

**Wayside Road, Te Kauwhata
Subdivision Development
Traffic Impact Assessment**

Te Kauwhata Land Ltd

ISSUE 1, 14 JULY 2016



Wayside Road, Te Kauwhata Subdivision Development Traffic Impact Assessment

Te Kauwhata Land Ltd

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EXECUTIVE SUMMARY

Te Kauwhata Land Limited engaged Gray Matter Ltd to provide a Traffic Impact Assessment (TIA) to support the application for the proposed residential subdivision on Wayside Road, Te Kauwhata. The proposal is to develop the site into a residential subdivision of up to 165 lots. The site is within the Te Kauwhata Structure Plan area and is zoned Te Kauwhata West Living.

There is an existing consent for subdivision of 130 lots. The proposal has additional lots and a revised road layout. There will be up to an additional 35 lots and therefore up to 354 vpd more than the consented activity. The development will be denser providing more lots within the same area and proposes an altered internal road layout that remains consistent with the originally consented subdivision and the Te Kauwhata Structure Plan objectives and policies for a high degree of road connectivity, providing good accessibility and encouraging low speed environments. A significant advantage of the proposed internal roading layout over the consented layout is the accessible road gradients. Significant earthworks (up to 7.6m cut) are proposed to reduce grades and provide a better subdivision layout that is more accessible for all modes. Apart from a short section along one road, gradients are less than 10%. This will assist with better visibility from driveways and support improved safety and mobility for active modes, mobility –impaired pedestrians and wheelchair users. The extent of earthworks means that significant restrictive retaining walls included in the consented layout are not required.

The effects of the proposal compared to the Structure Plan and the existing consent (SUB 016/14) relate to:

- = The number of lots. There are 35 lots more than consented. Additional lots means denser development which supports investment in public transport/walking and cycling and supports objective 15A.2.31 for a land transport network that provides for all transport modes.
- = Increased number of trips. 354 vpd more than consented. There will be a minor increase in exposure at the collector road – Wayside Road intersection than the consented. This is consistent with the Structure Plan and Te Kauwhata West Living Zone.
- = The internal roading layout. The proposed layout is consistent with the Structure Plan and provides connectivity to the adjoining subdivision roads. There is one fewer intersection than the consented and a significant benefit is improved accessibility due to reduced road gradients. The cul-de-sac (east of the reserve) included in the Structure Plan layout is not proposed. Two road frontages to the reserve are proposed and there is additional opportunity for pedestrian access through the drainage reserve, so the net impact is improved connectivity.

The proposal will add approximately 1667 vpd (354 vpd more than consented) to the transportation network and includes a new collector road intersection on Wayside Road. The activities are consistent with those anticipated for the Te Kauwhata Structure Plan West Living zones.

The traffic effects include:

Noise: There will be an increase in noise related to the traffic increase over the consented subdivision. At around 25-30% this is unlikely to be noticeable compared to the conditions expected as part of the Structure Plan development and the consented environment. The proposed layout does not bring roads closer to any nearby party than the consented subdivision.

Visual: Similar traffic composition to that currently generated in the surrounding area but increased exposure— no significant traffic impact.

Safety: New property accesses off Wayside Road and a new intersection will mean an increase in exposure on Wayside Road and at the Te Kauwhata Roundabout. There are no crashes recorded along this section of Wayside Road. Provided the new accesses and intersections meet the design and visibility standards, there is no reason to expect safety problems.

The final design needs to provide adequate sight distance along Wayside Road (intersections and entranceways). The existing sight distance falls short of the requirement for the existing 80 km/hr speed environment. The subdivision is anticipated by the District Plan and the area is zoned residential along Wayside Road so we expect the speed limit will be 50 km/hr. If the speed limit is not reduced, the entranceway separation and intersection visibility will not meet District Plan standards. However, the risk associated with entranceway spacing being closer is limited, and the proximity of the frontage to Te Kauwhata Road, and the future urban context, will ensure drivers are alert and should moderate speeds. The only people affected will be the entranceway users (e.g. confusion about which entrance a vehicle is turning in to), since road rules will ensure no effects on through traffic. The collector road intersection proposed is consistent with the Te Kauwhata Structure Plan and adequate sight distance in accordance with Austroads standards should be confirmed during detailed design for the expected speed environment. If the speed remains around 70-80 km/hr this may require level alterations and earthworks in the Wayside Road reserve as part of its urbanisation. The proposed intersection and the sight distance issue is no different to the situation/design enabled by the consented subdivision.

Efficiency: The subdivision traffic will increase the existing traffic volume on Wayside Road. However, Wayside Road has sufficient reserve capacity and can readily accommodate the additional 1667 veh/day traffic (from the whole subdivision (approximately 350 vpd more than consented)). During peak periods the additional traffic at the Te Kauwhata Road intersection may be noticeable, however, the majority of movements are expected to be to the south and west, consistent with the surrounding traffic. The new roundabout has sufficient capacity to accommodate the extra traffic. During the peak PM period, there may be an additional 230 vph on Wayside Road. As the Te Kauwhata Structure Plan area becomes developed and the road connections are completed, we expect the traffic generated by the proposal to disperse between the future intersections with the surrounding network (Travers Road, Te Kauwhata Road and Wayside Road), reducing subdivision traffic on Wayside Road.

The nature of the traffic effects will be similar to that already present on the surrounding road network and in keeping with the traffic volumes and characteristics predicted to result from the already consented 130 lot subdivision. There will be an increase in the intensity of traffic but the surrounding road network has sufficient spare capacity to accommodate this. There are departures from the Te Kauwhata Structure Plan road details such as corridor widths and rear lot access, which may affect amenity (addressed in urban design and landscape assessments), but the key transport functions and features remain, and the resulting standard is consistent with the typical road details for the Waikato District Plan. The proposed layout is consistent with the Te Kauwhata

Structure Plan objectives and policies achieving a generally low speed environment providing good accessibility and connectivity. The subdivision is anticipated by the District Plan and the area is zoned residential along Wayside Road so we expect the speed limit will be 50 km/hr.

Subject to appropriate conditions requiring mitigation, there does not appear to be any significant reason related to traffic why the proposal should not proceed.

We recommend that the development include the following mitigation measures:

- = Widening of Wayside Road carriageway to 4m on the subdivision side to meet the Te Kauwhata Structure Plan collector cross section and provide a 1.5m footpath along the subdivision frontage.
- = Ensure stormwater management devices are designed to provide safely for pedestrians and vehicles.
- = Design approvals, including:
 - The consent holder arranging an independent Detailed Design (Stage 3) road safety audit for the subdivision roads and intersections with Wayside Road in accordance with the NZTA Draft Guidelines for Road Safety Audit.
 - Detailed design in accordance with the Hamilton City Council Infrastructure Technical Specifications and the Waikato District Council supplement.
 - Dimensions and details demonstrating that Waikato DC's requirements for visibility at intersections and driveways on Wayside Road will be satisfied. A speed limit of 50 km/hr on Wayside Road from a distance approximately 150m north of the site to the Te Kauwhata Road roundabout is consistent with the Te Kauwhata Structure Plan expected residential nature of the surrounding area and the SLNZ assessment (after development).
- = Construction management plan including:
 - Temporary Traffic Management plans in accordance with the Code of Practice for Temporary Traffic Management.
 - Corridor access requests for any works affecting Wayside Road
 - Measures to prevent debris and mud tracking onto public roads, and arrangements to clean roads should dirt or debris end up on public roads.

1. INTRODUCTION

1.1. Background

Te Kauwhata Land Ltd engaged Gray Matter Ltd to provide a Traffic Impact Assessment (TIA) to support the application for the proposed residential subdivision of up to 165 lots on Wayside Road, Te Kauwhata.

1.2. Purpose and Basis of this Report

The purpose of this report is to support an application for resource consent to Waikato District Council (WDC), assess the traffic impact of the proposed subdivision and provide guidance on appropriate design standards for road layout, cross sections, intersection and road surfacing.

This report is based on information including:

- = Wayside Road Subdivision Development, Te Kauwhata (Mansergh Graham Landscape Architects);
- = Wayside Road – Te Kauwhata, Proposed Engineering Works Roding Longsections (Blue Wallace Surveyors, June 2016);
- = Aerial photographs;
- = Site visits on 16 May 2016 and 30 June 2016;
- = Traffic data from Waikato District Council; and
- = Crash data from the New Zealand Transport Agency (NZTA) CAS crash database.

This report comprises:

- = A description of the site, and comments on the surrounding road network and existing activities;
- = Assessment of existing traffic;
- = Assessment of the likely traffic generation and assignment;
- = Assessment against the relevant rules of the Waikato District Plan, including Te Kauwhata Structure Plan;
- = Assessment of traffic impact of the proposal and practicable options for mitigation; and
- = Conclusions with recommendations for mitigation.

2. DESCRIPTION OF SITE AND SURROUNDING NETWORK

2.1. Site Description

The site is located on the corner of Wayside Road and Te Kauwhata Road on the outskirts of the Te Kauwhata village within the Te Kauwhata Structure Plan area. The site is 17ha and is mostly in orchard. It is undulating with some steep sections. We are not aware of any residential activity on the site and there do not appear to be any existing buildings on the site.

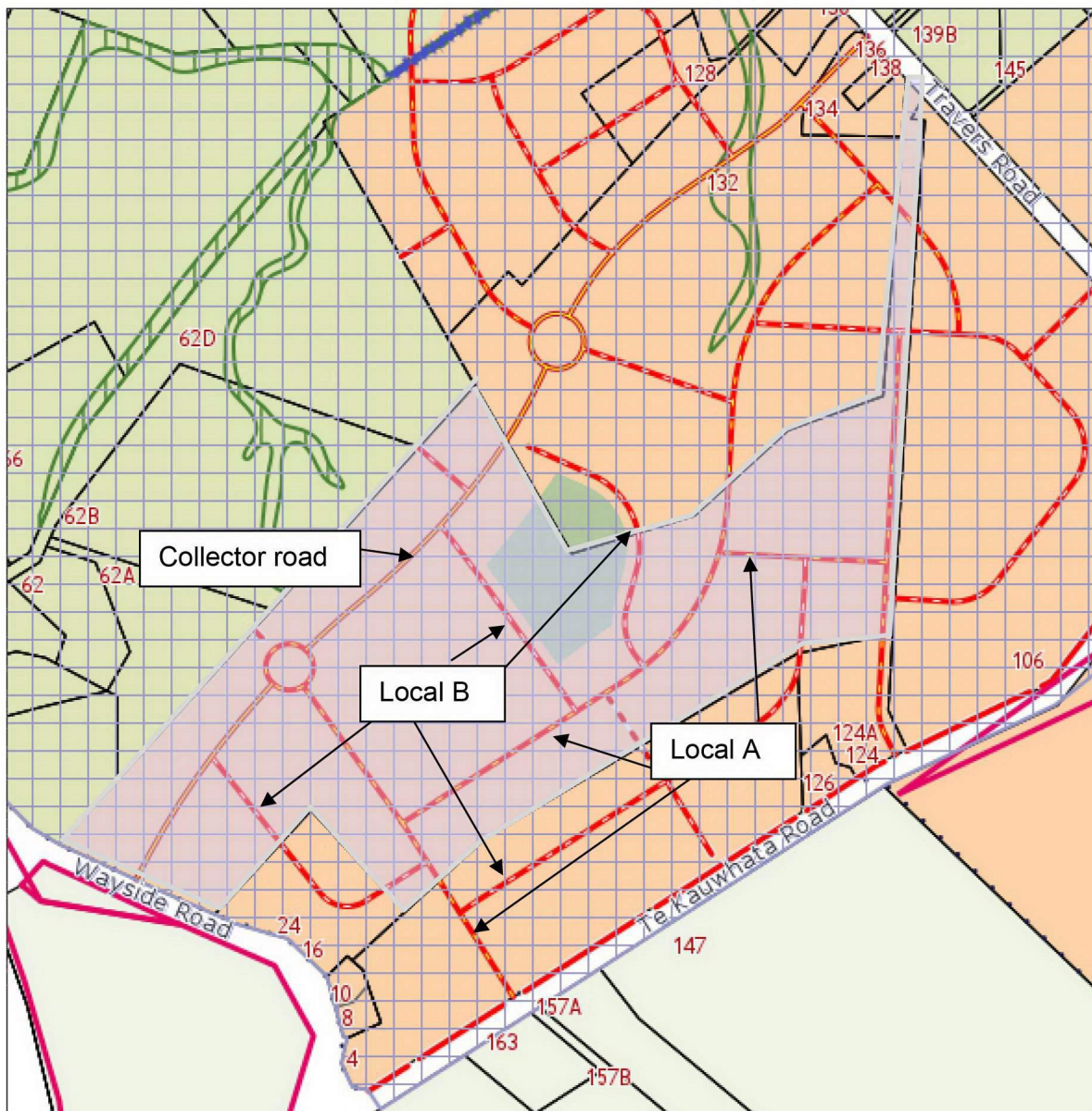


Figure 1: Te Kauwhata Structure Plan showing outline and overlay of the proposed subdivision.

The site is within the Stage 1 of the Te Kauwhata Structure Plan and in the Te Kauwhata West Living zone (TKWLZ) and the remediation policy area. The neighbouring property to the north of the site is zoned Country Living and opposite the site on the west side of Wayside Road is zoned rural. An area of the site is Recreation (W) zone (refer green area in figure 1). The Te Kauwhata Structure Plan includes indicative roading layout shown in figure 1:

- = Collector (location important)
- = Local A (intent important, location not important)

- = Local B (intent important, location not important), and
- = Walkway

2.2. Existing Consent

We understand that the site has consent for a 130 lot subdivision and a proposed subdivision scheme layout with some differences to the Structure Plan indicative road layout. Consent SUB0163/14 is included in Appendix D.

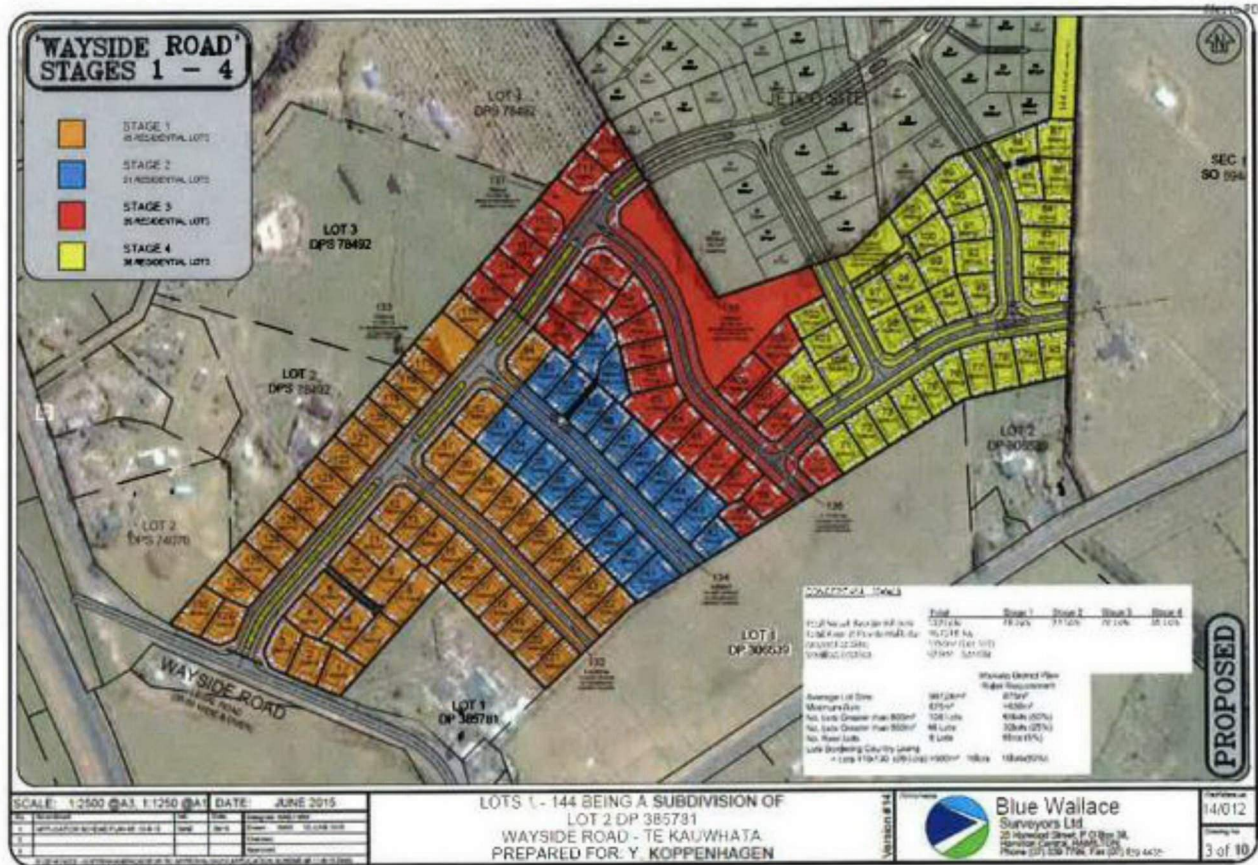


Figure 2: Consented Subdivision (130 lots).

