Content

Cover image sourced from ACC GIS.

This report is prepared for for 50 Westney Road, Mangere Proposed Private Plan Change Request.

1. Introduction

Background and Context

1.1 This urban design review has been prepared to support the proposed private plan change to rezone 50 Westney Road, Auckland, from Residential – Mixed Housing Suburban Zone to Business - Light Industry Zone. The site, currently occupied by the SPCA, is planned for redevelopment following their relocation in 2026. The preferred approach for future land use is to extend the successful light industrial based uses to the south. This urban design review aims to assess the urban design implications of the rezoning, ensuring alignment with Auckland's urban design principles and more generally form a logical zoning pattern in the context of the Auckland Unitary Plan (Operative in Part) (AUP(OP)).

1.2 The site is strategically located, being close to both Mangere and Auckland Airport. The site is bordered by Westney Road to the west, Zayed College for Girls to the north, residential properties to the east, and light industrial uses to the south. The proposed rezoning seeks to capitalize on the locational proximity to the airport and related infrastructure to address the growing demand for industrial land.

Purpose of the Report

1.3 This review will provide a thorough analysis of the site and its surroundings, exploring existing and preferred zoning options, assessing the built form and massing implications, and considering the impact on the public realm and connectivity. Additionally, landscaping and open space strategies will be examined to determine whether additional provisions to those provided by the preferred zoning are necessary to enhance the site's integration with its context.

1.4 By thoughtfully addressing these urban design considerations, the proposed rezoning aims to facilitate a positive outcome for the built environment, fostering economic growth and maintaining the amenity and character of the surrounding area.

Scope and Methodology

1.5 The design and assessment approach fundamentally operates at two planning levels. The primary level is to ensure that the plan change area forms a logical planning 'unit' in the broader context of Mangere and its future growth. The second 'level' is more site specific to ensure development outcomes integrate successfully with the existing land uses. The approach involves a comprehensive analysis of the current site conditions, existing and future land use requirements, infrastructure needs, and potential environmental impacts. The methodology has involved a multidisciplinary approach, combining desk research and field survey. Geographic Information System (GIS) tools were used for spatial analysis and architectural input, while demographic and economic data were also analysed to forecast the impact of the proposed rezoning. This approach ensures that the proposed plan change is thoroughly examined from social, economic, and environmental perspectives, providing a robust framework for informed decision-making and sustainable development outcomes.

2. Site Analysis

2.1 The site presents certain characteristics that make it appropriate for rezoning from Residential – Mixed Housing Suburban to Business - Light Industry. This section provides analysis of the site's location and context, access and connectivity, and site-specific characteristics.

Location and Context

2.2 The site is situated in a suburb of Mangere, approximately 2 kilometres south of the town centre. The site covers an area of 4.0468 hectares and is strategically located near major transport routes, including State Highway 20 and Auckland Airport, which is approximately 2 kilometres to the south. The immediate surroundings include a mix of residential properties, educational institutions, and industrial uses, creating a diverse urban fabric, with the site sitting at the transition point between residential and business activities. The site is bordered to the north by Zayed College for Girls, a state-integrated Islamic secondary school, to the east by residential properties on Jaylo Place and Naylors Drive, and to the south and west by light industrial zones. This diverse context highlights the need for a thoughtful transition between residential and industrial uses.

Access and Connectivity

2.3 The site benefits from excellent access and connectivity. Westney Road, which forms the western boundary, is a 20-meter-wide road reserve providing one lane of general traffic in each direction and a flush central median. There are three existing vehicle access points on the site's frontage, ensuring efficient vehicular ingress and egress. The northernmost entry is a single-width access point serving the rear portion of the site, while the other two are double-width, facilitating two-way access to the central and southern parts of the site. Additionally, the site is well-serviced by public transportation, with several bus routes operating along Kirkbride Road and nearby George Bolt Memorial Drive. The connectivity options and scale of present infrastructure is conducive to supporting an extension to the present industrial uses located to the south.

Site-Specific Characteristics

2.4 The site is relatively flat, with slight 1%-2% gradients, making it suitable for a range of industrial developments where larger footprint buildings can be sited without the need for extensive earthworking. Currently, the site hosts the SPCA's main Auckland facility, including various single-level buildings and structures. These buildings, primarily located in the northern half of the site, accommodate a veterinary hospital, animal rehabilitation facilities, and administrative offices. The rear third of the site has been developed into an open-air car park, used temporarily for vehicle storage associated with the adjacent airport parking facility. Notably, the Marsden to Wiri RNZ Liquid Fuels Pipeline runs parallel to the southern boundary, presenting a unique constraint that necessitates careful planning to ensure safety and compliance with relevant regulations.

2.5 The site has a shared timber boundary fence to the east, open metal fence to the east, the north and south. The site offers a regular shape, being rectangular with a slight taper to the east boundary. The proportions of the site make it suitable to support larger footprint buildings whilst retaining appropriate boundary treatments to the neighbouring properties. Numerous groups of mature trees are located on the site frontage, with further mature trees planted on the front berm in the public realm.

Above: Street frontage of site with Westney Road.

Opposite: Annotated aerial plan identifying the site and surroundings.

3. Surrounding Context

3.1 The surrounding context is characterized by a diverse mix of residential, educational, and industrial land uses. This section provides an analysis of the boundary relationships and relative sensitivities to the proposed plan change.

Sensitive Boundary Relationships

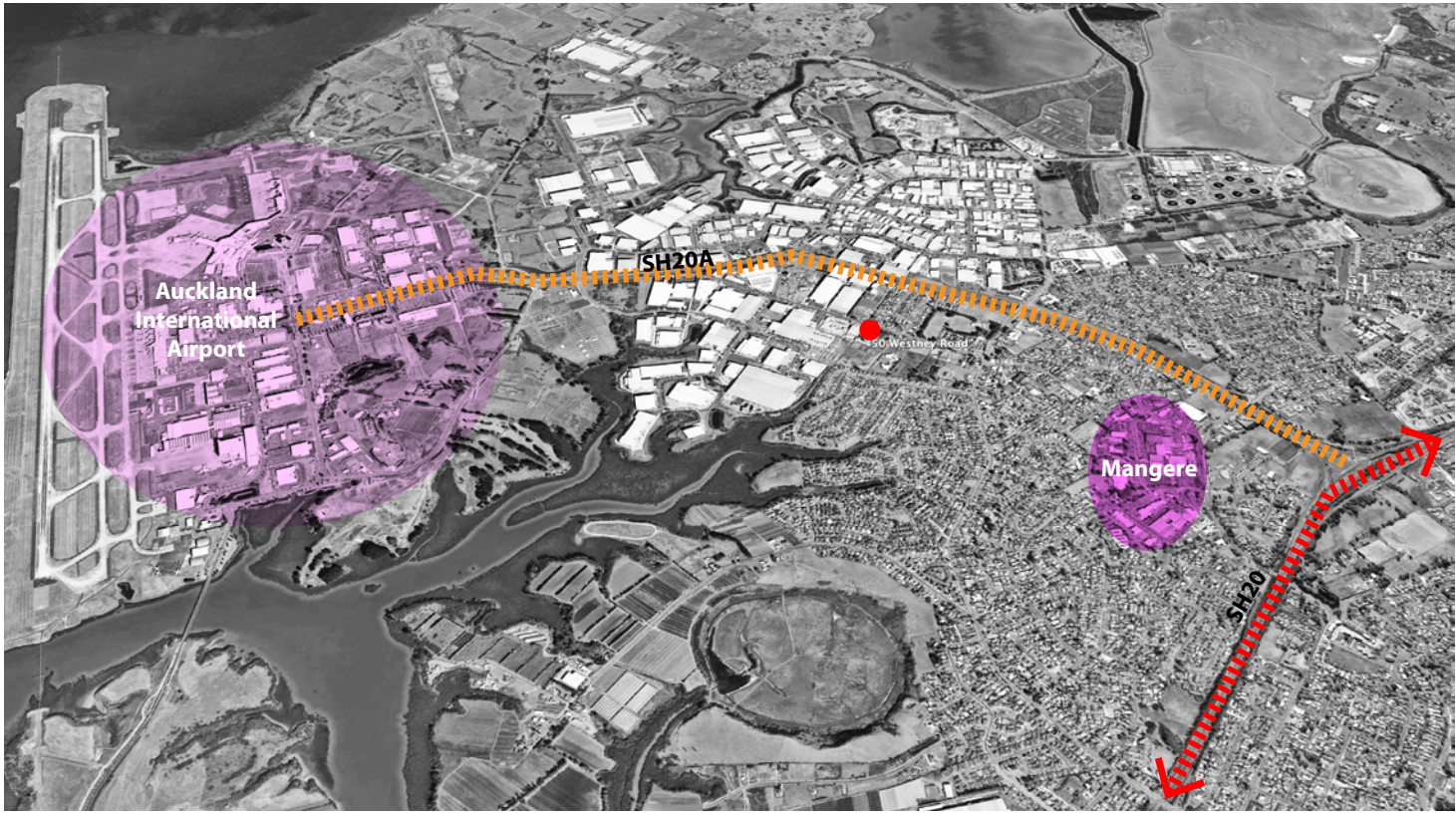
3.2 The northern boundary of the site is adjacent to Zayed College for Girls, a state-integrated Islamic secondary school, and 24 Westney Road a residential property that is part of the schools ownership. This relationship requires careful consideration to ensure that any proposed industrial activities do not negatively impact the school's environment or the amenity of the dwelling. The potential for noise, increased traffic, and visual intrusion should be appropriately mitigated by design measures, such as landscaped buffers, and appropriate building setbacks. Similarly, the eastern boundary, which abuts residential properties on Jaylo Place and Naylors Drive, is another sensitive interface. These properties are characterized by single-level detached dwellings, and the transition to light industrial use must be managed to minimize disruptions to the residents' quality of life and amenity of their properties. It is noted that for future development, the site and a large area of the existing residential environment features an aircraft noise overlay in the AUP(OP) that limits development density.

Less Sensitive Boundary Relationships

3.3 In contrast, the southern and western boundaries of the site are adjacent to existing industrial zones and the street frontage of Westney Road. The land to the south is characterized by large-scale warehouses, manufacturing facilities, and airport-related services. The transition to light industrial use along these boundaries is more straightforward, given the compatibility of uses and the existing industrial character.

Below: Wider setting of the site showing proximity to airport and State Highway connections. Strategic location makes the site attractive to a range of commercial uses.

3.4 The Westney Road frontage aligns with the residential block of housing defined by Kohinoor Avenue to the north. The housing is typical of the area, comprising a variety of single storey architectural styles, most usually with pitched roofs. Generally the lots are single dwelling lots with the house located towards the street frontage and with the gardens to the rear. Rear lot infill development is not common, but there are some examples. Westney Road itself is approximately 22 m wide and features front and rear berms with sporadic mature tree planting. The width and character of the street forms a 'buffer' between the residential and any light industrial use.



Suitability of the Change of Use

3.5 The proposed change of use from residential to light industrial is suitable in principle for the area, given the site's strategic location and the surrounding context. The site's proximity to major transport routes, including State Highway 20 and Auckland Airport, enhances its attractiveness for industrial activities. The existing residential zoning for the site is less compatible with these high-traffic, high-noise environments, making an industrial use a more appropriate fit. Furthermore, the demand for industrial land in the region supports the proposed rezoning, addressing the economic needs for expanded industrial capacity and, in this context, services to support and capitalize upon the proximity of the airport.

