and drainage patterns, and used this to guide roading and open space alignments. There are identified Significant Ecological Areas with existing vegetation which are to be retained.
- Tested concept development layout options and key land use metrics assumed for development of the site guided by the advice of other specialist.

- Explored options for access and circulation, road types including function and landscape attributes, natural system enhancement along with the stormwater management strategy, and edge interface options, alongside other technical experts.
- Researched the limitations applied by the Ardmore Airport designation and identified areas where approval from the airport would be required.

The criteria for the urban design assessment are high-level and focused on best practice urban design principles. It is not an assessment against the Auckland Unitary Plan zone provisions as the proposal would create an urban outcome, not a rural outcome as anticipated by the existing Rural – Mixed Rural zone that currently applies to the land around the airport.

The Project Area

Please refer to the description of the Project Area in the accompanying landscape and visual assessment report.

The context

Ardmore is a very short distance from the residential development and evolving community at Takanini. Airfield Road, Hamlin Road and Papakura-Clevedon Road provide direct access to the Project area from this population. Whilst it is not in easy walking distance, the Project provides another employment area in close proximity of this community.

As noted in the landscape assessment, the proposal has addressed the proposed Mill Road Stage 2 NOR and compatibility from a s 104(1)(c) perspective, but has not taken it into account directly in terms of the future environment.

Papakura-Clevedon Road, Hamlin Road and Airfield Road currently provide the east-west connections between Takanini / Papakura and the airport and business park sites.

The current design of the NOR for Mill Road Stage 2 proposes that Hamlin Road is severed, reducing access to the airport land. This provides an opportunity to consider the most appropriate location of the "front door" to the airport. Under that scenario, Papakura-Clevedon Road (regional arterial) is the most direct and logical.

The context provides a good opportunity to expand existing activities at the airport where there is an existing residential population close by, and further infrastructure planned that will assist.



Figure C - Google earth view looking north illustrating the Project area in relation to Takanini / Papakura and the Sunfield Development area. Clevedon is to the right of the image.

The wider context includes some very large-scale intensive land use with large sheds, processing sheds or glass houses such as Zealandia Horticulture and Gourmet Shuttle, the nurseries on Takanini-Clevedon Road with large wind breaks, and the solar farm on Papakura-Clevedon Road. The rural context includes some intensive activities that are very different to the typical pastoral land use.

The existing airport with its industrial style buildings provides a context for this type of outcome to expand.

The zoning and precinct provisions applying to the Airport enables a range of activities while ensuring good amenity levels of nearby residents who use their land for rural lifestyle purposes.

The roads around and through the Project area are currently rural in form with table drains alongside, no separate footpaths or cycle provision and with a speed limit of 80 km/hr.

The land south of Area-A fronting Mullins Road is used for meteorological monitoring by Auckland University. This is an open property in pasture grass with permanent instrument installations in a mix of buildings (an old hall and some sheds and small dwellings) and shipping containers. It is unclear whether people reside on this property. It is rural in character, but contains other elements not associated with farming. It is mostly screened from the road with a tall solid hedge.

The New Zealand Kennel Club is the neighbour to Area A to the south where they have a large building and open car parking space.