The proposal has more lots (165 lots) including more rear lots and an amended road layout but the same fundamental connectivity and better accessibility.

2.3. Transportation Network

Wayside Road is a local road in the Waikato District Plan road hierarchy (Appendix A) carrying 530 vpd with 10% heavy vehicles (HVs) (RAMM count, 2007). Te Kauwhata Road is an arterial in the Waikato District Plan road hierarchy (Appendix A Table 8A) carrying 2,875 vpd with 9% HVs (RAMM, 2011) east of Wayside Road and 2,670 vpd with 7% HVs (RAMM, 2013) west of Wayside Road.

As part of the Waikato Expressway Rangiriri Section, a 4-leg roundabout has recently been constructed at the Wayside Road/Te Kauwhata Road intersection to enable the Te Kauwhata Interchange. The roundabout has sufficient capacity to easily accommodate the Te Kauwhata Structure Plan subdivision. At the northern extent, Wayside Road is left in, left out to SH1. During the construction of the Rangiriri section, all southbound traffic to Rangiriri, Te Kauwhata and Glen Murray are using Wayside Road¹ so we would expect the traffic volume of Wayside Road to be

¹ Rangiriri Project update June 2016, <http://www.nzta.govt.nz/assets/projects/rangiriri/rangiriri-project-update-201606.pdf>

temporarily higher than the RAMM count, although Te Kauwhata traffic would likely divert north of the site using Travers Road as a more direct and attractive route. In the long term, as part of the Longswamp Section of the Waikato Expressway the Wayside Road connection to the existing SH1 will be permanently closed.

The existing site has a paddock gate access at the southern corner from Wayside Road adjacent to 16 Wayside Road. There are no formed vehicle entranceways to the site. Wayside Road has a 7.4m sealed width with 0.5m unsealed shoulders typical of many local rural roads. There are some edge marker posts but no edgelines.

Construction of the subdivision to the north of the site (Jetco) is under way, with a new intersection being formed at Travers Road, connecting the main collector road.

The Te Kauwhata Structure Road hierarchy in Appendix A of the District Plan refers to the Planning Maps 14.1 and 14.2 Te Kauwhata Policy. No road names are listed in the table for collector roads, rather a traffic volume exceeding 1500 vpd. Since Wayside Road links to Te Kauwhata Road (arterial) and the indicative collector within the Structure Plan area and the proposed site, we would expect Wayside Road to match the function of an increasingly urban used collector road in the future.

The Wayside Road/Te Kauwhata Road roundabout means that speeds at the south end of Wayside Road will be 50km/hr or less. The urban subdivision will have speeds of 50 km/hr. There will be residential development from the roundabout to the north edge of the subdivision. The current speed limit on Wayside Road is 100 km/hr. Our assessment presumes that Waikato DC will reduce it to 50 km/hr since it is within the Te Kauwhata Structure Plan and the surrounding area is zoned living and is becoming developed for residential purposes. The subdivision proposal is consistent with the Structure Plan and in the Te Kauwhata West Living Zone. In accordance with the guidelines for speed limits (Land Transport Rule: Setting of Speed Limits 2003 (SLNZ)) based on the current level of development a speed restriction of around 70 km/hr would be warranted. With the proposed subdivision the SLNZ assessment almost supports 50 km/hr (SLNZ rating of 10.8 after development – SLNZ rating of 11 warrants 50 km/hr). NZTA and MoT are currently reviewing the Land Transport Rule: Setting of Speed Limits 2003 (SLNZ).

2.4. Crash History

We completed a search of the NZTA CAS (Crash Analysis System) Database for the recent 5 year period (2010-2014). There has been no reported crashes in the vicinity of the site along Wayside Road or Te Kauwhata Road.

2.5. Description of Proposal

The proposal is to develop the site into a 165 lot residential subdivision. The proposal includes the development of new roads.

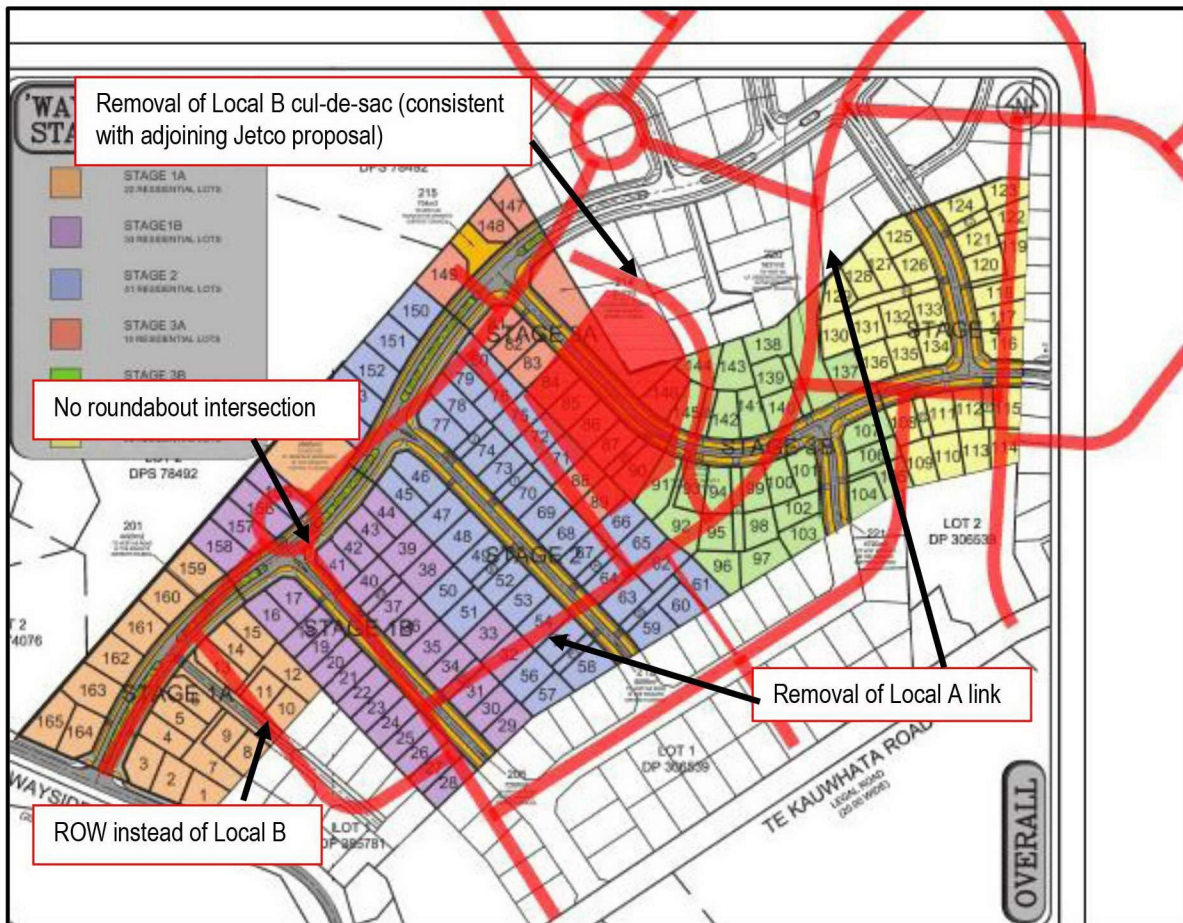


Figure 4: Indicative road layout with Structure Plan roading layout overlaid in red (not to scale).

The NZTA One Network Road Classification (ONRC) is based on functional classification and includes criteria and thresholds for each functional classification. We have used the ONRC traffic volume criteria to determine an appropriate hierarchy for the proposed subdivision roads. The Te Kauwhata Structure Plan also provides guidance on road hierarchy.

NZS 4404: 2010 Land Development and Subdivision Infrastructure provides guidance on design for subdivisions, however for roads it categorises local roads as carriageways of 5.5-5.7m with up to 2000vpd. We have therefore referred to the Te Kauwhata Structure Plan and the ONRC to confirm the appropriate standard.

The Te Kauwhata Structure Plan cross section standards include:

- = Collector: 25.5m wide road reserve, 2x 4m wide traffic lanes, planting in the median, services, drainage, 1x 1.5m wide footpath, 1x 3m wide shared cycleway/footpath and 2.65 car parking on both sides.
- = Local A: 22m wide road reserve, 2x 3.5m wide traffic lanes, services, drainage, 1.5m wide footpaths on both sides and 2.5m car parking on both sides.
- = Local B: 22m wide road reserve, 2x 3m traffic lanes, services, drainage, 1.5m wide footpaths both sides and 2.5m car parking on both sides.

The collector road will be 25.5m wide, consistent with the Structure Plan. The proposed width for the local roads is 20m wide and will include all traffic features (parking, traffic lanes, footpaths, services, landscaping, drainage etc) equivalent to the Local A or B but in reduced width (20m). 20m road width is consistent with other areas of the District and accepted by WDC roading staff.

Road Name (refer to Appendix A for plans with road names)	Function/Number of lots	Proposed Standard	Expected traffic volume ²	ONRC	TK Structure Plan	Comment
Road A	North –south collector parallel to Te Kauwhata Road in the Structure Plan area. Intersection with Wayside Road at the south and Travers Road at the north	25.5m road reserve 13.4m carriageway	2/3 of total TKWLZ area, say 350 lots, 3,500 vpd	Primary Collector	Collector	Proposed standard is appropriate
Lot 200	Right of way, laneway - access to 6 lots	14m road reserve, 6m carriageway	60 vpd	Low volume	Local B	Paving/sealing the carriageway width (minimum of 5.5m) will enable two vehicles to pass at the collector road access without adverse effect on visibility/access. Recommend promoting the ROW as a shared space.
Road B	Future intersection with Te Kauwhata Road. Access to 30 lots (22 in proposed subdivision).	20m road reserve, 6m carriageway width	Potential for half of 1/3 of the TKWLZ traffic to use this intersection to Te Kauwhata Road. 850 vpd at intersection	Access	Local A	Proposed standard is appropriate.

² Estimated potential trip generation for the TK Structure Plan area that would feed into the collector road is 400 -500 lots, so potential 4000-5000 veh/day from the total area .

Road Name (refer to Appendix A for plans with road names)	Function/Number of lots	Proposed Standard	Expected traffic volume ³	ONRC	TK Structure Plan	Comment
Road C	Access to 30 lots in proposed subdivision	20m road reserve, 6m carriageway	300 vpd	Access	Local B	Proposed standard is appropriate.
Road D	Access to potentially 50 lots (approx.) (40 in proposed subdivision) May link to second Te Kauwhata Road intersection through neighbouring subdivision (not confirmed)	20m road reserve, 6m carriageway	500 vpd	Access	Local B (Possibly Part Local A)	Proposed standard is appropriate.
Road G	Access to 32 lots (5 in proposed subdivision)	20m road reserve, 6m carriageway	320 vpd	Access	Local B	Proposed standard is appropriate.
Road F	Access to 20 lots (15 in proposed subdivision) Links to collector road in neighbouring subdivision	22m road reserve, 7m carriageway	200 vpd	Access	Local B	Proposed standard is appropriate (wider than necessary but consistent with the tie in to adjoining subdivision).

Table 1: Proposed Road Standards and comparison to One Network Road Classification and Te Kauwhata Structure Plan road hierarchy (Table 8A of the Waikato District Plan).

Road B and the eastern part of Road D could be considered to be the equivalent to Local A in the Structure Plan. The main difference between Local A and B is the carriageway width (7m (A) and 6m (B)). A 6m carriageway is adequate for all standard vehicles and the flows anticipated. It is likely to lead to lower speeds compared to 7m. No significant adverse effects are anticipated.

2.6. Traffic Generation

The daily traffic expected to result from the proposal is displayed in Table 2 below.

³ Estimated potential trip generation for the TK Structure Plan area that would feed into the collector road is 400 -500 lots, so potential 4000-5000 veh/day from the total area .

Activity	Quantity	Reference ⁴	Expected daily trips	Expected peak hour trips
Residential	165 Lots	Residential (rural)	10.1/hh 1667 vpd	1.4/hh 231 vph
Previously consented	130 Lots	Residential (rural)	10.1/hh 1313 vpd	1.4/hh 182 vph

Table 2: Expected Traffic Generation

Until the Structure Plan area is complete, all the traffic will access the subdivision from Wayside Road. The traffic volume on Wayside Road could increase by up to 1667 veh/day as development progresses but should reduce once other connections are completed (Travers Road, Te Kauwhata Road) north of the site within the Structure Plan area.

2.7. Traffic Assignment

We expect that the majority of destinations would be to the south, therefore we have used 90% to the south and 10% to the north. We have checked the Waikato Regional Transportation Model Volume 10 (2012) (WRTM) for 2006 base case and 2021 forecast traffic assignment. The model does not appear to assign traffic in this area. We would expect the new traffic to have a directional split of 70:30 for peak periods.

Road	Existing Traffic	Proposed Daily Traffic (vpd)	Proposed PM Peak Hour Traffic (assume 12% of daily for surrounding network) (vph)
Subdivision collector road	-	1636 vpd ⁵	227 vph
Wayside Road south of the subdivision	530 vpd (23 vph)	2000 vpd	234 vph
Wayside Road north of the subdivision	530 vpd (23 vph)	690 vpd	54 vph

Table 3: Traffic Assignment

3. DISCUSSION

3.1. Collector Road-Wayside Road Intersection Visibility

The proposed location of the new intersection is the position shown on the Te Kauwhata Structure Plan. Wayside Road has a speed limit of 100 km/hr however the speed environment is around 70-80 km/hr. This is due to the horizontal and vertical curvature and the restriction to visibility, as well as a relatively narrow seal width with only centreline markings. The existing sight distance is restricted to the north by the vegetation, the bank within the berm and the power poles. Visibility could be improved by removing the bank, relocating the power poles and trimming vegetation.

⁴ NZTA Research Report 453, NZ Trips and Parking Related to Land Use, November 2011, Appendix C, 85th percentile generation rates for residential "dwelling (rural)"

⁵ 3 lots propose direct access to Wayside Road



Photograph 1: Proposed intersection location indicated by the cone.



Photograph 2: Existing visibility to the north from the proposed intersection is 90m and is restricted by the bank in the berm, vegetation and power poles.

Our site visit indicated this could be increased to 110m (straight line along the fenceline) by removing the bank (up to 2m high) and relocating power poles. It may be possible to achieve up to 160m sight distance, however this relies on visibility across the private property.



Photograph 3: Approximate position within approaching lane of extent of visibility possible if the berm were lowered and two power poles relocated. (approximately 110m)



Photograph 4: Existing visibility to the south from the proposed intersection is approximately 210m. Note that the long section by Blue Wallace shows this as 195m.

Removing the high berm that is currently restricting visibility around the bend north of the proposed intersection could achieve up to 160m visibility to the north however, it could have adverse effects increasing speeds on Wayside Road. Property purchase, an easement or equivalent would be likely to be required to protect this extent of visibility.

Providing the safe intersection stopping distance (SISD) (Austroads Part 4A Table 5.2) for 80 km/hr 85th percentile speed requires 190m SISD. SISD comprises an allowance for observation (3s), reaction (1.5s, 2s, 2.5s for alert, general minimum and typical, respectively) and a distance for braking (conservative deceleration value).

At 80 km/hr and allowing for a 2.5sec reaction time (not alert – typical rural), approaching vehicles would travel approximately 55m before applying the brakes. The braking distance for 80 km/hr (distance required to decelerate to a stop) is 70m to 97m. This is a total of 135m – 163m (this allows for additional 9m due to 4% downgrade) but does not allow for the observation time. If 160m were achieved to the north, this would satisfy the Austroads SISD (158m) for 70 km/hr and may be acceptable to Council if the speed environment is managed to encourage lower speeds.

Additional sight visibility to the north may be possible if the intersection were relocated to the south, but it would likely also require the berm to be reduced, vegetation removed and the relocation of two power poles. It would also be a change from the subdivision and Structure Plan layout and reduce sight distance south.

The Wayside Road/Te Kauwhata Road roundabout means that speeds at the south end of Wayside Road will be 50km/hr or less. The urban subdivision will have speeds of 50 km/hr. There will be urban/peri-urban development from the roundabout to the north edge of the subdivision. A consistent and uniform 50km/hr restriction would be appropriate on Wayside Road from the roundabout to north of the subdivision. This would mean non-injury or minor injury crashes rather than serious or fatal. The consequence of the shortfall would be an increased probability of impact and an impact speed around 20-30 km/hr unless the driver can avoid collision. For a design speed of 60km/hr (50km/hr restriction plus 10 km/hr) the SISD would be around 115-125m.