3.6 In conclusion, while the northern and eastern boundaries require sensitive treatment to mitigate impacts on educational and residential neighbours, the overall context and location support the rezoning to light industrial use in principle and subject to determining the likely typical effects of light industry related development.

4. Preferred Zoning

4.1 To provide a framework for the assessment of the proposed zone change at the higher level, the following issues have been considered:

(a) Accessibility and connectivity (proximity to transport networks);

(b) Infrastructure availability;

(c) Economic opportunities;

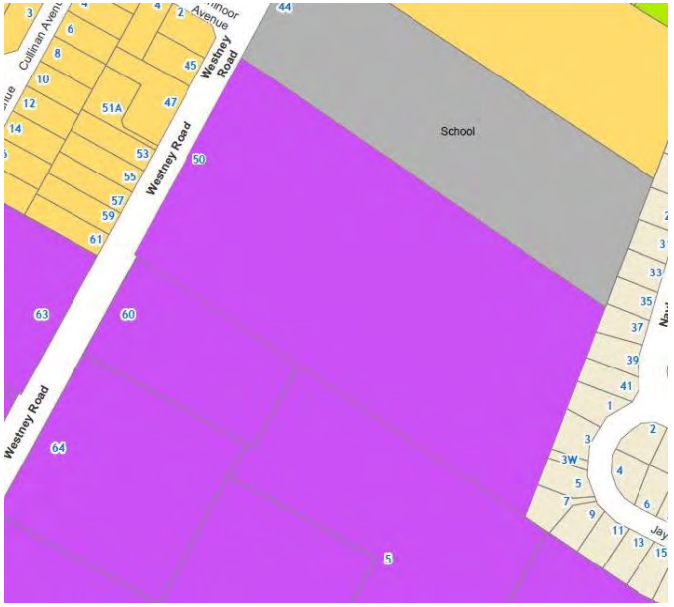
(d) Land suitability to proposed use;

(e) Environmental considerations and other sensitivities;

(f) Resilience and disaster risk management;

(g) Cultural and historical significance.

4.2 I consider that all of these factors are valuable in the assessment of the Plan Change Area for the change of use and provide the framework for well-functioning development outcomes. Before considering the options for zoning, including the benefits of retaining the existing zone, I will comment on these issues in relation to the preferred rezoning from an urban design perspective.



Above: Proposed zoning map

Accessibility and connectivity

4.3 Proximity to transportation networks, such as highways, rail, ports and airports, is an important factor in determining areas suitable for more intensive growth patterns or particular forms of commercial development. Continued reliance on personal mobility means that commercial areas need to be located along major transportation corridors to facilitate the movement of people and goods. The site is clearly well located in terms of the ability to connect with the State Highway, but it is also well located to access the airport services.

Infrastructure

4.4 The presence of existing infrastructure, including water supply, sewage systems, electricity, and communication networks, plays a significant role in determining scope for development and or further need for infrastructure investment. Developing in areas with pre-existing infrastructure is broadly acknowledged in planning and urban design practice to be generally more cost-effective and efficient for intensification.

4.5 The site benefits from an established infrastructure and whilst featuring some unusual constraints (Wiri Gas pipeline), there do not appear any constraints that would preclude a light industrial use. From an infrastructure perspective, therefore, the proposed use is suitable for the site

Economic opportunities

4.6 The potential for economic growth and development is a major consideration. Locations near economic hubs, whether they be town centres, business parks or industrial zones, are attractive for commercial development. The site is adjacent to a large light industry area that is established because of the close association with the airport and motorway connections.

4.7 An economic analysis of the proposed plan change area confirms that the economic benefits of the plan change significantly outweigh any costs.

4.8 From an urban design perspective, extending the light industrial zone, providing effects can be suitably managed, represents a logical use of the site given the commercial setting and access to supporting attributes (motorway and airport access).

Land Suitability.

4.9 Flat terrain, absence of environmental hazards, and sufficient land area are important factors when determining the suitability of certain land uses to potential sites, e.g. larger footprint buildings are not naturally well suited to highly sloping sites. It is important therefore that the natural characteristics of a site are suited to the proposed use, having regard to the nature and physical characteristics of the likely development forms.

4.10 In this context, the following are relevant factors:

(a) The Plan Change Area offers a reasonably large and substantially flat area that rests in a single ownership. This renders the process of integrated good quality development far easier to achieve than with a multi ownership situation.

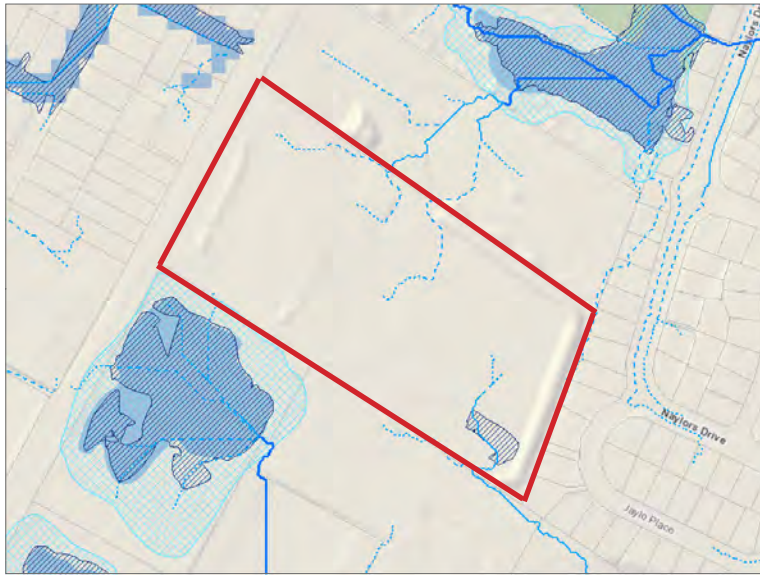
(b) The Plan Change Area's shape factor (large regular dimensioned land parcel) makes it attractive for larger format buildings that require circulation and servicing areas.

(c) The neighbouring land uses and access to infrastructure mean that a range of light industrial uses can be located without the need for extensive improvement works.

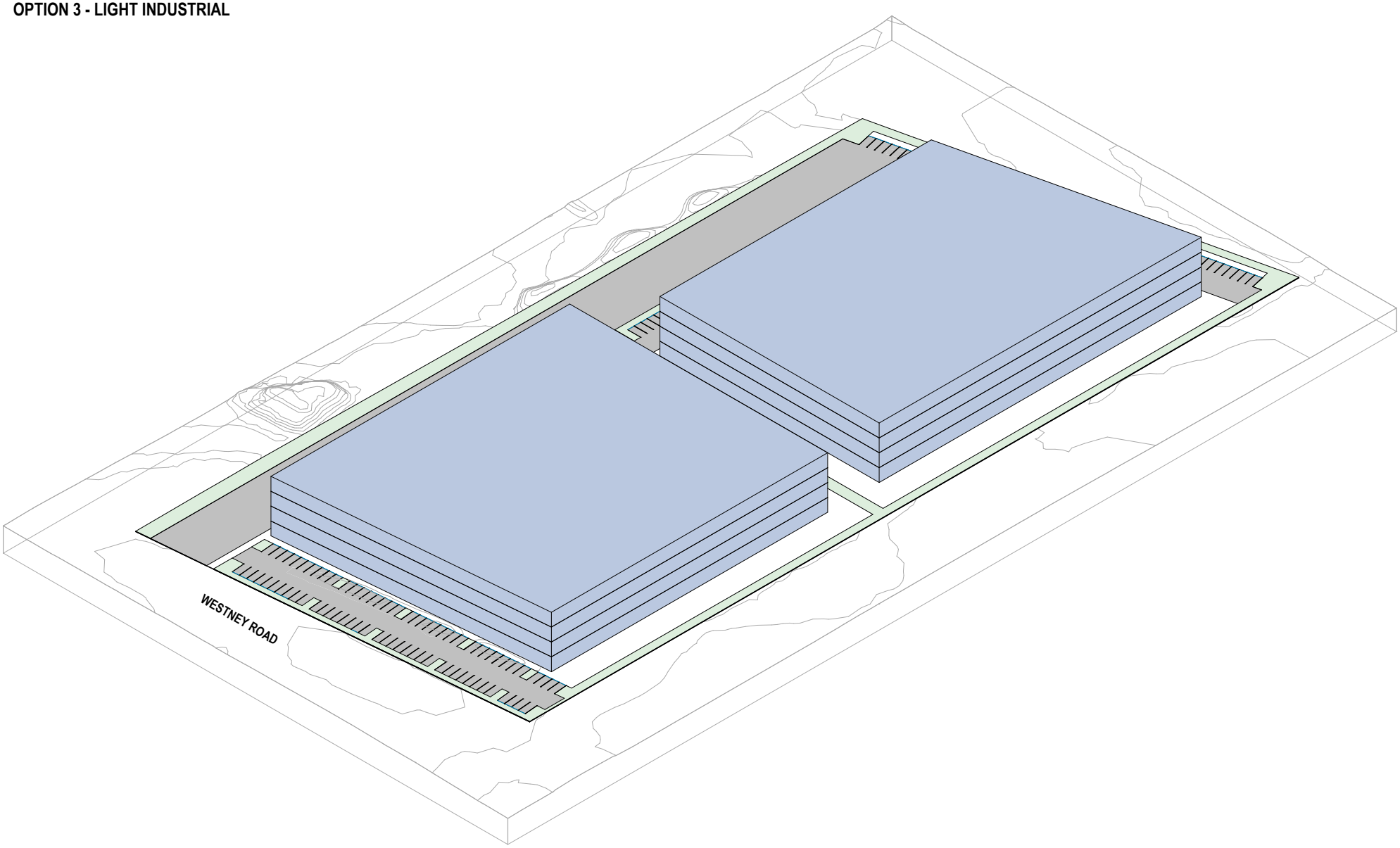
(d) The Plan Change Area does not feature any significant environmental constraints, with stormwater treatment and overland flow paths capable of integration into site design. The presence of the Wiri pipeline designation to the south boundary is noted and can be accommodated in future development.

Below: Extract from AC GIS showing hydrological features.

Opposite page: Extract from architectural plans showing typical theoretical Light Industry use



OPTION 3 - LIGHT INDUSTRIAL



A1322 OPTION 3 - INDUSTRIAL

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Environmental Considerations and Other Sensitivities

4.11 Environmental factors, such as natural resources, ecosystems, and ecological sensitivity, play a role in determining suitable locations for certain types of development. Balancing development with environmental preservation and sustainability is a highly influential element of the RMA and sustainable development philosophy.

4.12 The Plan Change Area features a number of ephemeral overland flow paths that connect to flood prone areas. A small area of land identified as subject to flooding is identified in the southeast corner of the site. These features are not considered to be so significant as to preclude development for a light industrial use.