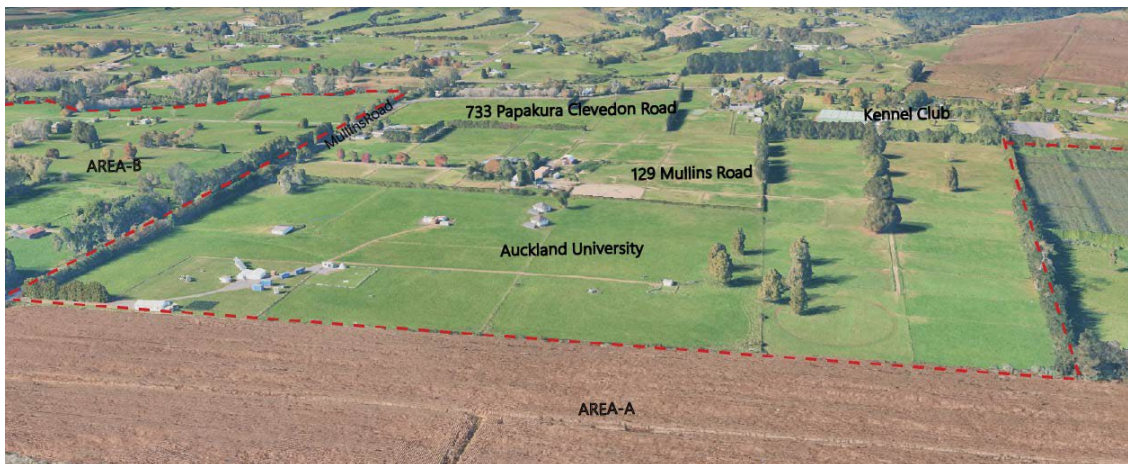


Figure D - View from above Area A looking south to the Auckland University land and other neighbours. The foothills of the Hunua Ranges are visible in the background (Image Google Earth).

Mullins Road as it exists between Area A and Area B is enclosed with shelter belts or trees along the boundary or within the road reserve. This currently limits views to the wider landscape. There is limited built form visible from this road, but includes mainly dwellings and associated sheds.



Figure E - View from above Area A looking east with Mullins Road horizontal through the image, Area B at the top, and Area A on the bottom (image Google Earth).



Figure F - View from south of Papakura-Clevedon Road looking north, illustrating Area A and its relationship with the airport and surrounding land.

The properties at the southern end of Burnside Road (177, 180, 186, 194, Bell Field and the Ardmore school) are not included within the proposal, and effects on those properties will need to be addressed from an urban design perspective.



Figure G - View from south of Papakura Clevedon Road looking north to Area B with Ardmore School and community hall in the foreground. A solar farm now exists in the paddock to the bottom left of the image (Google Earth).

Area C is opposite the existing and future industrial development on the northern side of the Airport. There is a cropping farm to the east along with two dwellings. To the west is one dwelling on a small lot, across the road from the airport. Then other lots typically screened from the road by shelter belts and trees. To the north is the Windross Golf Course.

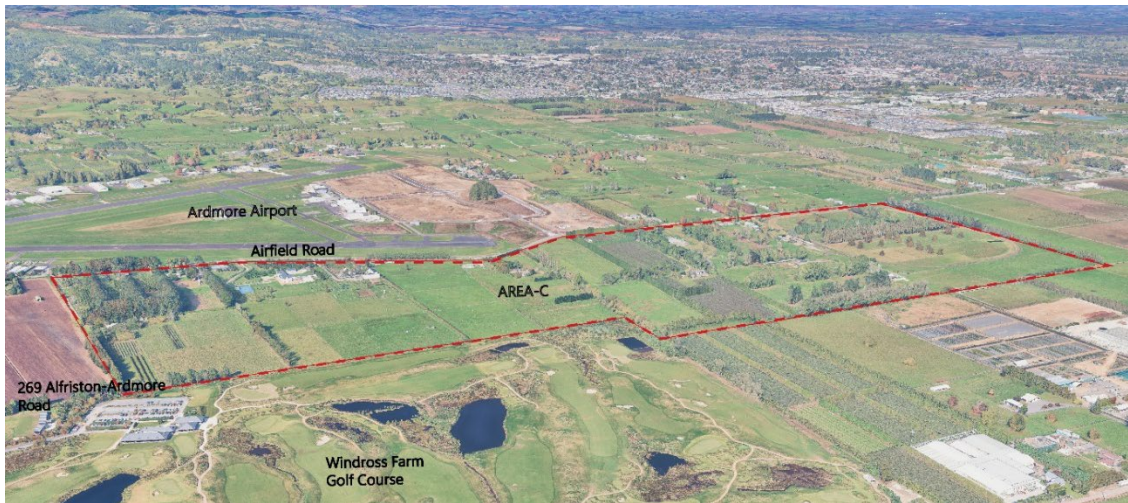


Figure H - View from above Windross Golf Course looking south to Area C and the airport beyond (Google Earth).

Assessment of Anticipated and Known Urban Design Effects

There is no nationally standardised approach to undertaking and evaluating urban design in New Zealand. Transurban has drawn on existing publications and its years of experience to identify topics to help particularise the components of good urban design. This assessment uses those topics to structure the evaluation of anticipated and known urban design effects:

- Consolidation and dispersal
- Context and identity
- Connections and legibility
- Diversity and adaptability
- Amenity and safety
- Environmental responsiveness.

Consolidation and dispersal

In the context of the Project, consolidation means making efficient use of land and available infrastructure by concentrating, in this case, industrial land use in areas where such development is appropriate.