3.2. Right turn facility

We have assessed the need for a right turn facility at the new intersection using the Austroads Part 4A Warrants for turning facilities (refer figure 5 below).

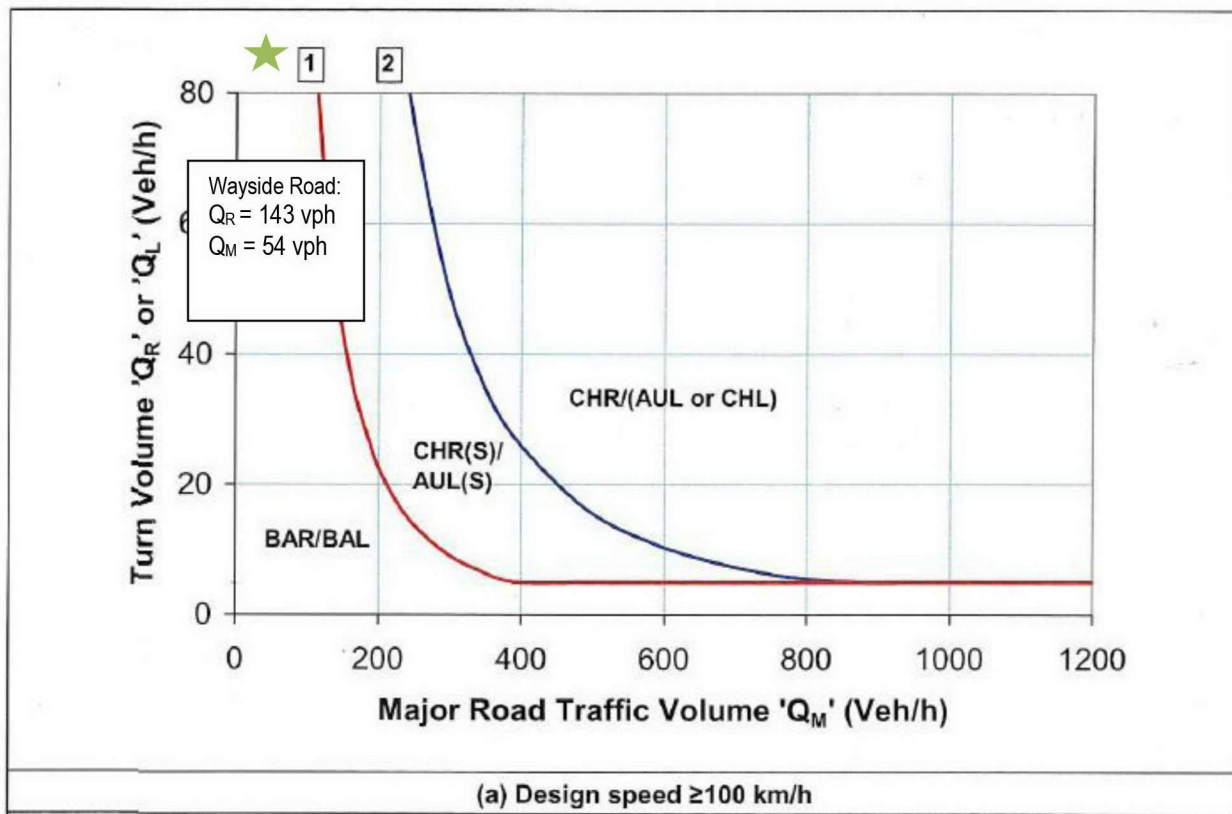


Figure 5: Warrants for Turning Facilities (Austroads Part 4A).

Given the relatively low volume on Wayside Road, basic intersection widening would be appropriate to allow vehicles to pass those waiting to turn right into the collector road. As the subdivision develops, the traffic is likely to disperse between a number of accesses to the surrounding arterial network (Travers Road and Te Kauwhata Road intersections are included in the Structure Plan). Based on the full subdivision being 400 lots, in the long term there is likely to be around 1500-2000vpd using this intersection especially since it connects to the new Te Kauwhata Road roundabout and the interchange.

3.3. Wayside Road

Wayside Road has a current seal width of 7m. This will need to be widened to meet the minimum lane widths required by the Te Kauwhata Structure Plan cross section. For a collector road (refer Figure 4B2 Te Kauwhata Structure Plan – Typical Road Cross Sections – Collector Roads), two 4m lanes are required, a total seal width of 8m. Verge and footpaths would also need to be modified. It may be desirable to consider a narrow painted median to provide for turning cars to be clear of through lanes. This may also assist in managing speeds. We recommend that Wayside Road be upgraded along the frontage (eastern side) to collector standard. The details will be resolved subject to WDC approval as part of detailed design.

3.4. Pedestrians and Cyclists

Footpaths are proposed within the subdivision. Appropriate walkway connections between the subdivisions and to Te Kauwhata Road to maintain connectivity should be considered in general accordance with the Structure Plan. The drainage reserve between Road E and the Jetco site is an opportunity for this and would provide alternative pedestrian connectivity between the areas.

3.5. Stormwater Management

Large sections of the roads in the subdivision have gradients over 5% meaning that swales may be ineffective for treatment and problematic in high intensity events. There is faster run off from steeper gradients and an increased risk of flooding, channel capacity being exceeded or ineffective treatment in high intensity events. Grass/planted areas are likely to need more maintenance than in otherwise flatter gradients. In order to compensate swales or alternative treatment methods such as rain gardens would need to be installed on shallower gradients with vertical drops or weirs which are not desirable from a maintenance point of view and from a safety perspective introduce additional hazards in the roadside clear zone which is not preferred.

Alternatives to the swales shown in the typical cross sections are likely to be required. The Appendix A cross sections for Te Kauwhata roads are means of compliance. The road cross sections should satisfy the Appendix B requirements (B7.2 and B7.3):

= B7.2 Roads shall be constructed to:

1. provide adequate vehicular access to each allotment, taking into account the potential number of residential units or other development on each allotment (refer B7.7)
2. link and be compatible with the current road network.
3. provide for the safe movement of both vehicular and non-vehicular traffic
4. provide adequate access for emergency vehicles
5. have a design life of at least 25 years based on equivalent design axle (EDA) or equivalent design methods
6. withstand the anticipated loads for the design life of the road
7. transfer applied loads so as not to adversely affect the underlying subgrade or services
8. contain materials suitable for the intended use
9. maintain adequate surface smoothness

10. provide for safe cycle access and thoroughfare where two-lane roundabouts are constructed
11. protect the road, road users and adjoining land from the adverse effects of surface and ground water, as set out in B7.3.

= **B7.3** The road surface and ground water control system associated with any road surface shall:

1. have a service life of at least 80 years unless an activity serviced by the road has a term of operation less than 80 years
2. adequately convey water to an approved discharge point
3. avoid the likelihood of leakage and infiltration and the penetration of roots
4. avoid the likelihood of blockages
5. provide reasonable access for maintenance

Stormwater devices such as swales and rain gardens should be designed so that they do not impose a safety risk to vehicles and pedestrians. To ensure the clear zone is traversable by vehicles, vertical drops are not desirable and the rain gardens and berms should be no steeper than 1V:4H. All plants in rain gardens (and within the clear zone) should be frangible (<100mm diameter trunk). If rain gardens are abutting footpaths, the cross section should allow additional footpath width to offset pedestrians from the potential hazard.

3.6. Proposed Laneways

The right of way access to rear lots are proposed as 8m wide laneways. These should be sealed/paved for at least 6m and designed as shared spaces for pedestrians, cyclists and vehicles. This means that two vehicles can pass if an oncoming vehicle is met, and therefore no effects on the surrounding road networks. The shared space encourages low speeds and the straight nature of the laneways provide good forward visibility. From a transportation aspect 6m paved/sealed is adequate to enable two vehicles to pass at the boundary access without adverse effect on the road or visibility/access.

4. ASSESSMENT AGAINST DISTRICT PLAN

4.1. Waikato District Plan

The site is within the Te Kauwhata Structure Plan area of the Waikato District Plan. The site is zoned Living and Living Te Kauwhata West. The site is within the Remediation Policy area. Rule 21B.4 of the District Plan states that Subdivision, use and development (including remediation) in the Remediation Policy Area is a restricted discretionary activity.

The transportation aspects of the rules are included in Appendix C. The proposal is consistent with the District Plan in most respects. The aspects of the District Plan relevant to transport that the proposal does not comply with, and their consequences, are tabulated below:

Reference	Comment	Consequence
Rule 21B.20	More than 10% are rear allotments and allotments share vehicle entranceways. There are: - 14x ROWs with two lots sharing - 1x ROW with 4 lots sharing - 2x ROW with 6 lots sharing.	Up to 4 lots sharing a vehicle entranceway is considered by the District Plan (A21.1 controlled activity). The number of rear allotments sharing vehicle access is an amenity effect (Te Kauwhata Village characteristic) which can be managed through appropriate landscape design. The ROWs will be designed to meet standards of Appendix B. More than 4 lots sharing a vehicle entranceway is a restricted discretionary activity (A21.2) (up to 8 lots). The ROW (Lot 200, laneway) proposed is 14m with 6m sealed to access six lots. From a transportation aspect 6m paved/sealed is adequate to enable two vehicles to pass at the collector road access without adverse effect on visibility/access. We recommend designing the ROW as a low speed, shared space. A second ROW (Lot 225) is proposed for access to 6 lots. The laneway is 8m wide to the same standard as the ROWs for up to 4 lots. The ROW should be designed as a low speed, shared space. We recommend paving the full 8m width to promote the shared space.
Rule 21.16	Does not comply with aspects of Appendix A – Traffic (mainly cross sections)	Refer items below.
Rule 21.17	Vehicle movements exceed 30 vpd	The subdivision is consistent with the Te Kauwhata Structure Plan. Additional traffic on the surrounding network is anticipated by the Structure Plan. Roads will be constructed to meet appropriate cross section and the layout is not inconsistent with the Structure Plan. There will be additional traffic on the surrounding network which can be managed through appropriate road design.
Rule 21.66	Does not comply with aspects of A14.1, A14.A.1, A21.1, A21.A and A23. (mainly cross sections)	Refer items below.

Reference	Comment	Consequence
Rule 21.73	The subdivision traffic generation is likely to alter the function of Wayside Road from the existing local road in the District Plan hierarchy to collector function. The function of Wayside Road is likely to change to collector following the development of the Te Kauwhata Structure Plan area so this non-compliance is likely to occur from any planned development in the structure plan area.	No net effect – consistent with Structure Plan
A12.1	a)lots accessed from the collector road may need to reverse to or from the road.	Consistent with a residential area. Can be managed through design, ensure visibility splays provided to enable visibility for pedestrians and cyclists.
A14.1	All accesses and road entrances will be formed to meet the Appendix B engineering standards. Local A and Local B will be 20m – does not match the Structure Plan (22m). Collector road will be 25.5m in accordance with Structure Plan requirement. Table 4: 20m road reserve for public road, - expected to comply for roads within subdivision. Table 4: does not comply for the proposed ROWs accessing more than one allotment and in Table 4 should then be a public road. Table 5: separation distances are expected to comply within the subdivision. 3 Lots with access from Wayside Road do not comply with spacings required	Proposed local road cross sections are consistent with standard District Plan transport rules – amenity effect which can be managed through appropriate landscape design. The internal subdivision roads will be designed to meet the requirements of Appendix B, including achieving a complying minimum horizontal alignment. There is space within the road reserve. Corner splays should be provided on corner lots to ensure adequate visibility around curves. Bends in the internal Local A and B roads and restricted visibility will contribute to lowering speeds. Slight increase in traffic exposure at the ROW entranceway, however it is expected to be low speed environment. The number of lots accessed from the ROW is mainly an amenity effect with negligible safety and efficiency effects. 6m wide carriageway for the proposed ROW (Road B) accessing 6 lots is appropriate to maintain access and visibility at the collector road.

Reference	Comment	Consequence
	by Table 5 (80m separation) and sight distance required by Table 6 (130m) for speed environment of 80 km/hr. The collector road intersection and the vehicle accesses do not comply with SISK criteria for 80 km/hr speed environment. T	The speed limit on Wayside Road is expected to be reduced to 50 km/h given the development of the surrounding area into residential subdivision. However for the current speed limit of 100 km/hr and speed environment of 80 km/hr, the sight distance available appears to be deficient for this environment and without appropriate design and consideration, could impact adversely on safety. Detailed design of the intersection and the accesses off Wayside Road should address the visibility deficiency. It would be possible to improve the visibility by cutting the bank. The deficiency in access spacing along Wayside Road means that there could be driver confusion about which driveway or intersection a vehicle is turning into. Given the expected speed environment, new intersection, and number of accesses onto Wayside Road (3) this is not expected to impact adversely on safety. During detail design, this should be considered. Alternative access arrangements (within the subdivision) would be possible if required. Increased development and the presence of the new intersection along Wayside Road will increase side friction and change in environment is likely to assist in lowering speeds. Speeds will be lower on the approach to the Te Kauwhata Road intersection. Threshold markings could assist with alerting drivers to the change in environment and lowering speeds.
A14A.1	c)i) The subdivision will generate additional traffic movements from the existing .	Refer Rule 21.17 above.

Reference	Comment	Consequence
A21.1	b) More than 4 allotments are accessed from ROW c) Sight distance at the proposed new intersection with Wayside Road does not currently meet the Table 6 (175m for 80 km/hr speed environment).	b) Minor increase in risk of traffic conflict. Low speed environment. Can be managed by specific design. c) The speed limit on Wayside Road is expected to be reduced to 50 km/h given the development of the surrounding area into residential subdivision. Detailed design of the intersection and the accesses off Wayside Road to improve visibility and provide adequate sight distance in accordance with accepted design standards (Austroads). It would be possible to improve the visibility by cutting the bank. Risk of collisions since increase in exposure if adequate sight distance is not provided. The collector road is consistent with the Te Kauwhata Structure Plan.
A21A.1	the subdivision will generate new traffic	Refer Rule 21.17 above.
A23.1	a) the subdivision roads do not meet the Te Kauwhata Structure Plan road cross sections (22m) and other aspects of the Appendix A. f) public transport is not specifically provided for.	The Te Kauwhata Structure Plan requires 22m cross section. Roads will be constructed to incorporate traffic features (parking, traffic lanes, footpaths, services, landscaping, drainage, etc. equivalent to the Local "A" or "B" road cross section in the Te Kauwhata Structure Plan area and in a 20m road corridor. This cross section is consistent with other areas of the district and will incorporate all required traffic features. The roads will be able to accommodate public transport vehicles given that they will meet the required cross sections. Bus stops can be incorporated in the cross section at a later date if public transport is desired.

Table 4: District Plan Rules relevant to transport that the proposal does not comply with.

Providing that adequate sight distance is addressed at the detailed design stage for the appropriate speed, there are no adverse effects on individuals or the environment from departures from District Plan standards relating to traffic.

The internal road layout departs from the Structure Plan layout but is more accessible and provides better connectivity for all modes within the subdivision and to the adjoining subdivisions and surrounding road network.

5. EVALUATION OF TRAFFIC EFFECTS AND OPTIONS FOR MITIGATION

5.1. Assessment of Transportation Effects

There will be up to an additional 35 lots and therefore up to 354 vpd more than the consented activity. The development will be denser providing more lots within the same area and proposes an altered internal road layout that remains consistent with the originally consented subdivision and the Te Kauwhata Structure Plan objectives and policies for a high degree of road connectivity, providing good accessibility and encouraging low speed environments. A significant advantage of the proposed internal roading layout over the consented layout is the accessible road gradients. Significant earthworks (up to 7.6m cut) are proposed to reduce grades and provide a better subdivision layout that is more accessible for all modes. Apart from a short section along one road, gradients are less than 10%. This will assist with better visibility from driveways and support improved safety and mobility for active modes, mobility –impaired pedestrians and wheelchair users. The extent of earthworks means that significant restrictive retaining walls included in the consented layout are not required.

The effects of the proposal compared to the Structure Plan and the existing consent (SUB0163/14) relate to:

- = The number of lots. There are 35 lots more than consented. Additional lots means denser development which supports investment in public transport/walking and cycling and supports objective 15A.2.31 for a land transport network that provides for all transport modes.
- = Increased number of trips. 354 vpd more than consented. There will be a minor increase in exposure at the collector road – Wayside Road intersection than the consented. This is consistent with the Structure Plan and Te Kauwhata West Living Zone.
- = The internal roading layout. The proposed layout is consistent with the Structure Plan and provides connectivity to the adjoining subdivision roads. There is one fewer intersection than the consented and a significant benefit is improved accessibility due to reduced road gradients. The cul-de-sac (east of the reserve) included in the Structure Plan layout is not proposed. Two road frontages to the reserve are proposed and there is additional opportunity for pedestrian access through the drainage reserve, so the net impact is improved connectivity.