Resilience and disaster risk

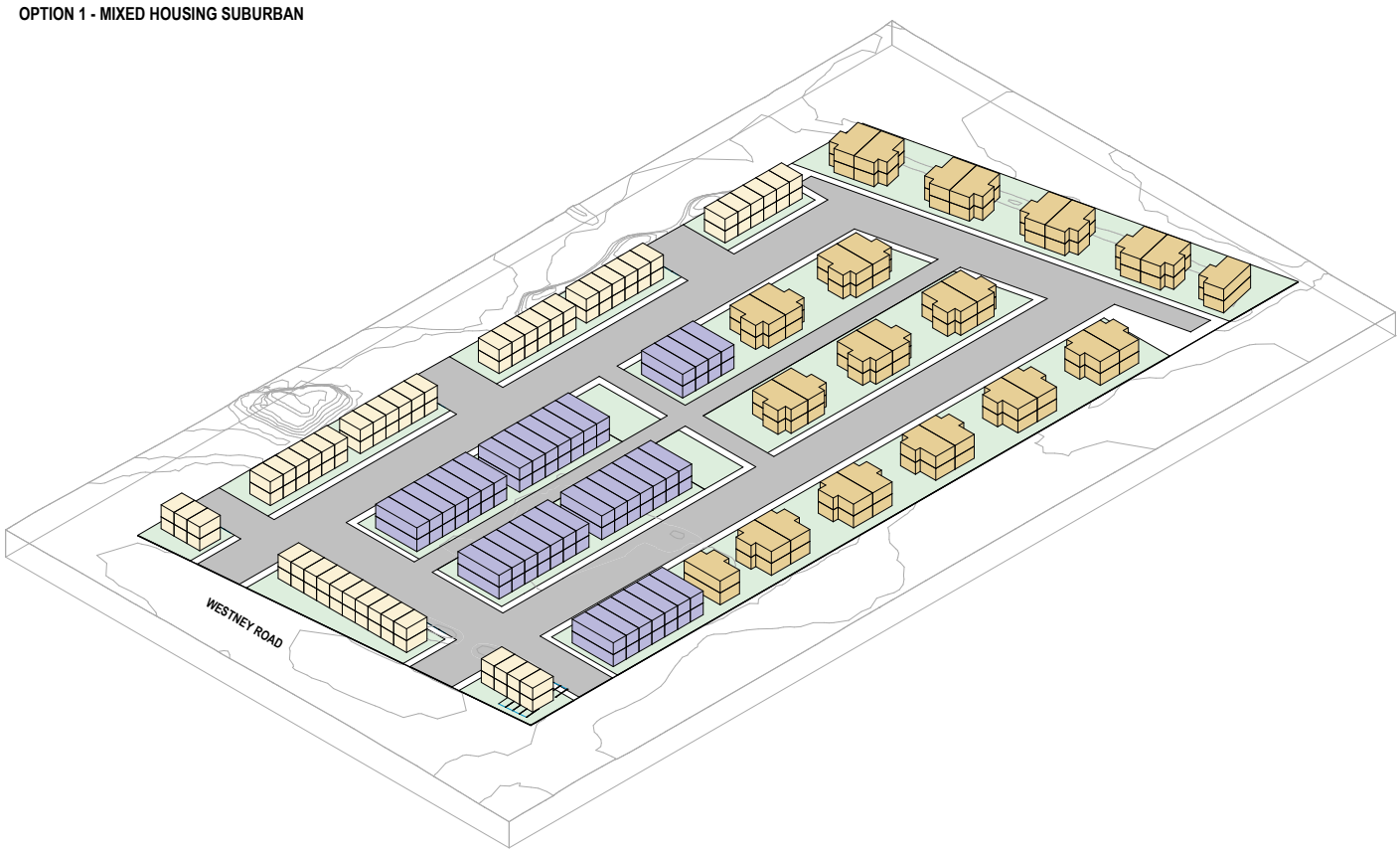
4.13 Avoiding areas prone to natural disasters like floods or earthquakes is essential and has received increased focus following the flooding in Auckland urban and rural areas.

4.14 The site is largely free from identified constraints. Those elements that are identified are not considered to be so significant as to inhibit many light industrial uses and can be considered and mitigated in any future resource consent application.

Cultural and historical context

4.15 Preserving cultural heritage and respecting historical significance can influence the choice of location for new and intensified development. The site has no identified heritage or cultural sensitivities that may affect development of the site.

Below: Concept visualisation of development outcomes under the present zoning. Note the influence of the aircraft noise overlay to development density on the affected part of the site (units coloured dark sand)..



5. Built Form and Massing

5.1 This section analyses the built form and massing effects of the proposed light industrial use compared to the existing residential zoning, Auckland. By referencing illustrative drawings (Appendix 1) of both typical light industrial and residential developments, the potential visual, spatial, and functional impacts on the surrounding context can be better understood and responded to.

Building Heights and Scale

5.2 The current Residential – Mixed Housing Suburban zoning permits buildings up to 9 meters in height, primarily designed for one to two-storey homes. In contrast, the proposed Business - Light Industry zoning allows for buildings up to 20 meters in height. This significant increase in allowable building height coulc result in a more substantial visual presence of buildings on the site. Whilst it is not possible to predict a certain design outcome at this stage, the established development in the area within the Business Light Industrial Zone display a number of characteristic design elements. These include:

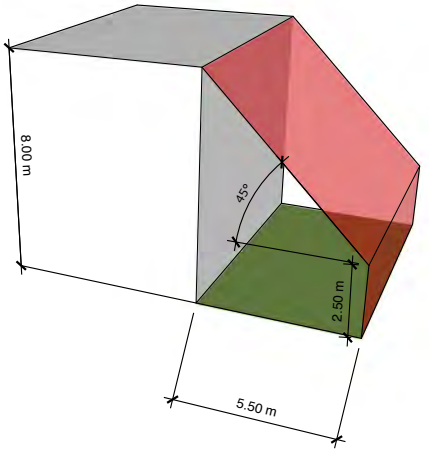
- Setbacks to the street frontage where visitor and employee parking can be located.
- The administrative function of the business is located in the front part of the site. Frequently this element of the building is of a lower height than the remainder of the building.
- The main massing of the building is located behind the street facing parts and comprises large span building forms that do not require windows - natural light, if required, usual penetrates the space from roof lights.
- The larger part of the building usually requires external turning and storage areas. These are usually located to the side or rear of the built form.

5.3 These design features each have a role that is supplementary to the performance standards for the zone that seek to manage the effects of development on certain higher amenity zones. The role of HIRB controls together with other mitigating standards such as yard and landscaping are key standards in mitigating possible effects on neighbours.

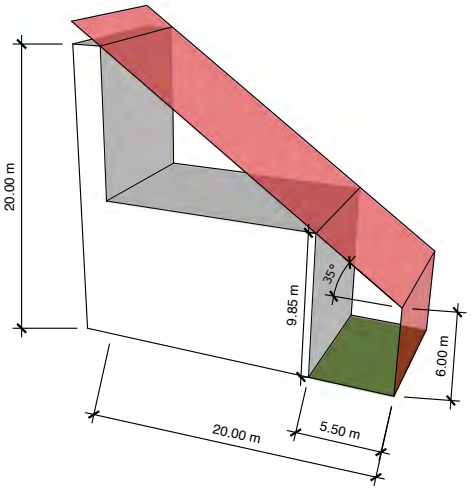
5.4 Within the Business Light Industrial Zone the HIRB requirements are 6 m plus a recession plane of 35 degrees (to the Special and Residentially zoned land) compared to 2.5 m plus a recession plane of 45 degrees for the present Mixed Housing Suburban residential zone. Compliance with the Business Light Industry standard achieves a similar outcome in terms of building height in proximity to the boundary. Testing the setback required for compliance means that a maximum height of 9.85 m is possible 5.5 m from the boundary, compared with 8 m height with the MHS zone HIRB. It should be noted that this would apply to both the east and north boundaries but would not apply to the south boundary presently shared with the existing BLI zone. Possible outcomes from the Mixed Housing Urban Zone have also been tested, given the possible relevance of Plan Change 78. The standards of the MHU standard HIRB gives a similar result to the MHSZ with a total height of 8.5 m possible 5.5 m from the boundary.

Below: Comparison of HIRB controls with MHS shown top and BLI bottom. Relative controls would increase the height of buildings by 1.85m relative to Special and Single House zones

Mixed Housing Suburban Zone HIRB

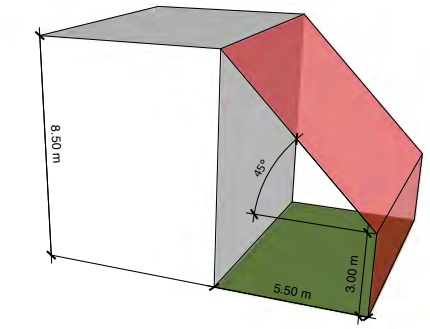


Business Light Industry Zone HIRB



Building mass however, would be very different to the domestic scale of individual or duplex/ terraced houses.

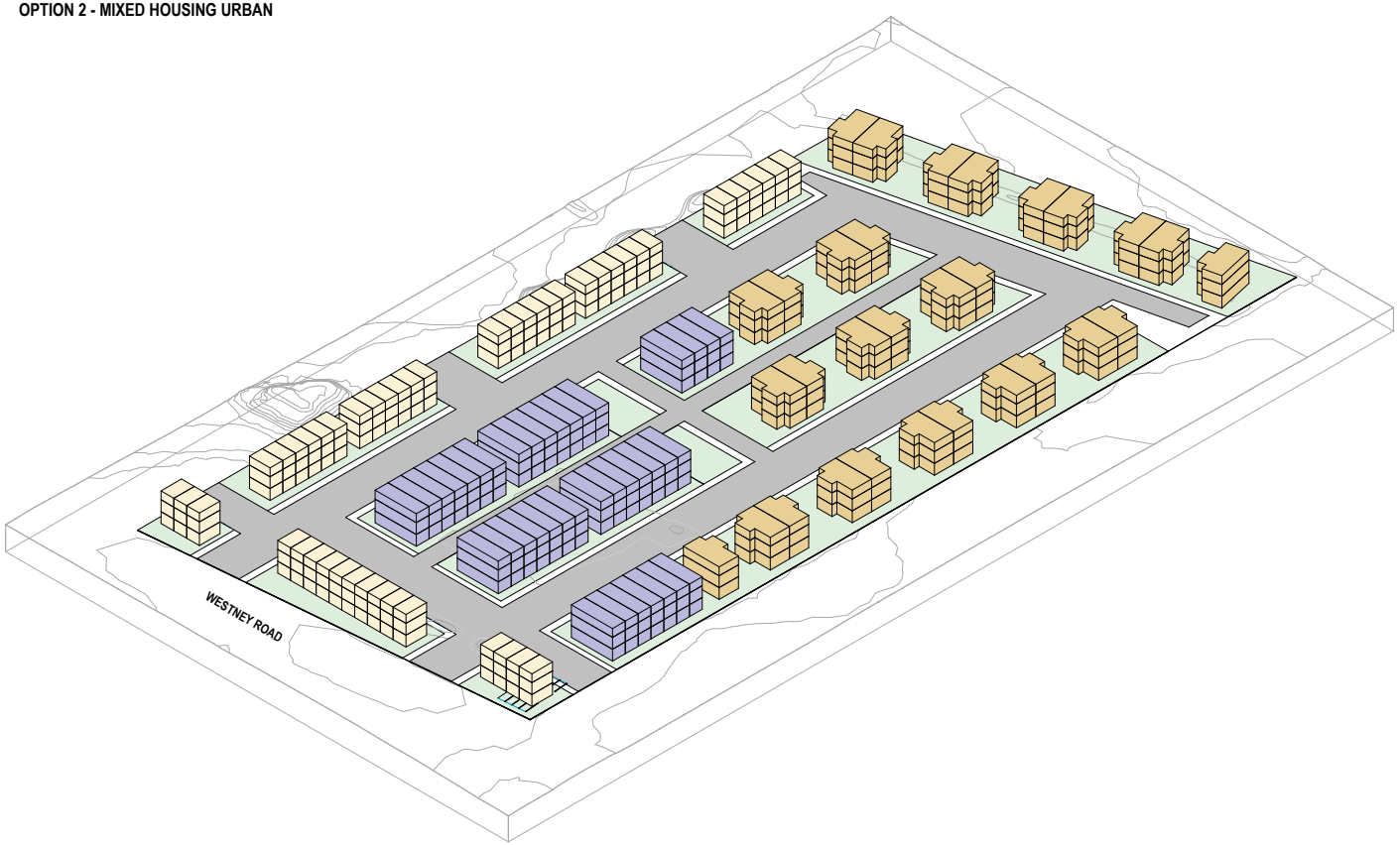
Mixed Housing Urban Zone HIRB



Above: HIRB relationship for the Mixed Housing Urban Zone. In terms of proximity of building height to boundary the zone moderately increases that of the MHS zone. Total possible height increases to 11m for the zone.

