Urban Design Memorandum

To: Brymer Farm Limited

From: Katherine Hu – Barker & Associates Limited

Date: 15 April 2025

Re: **Urban Design Memorandum for Brymer Referral Application**

1.0 Introduction

Brymer Farms Limited proposes to lodge an application for a referral project under the Fast Track Approvals Act (2024) to utilise the fast-track consenting process via an expert consenting panel. This application, known as **Brymer**, relates to the subject site located at 127 Brymer Road (the '**Site**').

To support the referral application, this memorandum provides a high-level assessment of the urban design aspects of the development, including:

- Summary of the proposal and the Site's key characteristics;
- Preliminary assessment of the proposal against relevant policy documents;
- Summary of key known constraints and assumptions;
- Summary of key urban design opportunities and design response;
- Potential effects to be considered and potential mitigations;
- Preliminary recommendations and conclusion.

This memorandum should be read in conjunction with **Appendix 1 - Urban Design Drawing Package**, prepared by Barker & Associates Limited and dated April 2025.

Should the project be successful in referring to the Fast-track EPA process, a full Urban Design Assessment will be prepared and lodged as part of the full resource consent application.

2.0 Project Description and Summary

Brymer Farms Limited engaged Barker & Associates ('**B&A**') to provide planning services for the master planning, consenting and design of *the Site*. The Site is located on the northwestern urban fringe of Hamilton City and bounded to the south by State Highway 23 to Raglan. To the northeast, the Site is bounded by Brymer Road and the Hamilton City boundary to the east. The Site is made up of 5 lots of land ranging in size from 677m^2 through to 57.917ha. The combined land area for the 5 lots is approximately 80.993ha. A drain splits the combined Site into two areas to the north and south as it aligns east to west through the middle of the Site and bounds part of the Site to the south.

Brymer Farms Limited, as the applicant, engaged Barker & Associates ('B&A') to provide planning services for the master planning, consenting and design of Brymer. Brymer is a residential development that comprises circa 1,650 residential units of varying typologies, such as detached, duplexes, terraces, apartment units and retirement village units, along with a supporting mixed-use neighbourhood centre,

open spaces, and infrastructure. The Brymer Masterplan is shown in Figure 1, and contained within the Urban Design Memorandum.

The residential community is underpinned by a series of design principles, which focus on creating a well-connected, legible and diverse community on Hamilton City's urban fringe. The proposed transport network, with a 20-metre-wide spine road running north-to-south, is supported by local roads, cycle connections and pedestrian pathways to create an accessible and legible development. As aforementioned, a range of housing typologies and densities are proposed to meet the growing and changing needs of the housing market to ensure there are options for future residents. Each typology has been thoughtfully located, based on opportunities and constraints, with density ranging from terraces, duplexes and standalone dwellings to ensure integration with the adjoining urban footprint.

In the heart of Brymer is a 0.3 hectare mixed-use neighbourhood centre that will provide a range of amenities and services to support the residential development. This mixed-use neighbourhood centre will likely include commercial properties, cafés and a local superette. Apartment units are provided above the neighbourhood centre. The commercial element of the residential development has been scaled to support the density proposed, located directly adjacent to the majority of apartment building typology.

Sitting at the higher, northern point of the site is a retirement village, that comprises approximately 3.4 hectares, and provides villa terraces, apartment units and an amenity building. This will be serviced by its own private transport network, infrastructure, and high amenity open spaces.

Integrated throughout the residential development are a number of open spaces that are well distributed to create a highly amenable community that will be a pleasant and enjoyable place to live for future residents. The open spaces support ecological restoration through the retention of a number of natural wetlands and riparian revegetation.

The development will be appropriately serviced via a robust infrastructure strategy, which includes a new pump station, wastewater discharge and treatment area, stormwater ponds, and utilisation of the existing water bores.

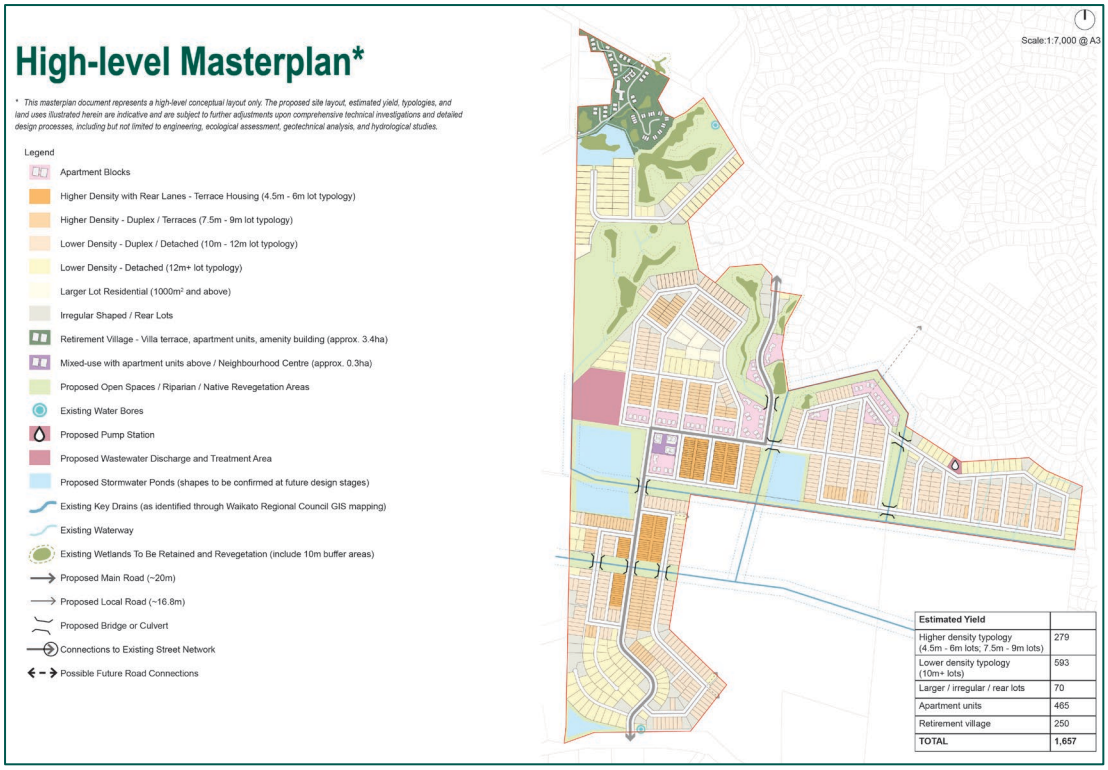

Figure 1 Overall High-level Masterplan

3.0 Site and Context Analysis Summary

B&A undertook a comprehensive site and accessibility analysis, which has been included in **Appendix 1**.

The Brymer Site covers approximately 81 hectares and is strategically located at the north-western urban edge of Hamilton City, immediately adjacent to the residential communities of Grandview Heights and Western Heights. The Site consists of five lots varying significantly in size, from 677m² to 57.917 hectares, cumulatively forming an extensive greenfield area intended for urban growth.

The Site is bordered to the northeast by Brymer Road and to the south by State Highway 23 (**SH23**) connecting Hamilton City to Raglan. It lies at the interface between Hamilton City's urban boundary and rural landscapes administered by the Waikato District Council.

The Site is characterised by challenging topography, with varied slopes that create a diverse but complex terrain. Slopes predominantly range from gentle gradients (<12%) in central areas to steep gradients (>25%) in the central-western and southern portions, necessitating specific geotechnical and structural engineering approaches.

Elevation ranges significantly across the Site, with areas of higher elevation providing potential panoramic views towards surrounding landscapes but also posing construction and servicing challenges.

The Site contains several prominent hydrological features including a major existing drain that runs east-west across the Site, forming a significant barrier for internal vehicular and pedestrian connectivity, necessitating infrastructure solutions such as bridges or culverts.

There are also several existing natural wetlands and ponds, notably the central pond, which potentially would provide natural habitats that are ecologically sensitive, requiring protection and enhancement as part

of urban development. Modified and ephemeral watercourses also traverse the Site, providing opportunities for ecological rehabilitation and biodiversity enhancement through careful design.

Accessibility to the Site is currently through Brymer Road and State Highway 23 currently provides limited vehicular access points into the Site.

In terms of surrounding land uses and amenities, the Site is well-situated relative to existing amenities and community infrastructures. In particular, the Site is directly borders Te Kootii Park, providing recreational facilities including a playground, cricket pitch, and large open spaces, along with direct pedestrian and cycling connections to nearby residential neighbourhoods and amenities. The Site is also in close proximity to Waiwhakareke Heritage Reserve and Hamilton Zoo which provides additional amenity and educational opportunities, enhancing community and ecological values.

Nearby community amenities in the surrounding suburbs of Nawton and Dinsdale include supermarkets, medical services, primary and intermediate schools, and secondary schools, supporting future residential growth on the Site.