The proposal will add approximately 1667 vpd (354 vpd more than consented) to the transportation network and includes a new collector road intersection on Wayside Road. The activities are consistent with those anticipated for the Te Kauwhata Structure Plan West Living zones.

The traffic effects include:

- Noise:** There will be an increase in noise related to the traffic increase over the consented subdivision. At around 25-30% this is unlikely to be noticeable compared to the conditions expected as part of the Structure Plan development and the consented environment. The proposed layout does not bring roads closer to any nearby party than the consented proposal.
- Visual:** Similar traffic composition to that currently generated in the surrounding area but increased exposure– no significant traffic impact.
- Safety:** New property accesses off Wayside Road and a new intersection will mean an increase in exposure on Wayside Road and at the Te Kauwhata Roundabout. There are no crashes recorded along this section of Wayside Road. Provided the new

accesses and intersections meet the design and visibility standards, there is no reason to expect safety problems.

The final design needs to provide adequate sight distance along Wayside Road (intersections and entranceways). The existing sight distance falls short of the requirement for the existing 80 km/hr speed environment. The subdivision is anticipated by the District Plan and the area is zoned residential along Wayside Road so we expect the speed limit will be 50 km/hr. If the speed limit is not reduced, the entranceway separation and intersection visibility will not meet District Plan standards. However, the risk associated with entranceway spacing being closer is limited, and the proximity of the frontage to Te Kauwhata Road, and the future urban context, will ensure drivers are alert and should moderate speeds. The only people affected will be the entranceway users (e.g. confusion about which entrance a vehicle is turning in to), since road rules will ensure no effects on through traffic. The collector road intersection proposed is consistent with the Te Kauwhata Structure Plan and adequate sight distance in accordance with Austroads standards should be confirmed during detailed design for the expected speed environment. If the speed remains around 70-80 km/hr this may require level alterations and earthworks in the Wayside Road reserve as part of its urbanisation. The proposed intersection and the sight distance issue is no different to the situation/design enabled by the consented subdivision.

Efficiency: The subdivision traffic will increase the existing traffic volume on Wayside Road. However, Wayside Road has sufficient reserve capacity and can readily accommodate the additional 1667 veh/day traffic (from the whole subdivision (approximately 350 vpd more than consented)). During peak periods the additional traffic at the Te Kauwhata Road intersection may be noticeable, however, the majority of movements are expected to be to the south and west, consistent with the surrounding traffic. The new roundabout has sufficient capacity to accommodate the extra traffic. During the peak PM period, there may be an additional 230 vph on Wayside Road. As the Te Kauwhata Structure Plan area becomes developed and the road connections are completed, we expect the traffic generated by the proposal to disperse between the future intersections with the surrounding network (Travers Road, Te Kauwhata Road and Wayside Road), reducing subdivision traffic on Wayside Road.

The scale and type of the effects related to traffic are anticipated by the District Plan and are consistent with the Te Kauwhata Structure Plan. There will be a slight increase in intensity of the effects but these will be well within the capacity of the existing and planned transport network infrastructure to accommodate them.

5.2. Mitigation Measures

We recommend that the development include the following mitigation measures:

- = Widening of Wayside Road carriageway to 4m on the subdivision side to meet the Te Kauwhata Structure Plan collector cross section and provide a 1.5m footpath along the subdivision frontage.
- = Ensure stormwater management devices are designed to provide safely for pedestrians and vehicles.
- = Design approvals, including:

- The consent holder arranging an independent Detailed Design (Stage 3) road safety audit for the subdivision roads and intersections with Wayside Road in accordance with the NZTA Draft Guidelines for Road Safety Audit.
 - Detailed design in accordance with the Hamilton City Council Infrastructure Technical Specifications and the Waikato District Council supplement.
 - Dimensions and details demonstrating that Waikato DC's requirements for visibility at intersections and driveways on Wayside Road will be satisfied. A speed limit of 50 km/hr on Wayside Road from a distance approximately 150m north of the site to the Te Kauwhata Road roundabout is consistent with the Te Kauwhata Structure Plan expected residential nature of the surrounding area and the SLNZ assessment (after development).
- = Construction management plan including:
- Temporary Traffic Management plans in accordance with the Code of Practice for Temporary Traffic Management.
 - Corridor access requests for any works affecting Wayside Road
 - Measures to prevent debris and mud tracking onto public roads, and arrangements to clean roads should dirt or debris end up on public roads.

6. CONCLUSIONS

6.1. Comparison with Consented Layout and Structure Plan

The proposed changes result in a different road layout (horizontal and vertical) and greater density. The increased density is consistent with the Future Proof density intentions, reduces infrastructure construction and maintenance costs and supports walking and cycling within the community. The increased traffic remains within the spare capacity of the surrounding network. The proposed changes include flatter road gradients for better accessibility for all modes and consistent connectivity to the surrounding subdivisions. Local roads accessing the residential lots are proposed with 6m wide carriageway leading to lower speeds within the denser residential streets and will encourage subdivision traffic to use the collector road to access the surrounding network. This is consistent with the Te Kauwhata Structure Plan objectives and policies achieving a generally low speed environment providing good accessibility and connectivity.

6.2. Speeds on Wayside Road

The collector road intersection and location is consistent with the Structure Plan. The urban subdivision will have speeds of 50 km/hr and given the extent of residential zone land in the surrounding area and along the Wayside Road frontage, we expect the speed limit will be 50 km/hr on Wayside Road from the Te Kauwhata Road roundabout to north of the subdivision. This is consistent with the SLNZ assessment (after development). A bylaw change will be required for a change in speed restriction. Adequate sight distance in accordance with WDC's requirements should be confirmed during detailed design for the expected speed environment. If the speed remains around 70-80 km/hr this may require level alterations and earthworks in the Wayside Road reserve as part of its urbanisation.

6.3. Traffic Impact

The nature of the traffic effects will be similar to that already present on the surrounding road network and in keeping with the traffic volumes and characteristics predicted to result from the already consented 130 lot subdivision. There will be an increase in the intensity of traffic but the surrounding road network has sufficient spare capacity to accommodate this. There are departures from the Te Kauwhata Structure Plan road details such as corridor widths and rear lot access, which may affect amenity (and this will be addressed by others), but the key transport functions and features remain, and the resulting standard is consistent with the typical road details for the Waikato District Plan.

Subject to appropriate conditions requiring mitigation as set out in Section 6.2 above, there does not appear to be any significant reason related to traffic why the proposal should not proceed.

SCHEME PLANS



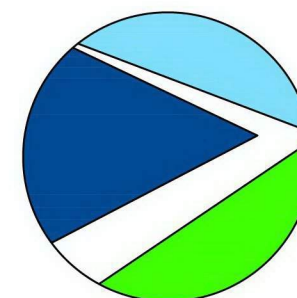
LOTS 1 - 165 RESIDENTIAL SUBDIVISION OF
LOT 306 DP 495940 - STAGES 1 - 4
WAYSIDE ROAD - TE KAUWHATA
PREPARED FOR: TE KAUWHATA LAND LTD

WDC REF: SUB0163/14
BLUE WALLACE REF: 14/012
REVISION #10
DATE: 7 JULY 2016

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APPLICATION SCHEME #10 17-06-16.DWG

NOMINATED SUPERVISOR

NAME: ..MURRAY WALLACE.. REGISTERED PROFESSIONAL SURVEYOR..
ADDRESS: ..25 HARWOOD STREET, HAMILTON..
E-MAIL: ..murray@bluewallace.co.nz..
PHONE: ..Wk. (07) 839 7799 .. Mob. 021 823 768 ..



Blue Wallace
Surveyors Ltd.

25 Harwood Street, P O Box 38,
Hamilton.

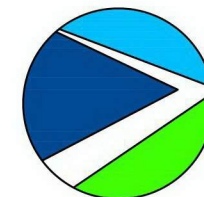
Phone (07) 8397799, Fax (07) 8394455

SCHEME PLANS

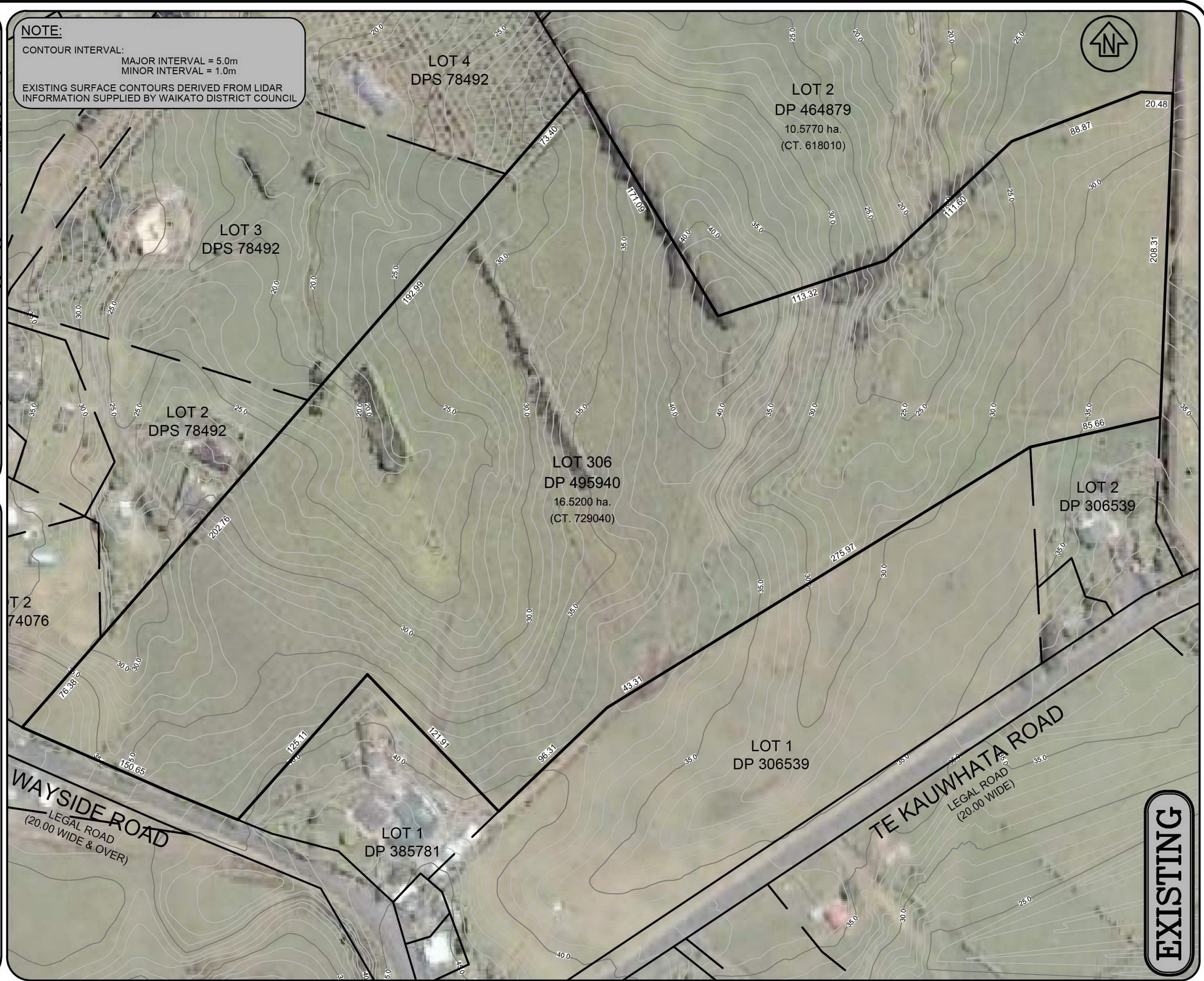
INDEX TO SHEETS

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LOTS 1 - 165 RESIDENTIAL SUBDIVISION OF
LOT 306 DP 495940 - STAGES 1 - 4
WAYSIDE ROAD - TE KAUWHATA
PREPARED FOR: TE KAUWHATA LAND LTD



Blue Wallace
Surveyors Ltd.
25 Harwood Street, P O Box 38,
Hamilton Central, HAMILTON.
Phone (07) 839 7799, Fax (07) 839 4455



NOTE:

- 1) ALL AREAS AND DIMENSIONS SUBJECT TO FINAL SURVEY AND APPROVAL FROM THE WAIKATO DISTRICT COUNCIL
- 2) LEGAL DESCRIPTION: LOT 306
DP 495940
(CT. 729040)
- 3) TOTAL AREA: 16.5200 ha.
- 4) ZONE: LIVING ZONE TE KAUWHATA WEST
- 5) AERIAL PHOTO SUBJECT TO DISTORTION
- 6) ALL LEVELS ARE IN TERMS OF MOTURIKI DATUM

SCALE: 1:2500 @A3, 1:1250 @A1			DATE: JULY 2016	
No.	Amendment	Init.	Date.	Designed. WAB
1	APPLICATION SCHEME PLAN #10 17-6-16	WAB	07/16	Drawn. WAB 7 JULY 2016
2				Checked.
3				Approved.
S:\2014\14012 - SILVERSPURICAD\FOR RC APPROVAL\14012 APPLICATION SCHEME #10 17-06-16.DWG				

LOTS 1 - 165 BEING A SUBDIVISION OF
LOT 306 DP 495940
WAYSIDE ROAD - TE KAUWHATA
PREPARED FOR: TE KAUWHATA LAND LTD

Version #10



Blue Wallace
Surveyors Ltd.
25 Harwood Street, P O Box 38,
Hamilton Central, HAMILTON.
Phone (07) 839 7799, Fax (07) 839 4455

File Reference
14/012
Drawing No.
1 of 12

MEMORANDUM OF EASEMENT			
PURPOSE	SERV. TENE.	SHOWN	DOM. TENE.
RIGHT OF WAY RIGHT TO CONVEY ELECTRICITY, TELECOMMUNI- CATIONS AND COMPUTER MEDIA & WATER RIGHT TO DRAIN STORMWATER SEWAGE	LOT 200 HEREON	A	LOTS 7 - 12 HEREON
	LOT 203 HEREON	C	LOTS 32 & 33 HEREON
	LOT 204 HEREON	D	LOT 38 & 39 HEREON
	LOT 206 HEREON	E	LOT 50 & 51 HEREON
	LOT 207 HEREON	F	LOT 56 & 57 HEREON
	LOT 208 HEREON	G	LOT 60 - 62 HEREON
	LOT 209 HEREON	H	LOT 65 & 66 HEREON
	LOT 210 HEREON	I	LOT 71 & 72 HEREON
	LOT 211 HEREON	J	LOT 75 & 76 HEREON
	LOT 213 HEREON	K	LOTS 88 & 89 HEREON
	LOT 217 HEREON	L	LOTS 95 - 98 HEREON
	LOT 218 HEREON	M	LOTS 138 & 139 HEREON
	LOT 219 HEREON	N	LOTS 143 & 144 HEREON
	LOT 222 HEREON	O	LOTS 109 & 110 HEREON
	LOT 223 HEREON	P	LOTS 113 & 114 HEREON
	LOT 224 HEREON	Q	LOTS 122 & 123 HEREON
LOT 225 HEREON	R	LOTS 127 - 132 HEREON	
RIGHT OF WAY	LOT 300 HEREON	B	LOT 202 HEREON

NOTE:

1) ALL AREAS AND DIMENSIONS SUBJECT TO FINAL SURVEY AND APPROVAL FROM THE WAIKATO DISTRICT COUNCIL

2) LEGAL DESCRIPTION: LOT 306
DP 495940

(CT. 729040)

3) TOTAL AREA: 16.5200 ha.

4) ZONE: LIVING ZONE TE KAUWHATA WEST

5) AERIAL PHOTO SUBJECT TO DISTORTION

6) ALL LEVELS ARE IN TERMS OF MOTURIKI DATUM

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3				Approved.

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LOTS 1 - 165 BEING A SUBDIVISION OF
LOT 306 DP 495940
WAYSIDE ROAD - TE KAUWHATA
PREPARED FOR: TE KAUWHATA LAND LTD

Version #10	Firm's Name	Blue Wallace Surveyors Ltd. 25 Harwood Street, P O Box 38, Hamilton Central, HAMILTON. Phone (07) 839 7799, Fax (07) 839 4455	File Reference 14/012
			Drawing No. 2 of 12

AMALGAMATION CONDITION
THAT LOT 200 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS SIX UNDIVIDED ONE-SIXTH SHARES BY THE OWNERS OF LOTS 7 - 12 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.
(SEE LINZ REQUEST.....)

AMALGAMATION CONDITION
THAT LOT 203 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS TWO UNDIVIDED ONE-HALVE SHARES BY THE OWNERS OF LOTS 32 & 33 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.
(SEE LINZ REQUEST.....)

AMALGAMATION CONDITION
THAT LOT 204 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS TWO UNDIVIDED ONE-HALVE SHARES BY THE OWNERS OF LOTS 38 & 39 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.
(SEE LINZ REQUEST.....)