5.4 The plan opposite offers a conceptual layout if a Mixed Housing Urban Zoning were to be applied to the site (under PC78). Note the increased total height but the remaining lower density form determined by the Aircraft Noise Overlay.

OPTION 2 - MIXED HOUSING URBAN



A1312 OPTION 2 - MHU

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5.5 Considering the relationship to the residential boundary with Naylors Drive and Jaylo Place, the building set back (rear yard) of these dwellings varies. In total, seven dwellings share a boundary with the site being:

1 Jaylo Place - building setback (yard) - 4.97 m
3 Jaylo Place - building setback (yard) - 8.61 m
5 Jaylo Place - building setback (yard) - 2.70 m
7 Jaylo Place - building setback (yard) - 4.18 m
37 Naylors Drive - building setback (yard) - 6.52 m
39 Naylors Drive - building setback (yard)- 6.88 m
41 Naylors Drive - building setback (yard) - 12.33 m

(All the above measured from AC GIS .DWG file)

5.6 The position of outdoor living courts visible in aerial photography shows that most properties have the living court behind the building line in a traditional 'back garden' arrangement that shares the boundary to the site. The site is located to the west of these properties and in terms of the likely broad effect of development if the plan change request is approved, possible shading effects require consideration. Concept modelling of typical development outcomes based upon a scenario meeting the performance standards shows that shading occurs in the mid to late afternoon for all periods because of the orientation of the site relative to the sun path. The comparison of the extent of shading (based on theoretical development outcomes) is illustrated in the architectural package.

5.7 Considering these effects against the existing likely effects of residential development illustrates that:

- The extent of shading in terms of depth is similar for all zones, because of the varied setback of the building massing. This is influenced by compliance with the HIRB control.

- The massing of the BLI buildings produce a more continuous 'band' of shading. This is because the building footprints are larger than residential buildings and therefore produce a larger consistent body of shading.

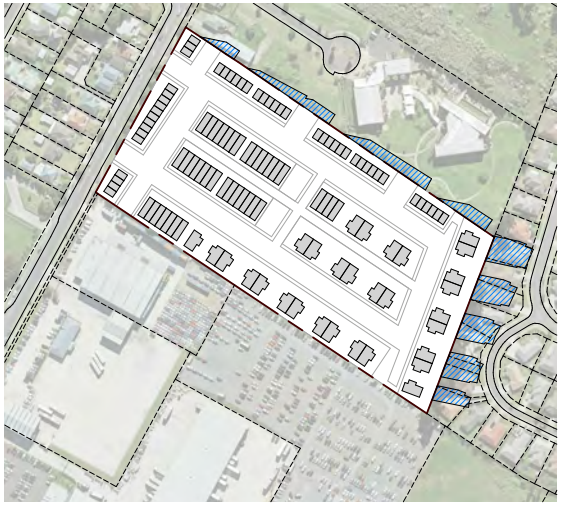
- The time of shading is limited to mid-afternoon (at the earliest) onwards for the east boundary and at the end of the day for the north boundary.

5.8 In terms of conclusions, the exercise demonstrates that additional effects of shading can be anticipated from the BLIZ are consistent with MHU built form outcomes. The extent of those effects are influenced by both relevant performance standards of the zone and the particular characteristics of the site (orientation/ aspect). The anticipated effects, despite the enablement of additional overall height are comparable to the residential development outcome becase of the extended setback requirements. Whilst not a part of the assessment criteria for the BLIZ utilizing standards to determine the severity of shading effects to amenity it is evident that the time of effect will not result in unreasonable loss of amenity to neighbouring sites i.e. they will still have access to at least 4 hours of sunshine between 9 am and 4pm.

SPRING EQUINOX
9am

SPRING EQUINOX
11am

SPRING EQUINOX
3pm



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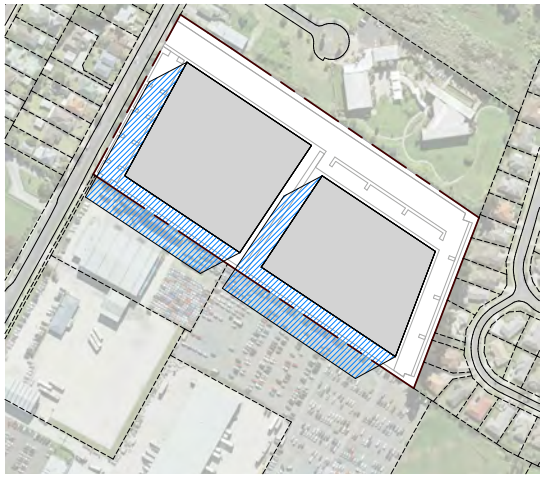

SPRING EQUINOX
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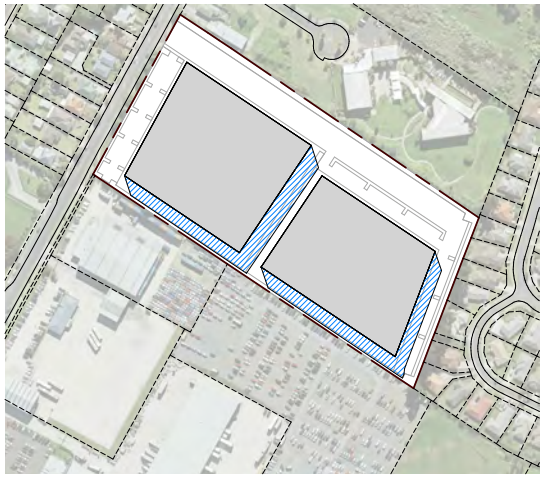

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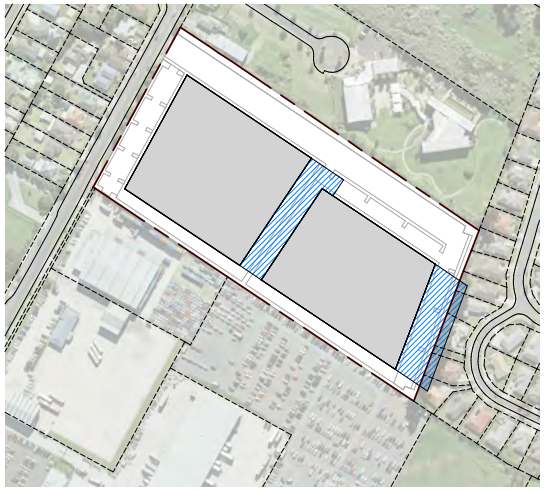

SPRING EQUINOX
3pm

SPRING EQUINOX
5pm

SHADING LEGEND - INDUSTRIAL

SHADING CREATED BY MAXIMUM
PERMITTED BUILDING HEIGHT (20m)

A1324 INDUSTRIAL SHADING - SPRING EQUINOX

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The Role of Yards

5.9 Residential zoning typically requires generous yards and and lower site coverage to maintain a suburban character with ample green space. The Mangere 1 Precinct's specific provisions for the SPCA include a 30-meter yard from the eastern boundary, a 5-meter yard from the northern boundary, and a 10-meter yard from the road frontage. These provisions are bespoke to the specific use and therefore not comparable to the prroposed land use. In comparison, Business Light Industrial zoning generally allows for reduced yards and higher site coverage to maximize usable space for industrial activities.

5.10 Standards for the BLIZ would require a minimum 5 m yard to the east and north boundaries and a 2 m yard to the street front. This compares with a 1 m yard to the north and east boundary and a 3 m front yard for the present MHS zone or MHU zone if PC78 were to take effect inthe future. Whilst the BLIZ zone does not have a specific requirement for landscaping like the MHS and MHU zones, there is a requirement that landscaping be used to mitigate effects on sensitive neighbours such as the neighbouring school and residential uses i.e. where neighbouring zones require higher levels of on-site amenity. In each case, a 3 m planted buffer within the 5 m yard is required to mitigate visual effects. The cumulative role of yard and landscape standards therefore ensures that a 5 m rear yard with 3 m depth of planting is established to manage the effects of the BLI zone on residential and school uses.

5.11 I have already discussed the role of HIRB controls on the proximity of maximum height relative to the shared boundary with results broadly similar to the MHSZ, i.e. 9.58 m at 5.5 m from the boundary compared with 8 m (with complying roof form) 5.5 m from the boundary for the MHSZ or 8.5 m high for the MHU zone. The physical effects of shading evident between the zones results, in negligible additional effects. I acknowledge however the increased massing of BLI zone enabled buildings and in this respect note the additional role of provisions relating to landscaping in mitigating the visual effects of increased building mass.

5.12 In my opinion and experience, the potential benefits and visual mitigation of the 3 m wide planting strip in a 5m wide yard are significant and the width is certainly adequate to allow for larger tree species to establish. The Unitary Plan requires a mixture of trees, shrubs or ground cover plants (including grass) within and along the full extent of the yard to provide a densely planted visual buffer for a depth of at least 3m and which must be appropriately maintained thereafter. This will provide an effective visual screen to neighbours to the north and east.

5.13 Given these factors, my opinion is that the urban design effects of BLIZ development in this location can be effectively managed by the performance standards in the AUP(OP) and that no further controls are required to manage possible effects.

Visual Impact and Neighbourhood Character

5.14 As discussed earlier in this report, the visual character and 'identity' of the surrounding area is complex and not uniform. The transition point of the site between residential and commercial uses presents a built environment of varied visual character, encompassing both larger footprint built forms with smaller domestic scaled buildings. The introduction of a further BLIZ use to the area will not therefore, in my opinion, adversely affect the present character nor is it likely to result in adverse uses incompatible with the neighbouring uses and land use zones. My reasons for this conclusion are influenced by the following physical and spatial elements:

5.15 The site represents the last large single commercial owned land parcel at the northern edge of the BLI zone arrea. Further expansion of the BLI zone in this area is highly unlikely given the multiple residential ownership structures and educational use of the surrounding land. The site therefore represents the last practical opportunity to extend the BLI zone in this area.