The Project area has good proximity to existing and planned residential population at Takanini and Papakura. This provides potential synergies through providing accessible employment areas in close proximity to those residential populations. It also builds on and integrates with existing infrastructure and similar activities, and will assist with and utilise new infrastructure such as the proposed Mill Road Stage 1 (and integrate with the proposed Stage 2, if approved).

The comprehensive approach to design and development across larger sites allows for a more integrated design, maximising land use and responding to market needs. This includes both earthworks design and stormwater systems which extend across existing property boundaries, enabling a more efficient land use pattern than if these sites were developed individually. This is a very positive attribute to the proposal.

The Project consolidates industrial activity around the existing airport, which is less sensitive to change. The industrial use is compatible with activities on the airport land (as seen in other examples at North Shore Airport and elsewhere), and can be developed in a way that will avoid or mitigate adverse effects on the amenity values of neighbours.

From an urban design perspective, there is no good reason to retain rural activity on land opposite the airport between Airfield Road and the Windross Farm golf course, where the land adjacent is proposed to be developed for industrial use (or is currently in that use).

The agglomeration of land that has been possible due to the vision of the applicant means that there are greater opportunities to address and resolve potential flooding, stormwater treatment and management, and/or access issues on a comprehensive basis across site boundaries, and located appropriately, than what could be achieved if sites were developed disparately.

In our opinion, well-functioning urban environments need to have access to a range of employment opportunities, community services and other activities, particularly without significant transport requirements. The current proposal achieves those goals through its consolidated approach.

Context and identity

Context and identity refers to shaping a place that responds to and enhances its natural, cultural, and built character. This involves transitioning from rural to urban character in a way that respects existing landforms, ecological features, and cultural values. A well-designed industrial area should integrate environmental features to create a cohesive and environmentally sensitive design.

The Project will change the identity of the area, from rural to urban. However, change in and of itself is not an adverse effect. The scale of the development provides opportunities to retain (where appropriate) existing qualities and values that will contribute to a well-functioning urban environment. The concept builds on the existing industrial land use at the airport, such that the area is already less sensitive to change.

Due to the Project focussing on industrial activity, future buildings do not require regular direct access between the street and the buildings (as they would in a residential setting). The interface between development with the road network will need to be specifically addressed through landscape solutions and building design to ensure an appropriate urban design outcome is achieved.

The design of individual buildings will be subject to design controls for the future built form to adhere to, which will be provided as part of the substantive application. These

requirements are anticipated to be similar to the controls provided by the current Unitary Plan Light Industrial Zone standards (or other similar nationally standardised zones, as they may be developed through current reforms) addressing bulk and scale. In addition, the design of individual sites may need to address stormwater and effluent management. Area specific matters may also be relevant to manage interfaces with community facilities, neighbouring sites etc.

The Concept Plan illustrates an outcome assuming a type and variation of size of buildings. This is based on approximately 30% of the Project area being used for stormwater attenuation, roading and flood management, meaning 70% of the Project area can be used for development. Of this 70%, the masterplan illustrates a building coverage of 55%. The Concept Plan shown is only an example, and there could be many different layouts, including different building-to-open space relationships and site coverage, depending on the detail design and demand for buildings and yards.

Connections and legibility

Connections and legibility relates to how people move through and understand a place. A well-connected layout supports key movements associated with industrial activities, and people accessing employment and services. Legibility ensures the street and path network is intuitive, with clear visual cues and logical routes that help people navigate easily.

The proposed roundabout on Papakura-Clevedon Road is a key change in the network that will be a clear marker in the environment providing access to the business park, but also as a new entry to the airport. This will create a clear and easily accessible route to the airport, particularly if / when access from the west via Hamlin Road is severed by the Mill Road NOR. Access from Papakura will be direct as will access from the Mill Road corridor if confirmed and constructed.

The business park's new or upgraded roading network would better enable connectivity to the airport. The new access road enables better development opportunities on the airport, such that they can front this new road with good exposure.

The key identified roading network is simple, and with a block size suitable for industrial type activities. The design does not physically connect a road to Burnside Road due to the limited capacity of that road, but also to avoid effects on the existing amenity values of that road as industrial uses are not likely to directly interface with it.

The southern link proposed in Area B intentionally does not connect with Papakura-Clevedon Road, to avoid the addition of industrial traffic on to this road and avoid interaction with the existing Ardmore school.