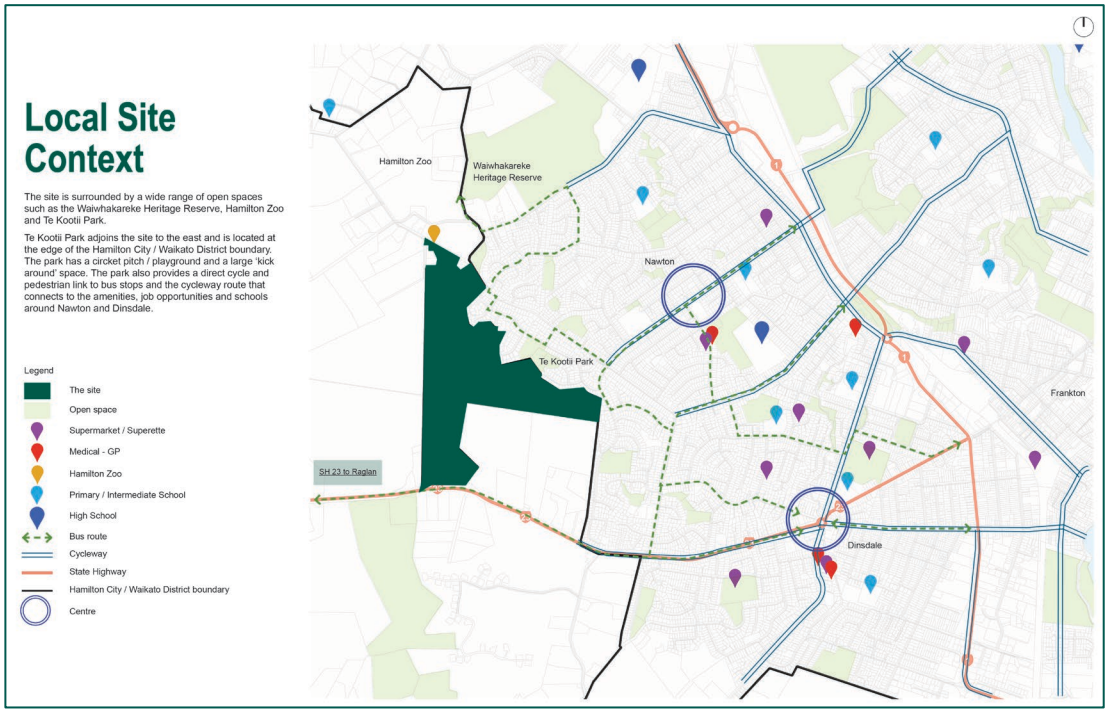

Figure 2 Local Site Context and Brymer Masterplan Area

4.0 Statutory Policy Documents

National direction from the central government supports and guides local decision-making under the Resource Management Act (**RMA**). Issued under the RMA, national policy statements (**NPS**) provide national direction for matters of national significance relevant to sustainable management. The RMA requires local authorities to give effect to an NPS by amending planning documents to meet the requirements. This section considers and addresses the key strategic considerations and national directions that are relevant to Ashbourne.

4.1 National Policy Statement on Urban Development

The National Policy Statement Urban Development (**NPSUD**) identifies the Waikato District as a Tier 1 territorial authority. This requires Council to take a strategic approach and determine future needs for the short, medium and long terms to meet the expected demand for housing and provide the development capacity to meet expected demand for business land.

This high-level Masterplan is generally consistent and in alignment with the NPSUD in the following ways:

- The Site is a large landholding on the edge of the existing Hamilton urban area, where a holistic approach is being taken to deliver a well-functioning urban environment. It will enable people to provide for their social, economic, and cultural wellbeing now and into the future. In particular, the Site can assist with delivering a good level of development capacity to meet the demand for housing and business land. It is anticipated that the Site can deliver over 1,600 residential units and retirement units and 3,000m^2 of business land.
- Intensification outcomes are being enabled through the provision for higher-density housing around the key movement routes, commercial nodes and public amenities. This is consistent with Objective 3 and Policy 3 of the NPSUD.
- The Masterplan illustrates the opportunities for accessibility and connections with the existing urban fabric and roading network. It encourages and promotes active transport through a range of walking and cycling options to housing, jobs, community services, natural spaces and open spaces.
- The provision of infrastructure in terms of the development capacity that will be enabled has been considered. It is intended that infrastructure will be delivered through a staged approach and could be funded privately but also alongside and in conjunction with the territorial authority.

4.2 2024 Future Proof Strategy

The Future Proof Strategy is a 30-year growth management and implementation plan for the Hamilton, Waipā, Waikato and Matamata-Piako sub-regions. The Strategy is essential to managing growth in a staged and coordinated way while addressing complex planning issues. The Strategy incorporates seven transformational moves for change:

- Iwi aspirations;
- Waikato River at the heart;
- A comprehensive and fundamental evolution of our transport system;
- A vibrant metro core and lively metropolitan centres;
- A strong and productive economic corridor;
- Thriving communities and neighbourhoods; and
- Water-wise and water-sensitive communities.

The design principles and design process followed in the Brymer Masterplan will give effect to the relevant transformational moves. Enabling Brymer's comprehensive development will achieve the vision of the Strategy by improving housing affordability and choices, improving access to employment, education and

services, contributing to the low greenhouse gas emissions economy, providing resilience to natural environment and landscape, and enabling quality-built environments.

4.3 Waikato District Plan and Hamilton City District Plan

The Site is currently zoned General Rural under the Waikato District Plan, indicating its current primary use for rural activities and highlighting the need for rezoning or special planning processes to facilitate urban development. The adjacent residential areas along the Hamilton City boundary are zoned as General Residential, which indicates potential for cohesive urban integration subject to planning changes.

While urban design assessment is informed by urban design principles and practice, urban design-related content in the District Plan provides a further frame of reference. Note that this memorandum does not systematically assess against the relevant objectives, however, a summary of key District Plan matters (both Waikato District Plan and Hamilton City District Plan) for consideration is outlined below.

- Providing for intensified urban development in an existing rural context where it supports a quality compact urban form and a range of housing typologies.
- Enabling lower residential density around most of the edges will provide an appropriate transition between the rural residential area to the Site while enabling higher levels of intensification and growth along public transport corridors and near open space.
- Subdivision and development respond to the physical characteristics and intrinsic qualities of the Site and achieve attractive and safe streets.
- Providing quality on-site amenities for residents and meeting their day-to-day needs by providing privacy, outlook, daylight, sunlight, and necessary amenities.
- Managing building height and bulk to maintain daylight access, and a reasonable level of privacy, and to minimise visual dominance effects to adjoining sites.
- Ensuring that infrastructure is in place or can be provided to support new development.
- Promotes the efficient use of land and enables a range of built forms to support choice for a diverse and growing population. Recognising that design quality is increasingly important as the scale of development increases.

5.0 Summary of Key Constraints and Assumptions

A range of significant constraints and assumptions that could influence the Masterplan's design response have been identified and informed by the high-level specialist input, including geotechnical, ecological, stormwater, and transport assessments:

Topography and Geotechnical Conditions

- The Site includes extensive areas with slopes exceeding 25 degrees, particularly in northern and southern portions. These slopes are prone to instability and erosion and may significantly restrict potential building platforms. Certain sections would require careful geotechnical investigation and necessitate specific slope stability assessments and detailed engineering solutions to ensure safe and feasible development.

- Significant areas contain soft, shallow peat soils and potentially liquefiable soils, requiring comprehensive ground remediation, engineered fill, and potentially limiting the typologies of housing that can be safely constructed.

Ecological and Hydrological Constraints

- Several modified streams, ephemeral watercourses, and existing wetlands traverse the Site, creating ecological sensitivities and hydrological constraints. Regulatory buffers of 10-20 metres are also required around all existing watercourses and wetlands. These buffers significantly reduce developable areas but present opportunities for ecological restoration, stormwater management, and passive recreation.
- An existing central drain divides the Site, posing a barrier for continuous vehicular and pedestrian access and potentially influencing overall connectivity. Modification or bridging structures will require specific approvals and careful integration into the Masterplan.

Access and Transport Infrastructure

- Current access points from Brymer Road and SH23 are limited, restricting vehicular entry and creating potential congestion points. Additional access points and connections to surrounding road networks would be recommended and are assumed necessary, subject to council approvals.
- The proposal assumes the feasibility of creating several new road and pedestrian connection points, including a potential road link through Te Kootii Park. This connection is dependent on the Reserve Management Plan and Hamilton City Council's agreement, which may influence site accessibility significantly.

Three Waters Infrastructure Provisions

- The Masterplan proposes on-site Membrane Bioreactor (MBR) wastewater treatment plants and local water supply systems. It assumes that these private infrastructures will be viable solutions acceptable to regulatory authorities.
- There are existing ponds on-site which must be preserved and enhanced. New stormwater management features (ponds and wetlands) are proposed but will require detailed hydrological and engineering assessments to confirm their location, size, and efficacy. In addition, the management of stormwater discharges into the Waikato Central Drainage Scheme requires assumptions around capacity and infrastructure upgrades. Detailed discussions with council infrastructure teams will be necessary to validate these assumptions.

General Assumptions

- The proposed housing typologies and densities are based on preliminary yield assumptions, recognising that exact numbers may vary following detailed site investigations and design stages.
- Assumptions have been made regarding the provision and scale of local amenities (e.g., neighbourhood centre, parks) adequate to support the anticipated residential population. Further demographic and economic analysis may influence the size and exact nature of these facilities.

6.0 Urban Design Opportunities and Design Response

Key opportunities were also identified as part of the master planning process and have informed the overall design response of the Masterplan. These include:

- The provision of a legible and connected network throughout the Site, as well as connection to the existing street network. This includes vehicular and active mode connections to the existing roading network, encouraging connectivity and accessibility.
- The opportunity for a thorough connection to Brymer Road and Grandview Road, via Te Kooti Park and the neighbouring property to the east is maintained. Additional opportunities to create active transport connections to the surrounding residential context are also maintained.
- Providing a range of medium-density housing typologies to meet diverse community needs, strategically located to respond to site constraints and adjacent amenities. Introduction of larger lots for areas with topographic constraints. This will assist in creating feasible building platforms without the requirement of extensive earthworks. This will also assist in retaining and responding to the existing rolling ridgelines.
- Housing to accommodate a growing aging population in Waikato through the provision of a retirement village. This will introduce a mixture of typologies with supporting amenity facilities. The retirement village design provides opportunities to be designed logically and legibly to respond to the shape, orientation, and physical edges of the Site, as well as contributing to housing and age-care demands and needs for the community.
- Establishing a compact commercial node to support local needs and community interaction. The node and adjacent green spaces are proposed to be separated from residential development by the proposed street network. This will reduce possible reverse sensitivity effects, and allow both the residential development and commercial development to provide activation and passive surveillance to the public realm within the development.
- The proposal will naturalise drains and wetlands to create green infrastructure. The proposed green and open spaces will create public amenity spaces and enhanced ecological values, connectivity, and recreational opportunities.