5.16 The physical and visual character effects can be reasonably predicted, with multiple development examples existing in the area for comparison. In terms of street frontage character effects, the neighbouring site at 60 Westney Road offers a typical example, with the following visual character informing elements:

a. Generous front yard with parking to the frontage.

b. Administrative/office function facing the street.
c. Smaller built form to the street and larger building volume behind.
d. Two-way vehicle entrance/exit over an extended street frontage (compared with multiple crossings for a residential development)
e. Side yard storage and circulation area.

5.17 These elements result in built forms that are located further from the street frontage than residential buildings.

5.18 The street frontage to the site offers additional mitigating factors because of the street trees established in the berm. Whilst these are not to be relied upon for mitigation, they do nonetheless influence the present character and would be further complementary visual elements to any future BLI zone development.

5.19 I therefore consider that the visual character of the street frontage will not be adversely affected by the proposed plan change and that BLIZ development may be enabled without adverse visual impact or character effects.

6. Conclusion

6.1 The proposed rezoning offers a strategic opportunity to support Auckland's growing demand for industrial land, particularly in areas with close proximity to significant transport infrastructure such as Auckland Airport and State Highway 20.

6.2 The site's location, combined with its existing access and connectivity, established infrastructure, and flat topography, makes it well-suited for light industrial activities. The proposed rezoning is therefore logical within the broader urban fabric of Mangere, where industrial land offers an important employment generator. The proposed change of use therefore aligns with the current zoning patterns to the south and west and is consistent with the Auckland Unitary Plan's objectives for urban growth and economic development.

6.3 While careful consideration must be given to the sensitive boundary relationships with Zayed College for Girls and residential properties on Jaylo Place and Naylors Drive, the urban design response outlined in this report demonstrates that potential adverse effects such as visual impact can be effectively managed. Mitigation strategies, including building setbacks, landscaping buffers, and height-to-boundary controls, ensure that any development under the proposed Business - Light Industry Zone will have minimal impact on the amenity of neighbouring residential and educational uses.

6.4 In addition to addressing these sensitivities, the proposed rezoning brings several urban design benefits. The integration of high-quality landscaping, improved public realm interfaces, and the provision of industrial spaces that respect surrounding land uses can enhance the character and functionality of the area. The flexibility of the Business - Light Industry Zone allows for a variety of building forms and uses that will contribute positively to the economic vitality of the area.

6.5 In conclusion, the proposed rezoningis appropriate from an urban design perspective. The site's strategic location, combined with thoughtful mitigation of boundary sensitivities, ensures that the rezoning will support sustainable growth while maintaining the character and amenity of the surrounding area. The plan change represents a balanced response to Auckland's industrial land needs, providing a foundation for future development that can coexist harmoniously with its residential and educational neighbours.

Appendix

OPTION 1 - MIXED HOUSING SUBURBAN

1 Level 1 - MHS
1 : 500 @ A1

UNIT SCHEDULE - MHS

	TYPE A (DUPLEX) *2 STOREYS*	225m²	30
	TYPE B (TERRACE) *2 STOREYS*	80m²	47
	TYPE C (TERRACE) *2 STOREYS*	160m²	39
	TOTAL UNITS		116
	EXTERNAL CARPARKS		63

50 WESTNEY ROAD, MANGERE

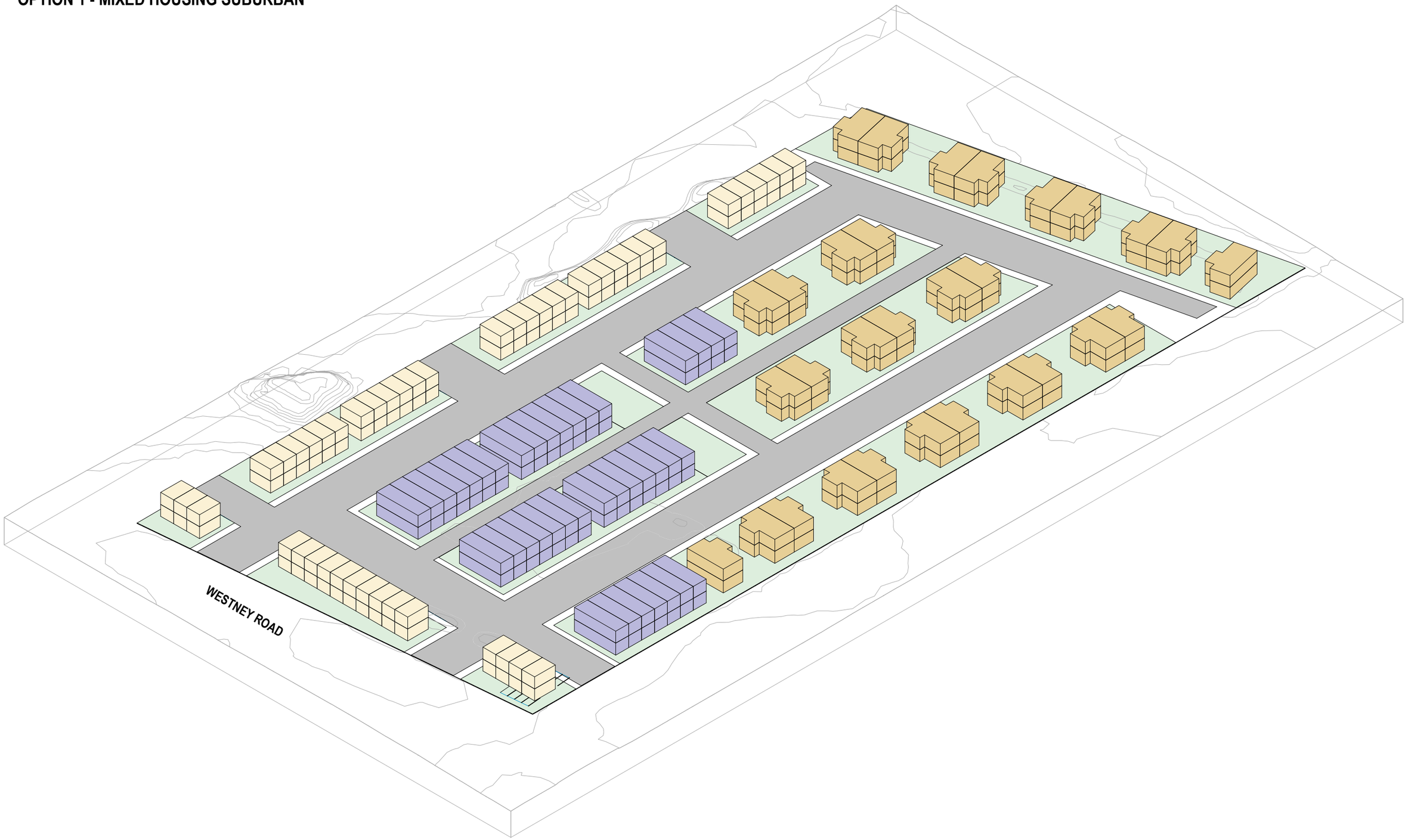
LEGAL DESCRIPTION	PT ALLOT 74 PARISH OF MANUREWA
NET SITE AREA	40363m²
ZONE	MIXED HOUSING SUBURBAN

A1301 OPTION 1 - MHS

BULK & LOCATION
50 WESTNEY RD, MANGERE

FORMiS

OPTION 1 - MIXED HOUSING SUBURBAN



A1302 OPTION 1 - MHS

BULK & LOCATION
50 WESTNEY RD, MANGERE

FORMiS

SUMMER SOLSTICE
9am

SUMMER SOLSTICE
11am

SUMMER SOLSTICE
1pm

SUMMER SOLSTICE
3pm

SUMMER SOLSTICE
5pm

SHADING LEGEND - RESIDENTIAL

SHADING CREATED BY **MHS** MAXIMUM PERMITTED BUILDING HEIGHT (8m)

SHADING CREATED BY **MHU** MAXIMUM PERMITTED BUILDING HEIGHT (11m)

A1303 MHS SHADING - SUMMER SOLSTICE

BULK & LOCATION
50 WESTNEY RD, MANGERE

FORMiS

SPRING EQUINOX
9am

SPRING EQUINOX
11am

SPRING EQUINOX
1pm

SPRING EQUINOX
3pm

SPRING EQUINOX
5pm

SHADING LEGEND - RESIDENTIAL

SHADING CREATED BY **MHS** MAXIMUM PERMITTED BUILDING HEIGHT (8m)

SHADING CREATED BY **MHU** MAXIMUM PERMITTED BUILDING HEIGHT (11m)

A1304 MHS SHADING - SPRING EQUINOX

BULK & LOCATION
50 WESTNEY RD, MANGERE

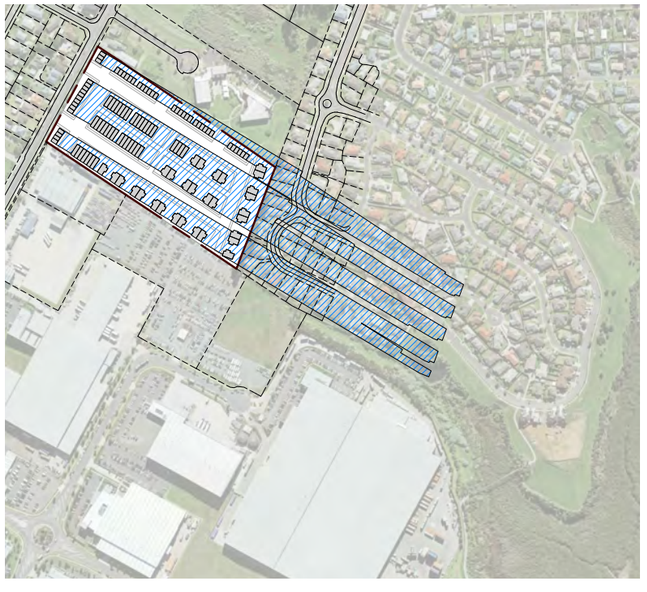
FORMiS

WINTER SOLSTICE
9am

WINTER SOLSTICE
11am

WINTER SOLSTICE
1pm

WINTER SOLSTICE
3pm



WINTER SOLSTICE
5pm

SHADING LEGEND - RESIDENTIAL

SHADING CREATED BY **MHS** MAXIMUM PERMITTED BUILDING HEIGHT (8m)

SHADING CREATED BY **MHU** MAXIMUM PERMITTED BUILDING HEIGHT (11m)

A1305 MHS SHADING - WINTER SOLSTICE

BULK & LOCATION
50 WESTNEY RD, MANGERE

FORMiS

OPTION 2 - MIXED HOUSING URBAN

1 Level 1 - MHU
1 : 500 @ A1

UNIT SCHEDULE - MHU

TYPE A (DUPLEX) *3 STOREYS*	339m²	30
TYPE B (TERRACE) *3 STOREYS*	120m²	47
TYPE C (TERRACE) *3 STOREYS*	240m²	39
TOTAL UNITS		116
EXTERNAL CARPARKS		63