In Area C, accessways off Airfield Road have been determined as the most suitable way of providing access which also provide for overland flow paths. The land east and west of Area C can be developed in a similar way if desirable in the future. There are no connection opportunities to the golf course that is essentially the rear boundary of the Project area, except one at the car park near the north-east corner of Area C.

There is no pedestrian or cycle facilities within the existing road network around Ardmore. This Project would enable these facilities to be added to enable a multi-modal opportunity. While this network may not connect to the wider network for some time, it would enable movement within the Business Park and be available to connect through to Takanini.

Diversity and adaptability

Diversity and adaptability refers to creating a community that supports a wide range of living, working, and recreational needs.

The Project will enable a wide range of industrial activities and will result in a diverse and adaptable development, particularly if buildings are designed with the ability to internally partition and enable flexibility in tenancy spaces. The Concept Plan illustrates that there is a range of size opportunities provided catering for small to large space requirements.

Amenity and safety

Amenity and safety refers to the quality and liveability of the environment. The amenity level within the industrial areas could be lower than is currently experienced, due to the activity proposed. However, that is the case with almost any change from rural to urban or industrial land use.

The proposed Concept Plan sets out the main organising elements that will contribute to the amenity and safety of people in this development. The provision of the internal spine road in Area A and Area B is a good example of this, responding to a location on Papakura-Clevedon Road where new safe access can be achieved and avoiding or limiting the use of other intersections where safety issues could be an issue. Good urban design practices will be used to ensure streets have a positive relationship with the adjoining neighbours where industrial buildings address the street.

The location of stormwater flood management and attenuation devices at the eastern edge of Area B and the western edge of Area C enable these spaces to interact with the neighbouring land while also providing a spatial separation between existing neighbours and the proposed industrial activities, which will assist with maintain a good level of amenity.

From a safety and operational perspective, the proposed development will need to respect the operational requirements of the airport so as to retain and support the airport activity. The details will be confirmed and any appropriate height limits included with the substantive application.

Environmental responsiveness

Environmental responsiveness refers to a development that respects its natural environment, ensuring its compatibility with existing natural features, ecosystems and landforms.

This Project address the existing flooding by consolidating space for stormwater management while freeing up other land for development. This results in spaces that are planted with native species and/or the naturalisation of some watercourses.

There are groups of protected trees in Area B which will be retained. The road improvements at Bullens Road would likely require the culverting and realignment of the existing stream at the intersection with Papakura Clevedon Road. This is already compromised, but the opportunity will enable mitigation to enhance this waterway.

All of these measures will be positive from an amenity perspective.

Conclusion

The Project area provides additional industrial development and employment opportunities around an existing hub in good proximity to a large residential population. The proposal has also been designed to integrate with the proposed Mill Road Stage 2, if approved.

The Project builds on the infrastructure and businesses within the airport itself, allowing opportunities for agglomeration around the existing airport, and for benefits to be shared between those activities, creating a compact urban form.

It is acknowledged that the Project is not anticipated by the existing planning framework in the Auckland Unitary Plan which expects a rural outcome, whereas this is an urban outcome. However, the Project follows good urban design principles and practices that can work with a planned future outcome.

Author:



Nick Rae

Nick Rae holds a Master of Urban Design from Sydney University and a Bachelor of Landscape Architecture from Lincoln University.

Nick's urban design career in New Zealand has spanned the last 16 years, and since 2009 has been the managing director of Transurban Limited. Prior to that, Nick worked in Sydney, Riyadh, and London in landscape architecture and urban design roles.

Nick is a founding member of the Urban Designers Institute Aotearoa, a professional institute that accredits urban design professionals.

Nick has experience in many master planning Projects, plan changes, detailed design of greenfield subdivisions supported by urban design assessments.

Nick has had significant involvement in the master planning and detailed design of residential and retirement, industrial and centre developments including subdivision, and land form changes and enhancement of natural systems.

Nick has been involved with the design and consenting of industrial projects in Wiri, Beachlands, Silverdale, Mangawhai and Pukekohe.