7.0 Potential Urban Design Effects

- The introduction of medium-density residential typologies (such as duplexes, terraces, apartments, and zero-lot homes) and a retirement village adjacent within a previously rural context can result in visual changes to the existing environment, potentially leading to adverse visual and amenity effects to the adjacent existing rural and lower-density residential areas.
- There are unavoidable effects created by the irregular shape of the Site which can lead to less legible and well-connected street and block arrangements. This also means the orientation of some lots cannot maximise sunlight access.
- The Site's steep terrain and unstable soil conditions present challenges for residential construction, potentially affecting buildable areas, street layout, housing orientation, and overall legibility of neighbourhoods.

- The introduction of residential development near existing rural and ecological features could generate reverse sensitivity effects, such as conflicts arising from noise, odour, visual privacy, or general rural activities.
- Potential incompatibilities between retirement living or lifestyle precincts and adjacent residential or ecological areas could result in visual dominance, privacy impacts, or inadequate integration with the surrounding public realm.
- The existing central drain and limited access points create a potential barrier to the effective integration of new residential areas into existing neighbourhoods, affecting movement patterns and accessibility.
- The establishment of a new neighbourhood centre may affect the economic viability and vitality of existing local centres. Increased intensity of commercial activities may generate visual amenity effects, increased traffic, noise, lighting spill, and signage impacts, particularly affecting residential interfaces.
- Increased commercial activities and public open spaces create potential safety risks without careful design, potentially leading to isolated or areas with poor CPTED outcomes.
- Intensified activities near sensitive ecological areas such as wetlands and watercourses could disturb local biodiversity and impact hydrological regimes.

8.0 Potential Mitigations

- Sensitive Density Distribution: Locate higher to medium-density typologies centrally within the Site, transitioning to lower densities and retirement village development at boundaries to minimise visual impact on adjacent residential and rural properties.
- Comprehensive Development Controls and Design Guidelines: Develop a set of development controls and urban design guidelines to control building form, bulk, and scale, ensuring sensitive integration into existing landscapes and minimising potential visual dominance and privacy concerns.
- Connectivity Enhancements: Design and implement bridge structures, culverts, and pathways across the existing drain to enhance pedestrian, cycling, and vehicular connectivity and ensure cohesive integration with the existing urban fabric.
- Reverse Sensitivity Management: Implement appropriate buffer areas, vegetation screens, and setbacks to reduce potential reverse sensitivity conflicts between new residential areas and existing rural or ecological features.
- Amenity and Interface Treatments: Employ comprehensive landscape treatments, vegetative screening, setbacks, and careful building orientation to sensitively integrate new development into the existing rural landscape, maintaining visual amenity and reducing perceived dominance.
- Scale Transition Treatments: Implement staged height limits, stepped setbacks, and boundary treatments (e.g., fencing and landscaping) to sensitively manage transitions in density and scale adjacent to existing neighbourhoods or ecological features.
- Enhanced Public Safety (CPTED): Design public spaces and commercial areas following CPTED principles, ensuring clear sightlines, appropriate lighting, active frontages, and surveillance from adjacent buildings and public areas.

- **Scale and Activity Management:** Carefully scale the neighbourhood centre to complement, rather than compete with, existing commercial areas, focusing on daily local convenience services.
- **Stormwater and Ecological Integration:** Implement integrated stormwater management systems (wetlands, ponds, riparian zones) within open-space corridors, reducing infrastructure strain and enhancing ecological and recreational value. Provide ecological buffers, native vegetation restoration, naturalised stormwater management features, and controlled pedestrian and cycle paths to mitigate ecological impacts and enhance biodiversity outcomes.
- **Geotechnical and Ecological Solutions:** Undertake detailed geotechnical and ecological investigations and slope stability assessments to inform engineering design solutions that respect site constraints, such as contour-sensitive housing layouts, retaining structures, and earthworks minimisation.

9.0 Preliminary Recommendations and Conclusion

Having undertaken a high-level urban design assessment, it is considered that the overall Brymer Masterplan can be supported from an urban design perspective, subject to the recommendations outlined below. Subject to detailed design, further technical assessments, and mitigations outlined above, the proposal has the potential to deliver a high-quality, integrated, and sustainable community that positively responds to the unique character and context of its location.

Preliminary recommendations include:

- Undertake further technical assessments to ensure infrastructure provision and the ecological, geotechnical, and topographical considerations are coordinated with urban design outcomes and mitigations.
- Proposed zoning provisions should allow for residential dwellings with a massing that can appropriately respond to the surrounding private and public realm, as well as to have an appropriate degree of residential amenity. Matters to be considered include overshadowing, outlook, passive surveillance, space functionality, solar orientation, privacy and indoor-outdoor connections.
- Develop a comprehensive design guide to ensure high-quality architectural and landscape design outcomes. The design guide should at the minimum include the consideration of visual massing, scale, façade, fencing and landscaping, and design responses to the frontages and streetscape interfaces. The design guide is to ensure that quality urban design and landscape outcomes are maintained during the development and lifetime of the subdivision.

In conclusion, subject to these recommendations, the Brymer Masterplan will represent an appropriate urban design response to support sustainable residential growth at the urban boundary.

10.0 Qualifications and Experience

Barker & Associates is a specialist planning consultancy founded in 1997, with a team of more than 45 planning and urban design staff operating out of Kerikeri, Whangārei, Warkworth, Auckland, Tauranga, Hamilton, Cambridge, Hastings, Wellington, Christchurch, Queenstown and Wānaka offices.

Katherine Hu (BPlan (hons); MUDes) is an Associate – Urban Designers at Barker & Associates. *Katherine* has had over eight years of professional experience as an urban planner and urban designer in both the public and private sectors in New Zealand. Katherine has experience working on urban design review, spatial

and strategic planning, master planning as well as non-statutory place-making projects. Katherine's experience also includes plan changes resource consenting and development of key design documentation and urban design guidelines.

Brymer Road Development

Brymer Road
Masterplan for FT Referral

B&A
Urban & Environmental

B&A
Urban & Environmental

Project
Brymer Road development - Fast-track Referral (JN # 25871)

Prepared for
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Document Status
16/04/2025 - For Review - Rev A

Contents

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1.0 Introduction

1.1 Introduction

This drawing pack has been prepared to support the application for a referral project under the Fast Track Approvals Act (2024) at 127 Brymer Road, to accomodate future urban growth. This drawing pack should be read in conjuction with the associated urban design memo prepared by Baker & Associates (B&A).

The site is located on the north western urban fringe of Hamilton City, and bounded to the south by State Highway 23 to Raglan. To the north east, the site is bounded by Brymer Road and the Hamilton City boundary to the east.

Specifically this drawing pack seeks to provide the following:

- An understanding and high-level analysis of the site in context to the Hamilton City area, in particular to the existing and planned for movement and landuse patterns of Hamilton City;
- An analysis of constraints that impact the urban development of the site, including overlaying the specialists' reports and the issues they have identified that impact spatial outcomes within the site;
- An analysis of the spatial opportunities the site presents in terms of urban development including recommendations from the specialists' reports;
- A recommendation for a high level masterplan that illustrates the spatial form outcomes for urban development of the site that reflects the above analysis of the sites' context, its constraints and its potential opportunities.

The site is located within the jurisdiction of the Waikato District Council (**WDC**) and to the west of Hamilton City, just outside of Grandview Heights and Western Heights. The land is currently zoned Rural within the Waikato District Plan with the land to the east and within the Hamilton city area, is zoned residential.

The site is made up of 5 lots of land ranging in size from 677m^2 through to 57.917ha. the combined land area for the 5 lots is approximately 80.993ha. A drain splits the combined site into two areas to the north and south as it aligns east to west through the middle of the site and bounding part of the site to the south.

The site presents an opportunity for additional housing on the edge of the Hamilton City / Waikato District boundary to support the growth of Hamilton. These adjoining lots present some challenges however as further described in this report, there are opportunities to create unique and accessible neighbourhoods too.