AMALGAMATION CONDITION
THAT LOT 206 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS TWO UNDIVIDED ONE-HALVE SHARES BY THE OWNERS OF LOTS 50 & 51 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.
(SEE LINZ REQUEST.....)

AMALGAMATION CONDITION
THAT LOT 207 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS TWO UNDIVIDED ONE-HALVE SHARES BY THE OWNERS OF LOTS 58 & 57 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.
(SEE LINZ REQUEST.....)

AMALGAMATION CONDITION
THAT LOT 208 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS THREE UNDIVIDED ONE-THIRD SHARES BY THE OWNERS OF LOTS 60 - 62 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.
(SEE LINZ REQUEST.....)

AMALGAMATION CONDITION
THAT LOT 209 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS TWO UNDIVIDED ONE-HALVE SHARES BY THE OWNERS OF LOTS 65 & 66 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.
(SEE LINZ REQUEST.....)

AMALGAMATION CONDITION
THAT LOT 210 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS TWO UNDIVIDED ONE-HALVE SHARES BY THE OWNERS OF LOTS 71 & 72 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.
(SEE LINZ REQUEST.....)

AMALGAMATION CONDITION
THAT LOT 211 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS TWO UNDIVIDED ONE-HALVE SHARES BY THE OWNERS OF LOTS 75 & 76 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.
(SEE LINZ REQUEST.....)

AMALGAMATION CONDITION
THAT LOT 218 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS TWO UNDIVIDED ONE-HALVE SHARES BY THE OWNERS OF LOTS 138 & 139 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.
(SEE LINZ REQUEST.....)

AMALGAMATION CONDITION
THAT LOT 219 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS THREE UNDIVIDED ONE-HALVE SHARES BY THE OWNERS OF LOTS 143 & 144 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.
(SEE LINZ REQUEST.....)

AMALGAMATION CONDITION
THAT LOT 222 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS TWO UNDIVIDED ONE-HALVE SHARES BY THE OWNERS OF LOTS 109 & 110 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.
(SEE LINZ REQUEST.....)

AMALGAMATION CONDITION
THAT LOT 223 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS TWO UNDIVIDED ONE-HALVE SHARES BY THE OWNERS OF LOTS 113 & 114 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.
(SEE LINZ REQUEST.....)

AMALGAMATION CONDITION
THAT LOT 224 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS THREE UNDIVIDED ONE-THIRD SHARES BY THE OWNERS OF LOTS 122 & 123 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.
(SEE LINZ REQUEST.....)

AMALGAMATION CONDITION
THAT LOT 225 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS SIX UNDIVIDED ONE-SIXTH SHARES BY THE OWNERS OF LOTS 127 - 132 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.
(SEE LINZ REQUEST.....)

LOT 2
DPS 78492

LOT 1
DP 385781

LOT 2
DP 306539

AYSIDE ROAD
LEGAL ROAD
(20.00 WIDE & OVER)

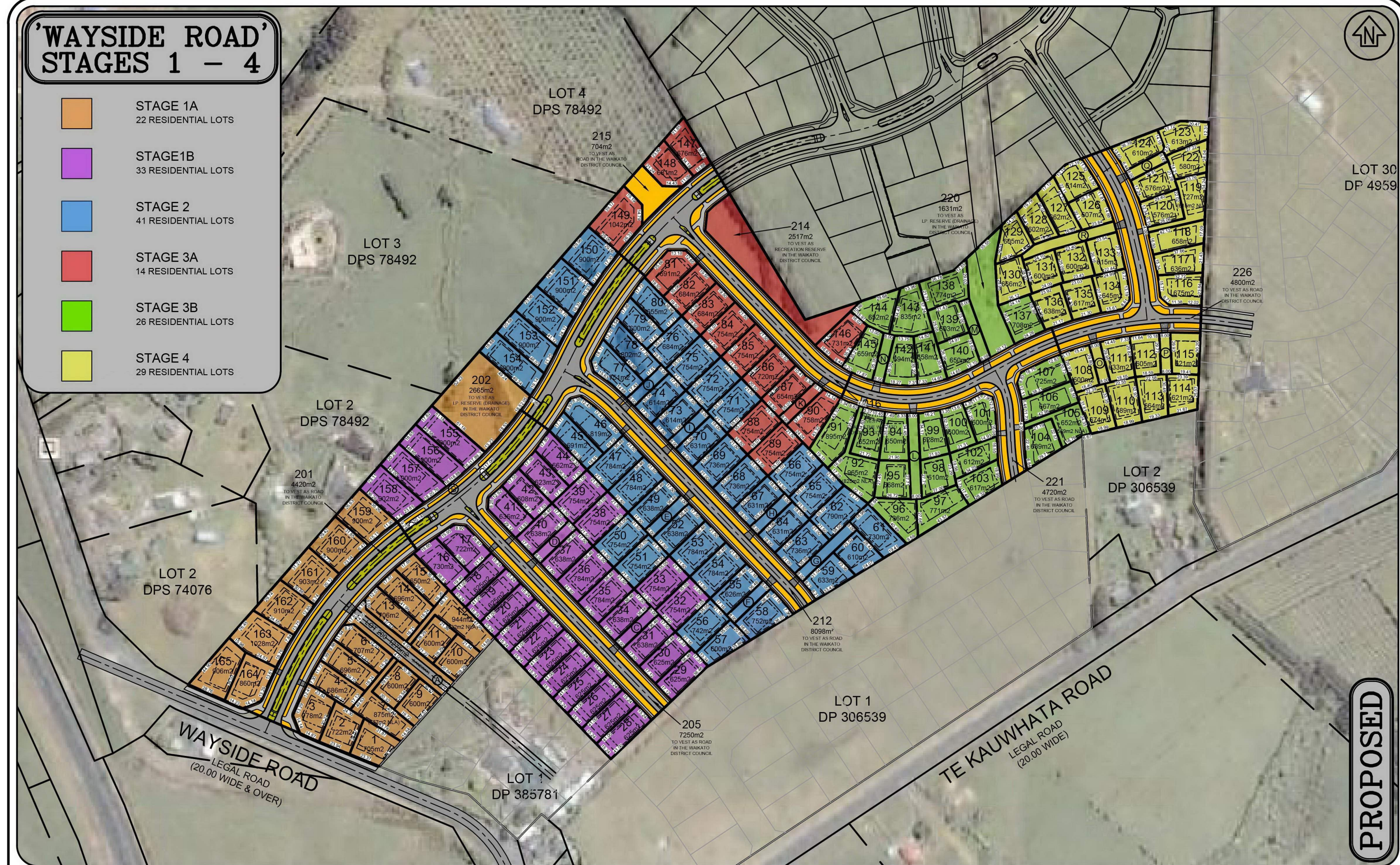
TE KAUWHATA ROAD
LEGAL ROAD
(20.00 WIDE)

PROPOSED

PROPOSED

'WAYSIDE ROAD' STAGES 1 - 4

- STAGE 1A
22 RESIDENTIAL LOTS
- STAGE 1B
33 RESIDENTIAL LOTS
- STAGE 2
41 RESIDENTIAL LOTS
- STAGE 3A
14 RESIDENTIAL LOTS
- STAGE 3B
26 RESIDENTIAL LOTS
- STAGE 4
29 RESIDENTIAL LOTS



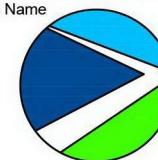
PROPOSED

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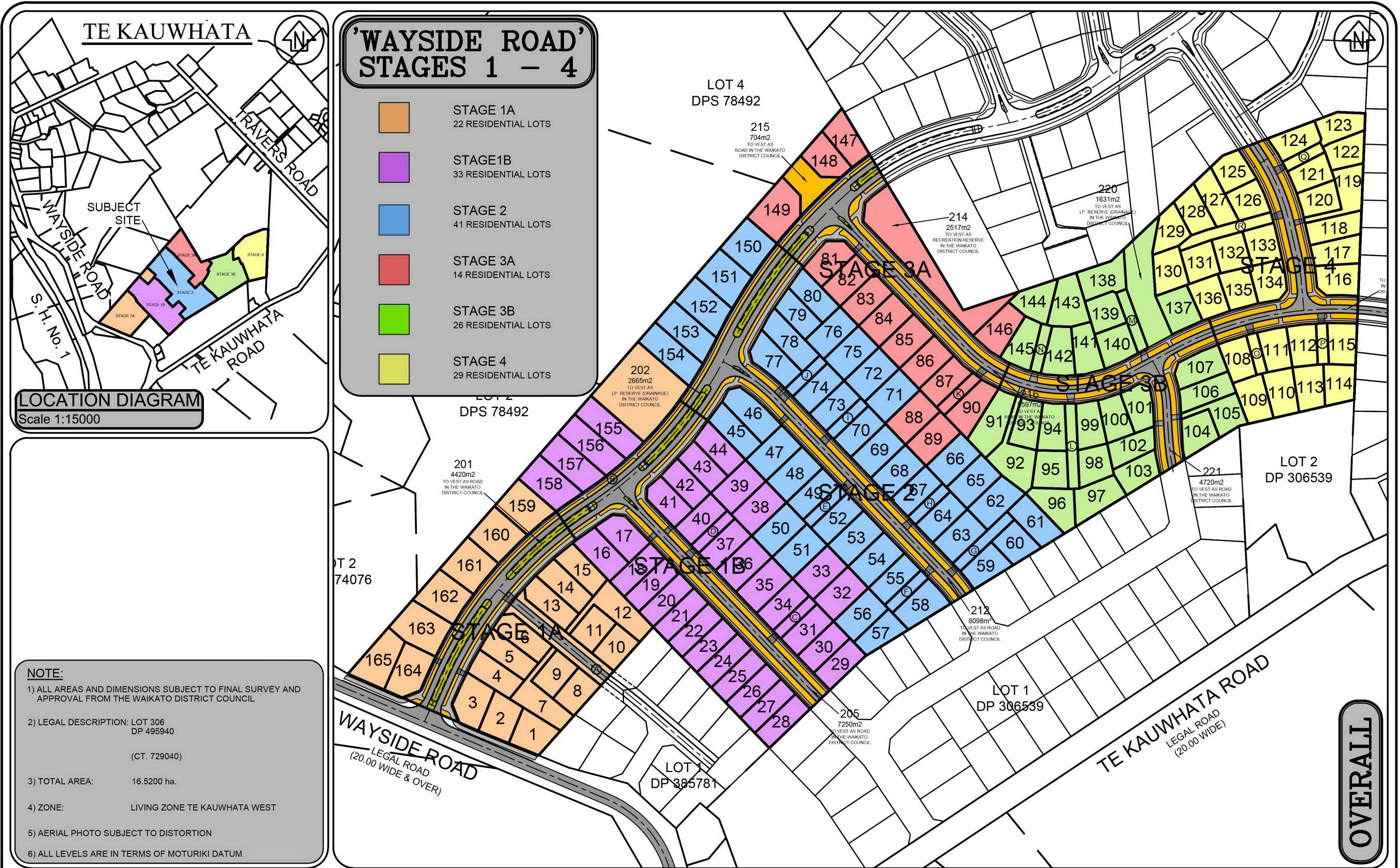
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25 Harwood Street, P O Box 38,
Hamilton Central, HAMILTON.
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File Reference

14/012

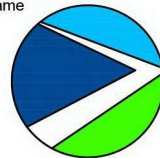
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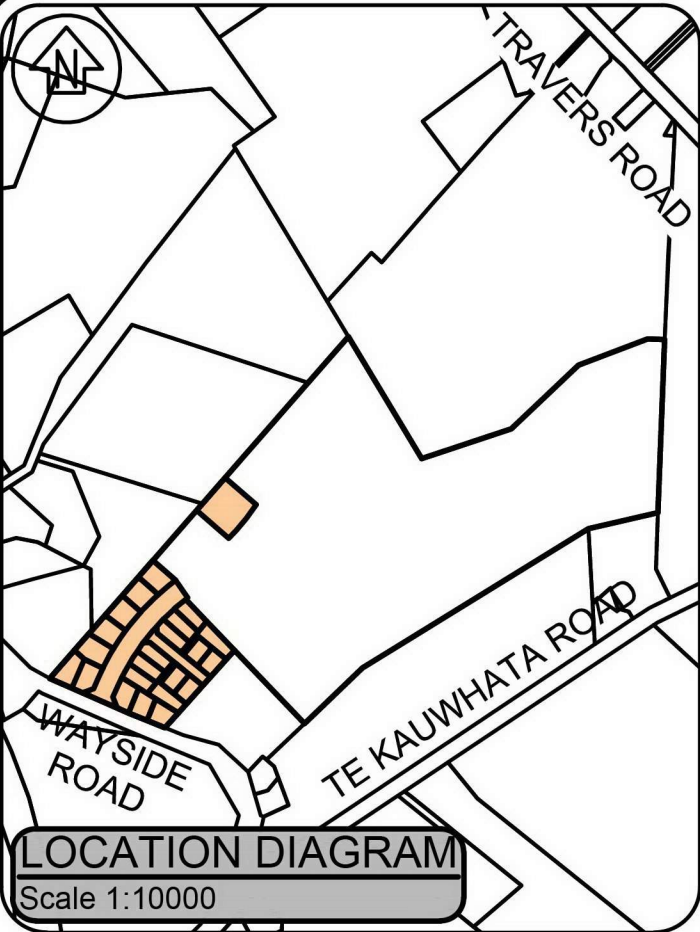
3 of 12



SCALE: 1:2500 @A3			DATE: JULY 2016		
No.	Amendment	Init.	Date.	Designed. WAB	
1	APPLICATION STAGING PLAN - OVERALL	WAB	07/16	Drawn. WAB 7 JULY 2016	
2				Checked.	
3				Approved.	
S:\2014\14012 - SILVERSPURICAD\FOR RC APPROVAL\14012 APPLICATION SCHEME #10 17-06-16.DWG					

STAGING PLAN - OVERALL STAGING PLAN
LOT 306 DP 495940
WAYSIDE ROAD - TE KAUWHATA
PREPARED FOR: TE KAUWHATA LAND LTD

Version #10	Firm's Name		File Reference
		Blue Wallace Surveyors Ltd.	14/012
		25 Harwood Street, P O Box 38, Hamilton Central, HAMILTON. Phone (07) 839 7799, Fax (07) 839 4455	Drawing No. 4 of 12



MEMORANDUM OF EASEMENT			
PURPOSE	SERV. TENE.	SHOWN	DOM. TENE.
RIGHT OF WAY RIGHT TO CONVEY ELECTRICITY, TELECOMMUNI- CATIONS AND COMPUTER MEDIA, WATER	LOT 200 HEREON	A	LOTS 7 - 12 HEREON
RIGHT TO DRAIN SEWER & STORMWATER			
RIGHT OF WAY	LOT 300 HEREON	B	LOT 202 HEREON

NOTE:

1) ALL AREAS AND DIMENSIONS SUBJECT TO FINAL SURVEY AND APPROVAL FROM THE WAIKATO DISTRICT COUNCIL

2) LEGAL DESCRIPTION: LOT 306
DP 495940

(CT. 729040)

3) TOTAL AREA: 16.5200 ha.

4) ZONE: LIVING ZONE TE KAUWHATA WEST

5) AERIAL PHOTO SUBJECT TO DISTORTION

6) ALL LEVELS ARE IN TERMS OF MOTURIKI DATUM

**'WAYSIDE ROAD'
STAGE 1A**

1) RESIDENTIAL LOTS = 22 LOTS (LOTS 1 - 15,
159 - 165)
TOTAL AREA: 1.6973 ha.