Attachment A – Site identification

Area A

Site	Address	Legal Description	Area (m ²)
1	47 Mullins Road	Lot 2 DP 206430	36,987
2	53 Mullins Road	Lot 3 DP 206430	218,058
3	61 Mullins Road	Lot 1 DP 75641	16,187
4	803 Papakura-Clevedon Road	Lot 1 DP 450259	15,060
5	7 Bullens Road	Lot 1 DP 141367	12,819
6	19 Bullens Road	Lot 2 DP 450259	170,300
7	49 Bullens Road	Lot 2 DP 111591	40,620
8	51 Bullens Road	Lot 2 DP 473510	112,028
9	52 Bullens Road	Lot 1 DP 473510	4,184
		Total	626,243

Area B

Site	Address	Legal Description	Area (m ²)
1	45 Clevedon-Takanini Road	Lot 3 DP 169281	42,200
2	61 Clevedon-Takanini Road	Lot 1 DP 112997	90,708
3	40 Mullins Road	Lot 2 DP 169281	136,208
4	50 Mullins Road	PT ALLOT 50 Parish OF PAPAURA	40,468
5	66 Mullins Road	Lot 1 DP 22687	192,225
6	90 Mullins Road	LOT 2 DP 598608	57,569
7	100 Mullins Road	LOT 1 DP 598608	123,694
8	114 Mullins Road	Lot 1 DP 95196, Lot 1 DP 81758	50,002
9	124 Mullins Road	Lot 2 DP 129748	224,901
10	1 Burnside Road	Lot 1 DP 165259	69,782
11	37 Burnside Road	Lot 2 DP 165259	11,188
12	51 Burnside Road	Lot 2 DP 112997	67,394
13	61 Burnside Road	Lot 2 DP 311910	98,550
14	93 Burnside Road	PT ALLOT 1 DP 94470	148,013
15	133 Burnside Road	LOT 2 DP 533681	393,676
		Total	1,746,578

Area C

Site	Address	Legal Description	Area (m ²)
1	308 Airfield Road	Lot 5 BLK XV DP 20982	210,209
2	348 Airfield Road	Lot 1 BLK XV DP 192819	81,740
3	360 Airfield Road	Lot 2 DP 192819	40,105
4	368 Airfield Road	Lot 2 DP 96780	60,020
5	382 Airfield Road	Lot 1 DP 96780	52,708
6	394 Airfield Road	Lot 1 DP 198874	20,000
7	396 Airfield Road	Lot 2 DP 208957	175,205
8	398 Airfield Road	Lot 1 DP 208957	6,017
9	448 Airfield Road	Lot 1 DP 336380	32,303
10	460 Airfield Road	Lot 2 DP 336380	17,707
11	470 Airfield Road	Lot 1 DP 92845	51,799
		Total	747,813

Area D

Site	Address	Legal Description	Area (m ²)
1	95 Hamlin Road	Pt Lot 1 DP 50029	30,654
2	115 Hamlin Road	Pt Lot 1 DP 50029 Pt Lot 2 DP 50029	57,230
3	120 Hamlin Road	Lot 1 BLK XV DP 53384	40,589
4	125 Hamlin Road	Lot 1 BLK XV DP 53136	51,817
5	130 Hamlin Road	Lot 2 DP 53384	40,868
6	135 Hamlin Road	Lot 2 BLK XV DP 53136	40,519
7	140 Hamlin Road	Lot 3 DP 53384	41,564
8	143 Hamlin Road	Lot 1 DP 11032	51,395
9	146 Hamlin Road	Pt Lot 4 DP 53384	43,215
10	151 Hamlin Road	Lot 1 DP 316491	11,310
11	155 Hamlin Road	Lot 2 DP 316491	91,113
12	161 Hamlin Road	Lot 6 DP 39433	32,653
13	881 Papakura-Clevedon Road	Lot 1 DP 483053	19,174
		Total	552,101

Area E

Site	Address	Legal Description	Area (m ²)
1	371 Airfield Road	LOT 1 DP 578804	1,181,118
2	453 Airfield Road	Lot 200 DP 319290	2,078
3	457 Airfield Road	Lot 202 DP 458277	3,685
4	463 Airfield Road	Lot 203 DP 458277	1,301
5	469 Airfield Road	Lot 204 DP 458277	4,004
6	473 Airfield Road	Lot 205 DP 458277	3,533
7	479 Airfield Road	Lot 206 DP 458277	5,161
8	487 Airfield Road	Lot 207 DP 458277	14,751
9	495 Airfield Road	Lot 208 DP 458277	4,359
10	499 Airfield Road	Lot 209 DP 458277	1,500
11	99 Corsair Lane	LOT 2 DP 578804	222,692
		Total	1,444,182

Total land area: approx.. 511ha