1.2 Site Images

Viewpoints - Refer to photos below

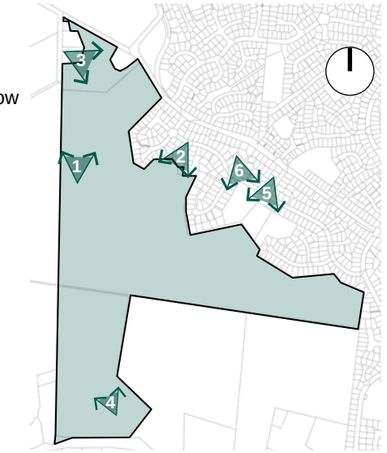


Photo 1 - Kanuka stand

Photo 3 - Looking south east from Obrien Road

Photo 5 - Looking south from within Te Kootii Park

Photo 2 - Looking west into the site from end of Harrogate Place

Photo 4 - Looking north into the site from SH 23

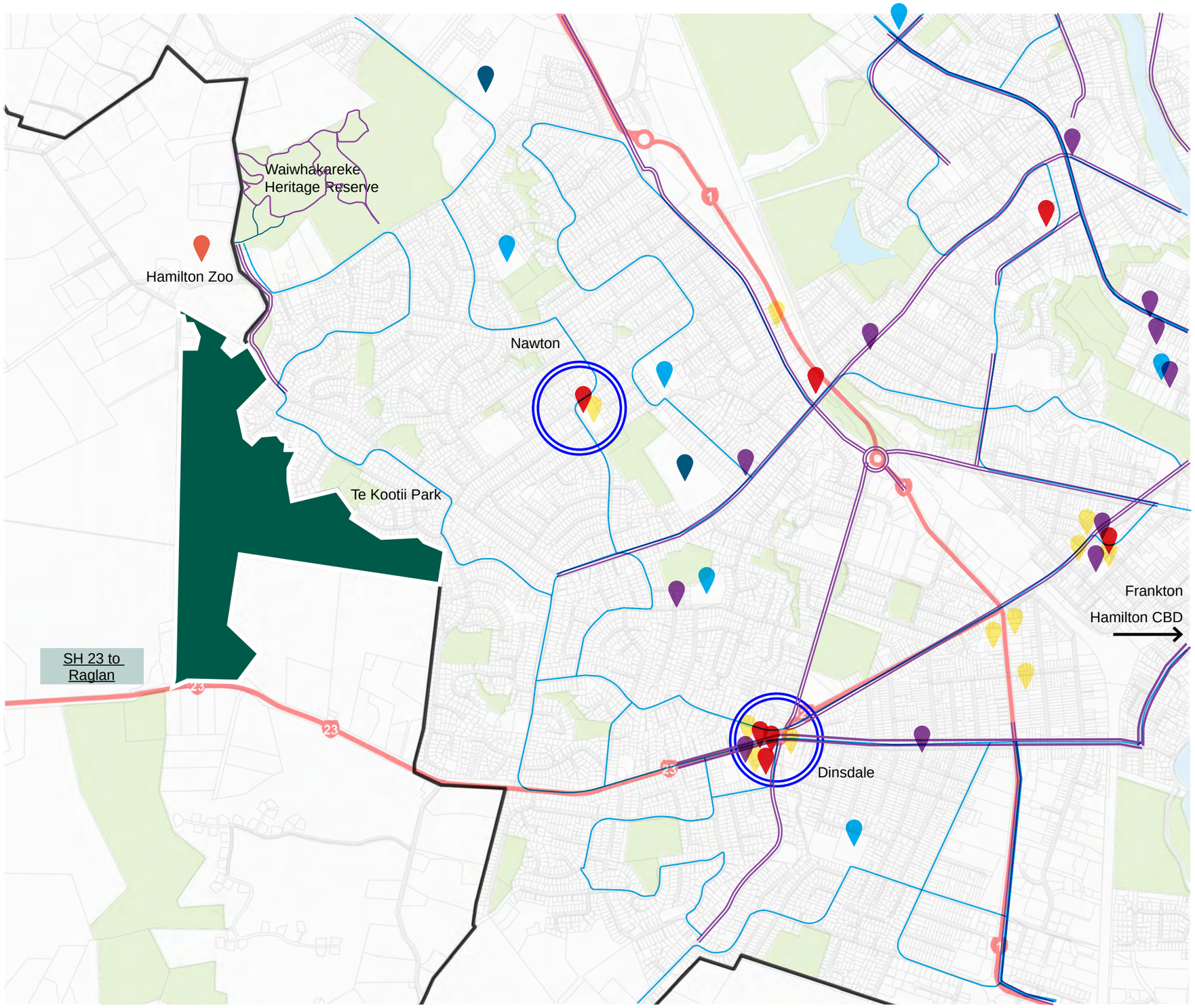
Photo 6 - Te Kootii Park playground

2.0 Site Analysis

2.1 Local Site Context

The site is surrounded by a wide range of open spaces such as the Waiwhakareke Heritage Reserve, Hamilton Zoo and Te Kootii Park.

Te Kootii Park adjoins the site to the east and is located at the edge of the Hamilton City / Waikato District boundary. The park has a circket pitch / playground and a large ‘kick around’ space. The park also provides a direct cycle and pedestrian link to bus stops and the cycleway route that connects to the amenities, job opportunities and schools around Nawton and Dinsdale.



Legend

- The site
- Open Spaces
- Existing Centres
- Supermarket / Superette
- Medical Services / GP
- Hamilton Zoo
- Retails / Commercial
- Primary / Intermediate Schools
- High Schools
- Bus Routes
- On-road and Off-road Paths
- Walking and Cycling Paths in Waiwhakareke Natural Heritage Park
- State Highway
- Hamilton City / Waikato District Boundary

2.2 Constraints and Opportunities

The site has several key considerations, analysis and challenges identified by the various technical specialists engaged including, stormwater engineers, transport engineers, geotechnical engineers and ecologists. Topographical analysis has also been carried out to identify steep slopes. **Noting some of the current identified ecological features would require further site investigation and assessment to confirm their spatial extent and status.**

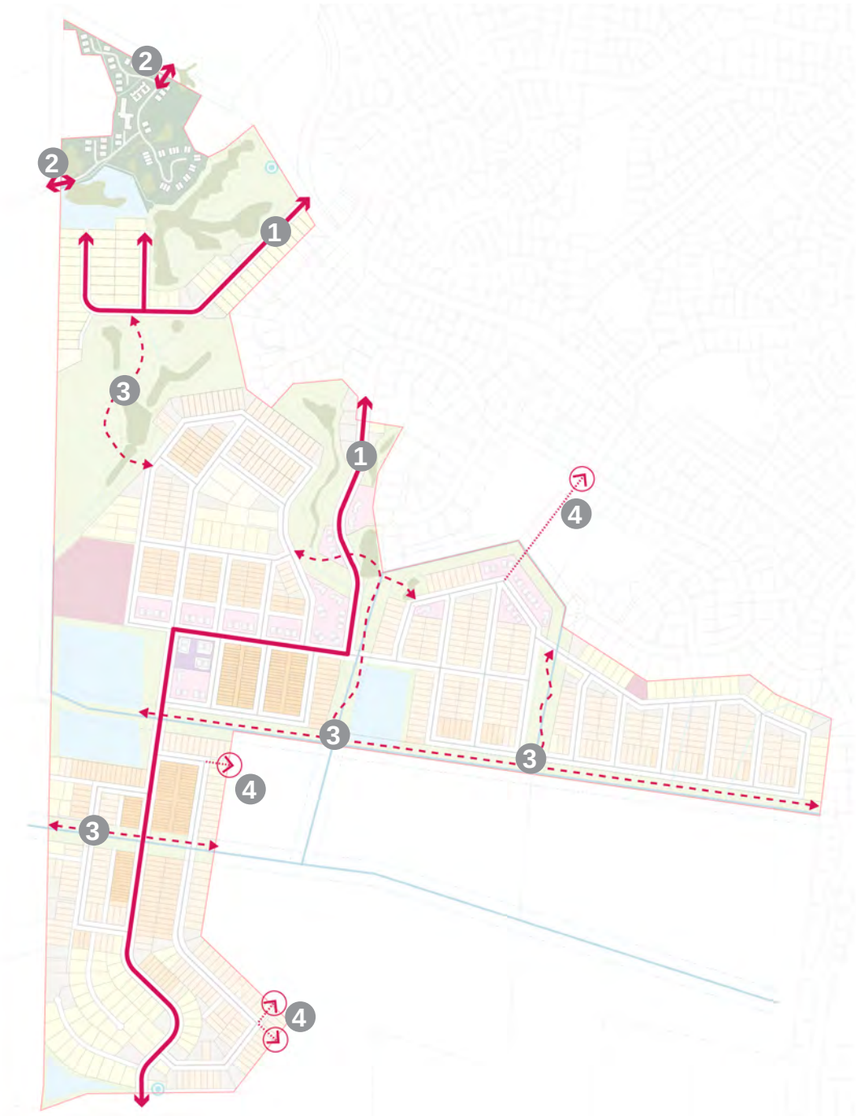
The site faces a number of challenges, but these challenges also present a number design and spatial opportunities that may support future neigbourhoods.

Further analysis has been carried out by the understanding of how the sites challenges, features and existing connections might inform design and spatial outcomes that may contribute to quality urban neighbourhoods.

Legend

- Hard edges form barrier to site access and vehicular movement
- Potential site access points
- Slope >30% noting some areas are subject to marginal stability and should be avoided for construction
- Key drains and identified stream including 20m buffer
- Identified existing wetland including 10m buffer
- Green buffer alongside existing drain. Could provide pedestrian / cycle movement, stormwater treatment devices, open space and native plantings
- Existing water bores for local water supply systems
- Potential stormwater pond locations
- Potential wastewater treatment location
- Naturalised public open space including the ecological enhancement of the existing pond, slopes, waterway enhancements and pedestrian / cycle paths
- Higher densities typology opportunities