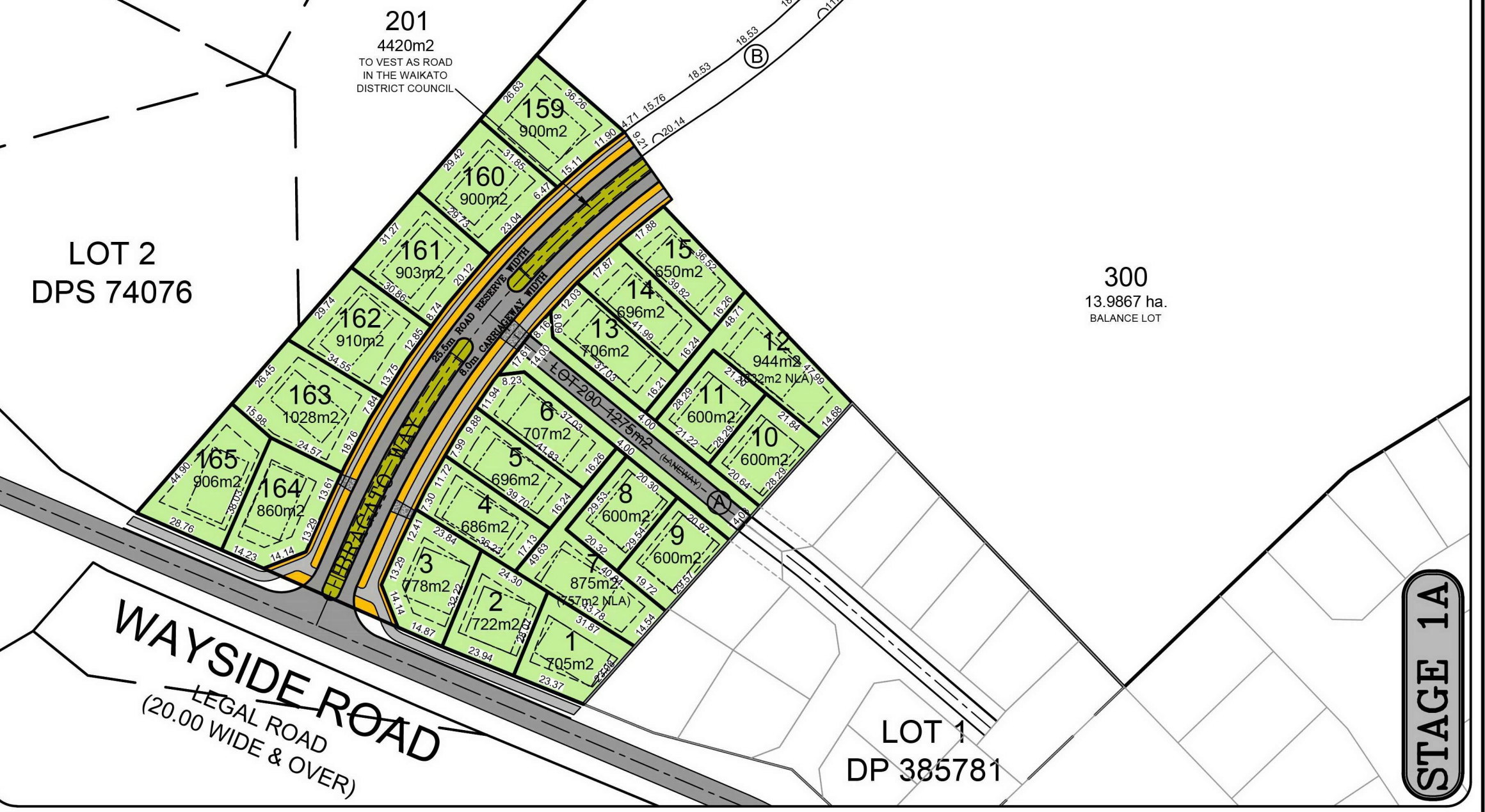
2) ROAD RESERVE TO VEST = 1 LOT (LOT 201)
TOTAL AREA: 0.4420 ha.

3) ACCESS LOTS (LANEWAY) = 1 LOT (LOT 200)
TOTAL AREA: 0.1275 ha.

4) LP. RESERVE TO VEST (DRAINAGE) = 1 LOT (LOT 202)
TOTAL AREA: 0.2665 ha.

5) TOTAL AREA - STAGE 1A : 2.5333 ha.

6) BALANCE LOT = 1 LOT (LOT 300)
TOTAL AREA: 13.9867 ha.



AMALGAMATION CONDITION
THAT LOT 200 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS SIX UNDIVIDED ONE-SIXTH SHARES BY THE OWNERS OF LOTS 7 - 12 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.

(SEE LINZ REQUEST.....)

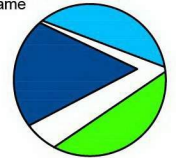
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No.	Amendment	Init.	Date.	Designed. WAB
1	APPLICATION STAGING PLAN - STAGE 1	WAB	07/16	Drawn. WAB 7 JULY 2016
2				Checked.
3				Approved.

S:\2014\14012 - SILVERSPURCAD\FOR RC APPROVAL\14012 APPLICATION SCHEME #10 17-06-16.DWG

STAGING PLAN - STAGE 1A DETAIL PLAN
LOT 306 DP 495940
WAYSIDE ROAD - TE KAUWHATA
PREPARED FOR: TE KAUWHATA LAND LTD

Version #10

Firm's Name



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File Reference

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Drawing No.

5 of 12



MEMORANDUM OF EASEMENT			
PURPOSE	SERV. TENE.	SHOWN	DOM. TENE.
RIGHT OF WAY RIGHT TO CONVEY ELECTRICITY, TELECOMMUNI- CATIONS AND COMPUTER MEDIA, WATER	LOT 203 HEREON	C	LOTS 32 & 33 HEREON
RIGHT TO DRAIN SEWER & STORMWATER	LOT 204 HEREON	D	LOT 38 & 39 HEREON

NOTE:

1) ALL AREAS AND DIMENSIONS SUBJECT TO FINAL SURVEY AND APPROVAL FROM THE WAIKATO DISTRICT COUNCIL

2) LEGAL DESCRIPTION: LOT 300
DP ??????
(CT. ??????)

3) TOTAL AREA: 13.9867 ha.

4) ZONE: LIVING ZONE TE KAUWHATA WEST

5) AERIAL PHOTO SUBJECT TO DISTORTION

6) ALL LEVELS ARE IN TERMS OF MOTURIKI DATUM

**'WAYSIDE ROAD'
STAGE 1B**

1) RESIDENTIAL LOTS = 33 LOTS (LOTS 16 - 44,
155 - 158)
TOTAL AREA: 2.2841 ha.

2) ROAD RESERVE
TO VEST = 1 LOT (LOT 205)
TOTAL AREA: 0.7250 ha.

3) ACCESS LOTS
(LANEWAY) = 2 LOTS (LOT 203 & 204)
TOTAL AREA: 0.0584 ha.

4) TOTAL AREA - STAGE 1B : 3.0675ha.

5) BALANCE LOT = 1 LOT (LOT 301)
TOTAL AREA: 10.9192 ha.

LOT 2
DPS 78492

LOT 2
DPS 74076

WAYSIDE ROAD
LEGAL ROAD
(20.00 WIDE & OVER)

LOT 2
DPS 78492

LOT 1
DP 385781

301
10.9192 ha.
BALANCE LOT

205
7250m2
TO VEST AS ROAD
IN THE WAIKATO
DISTRICT COUNCIL

AMALGAMATION CONDITION
THAT LOT 203 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS TWO UNDIVIDED ONE-HALVE SHARES BY THE OWNERS OF LOTS 32 & 33 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.
(SEE LINZ REQUEST.....)

AMALGAMATION CONDITION
THAT LOT 204 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS TWO UNDIVIDED ONE-HALVE SHARES BY THE OWNERS OF LOTS 38 & 39 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.
(SEE LINZ REQUEST.....)



STAGE 1B

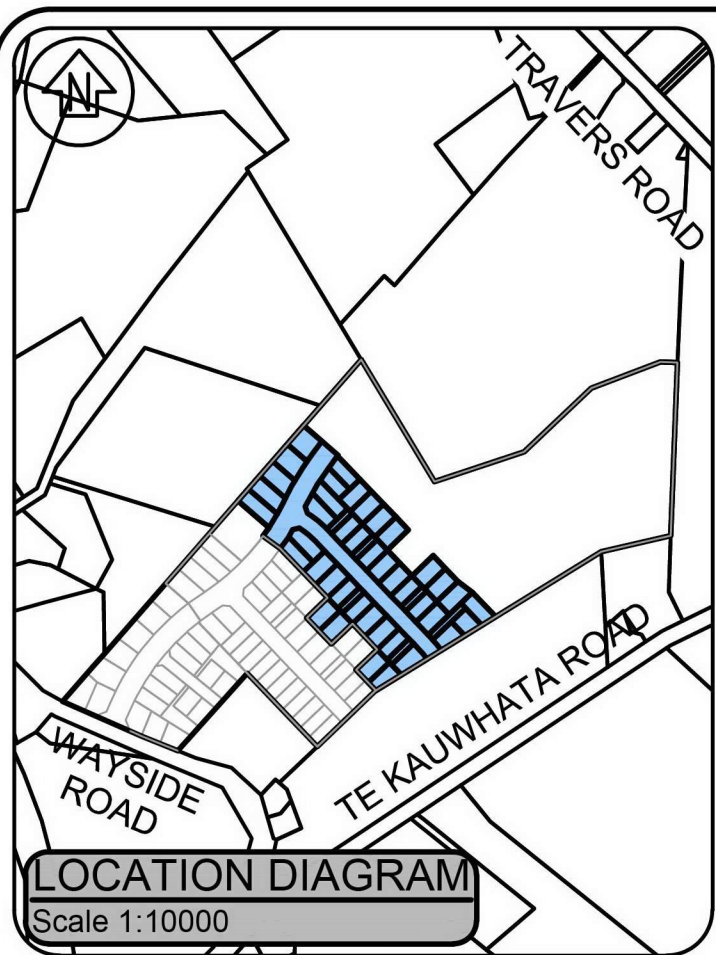
SCALE: 1:1500 @A3		DATE: JULY 2016		
No.	Amendment	Init.	Date.	Designed. WAB
1	APPLICATION STAGING PLAN - STAGE 1	WAB	07/16	Drawn. WAB 7 JULY 2016
2				Checked.
3				Approved.
S:\2014\14012 - SILVERSPURCAD\FOR RC APPROVAL\14012 APPLICATION SCHEME #10 17-06-16.DWG				

STAGING PLAN - STAGE 1B DETAIL PLAN
LOT 300 DP ??????
WAYSIDE ROAD - TE KAUWHATA
PREPARED FOR: TE KAUWHATA LAND LTD

Version #10

Firm's Name
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Surveyors Ltd.
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Hamilton Central, HAMILTON.
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File Reference
14/012
Drawing No.
6 of 12



MEMORANDUM OF EASEMENT			
PURPOSE	SERV. TENE.	SHOWN	DOM. TENE.
RIGHT OF WAY RIGHT TO CONVEY ELECTRICITY, TELECOMMUNI- CATIONS AND COMPUTER MEDIA, WATER	LOT 206 HEREON	E	LOT 50 & 51 HEREON
	LOT 207 HEREON	F	LOT 56 & 57 HEREON
	LOT 208 HEREON	G	LOT 60 - 62 HEREON
RIGHT TO DRAIN SEWER & STORMWATER	LOT 209 HEREON	H	LOT 65 & 66 HEREON
	LOT 210 HEREON	I	LOT 71 & 72 HEREON
	LOT 211 HEREON	J	LOT 75 & 76 HEREON

NOTE:

1) ALL AREAS AND DIMENSIONS SUBJECT TO FINAL SURVEY AND APPROVAL FROM THE WAIKATO DISTRICT COUNCIL

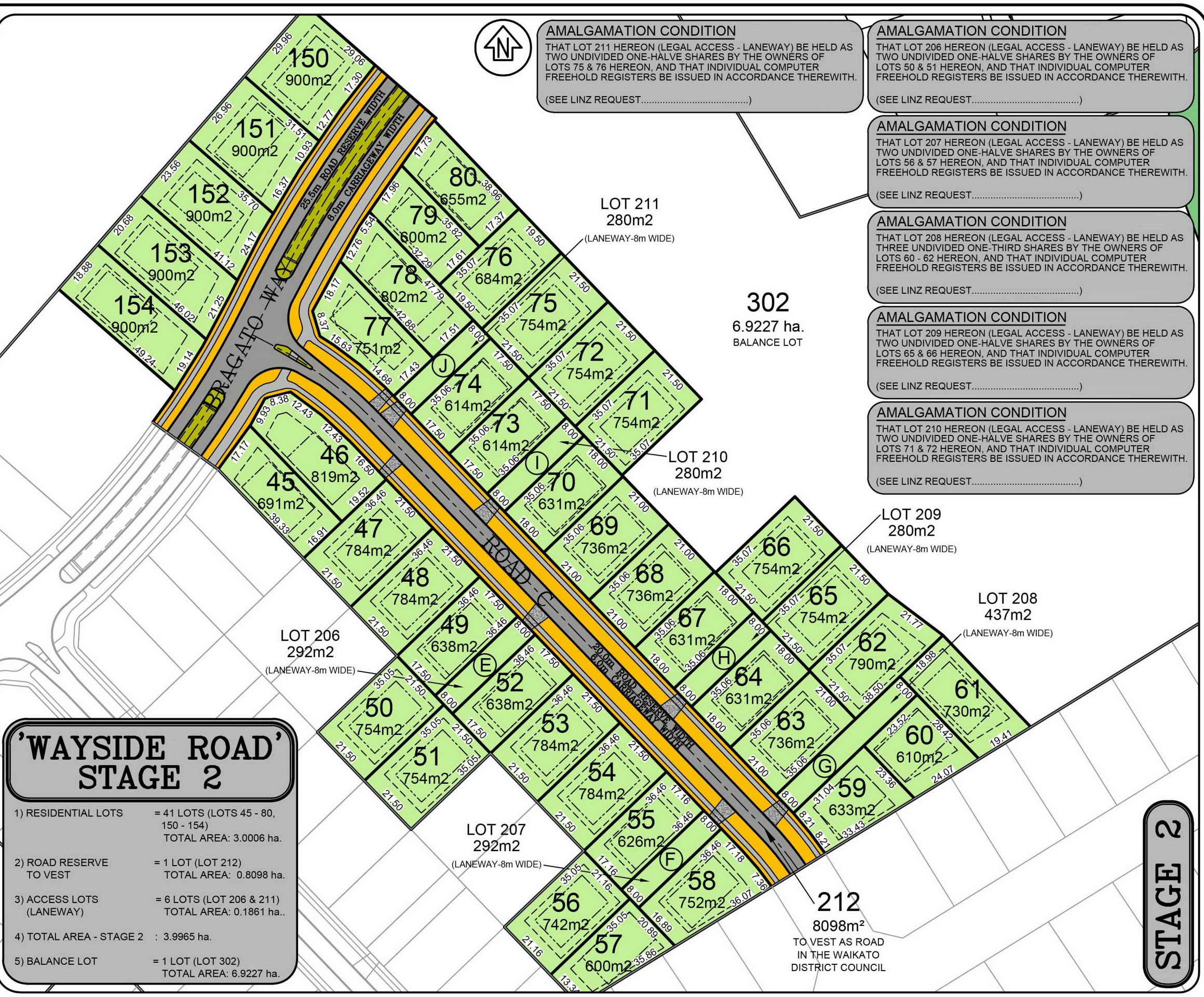
2) LEGAL DESCRIPTION: LOT 301
DP ??????
(CT. ??????)

3) TOTAL AREA: 10.9192 ha.

4) ZONE: LIVING ZONE TE KAUWHATA WEST

5) AERIAL PHOTO SUBJECT TO DISTORTION

6) ALL LEVELS ARE IN TERMS OF MOTURIKI DATUM



'WAYSIDE ROAD' STAGE 2

1) RESIDENTIAL LOTS

= 41 LOTS (LOTS 45 - 80, 150 - 154)

TOTAL AREA: 3.0006 ha.

2) ROAD RESERVE TO VEST

= 1 LOT (LOT 212)

TOTAL AREA: 0.8098 ha.

3) ACCESS LOTS (LANEWAY)

= 6 LOTS (LOT 206 & 211)

TOTAL AREA: 0.1861 ha..

4) TOTAL AREA - STAGE 2

: 3.9965 ha.

5) BALANCE LOT

= 1 LOT (LOT 302)

TOTAL AREA: 6.9227 ha.



LOCATION DIAGRAM

Scale 1:10000

MEMORANDUM OF EASEMENT

PURPOSE	SERV. TENE.	SHOWN	DOM. TENE.
RIGHT OF WAY RIGHT TO CONVEY ELECTRICITY, TELECOMMUNI- CATIONS AND COMPUTER MEDIA, WATER RIGHT TO DRAIN SEWER & STORMWATER	LOT 213 HEREON	K	LOTS 88 & 89 HEREON

AMALGAMATION CONDITION

THAT LOT 213 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS TWO UNDIVIDED ONE-HALVE SHARES BY THE OWNERS OF LOTS 88 & 89 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.

(SEE LINZ REQUEST.....)