50 WESTNEY ROAD, MANGERE

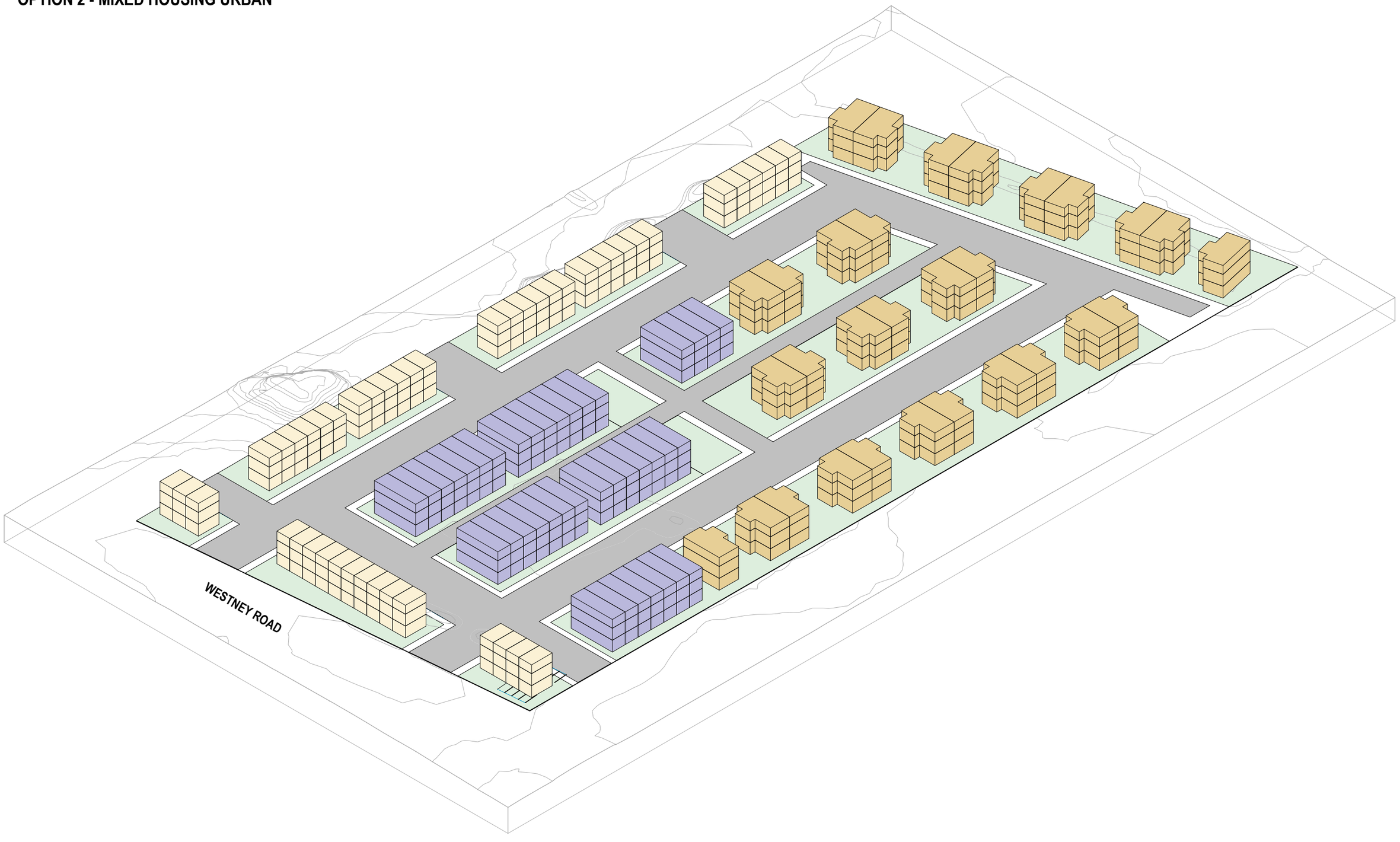
LEGAL DESCRIPTION	PT ALLOT 74 PARISH OF MANUREWA
NET SITE AREA	40363m²
ZONE	MIXED HOUSING SUBURBAN

A1311 OPTION 2 - MHU

BULK & LOCATION
50 WESTNEY RD, MANGERE

FORMiS

OPTION 2 - MIXED HOUSING URBAN



A1312 OPTION 2 - MHU

BULK & LOCATION
50 WESTNEY RD, MANGERE

FORMiS

SUMMER SOLSTICE
9am

SUMMER SOLSTICE
11am

SUMMER SOLSTICE
1pm

SUMMER SOLSTICE
3pm

SUMMER SOLSTICE
5pm

SHADING LEGEND - RESIDENTIAL

SHADING CREATED BY **MHS** MAXIMUM PERMITTED BUILDING HEIGHT (8m)

SHADING CREATED BY **MHU** MAXIMUM PERMITTED BUILDING HEIGHT (11m)

A1313 MHU SHADING - SUMMER SOLSTICE

BULK & LOCATION
50 WESTNEY RD, MANGERE

FORMiS

SPRING EQUINOX
9am

SPRING EQUINOX
11am

SPRING EQUINOX
1pm

SPRING EQUINOX
3pm

SPRING EQUINOX
5pm

SHADING LEGEND - RESIDENTIAL

SHADING CREATED BY **MHS** MAXIMUM PERMITTED BUILDING HEIGHT (8m)

SHADING CREATED BY **MHU** MAXIMUM PERMITTED BUILDING HEIGHT (11m)

A1314 MHU SHADING - SPRING EQUINOX

BULK & LOCATION
50 WESTNEY RD, MANGERE

FORMiS

WINTER SOLSTICE
9am

WINTER SOLSTICE
11am

WINTER SOLSTICE
1pm

WINTER SOLSTICE
3pm

WINTER SOLSTICE
5pm

SHADING LEGEND - RESIDENTIAL

SHADING CREATED BY **MHS** MAXIMUM PERMITTED BUILDING HEIGHT (8m)

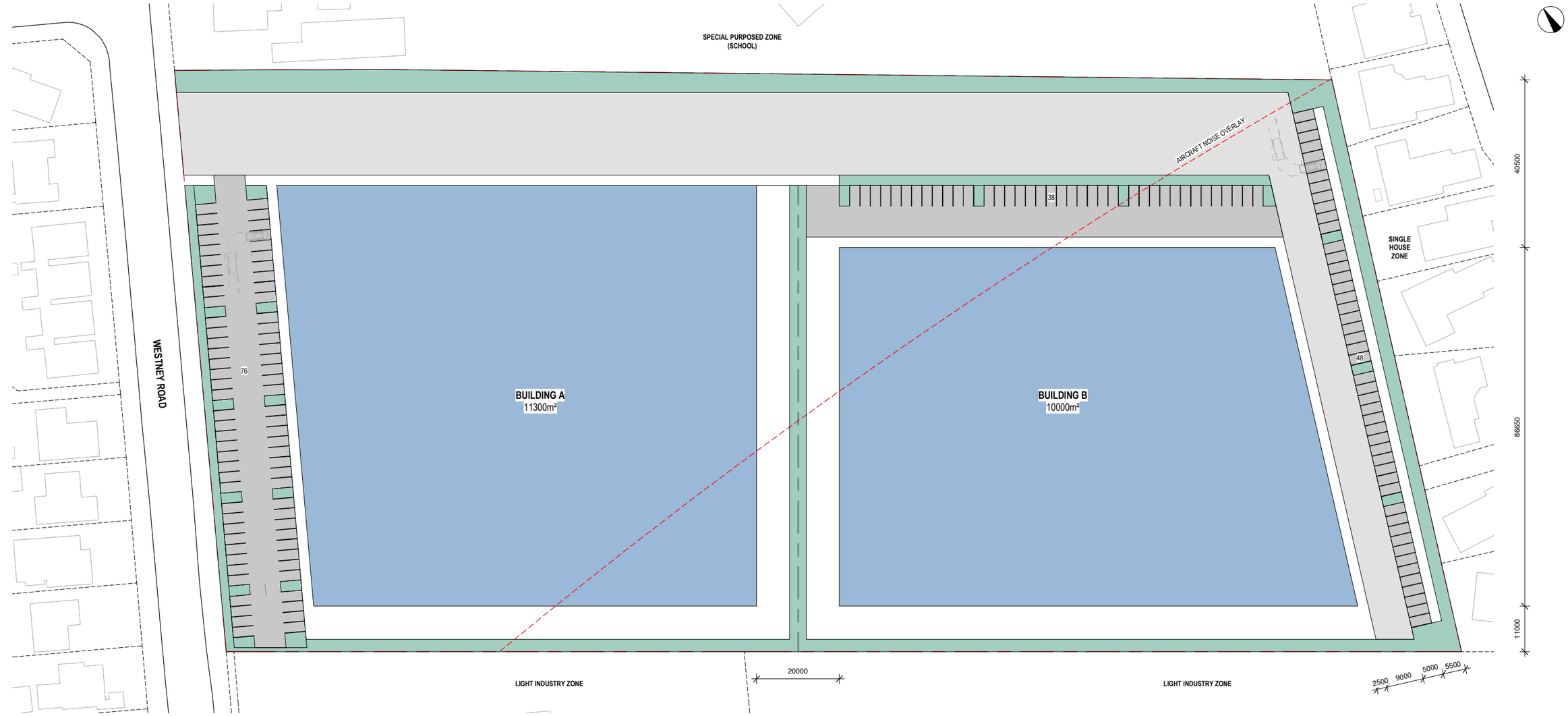
SHADING CREATED BY **MHU** MAXIMUM PERMITTED BUILDING HEIGHT (11m)