3.1 Key Design Responses

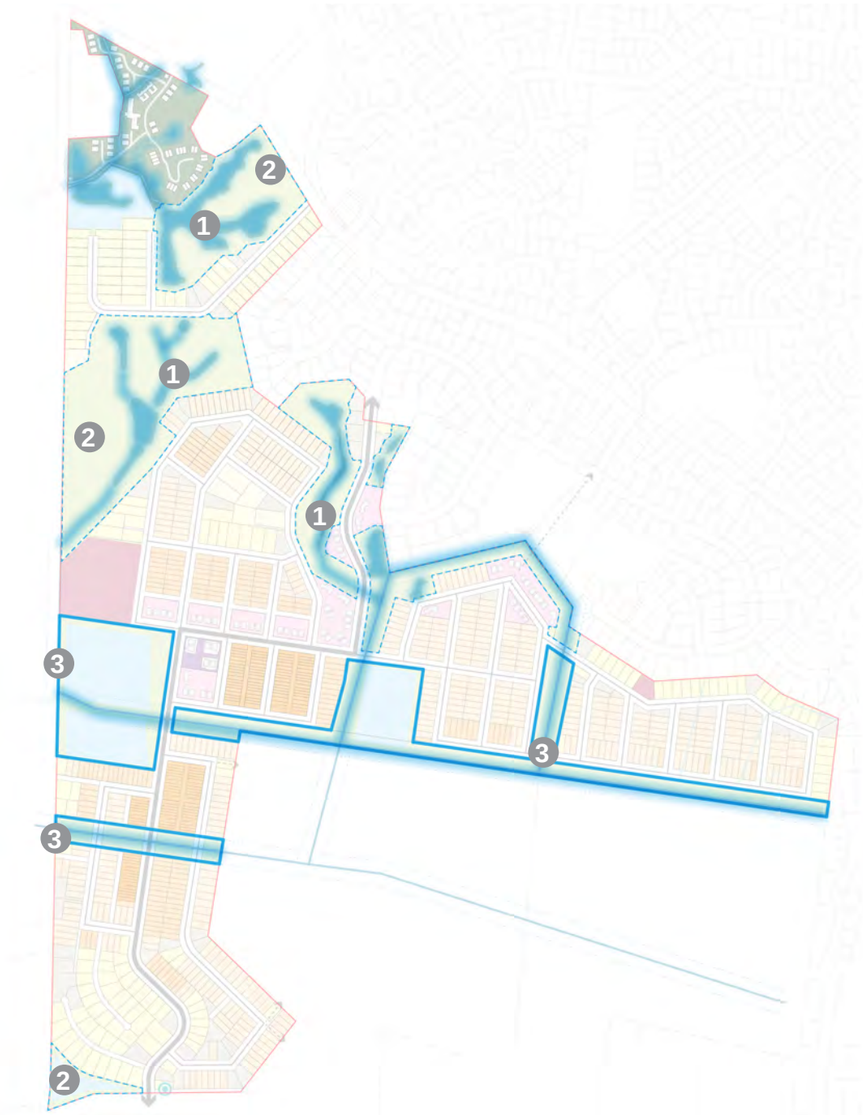


Site Access

1. Maintain existing entrance to minimise ecological impact on identified wetland stream areas.
2. Separate access to norther corner of site, pedestrian bridge to connect the retirement village with the rest of the development.
3. Walking connections across the development (integrated with public open spaces).
4. Future connections to future neighbouring subdivision and provide an alternate routes.

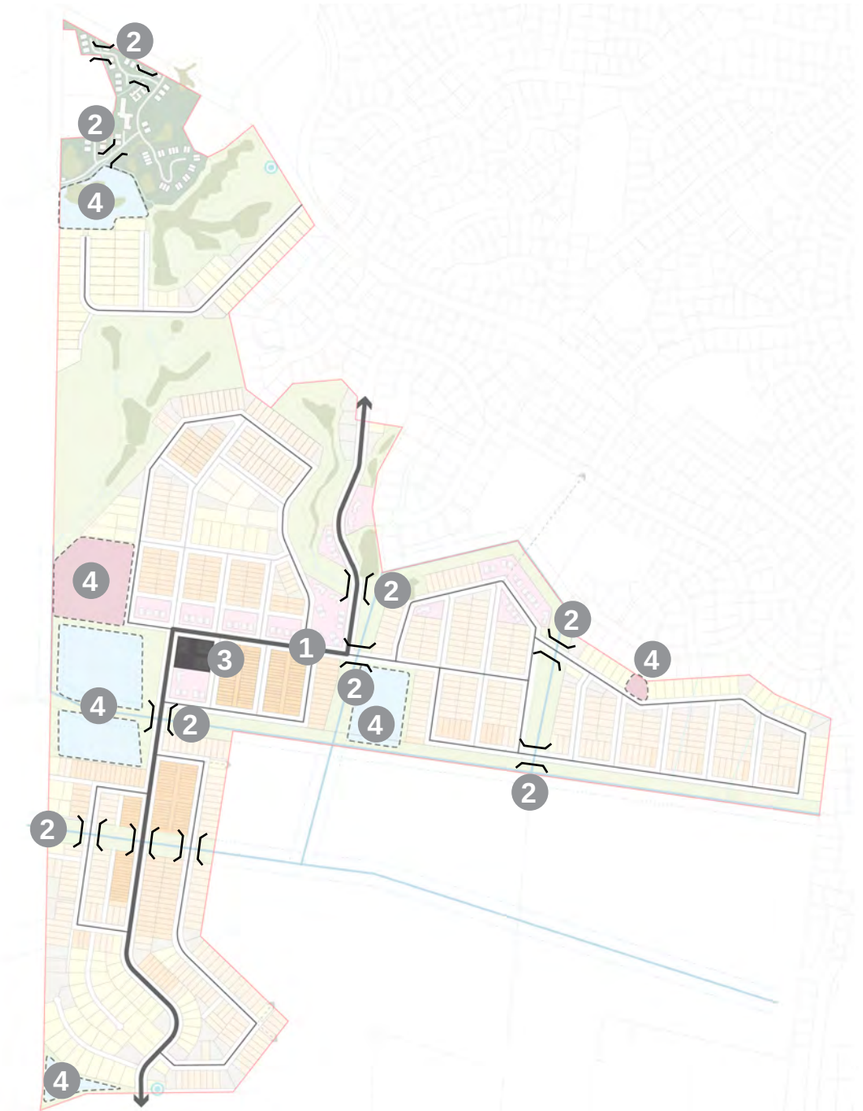
Orientation and Interface

1. Streets and blocks have been oriented predominantly north-south and east-west, where feasible, to maximise opportunities for solar access to residential units and private outdoor spaces.
2. Residential units along primary streets and overlooking public spaces to provide active frontages and passive surveillance, where feasible.
3. Lower-density housing typologies and larger lots have been purposefully positioned along the outer edges of the site, creating a gradual transition towards existing rural and residential areas.



Enhancing Waterways and Wetlands

1. Minimise extensive earthworks and roading over identified waterways and wetlands to minimise ecological impacts.
2. Work with existing topography and natural features as the integrated open spaces network.
3. Capitalise and protect existing natural features with supported management and on-going longterm maintenance.



Infrastructure and Servicing

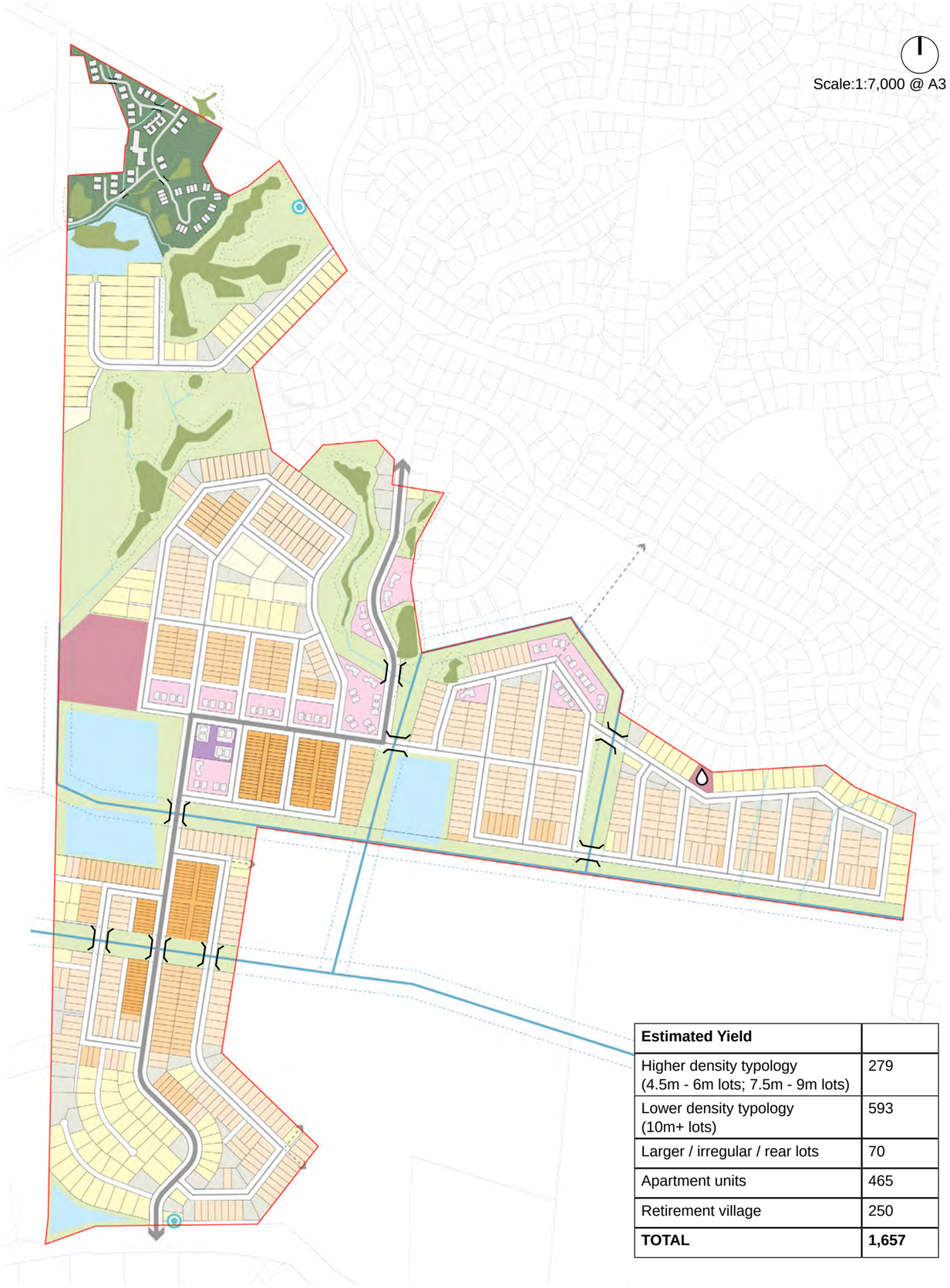
1. An internal road hierarchy to distribute traffic and reducing congestion. Key corridors are designed to accommodate active modes and near community facilities and new mixeduse neighbourhood centre.
2. Strategic bridge and culvert crossings over the central drainage channel enhance internal connectivity, providing uninterrupted and direct access across the site for all transport modes.
3. Establish a compact commercial node to support local needs and community interaction.
4. Provide decentralised wastewater system and stormwater solutions with integrated, multifunctional open spaces.