NOTE:

- 1) ALL AREAS AND DIMENSIONS SUBJECT TO FINAL SURVEY AND APPROVAL FROM THE WAIKATO DISTRICT COUNCIL
- 2) LEGAL DESCRIPTION: LOT 302
DP ??????
(CT. ??????)
- 3) TOTAL AREA: 6.9227 ha.
- 4) ZONE: LIVING ZONE TE KAUWHATA WEST
- 5) AERIAL PHOTO SUBJECT TO DISTORTION
- 6) ALL LEVELS ARE IN TERMS OF MOTURIKI DATUM

'WAYSIDE ROAD'
STAGE 3A

- | | |
|-------------------------------|---|
| 1) RESIDENTIAL LOTS | = 14 LOTS (LOTS 81 - 90, 146 - 149)
TOTAL AREA: 1.0331 ha. |
| 2) ROAD RESERVE TO VEST | = 2 LOTS (LOTS 215 & 216)
TOTAL AREA: 0.6363 ha. |
| 3) RECREATION RESERVE TO VEST | = 1 LOT (LOT 214)
TOTAL AREA: 0.2517 ha. |
| 4) ACCESS LOT (LANEWAY) | = 1 LOT (LOT 213)
TOTAL AREA: 0.0297 ha. |
| 5) TOTAL AREA - STAGE 3A | : 1.9508 ha. |
| 6) BALANCE LOT | = 1 LOT (LOT 303)
TOTAL AREA: 4.9719 ha. |

LOT 4
DPS 78492

215
704m²
TO VEST AS
ROAD IN THE WAIKATO
DISTRICT COUNCIL

214
2517m²
TO VEST AS
RECREATION RESERVE
IN THE WAIKATO
DISTRICT COUNCIL

303
4.9719 ha.
BALANCE LOT

216
5597m²
TO VEST AS
ROAD IN THE WAIKATO
DISTRICT COUNCIL

STAGE 3A

SCALE: 1:1250 @A3

DATE: JULY 2016

No.	Amendment	Init.	Date.	Designed. WAB
1	APPLICATION STAGING PLAN - STAGE 3	WAB	07/16	Drawn. WAB 7 JULY 2016
2				Checked.
3				Approved.

S:\2014\14012 - SILVERSPURICAD\FOR RC APPROVAL\14012 APPLICATION SCHEME #10 17-06-16.DWG

STAGING PLAN - STAGE 3A DETAIL PLAN
LOT 302 DP ??????
WAYSIDE ROAD - TE KAUWHATA
PREPARED FOR: TE KAUWHATA LAND LTD

Version #10

Firm's Name



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Surveyors Ltd.

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Hamilton Central, HAMILTON.
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File Reference

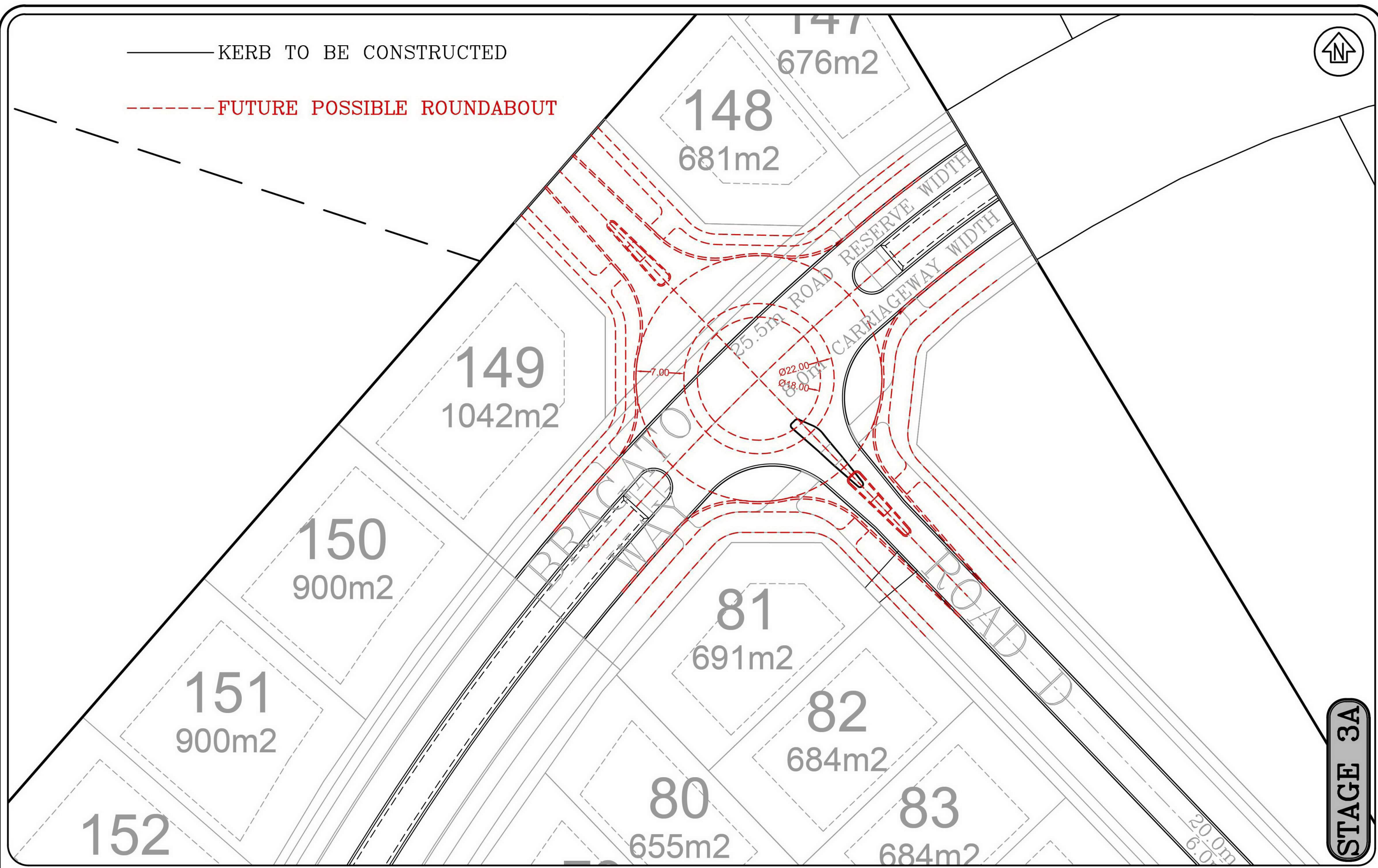
14/012

Drawing No.

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—————KERB TO BE CONSTRUCTED

-----FUTURE POSSIBLE ROUNDABOUT

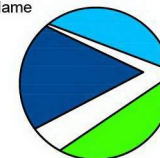


SCALE: 1:500 @A3			DATE: JULY 2016		
No.	Amendment	Init.	Date.	Designed. WAB	
1	APPLICATION STAGING PLAN - STAGE 3A	WAB	07/16	Drawn.	WAB 7 JULY 2016
2				Checked.	
3				Approved.	
S:\2014\14012 - SILVERSPURICAD\FOR RC APPROVAL\14012 APPLICATION SCHEME #10 17-06-16.DWG					

STAGING PLAN - STAGE 3A
ROUNDAABOUT DETAIL PLAN
WAYSIDE ROAD - TE KAUWHATA
PREPARED FOR: TE KAUWHATA LAND LTD

Version #10

Firm's Name



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Hamilton Central, HAMILTON.
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Drawing No.

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MEMORANDUM OF EASEMENT			
PURPOSE	SERV. TENE.	SHOWN	DOM. TENE.
RIGHT OF WAY RIGHT TO CONVEY ELECTRICITY, TELECOMMUNI- CATIONS AND COMPUTER MEDIA, WATER	LOT 217 HEREON	L	LOTS 95 - 98 HEREON
	LOT 218 HEREON	M	LOTS 138 & 139 HEREON
RIGHT TO DRAIN SEWER & STORMWATER	LOT 219 HEREON	N	LOTS 143 & 144 HEREON

NOTE:

1) ALL AREAS AND DIMENSIONS SUBJECT TO FINAL SURVEY AND APPROVAL FROM THE WAIKATO DISTRICT COUNCIL

2) LEGAL DESCRIPTION: LOT 303
DP ??????
(CT. ??????)

3) TOTAL AREA: 4.9719 ha.

4) ZONE: LIVING ZONE TE KAUWHATA WEST

5) AERIAL PHOTO SUBJECT TO DISTORTION

6) ALL LEVELS ARE IN TERMS OF MOTURIKI DATUM

AMALGAMATION CONDITION
THAT LOT 217 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS FOUR UNDIVIDED ONE-FOURTH SHARES BY THE OWNERS OF LOTS 95 - 98 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.
(SEE LINZ REQUEST.....)

AMALGAMATION CONDITION
THAT LOT 218 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS TWO UNDIVIDED ONE-HALVE SHARES BY THE OWNERS OF LOTS 138 & 139 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.
(SEE LINZ REQUEST.....)

AMALGAMATION CONDITION
THAT LOT 219 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS THREE UNDIVIDED ONE-THIRD SHARES BY THE OWNERS OF LOTS 143 & 144 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.
(SEE LINZ REQUEST.....)

'WAYSIDE ROAD' STAGE 3B

1) RESIDENTIAL LOTS

= 26 LOTS (LOTS 91 - 107, 137 - 145)
TOTAL AREA: 1.7920 ha.

2) ROAD RESERVE TO VEST

= 1 LOT (LOT 221)
TOTAL AREA: 0.4720 ha.

3) ACCESS LOTS (LANEWAY)

= 3 LOTS (LOTS 217 - 219)
TOTAL AREA: 0.1147 ha.

4) LP. RESERVE TO VEST (DRAINAGE)

= 1 LOT (LOT 220)
TOTAL AREA: 0.1631 ha.

5) TOTAL AREA - STAGE 3B

: 2.5418 ha.

6) BALANCE LOT

= 1 LOT (LOT 304)
TOTAL AREA: 2.4301 ha.



STAGING PLAN - STAGE 3B DETAIL PLAN
LOT 303 DP ??????
WAYSIDE ROAD - TE KAUWHATA
PREPARED FOR: TE KAUWHATA LAND LTD

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10 of 12

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LOCATION DIAGRAM

Scale 1:10000

MEMORANDUM OF EASEMENT

PURPOSE	SERV. TENE.	SHOWN	DOM. TENE.
RIGHT OF WAY	LOT 222 HEREON	O	LOTS 109 & 110 HEREON
RIGHT TO CONVEY ELECTRICITY, TELECOMMUNICATIONS AND COMPUTER MEDIA, WATER	LOT 223 HEREON	P	LOTS 113 & 114 HEREON
	LOT 224 HEREON	Q	LOTS 122 & 123 HEREON
RIGHT TO DRAIN SEWER & STORMWATER	LOT 225 HEREON	R	LOTS 127 - 132 HEREON

NOTE:

- ALL AREAS AND DIMENSIONS SUBJECT TO FINAL SURVEY AND APPROVAL FROM THE WAIKATO DISTRICT COUNCIL
- LEGAL DESCRIPTION: LOT 304 DP ?????? (CT. ??????)
- TOTAL AREA: 2.1415 ha.
- ZONE: LIVING ZONE TE KAUWHATA WEST
- AERIAL PHOTO SUBJECT TO DISTORTION
- ALL LEVELS ARE IN TERMS OF MOTURIKI DATUM

AMALGAMATION CONDITION

THAT LOT 222 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS TWO UNDIVIDED ONE-HALVE SHARES BY THE OWNERS OF LOTS 109 & 110 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.

(SEE LINZ REQUEST.....)

AMALGAMATION CONDITION

THAT LOT 223 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS TWO UNDIVIDED ONE-HALVE SHARES BY THE OWNERS OF LOTS 113 & 114 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.

(SEE LINZ REQUEST.....)

AMALGAMATION CONDITION

THAT LOT 224 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS THREE UNDIVIDED ONE-THIRD SHARES BY THE OWNERS OF LOTS 122 & 123 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.

(SEE LINZ REQUEST.....)

AMALGAMATION CONDITION

THAT LOT 225 HEREON (LEGAL ACCESS - LANEWAY) BE HELD AS SIX UNDIVIDED ONE-SIXTH SHARES BY THE OWNERS OF LOTS 127 - 132 HEREON, AND THAT INDIVIDUAL COMPUTER FREEHOLD REGISTERS BE ISSUED IN ACCORDANCE THEREWITH.

(SEE LINZ REQUEST.....)

'WAYSIDE ROAD' STAGE 4

- RESIDENTIAL LOTS = 29 LOTS (LOTS 108 - 136) TOTAL AREA: 1.8230 ha.
- ROAD RESERVE TO VEST = 1 LOT (LOT 226) TOTAL AREA: 0.4800 ha.
- ACCESS LOTS = 4 LOTS (LOTS 222 - 225) TOTAL AREA: 0.1271 ha
- TOTAL AREA - STAGE 4 : 2.4301 ha.



STAGE 4

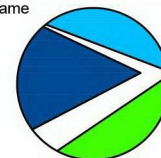
No.	Amendment	Init.	Date.	Designed. WAB
1	APPLICATION STAGING PLAN - STAGE 4	WAB	07/16	Drawn. WAB 7 JULY 2016
2				Checked.
3				Approved.

S:\2014\14012 - SILVERSPUR\CAD\FOR RC APPROVAL\14012 APPLICATION SCHEME #10 17-06-16.DWG

STAGING PLAN - STAGE 4 DETAIL PLAN
LOT 304 DP ??????
WAYSIDE ROAD - TE KAUWHATA
PREPARED FOR: TE KAUWHATA LAND LTD

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11 of 12

'WAYSIDE ROAD' STAGES 1 - 4

-  CATCHMENT AREA 1
10.6770 ha.
DIRECTED TO STORMWATER
MANAGEMENT AREA 1
-  CATCHMENT AREA 2
4.1755 ha.
DIRECTED TO STORMWATER
MANAGEMENT AREA 2
-  CATCHMENT AREA 3
1.6675 ha.
DIRECTED TO STORMWATER
MANAGEMENT AREA IN JETCO

LOT 4
DPS 78492

LOT 3
DPS 78492

LOT 2
DPS 78492

LOT 2
DPS 74076

WAYSIDE ROAD
LEGAL ROAD
(20.00 WIDE & OVER)

stormwater
management
area 1

CATCHMENT
AREA 1 (west)
= 10.6770 ha.

stormwater
management
area 2

CATCHMENT
AREA 2 (east)
= 4.1755 ha.

CATCHMENT
AREA 3 (jetco)
= 1.6675 ha.

LOT 2
DP 306539

LOT 1
DP 306539

LOT 1
DP 385781

TE KAUWHATA ROAD
LEGAL ROAD
(20.00 WIDE)



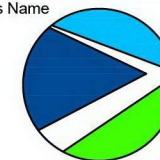
CATCHMENTS

SCALE: 1:2500 @A3, 1:1250 @A1			DATE: JULY 2016	
No.	Amendment	Init.	Date.	Designed. WAB
1	APPLICATION SCHEME PLAN #10 17-6-16	WAB	07/16	Drawn. WAB 7 JULY 2016
2				Checked.
3				Approved.
S:\2014\14012 - SILVERSPURICAD\FOR RC APPROVAL\14012 APPLICATION SCHEME #10 17-06-16.DWG				

LOTS 1 - 165 BEING A SUBDIVISION OF
LOT 306 DP 495940
WAYSIDE ROAD - TE KAUWHATA
PREPARED FOR: TE KAUWHATA LAND LTD

Version #10

Firm's Name



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File Reference

14/012

Drawing No.

12 of 12

Appendix B: Photos



1. Visibility restricted to the north by vegetation/power poles



2. Location of intersection is marked by the road cone.



3. Visibility towards the proposed intersection from the north is restricted by the berm height, power poles and vegetation. This is the position of extent of visibility possible within road reserve (requires removal of restrictions/lowering of berm) approximately 110m.



4. Visibility to the south from the proposed intersection.

Appendix C: District Plan Assessment

Waikato District Plan Rules for Te Kauwhata West Living Zone –Transport related

Item	Permitted	Resource Consent	Compliance
Rule 21B Te Kauwhata West Living zone – Land Use. Rules relating to transport			
21B.14 Garage set back – road boundary	21B.14.1 Construction or alteration of a building on a lot with a road frontage exceeding 14m is a permitted activity if the garage is set back at least: 1. 6m from the road boundary and set back further than another part of the building if the garage door faces the road.	21B.14.2 Any activity that does not comply with a condition for a permitted activity is a discretionary activity	Expected to Comply.
Item	Controlled	Resource Consent	Compliance
Rule 21B Te Kauwhata West Living Zone – Subdivision. Rules relating to transport.			
21B.20 Rear allotments	21B.20.1 Subdivision is a controlled activity if: 1. no more than 10% of allotments per neighbourhood block are rear allotments, and 2. accesses to rear allotments do not abut more than one side boundary of a front allotment, and 3. all rear allotments are provided with a separate vehicle access to a public road, and 4. no more than two adjoining allotments can share a vehicle entranceway. Control reserved over: - road efficiency and safety - amenity and streetscape - allotment shape - adequacy of access - Te Kauwhata village character - compliance with Appendix Og (Urban Design Guide). Note: Vehicle access means from the property boundary into the site. Vehicle entranceway means from the road formation to the site boundary.	21B.20.2 Subdivision that does not comply with a condition for a controlled activity is a discretionary activity.	Does not comply as more than two allotments share a ROW.

Tia Draft 1

Rule 21: Living Zone.

Rules that do not apply to TK West Living zone are: [21.24](#), [21.26](#), [21.28](#), [21.43](#), [21.46](#), [21.49](#), [21.50](#), [21.63](#), [21.67](#), [21.68](#), [21.69\(b\)](#), [21.70](#), and [21.71A](#).