A1315 MHU SHADING - WINTER SOLSTICE

BULK & LOCATION
50 WESTNEY RD, MANGERE

FORMiS

OPTION 3 - LIGHT INDUSTRIAL



1 Level 1 - INDUSTRIAL
1 : 500 @ A1

UNIT SCHEDULE - INDUSTRIAL

FOOTPRINT AREA*	**21300m²**
TOTAL CARPARKS	**162**

* AREA CALCULATED FOR BUILDING FOOTPRINT ONLY. POTENTIAL UPPER LEVELS ARE EXCLUDED FROM AREA CALC

50 WESTNEY ROAD, MANGERE

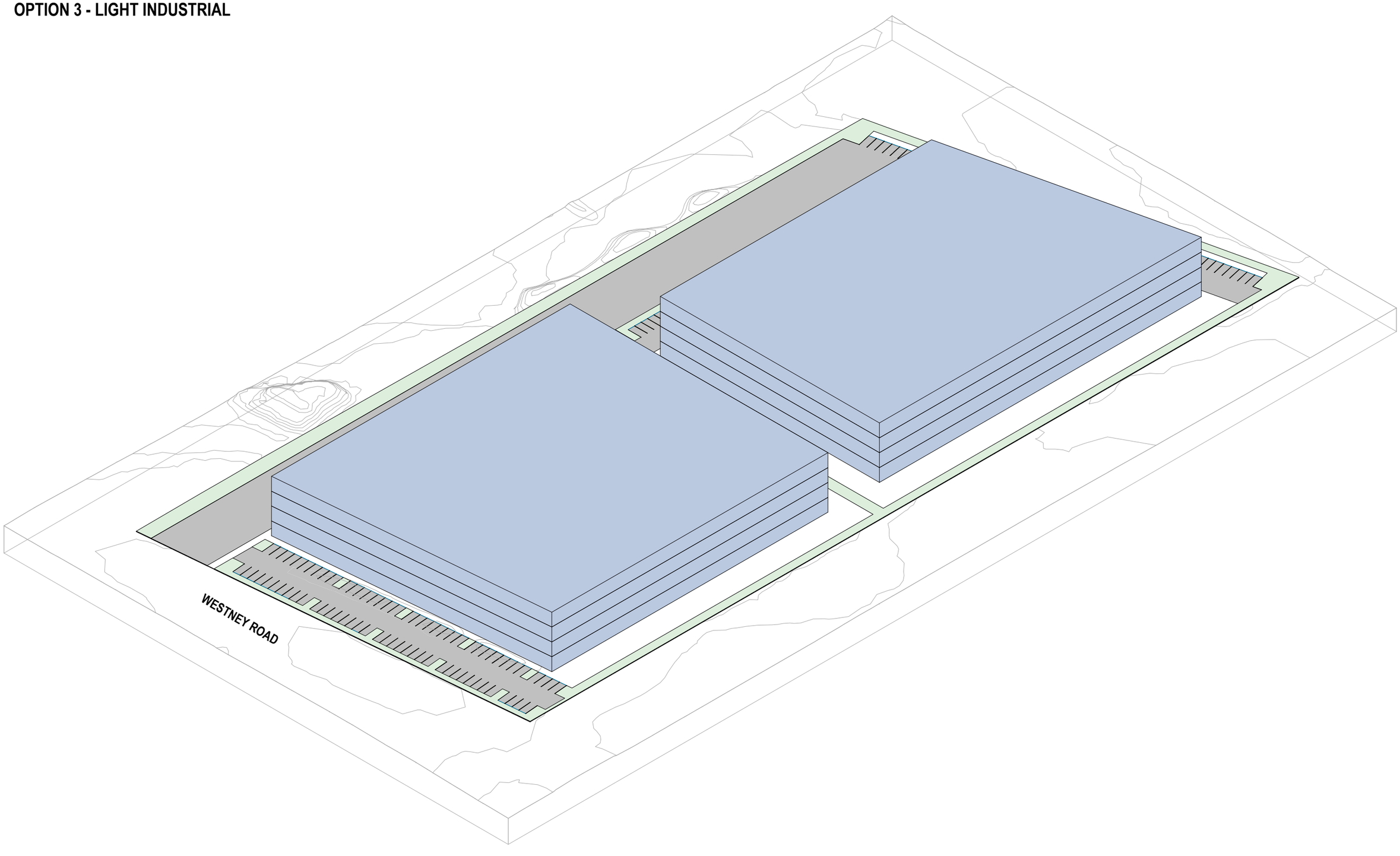
LEGAL DESCRIPTION	PT ALLOT 74 PARISH OF MANUREWA
NET SITE AREA	40363m²
ZONE	MIXED HOUSING SUBURBAN

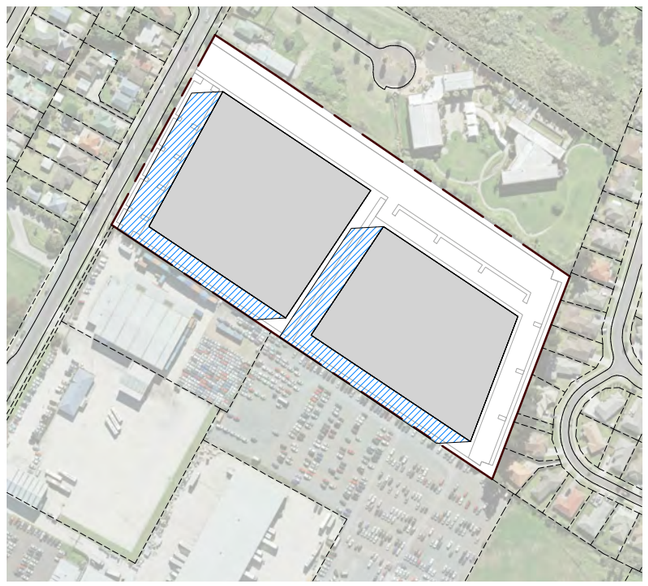
A1321 OPTION 3 - INDUSTRIAL

BULK & LOCATION
50 WESTNEY RD, MANGERE

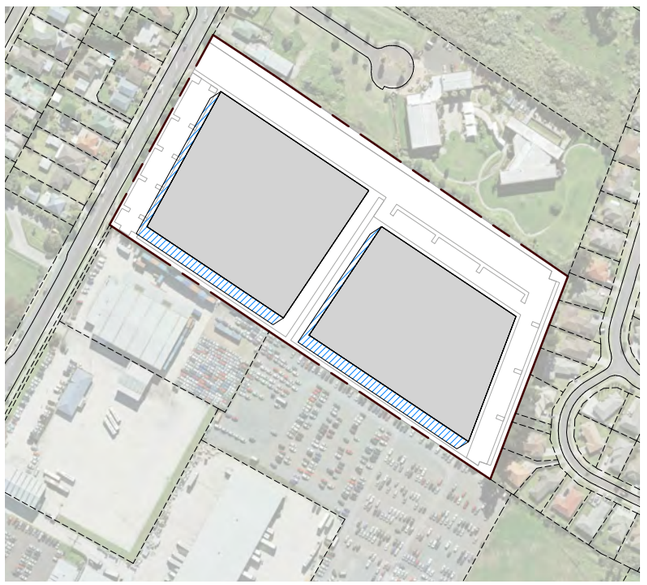
FORMiS

OPTION 3 - LIGHT INDUSTRIAL

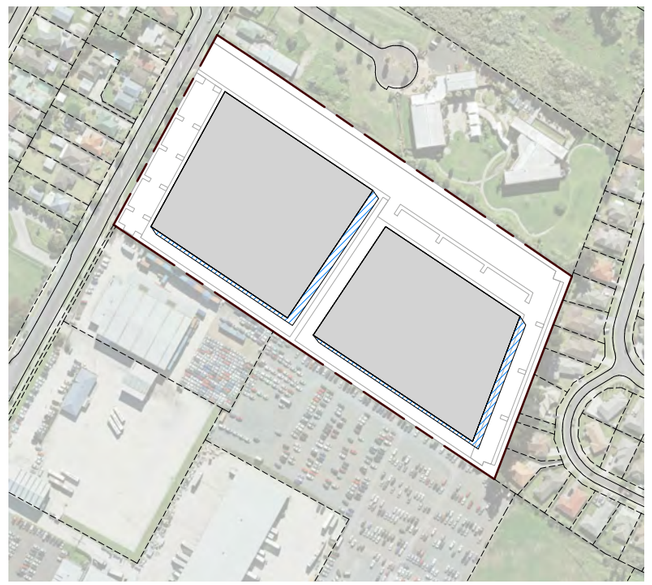




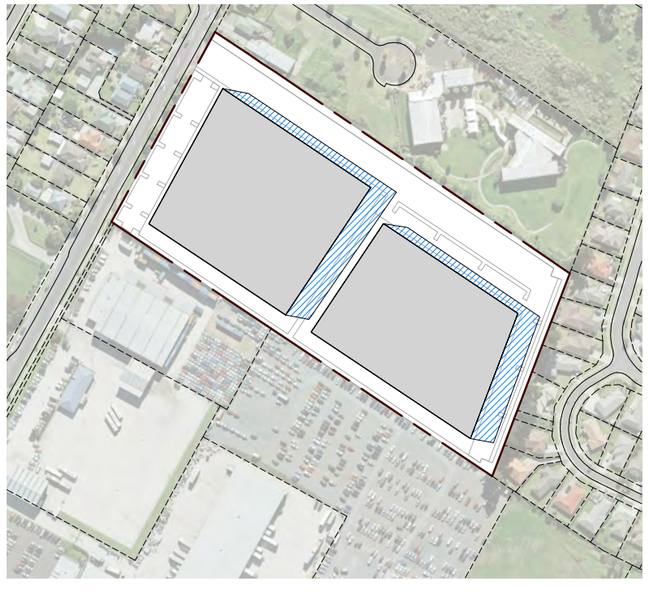
SUMMER SOLSTICE
9am



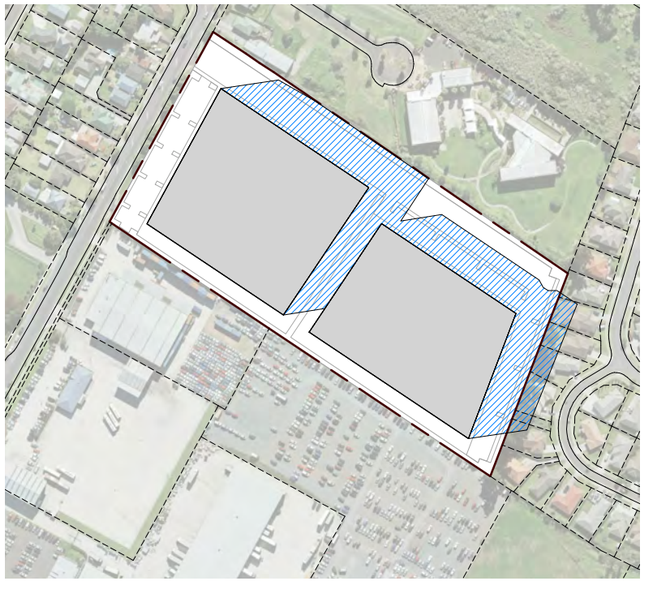
SUMMER SOLSTICE
11am



SUMMER SOLSTICE
1pm



SUMMER SOLSTICE
3pm



SUMMER SOLSTICE
5pm

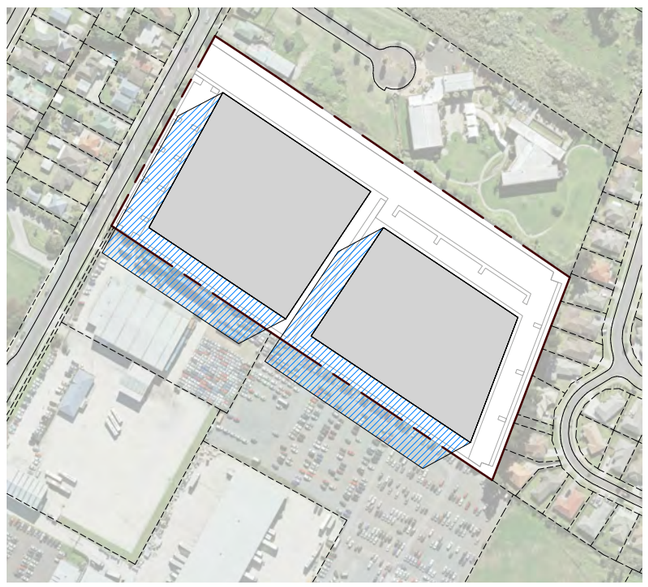
SHADING LEGEND - INDUSTRIAL

SHADING CREATED BY MAXIMUM
PERMITTED BUILDING HEIGHT (20m)