3.2 High-level Masterplan*

** This masterplan document represents a high-level conceptual layout only. The proposed site layout, estimated yield, typologies, and land uses illustrated herein are indicative and are subject to further adjustments upon comprehensive technical investigations and detailed design processes, including but not limited to engineering, ecological assessment, geotechnical analysis, and hydrological studies.*

Legend

- Apartment Blocks
- Higher Density with Rear Lanes - Terrace Housing (4.5m - 6m lot typology)
- Higher Density - Duplex / Terraces (7.5m - 9m lot typology)
- Lower Density - Duplex / Detached (10m - 12m lot typology)
- Lower Density - Detached (12m+ lot typology)
- Larger Lot Residential (1000m^2 and above)
- Irregular Shaped / Rear Lots
- Retirement Village - Villa terrace, apartment units, amenity building (approx. 3.4ha)
- Mixed-use with apartment units above / Neighbourhood Centre (approx. 0.3ha)
- Proposed Open Spaces / Riparian / Native Revegetation Areas
- Existing Water Bores
- Proposed Pump Station
- Proposed Wastewater Discharge and Treatment Area
- Proposed Stormwater Ponds (shapes to be confirmed at future design stages)
- Existing Key Drains (as identified through Waikato Regional Council GIS mapping)
- Existing Waterway
- Existing Wetlands To Be Retained and Revegetation (include 10m buffer areas)
- Proposed Main Road (~20m)
- Proposed Local Road (~16.8m)
- Proposed Bridge or Culvert
- Connections to Existing Street Network
- Possible Future Road Connections



Estimated Yield	
Higher density typology (4.5m - 6m lots; 7.5m - 9m lots)	279
Lower density typology (10m+ lots)	593
Larger / irregular / rear lots	70
Apartment units	465
Retirement village	250
TOTAL	**1,657**

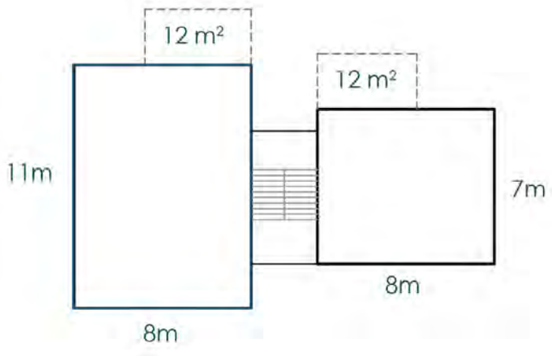
3.2.1 Land Uses and Typologies

Providing a range of medium-density housing typologies to meet diverse community needs:

- Housing typologies have been strategically positioned and terraced to follow the site's natural contours. Different housing typologies allow vary approach to maximise sunlight penetration into living spaces and private yards, while minimising earthworks and retaining structures.
- Varied residential typologies, including duplexes, terraces, and zero-lot homes, have been integrated to provide flexible responses to orientation challenges posed by site topography.
- Building layouts and forms have been selected to allow living areas and outdoor spaces optimal northern solar orientation, particularly during winter months.

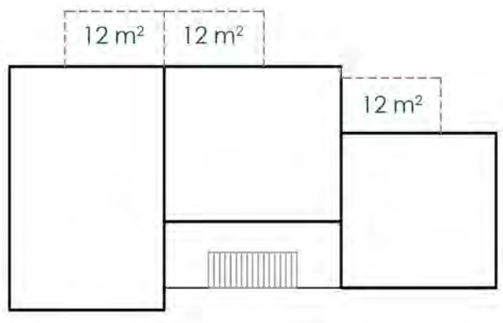
Dual Aspect Walkup Apartment

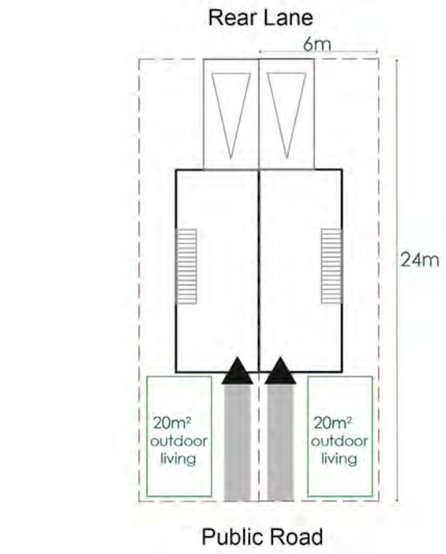
- Preferred in medium-to-higher-density residential developments, especially when apartments are larger (e.g., two bedrooms or more), requiring greater internal amenity.
- Recommended in apartments oriented east-west or north-south, maximising solar gain and daylight.
- Typical with communal parkign spaces, communal outdoor living or individual upper floor outdoor living through balcony.



Single Aspect Walkup Apartment

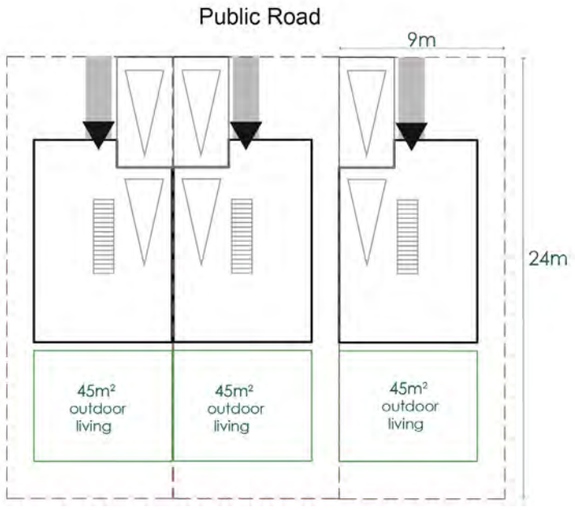
- Commonly found in constrained areas where land-use efficiency is paramount.
- Often used for smaller units (e.g., studio or one-bedroom apartments), where space efficiency and affordability are prioritised.
- Typically acceptable if facing favourable orientations (north or east) that provide adequate daylight access, or for apartments not exposed to significant noise sources.





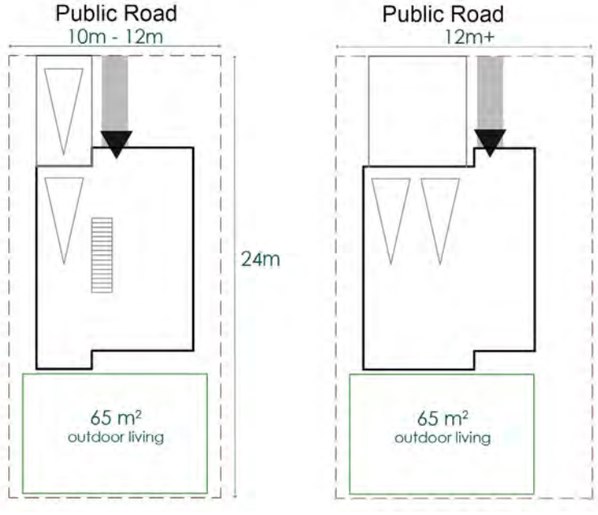
4.5 - 6m wide lots (with rear lanes)

- Typical typology option for compact terraces or duplexes, serviced from a dedicated rear lane. Garages and vehicle access are provided at the rear, separating vehicular and pedestrian circulation.
- Often used for one to two bedrooms, and for areas close to amenities, parks, and public transport.
- Often will have limited private outdoor space and will require rear lane infrastructure arrangements.



7.5 - 9m wide lots (no rear lane)

- Typical typology option for terraces or duplex homes with garages and vehicle access typically provided from the primary street frontage.
- Often used for areas where rear lanes are impractical or economically unviable.
- Good compromise between achieving density and providing private outdoor spaces.
- Driveway crossovers can reduce on-street parking availability and pedestrian safety if not carefully managed.



10m-12m and 12m+ wide lots

- Larger lots designed primarily for single-family detached dwellings, offering greater flexibility in home design, outdoor spaces, and on-site parking configurations.
- Typical implement in areas where higher levels of private amenity and space are desired, or for neighbourhood transitions (from higher density areas to lower density areas).
- Wider lots allow diverse home designs and frontages, adaptable to various family structures and lifestyles.

3.2.2 Transport and Accessibility

Accessibility to the site is currently limited and presents several key constraints:

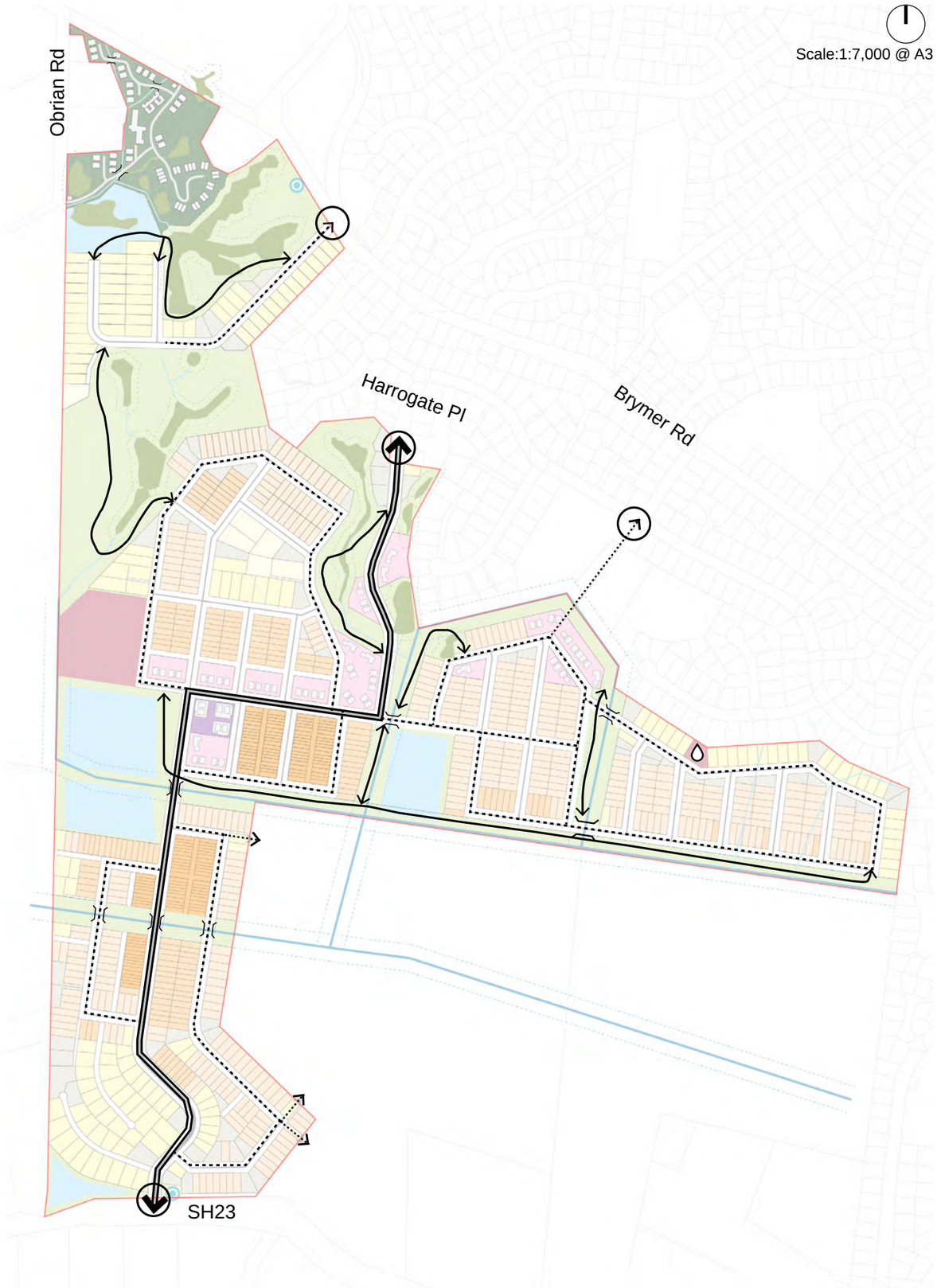
- Brymer Road and State Highway 23 currently provide limited vehicular access points into the site, potentially restricting future development access unless additional points are established.

- Existing pedestrian and cycle infrastructure within nearby Te Kootii Park and Hamilton's urban network provides potential integration points for active transport, yet currently lacks direct connectivity to the site.

- The potential for a new vehicular and pedestrian linkage through Te Kootii Park is identified, pending approval through Hamilton City Council's Reserve Management Plan.

Legend

- Main Road with On-road Cycle Facility
- Key Local Road
- Possible Road Connections Dependent On Further Discussions
- Intersection / Connection Points to Existing Roading Network
- Bridge / Culvert
- Pathways and Boardwalks



3.2.3 Three Waters Infrastructure

Infrastructure Servicing and Assumptions

- There are existing ponds on site which must be preserved and enhanced. New stormwater management features (ponds and wetlands) are proposed but will require detailed hydrological and engineering assessments to confirm their location, size, and efficacy.

- Management of stormwater discharges into the Waikato Central Drainage Scheme requires assumptions around capacity and infrastructure upgrades. Detailed discussions with council infrastructure teams will be necessary to validate these assumptions.

- For Wastewater and water infrastructure, the masterplan proposes onsite Membrane Bioreactor (MBR) wastewater treatment plants and local water supply systems. It assumes that these private infrastructures will be viable solutions acceptable to regulatory authorities.

- Infrastructure provision, including wastewater, stormwater, water supply, and road networks, is assumed to occur through a staged development approach, subject to detailed design, funding, and regulatory approvals.

Legend

- Existing Key Drains (as identified through Waikato Regional Council GIS mapping)
- Stormwater Ponds (shapes and sizes to be determined depending on further investigations
  - A = approx. 1.6ha,
  - B = approx. 1ha,
  - C = approx. 0.95ha
  - D = approx. 1ha
  - E = approx. 0.3ha
- WW Discharge and Treatment Area (approx. 1.5ha)
- WW Pump Station
- Water Bores

3.2.4 Ecological and Open Spaces

There are several identified areas with potential ecological values and / or significance across the site:

- Existing wetlands and ponds, potentially subject to natural habitats that are ecologically sensitive. And the modified and ephemeral watercourses provide opportunities for ecological rehabilitation and biodiversity enhancement through careful design.

- A network of integrated, multifunctional open spaces has been designed with the requiring stormwater retention ponds and wetlands. The network provide stormwater treatment, flood mitigation, and ecological enhancement, while also creating community amenities and improving overall site aesthetics.

- Extensive riparian planting along waterways and wetland margins is recommended (noting this will subject to further investigations and ecological assessment). This will significantly enhance habitat quality and visual amenity.

- The proposed open space network onsite comprehensively link with the existing parks and public open space network in Hamilton.

Legend

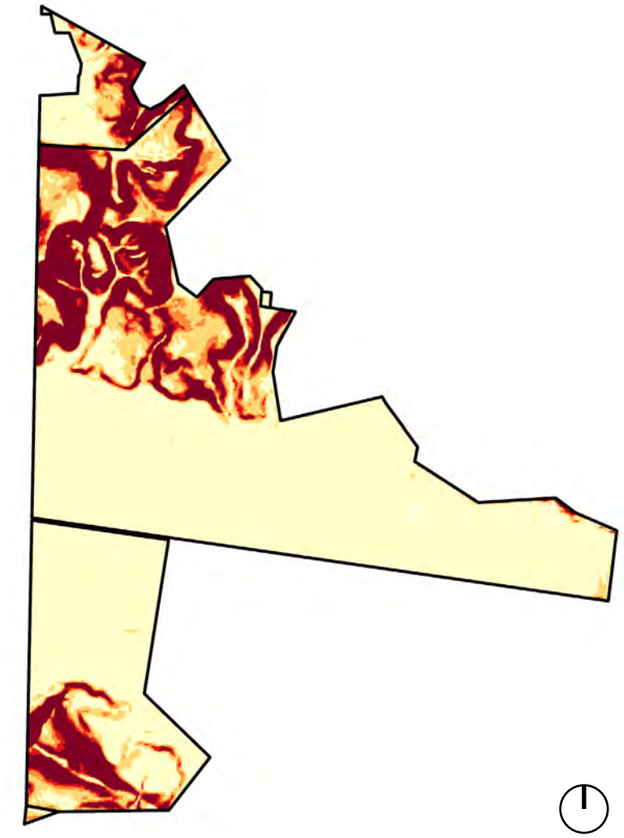
- Existing Public Parks and Open Spaces
- Proposed Integrated Multifunctional Open Spaces and Stormwater Reserve Areas
- Proposed Public Open Spaces (including naturalised area / riparian margins for wetlands)
- Proposed Private Open Space for Retirement Villages (including naturalised area / riparian margins for wetlands)

4.0 Spatial Analysis

Contours

Legend

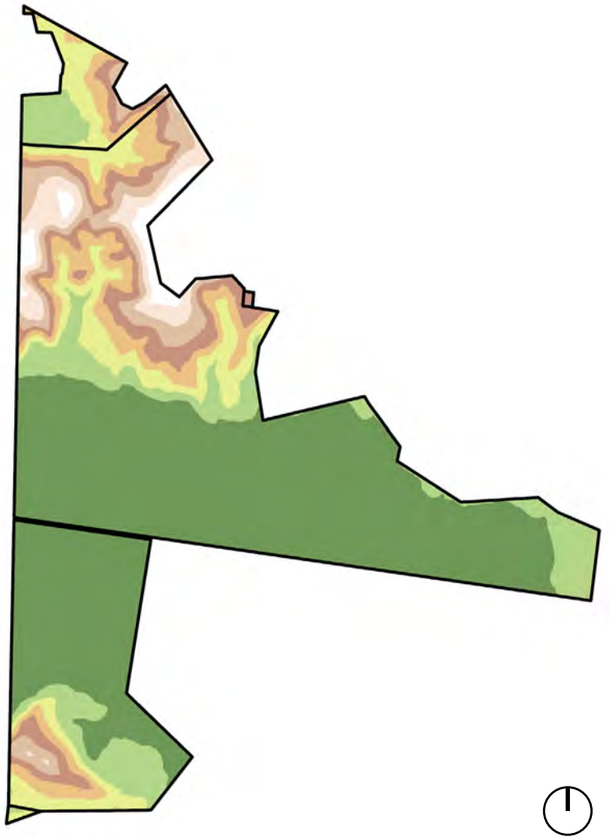
0.5m interval



Slope

Legend

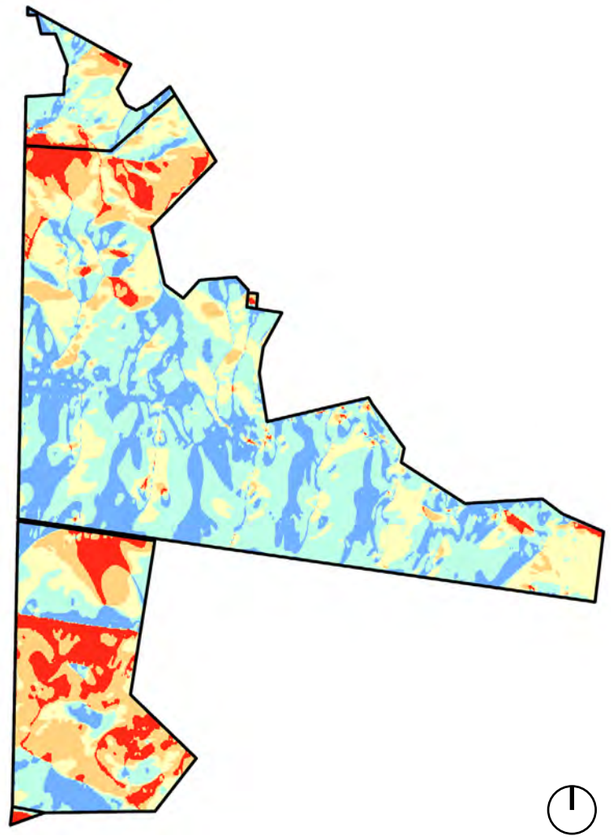
- < 12% Slope
- 12% - 20% Slope
- 20% - 30% Slope
- > 30% Slope