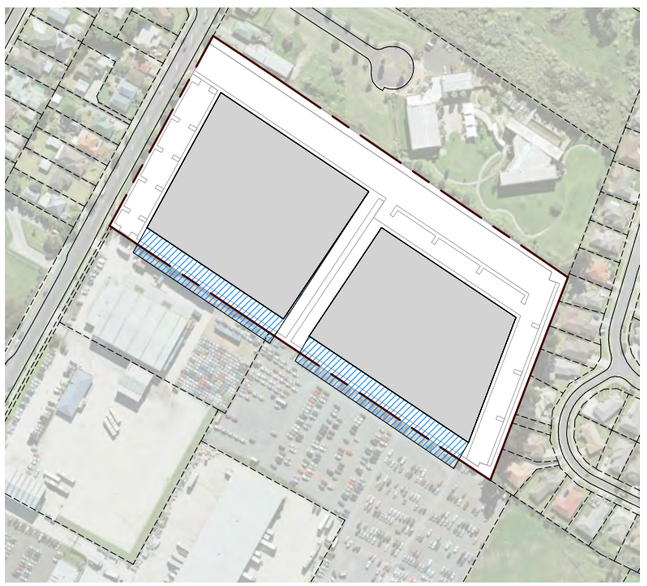
A1323 INDUSTRIAL SHADING - SUMMER SOLSTICE

BULK & LOCATION
50 WESTNEY RD, MANGERE

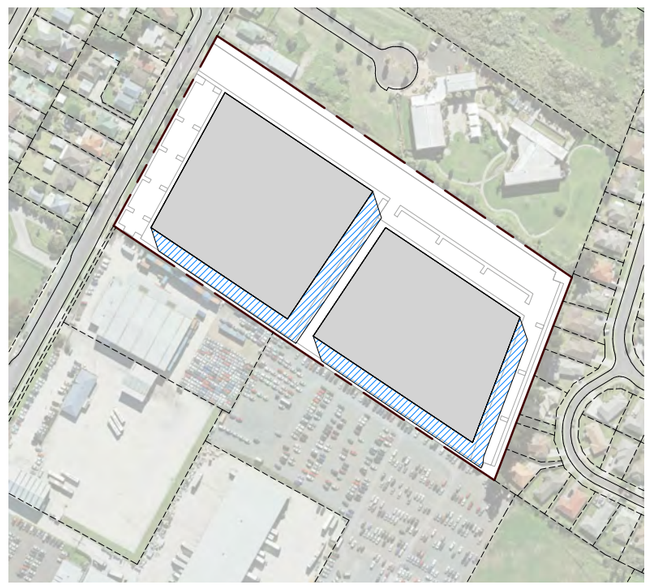
FORMiS



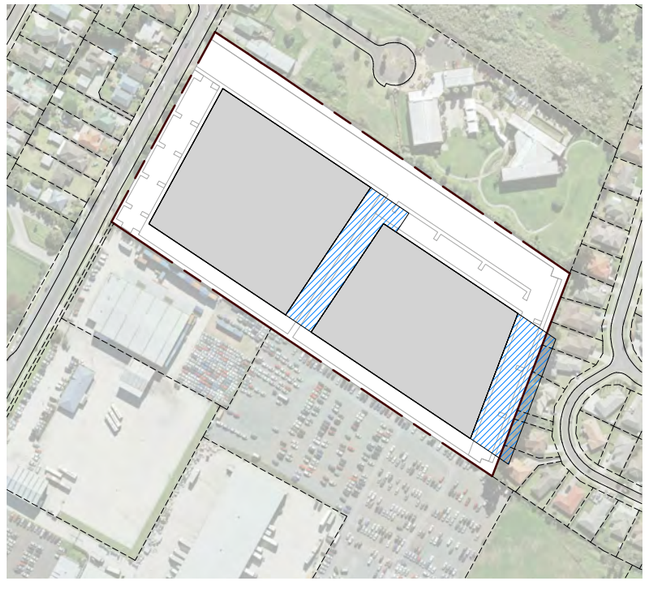
SPRING EQUINOX
9am



SPRING EQUINOX
11am



SPRING EQUINOX
1pm



SPRING EQUINOX
3pm

SPRING EQUINOX
5pm

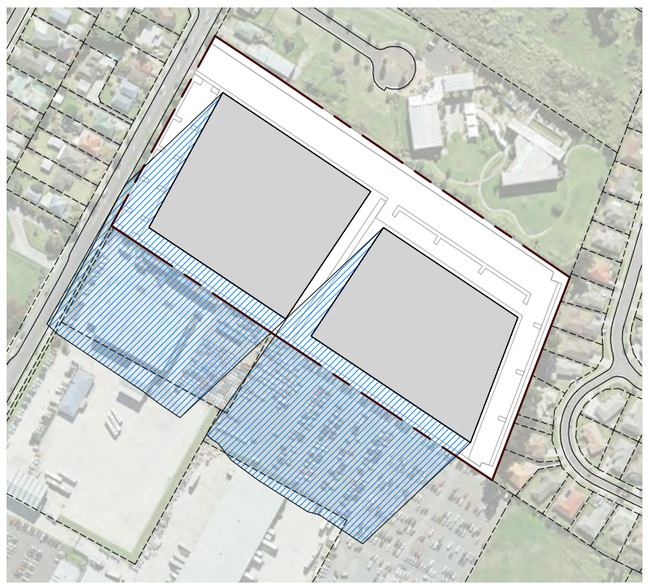
SHADING LEGEND - INDUSTRIAL

SHADING CREATED BY MAXIMUM
PERMITTED BUILDING HEIGHT (20m)

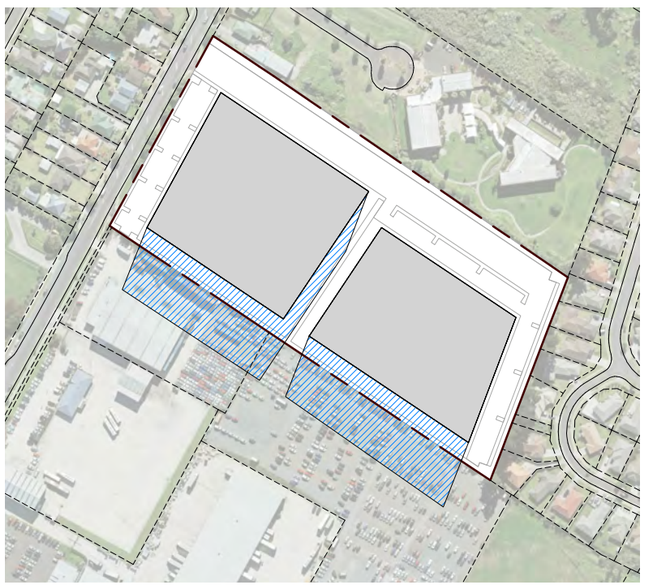
A1324 INDUSTRIAL SHADING - SPRING EQUINOX

BULK & LOCATION
50 WESTNEY RD, MANGERE

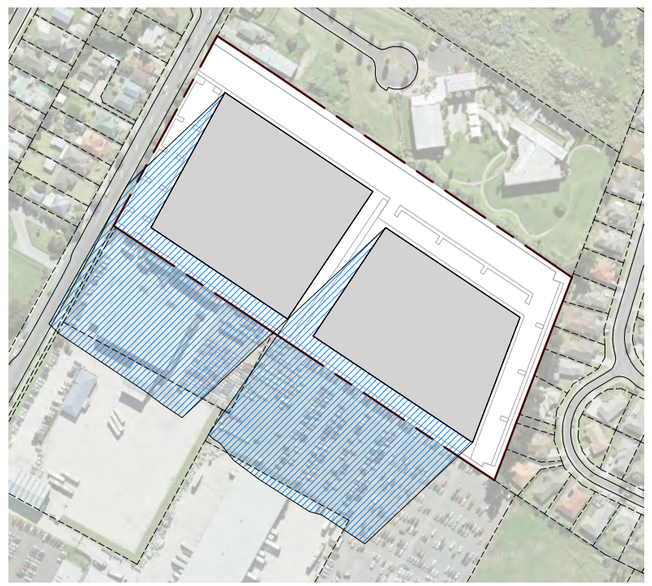
FORMiS



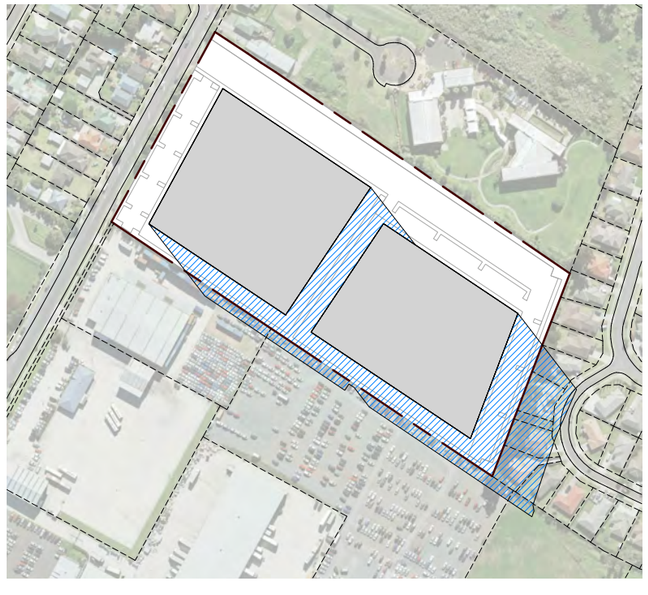
WINTER SOLSTICE
9am



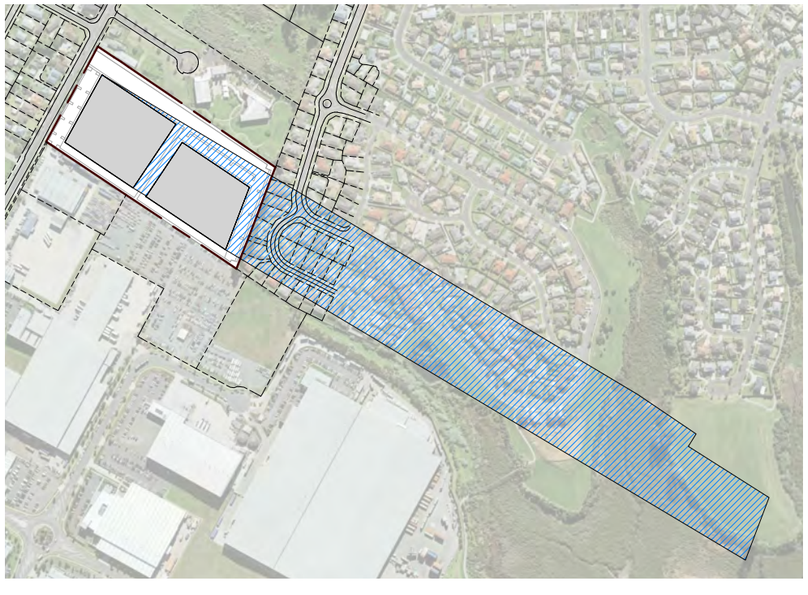
WINTER SOLSTICE
11am



WINTER SOLSTICE
1pm



WINTER SOLSTICE
3pm



WINTER SOLSTICE
5pm

SHADING LEGEND - INDUSTRIAL

SHADING CREATED BY MAXIMUM
PERMITTED BUILDING HEIGHT (20m)

A1325 INDUSTRIAL SHADING - WINTER SOLSTICE

BULK & LOCATION
50 WESTNEY RD, MANGERE

FORMiS