Elevation

Legend

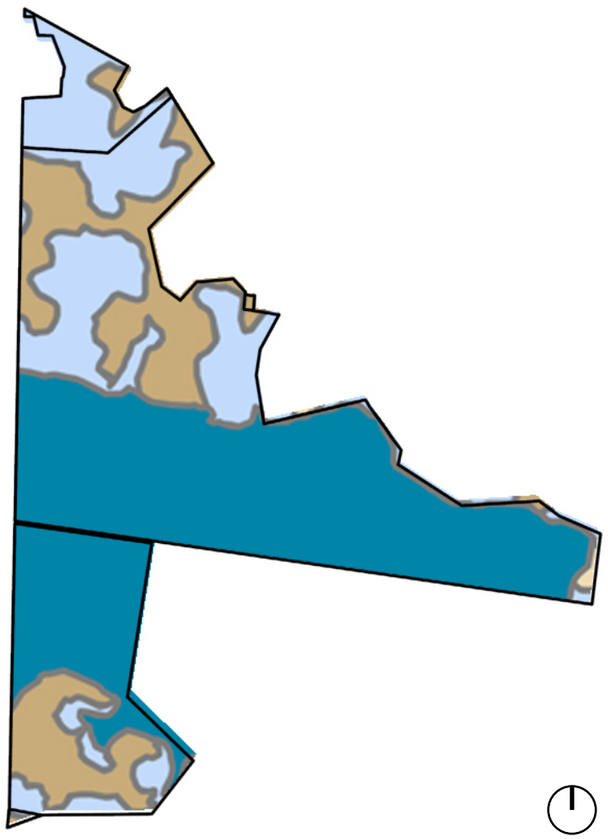
- 23m - 28m
- 28.1m - 33m
- 33.1m - 38m
- 38.1m - 43m
- 43.1m - 48m
- 48.1m - 52m
- 52.1m - 57m
- 57.1m - 62m



Aspect

Legend

- North facing slope
- Northeast / Northwest facing slope
- East / west facing slope
- South facing slope
- Southeast / Southwest facing slope



Soils

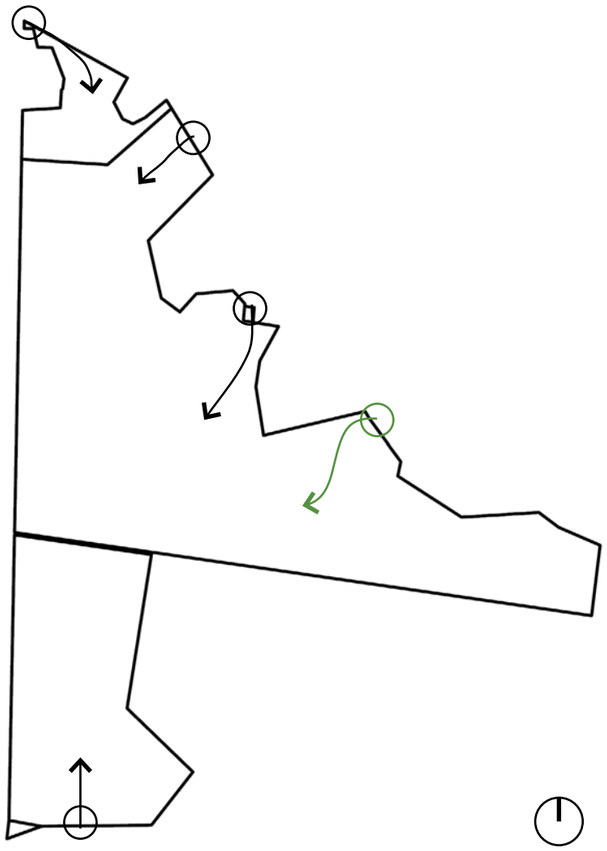
Legend

- Very Poorly Drained
- Poorly Drained
- Imperfectly Drained
- Moderately Drained
- Well Drained

Ecology

Legend

- Pond
- Potential NPS-FW wetland (delineation survey required)
- Pipe
- Culvert
- Watercourse - Modified
- Watercourse - Ephemeral
- Watercourse - Artificial

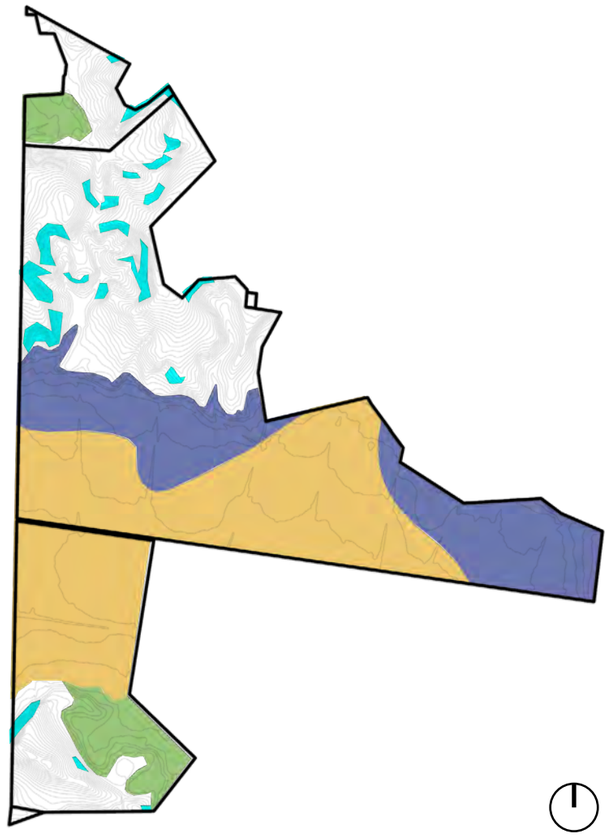


Transport Access

Legend

Road Network Connectivity Assessment - Proposed access points

Pedestrian and cycle access



Geotechnical Assessment

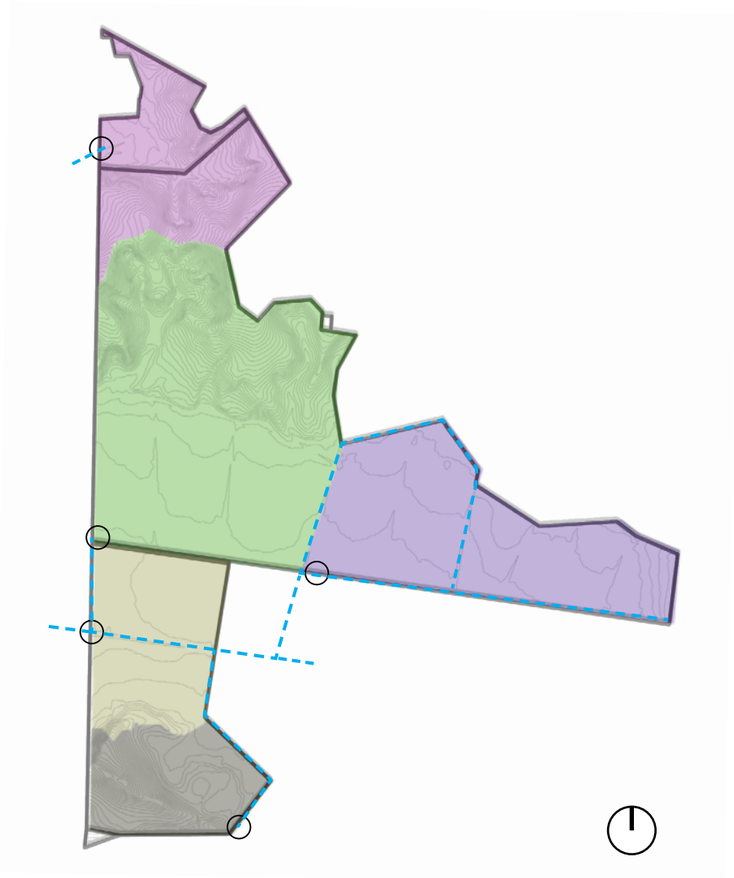
Legend

Soft soil and liquefiable soils present. (Refer to Geotechincal Assessment report)

Shallow soft soils (peat) and potentially liquefiable soils. (Refer to Geo-technical Assessment report)

Lower risk for liquefaction susceptibility and soft soils. (Refer to Geo-technical Assessment report)

Slopes greater than 25 degrees requiring slope stability analysis. (Refer to Geo-technical Assessment report)



Stormwater

Legend

Drain

Outlet

Catchment A (Refer Stormwater report)
Catchment D (Refer Stormwater report)
Catchment C (Refer Stormwater report)
Catchment E (Refer Stormwater report)
Catchment F (Refer Stormwater report)

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