Item	Permitted	Resource Consent	Compliance
Rule 21 Living Zone Rules – relating to transport			
21.16 Access, vehicle entrance, parking, loading and manoeuvring space	21.16.1 Any activity is a permitted activity if: a) access, vehicle entrance, parking, loading, queuing, and manoeuvring space is provided in accordance with Appendix A (Traffic), and b) any carparks for non-residential activities are set back at least 3m from the road boundary of the site and screened by planting or fencing.	21.16.2 Any activity that does not comply with a condition for a permitted activity requires resource consent as stated in the appendix, or is a discretionary activity if not otherwise specified.	Does not comply with all aspects. See assessment against Appendix A below.
21.17 Vehicle movements	21.17.1 Any activity is a permitted activity if: a) it does not involve more than 30 vehicle movements per day, and b) no more than 4 of these vehicle movements are heavy vehicle movements.	21.17.2 Any activity that does not comply with a condition for a permitted activity is a discretionary activity.	Does not comply. Subdivision will generate more than 30 movements per day.
21.66 Road access	21.66.1 Subdivision is a controlled activity if: a) every allotment is provided with vehicle access to a public road, and b) the vehicle access complies with Appendix A (Traffic) and Appendix B (Engineering Standards). Control reserved over: - adequacy of the access for its intended use - road efficiency and safety - matters referred to in Appendix A (Traffic) and Appendix B (Engineering Standards).	21.66.2 Subdivision that does not comply with a condition for a controlled activity requires resource consent as stated in the relevant appendix, or is a discretionary activity if not otherwise specified.	Does not comply with some aspects. See assessment against Appendix A below.
21.71A Off road walkways	21.71A.1 Subdivision is a controlled activity if any walkway shown on the planning maps is: a) at least 3 metres wide, and	21.71A.2 Any activity that does not comply with a condition for a controlled activity is a restricted discretionary activity.	Not applicable to Te Kauwhata West Living zone.

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Item	Permitted	Resource Consent	Compliance
	b) designed for shared pedestrian and cycle use, and c) generally in accordance with the walkway route shown on the planning maps, and d) shown on the plan of subdivision and vested in the Council. Control reserved over: • alignment • drainage • land stability • amenity matters including batter slopes • connection to reserves.	Discretion restricted to: alignment of walkway costs and benefits of acquiring the land matters that control is reserved over.	
21.73 Traffic generation	21.73.1 Subdivision is a controlled activity if: a) traffic generated by likely land uses following the subdivision does not alter the status or function of roads in the road hierarchy identified in Appendix A (Traffic). Control reserved over: • capacity and quality of the road surface • function of the public road • safety and efficiency of the road network • safety of road users.	21.73.2 Subdivision that does not comply with a condition for a controlled activity is a restricted discretionary activity. Discretion restricted to: • function of the public road • safety of road users • capacity and quality of road surface.	Does not comply. Wayside Road is currently a local road and following the subdivision and development of the TK west Structure Plan area, will function as a collector.
Appendix A2 Roads, Access, Entrances, Parking, Loading, Queuing, Manoeuvring			
A11 Parking, loading bays, service lanes, and manoeuvring space	A11.1 Any activity is a permitted activity if: a) parking and loading bays are provided that complies with Table 1 and Figures 1, 2 and 3, and Appendix B (Engineering Standards), and b) bicycle spaces are provided that comply with Table 2, and c) parking, loading bays and manoeuvring spaces are sealed, drained	A11.2 Any activity that does not comply with a condition for a permitted activity is a restricted discretionary activity. Discretion restricted to: number, area, type and location of parking spaces area, design, gradient, stormwater management,	Expected to comply - parking will be provided for on each lot.

Item	Permitted	Resource Consent	Compliance
	and permanently marked if 5 or more parking spaces are required, excluding parking spaces required for a dwelling, and d) parking spaces and loading bays are not located on a shared access or living court, and are not obstructed when not in use, and e) parking, loading bays and manoeuvring spaces are located on the same site as the activity for which they are required, and f) in Business Zones a service lane is provided that complies with Table 4 and Appendix B (Engineering Standards), and so that a vehicle is not required to reverse to or from a road, shared access or across a footpath.	construction and materials of parking, loading and manoeuvring spaces accessibility of parking areas from on-site activities type and frequency of use safety design for vehicles and pedestrians means to avoid, remedy or mitigate effects on amenity location and connectivity.	
A12 Manoeuvring space	A12.1 Any activity is a permitted activity if on-site manoeuvring space is provided so that: a) no vehicle is required to reverse to or from a road, or a shared access, and b) a 90 percentile car, as defined in Figure 2, can enter and exit all parking spaces without making more than one reverse movement, excluding spaces required for a dwelling, and c) a 90 percentile car, as defined in Figure 2, can enter and exit one parking space per dwelling, without making more than one reverse movement, and d) a 90 percentile truck, as defined in Figure 3, can enter and exit all loading spaces required under Table 1 without making more than one reverse movement. Note: (a) does not apply to Local Roads 'A' and 'B' in any of the Living Zones in the Te Kauwhata Structure Plan area, or to residential dwellings in the Rangitahi Living Zone.	A12.2 Any activity that does not comply with a condition for a permitted activity is a restricted discretionary activity. Discretion restricted to: area, design, construction and materials of manoeuvring space type and frequency of use safety design for vehicles and pedestrians road safety and efficiency on-site manoeuvring.	Does not comply as Lots located next to the collector road are likely to need to reverse to or from the road. Part a) does not apply to Local Roads "A" and "B" in the Te Kauwhata structure Plan Area. Roads expected to be constructed to meet the engineering design requirements and for cross-sections. Agreement from WDC staff has been accepted in principle.
A13 Queuing space	A13.1 Any activity that provides on-site parking spaces, or is serviced by a drive-through facility, is a permitted activity if: a) on-site queuing space is provided in accordance with Table 3 for vehicles entering or exiting the parking, loading, manoeuvring or service area.	A13.2 Any activity that does not comply with a condition for a permitted activity is a restricted discretionary activity. Discretion restricted to: adequacy of the queuing lengths to cater for the expected vehicle numbers road efficiency	Expected to comply – residential properties, no queuing space required.

Item	Permitted	Resource Consent	Compliance
		safety design for vehicles and pedestrians.	
A14 Access and vehicle entrances	A14.1 Any activity is a permitted activity if: - the site has vehicle access to a formed road that is maintained by Council, and - no more than 3 activities share a private access, and - no access, access leg or right-of-way runs parallel to any road within 30m of the road, except within the Rangitahi Peninsula Structure Plan Area and the primary access route thereto (Opotoru Road) and, - every access and road entrance is laid out and constructed to comply with the standards in: - Tables 4, 5 and 6, and - Figures 4 to 10, and - Appendix B (Engineering Standards) except that in the Rangitahi Peninsula Structure Plan Area, and the primary access route thereto (Opotoru Road), alternative standards may be applied in relation to access gradients and seal width. - no new entrance is created from a limited access road, and - on a site with legal access to 2 roads, the activity only accesses the road with the lower classification in the road hierarchy in Table 8 (where the roads have the same classification, access is only to the road with the lower average daily traffic movements, unless it is considered unsafe), and (fb) no access or entrance within 10 metres of a road has a gradient steeper than 12 degrees. OR if it is on land accessed solely via the Te Rapa Interchange, adjacent to the Te Rapa Dairy Factory.	- A14.2 - Any activity that does not comply with a condition for a permitted activity is a restricted discretionary activity if: - no new entrance is created from a limited access road. - Discretion restricted to: - matters addressed in permitted activity conditions - safety and efficiency of roads, entrances and access - stormwater management - effects on local amenity values - adequacy of the access for its intended use - space for utilities - the potential of the site or adjoining land for future development - traffic generation by activities to be served by the access. - Need for traffic control measures on district roads due to increased traffic from the activity. A14.3 - Any activity that does not comply with a condition for a restricted discretionary activity is a discretionary activity.	Does not comply. All accesses and road entrances expected to be formed to meet the Appendix B engineering standards. Table 4: 20m road reserve for public road, - expected to comply for roads within subdivision. Collector road will be 25.5m in accordance with Structure Plan requirement. Local A and Local B will be 20m – does not comply with Structure Plan (22m). Table 4: ROW accessing one house allotment – does not comply since the proposed ROW accesses more than one allotment and in Table 4 should then be a public road. Table 5: separation distances are expected to comply within the subdivision. 3 lots with access from Wayside Road do not comply with spacings for 80 km/hr speed environment. The collector road intersection and the vehicle accesses do not comply

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			with visibility criteria (table 6) for 100 km/hr requirement is 250m (collector rd) and 200m for the lots. However the speed environment of Wayside Road is expected to be lower given the horizontal curvature. Driveways expected to comply with figures 11-12. Lots accessed from new road where practicable. Design details to meet standards of B7 will be met during design stage.
A14.A Road Network - Safety and Functions	A14.A.1 Any activity is a permitted activity if: a) no new entrance is created from a State highway; and b) in relation to direct vehicle entrances onto a State highway no increase in Equivalent Car Movements/Day from or to an existing vehicle entrance resulting from any new activity, or expansion of existing activities requiring a resource consent under this Plan, is created; and c) in relation to all other roads (except in the Industrial Zone) it is a new activity or expansion of an existing activity which: i. does not generate any additional traffic movements; or ii. does not require a resource consent under this plan (except for a Controlled Activity); or d) it is a new activity or expansion of an existing activity in the Industrial Zone complying with A14.A.1(a) and (b) above, and: i. it does not involve more than 200 vehicle movements per day; or ii. it is from the Huntly Power Station site shown	A14.A.2 Any activity that does not comply with Rule A14.A.1(a) - (d) is a restricted discretionary activity. Discretion restricted to: Any adverse effects on the transport network. If the NZ Transport Agency is deemed to be a potentially affected person, any adverse traffic or transportation effects identified by the NZ Transport Agency, and/ or the written approval of the NZ Transport Agency. Matters addressed in permitted activity conditions in A14.1 above. the actual or potential impact of the activity (including safety and efficiency impacts) on a State highway, a national route or regional arterial road taking into account the activity's distance from, and intended use of, that State highway national route or regional arterial road. intersection and/or access design including (but not	Does not comply. c)The activity will generate significant new traffic movements.

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Item	Permitted	Resource Consent	Compliance
	as the Heavy Industrial Zone on Planning Map 20.1, and all traffic movements generated from all activities on the site combined (including those movements which were lawfully established prior to 5 December 2012 do not involve more than 750 vehicle movements per day, and no more than 300 of these vehicle movements are Heavy Vehicle movements ; or iii. it is from the Greenhill Huntly Quarry site as identified in Figure 24C(A), and all traffic movements generated from all activities on the site combined (excluding those movements which were lawfully established prior to 5 December 2012 do not involve more than 350 vehicle movements per day, and no more than 150 of these vehicle movements are Heavy Vehicle movements, increasing to 200 once the Huntly Bypass section of the Waikato Expressway is open for public use. Note: For A14.A.1(c) please refer to Explanation and Reason 29.35A.	limited to) berms, road markings and signage, through lanes, turning bays, slip lanes, sight distances, lighting, signalisation, surfacing and drainage.	
A14.B Road Network - Safety and Functions - Te Rapa Interchange	A.14.B.1 Notwithstanding Rule A14.A.1, any activity is a permitted activity if it is from land accessed via the Te Rapa Interchange adjacent to the Te Rapa Dairy Factory and the peak hour traffic flows do not exceed the following limits: AM Peak (7.30 - 9.30am) All Ramps - 300 vehicles per hour (vph) PM Peak (4.00 - 6.00pm) North Bound On-Ramp - 150 vph All other Ramps - 300 vph If the site is also accessed via another route, traffic movements via that/those other route(s) shall remain subject to the vehicle movement limits contained in Rules 24.15.1(a) and Appendix A Rule A14.1 and A14.A.1(d)a.	A.14.B.2 Any activity that does not comply with Rule A14.B.1 is a restricted discretionary activity. Discretion restricted to: effects of traffic generation on the safety and efficiency of the roading network.	N/A. Subdivision is not in the vicinity of the Te Rapa Interchange.
A15	A15.1	A15.2	Expected to comply.

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Item	Permitted	Resource Consent	Compliance
Road construction and maintenance	Construction or maintenance of a road is a permitted activity if the work: a) complies with Appendix B (Engineering Standards), and b) does not create a new intersection with a limited access road, and either a) is undertaken by the council or other public road authority on a road that it owns or controls, or b) is required or authorised by a resource consent.	Any activity that does not comply with a condition for a permitted activity is a discretionary activity	
Table 1 Required Parking Spaces and Loading Bays	Dwellings 1 car space per bedroom, except that in the Rangitahi Living Zone 2 car spaces are required for dwellings with 2 or more bedrooms and one car space is required for studio or 1 bedroom residential units.		Expected to comply
Item	Controlled	Resource Consent	Compliance
A3 Provision of Access on Subdivision			
A21 Access and entrances	A21.1 Subdivision is a controlled activity if: a) every allotment has vehicle access to a formed road that is maintained by Council, and b) no more than 4 allotments share a private access, and c) no access, access leg or right of way runs parallel to any road within 30m of the road, and d) every access and road entrance is laid out and constructed to comply with the standards in i. Tables 4, 5 and 6, and ii. Figures 4 to 12 inclusive provided that figures that refer to a named area apply only in that area and over-ride any inconsistent district wide controls, and iii. Appendix B (Engineering Standards). e) no new entrance is created from a limited access road, and f) where the land being subdivided has legal access to 2 roads, no more than one allotment accesses the road with the higher classification in the road hierarchy in Table 8 Road Hierarchy, and g) entrances on a district arterial route adjacent to Te Kauwhata West Living Zone are from sliplanes.	A21.2 Subdivision that does not comply with a condition for a controlled activity is a restricted discretionary activity if: every allotment has vehicle access to a road, and no more than 8 allotments share a private access, and private access to 5 or more allotments is provided by an access allotment 20m wide, containing a carriageway that complies with Table 4, and in the Te Kauwhata West Living Zone there is no direct access to allotments off Te Kauwhata road. Discretion restricted to: - the matters over which control is reserved - matters referred to in conditions for controlled activities - the number of allotments and the number of entrances - number of entrances - the potential of the site or adjoining land for future development	Does not comply. b)More than 4 allotments are accessed from ROW f)Lots with frontage to Wayside Road only will be accessed from Wayside Road. All other lots will be accessed from the lesser hierarchy internal roads. Lots with frontage to the collector road will be accessed from the collector. Accesses and road entranceways will be designed and constructed to comply with the standards and Appendix B.

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Item	Permitted	Resource Consent	Compliance
	OR h) if all of the subdivided allotments are accessed solely via the Te Rapa Interchange, adjacent to the Te Rapa Dairy Factory. Control reserved over: • matters referred to in Appendix B (Engineering Standards) • adequacy of the access for its intended use • space for utilities • traffic safety and efficiency • amenity values • length and width of access leg or access standards, including to retain potential future use of allotments, and • vehicle entrance design and dimensions • separation distances between vehicle entrances and intersections • sight distances • need for forming or upgrading roads in the vicinity due to increased traffic from the subdivision. • compliance with Appendix Og (Urban Design Guide Te Kauwhata West Living) and Oga(Urban Design Guide) . • Despite (b), every allotment in a Living Zone in the Te Kauwhata Structure Plan area shall have a separate access	traffic generation by activities to be served by the access safety and efficiency of roads, entrances and accesses. need for traffic control measures on roads due to increase traffic from subdivision. A21.3 Subdivision that does not comply with a condition for a restricted discretionary activity is a discretionary activity. Note that a shared access serving more than 8 allotments is prohibited, see rule A1. For these subdivisions a road must be constructed and vested in the Council.	c)Existing sight distance at the new intersection with Wayside Road does not meet the Table 6 (250m for 100 km/hr speed environment, 290m for 110 km/hr). Visibility is restricted due to horizontal curve and high bank within the berm on Wayside Rd however collector road is in location as per Te Kauwhata Structure Plan.
A21.A Road Network - Safety and Functions	A21.A.1 Any subdivision is a controlled activity if: a) no new entrance is created from a State highway; and b) in relation to direct vehicle entrances onto a State highway no increase in Equivalent Car Movements/Day from or to an existing vehicle entrance resulting from any new activity, or expansion of existing activities requiring a resource consent under this Plan, is created; and c) in relation to all other roads (except in the Industrial Zone), it is a new activity or expansion of an existing activity which: d) does not generate any additional traffic movements; or e) does not require a resource consent under this plan (except for a Controlled Activity); or f) it is a new activity or expansion of an existing activity in the Industrial Zone complying with A21.A.1(a) and (b) above and it	A21.A.3 Any activity that does not comply with Rule A21.A.1(a) and/or Rule A21.A.1(b) is a restricted discretionary activity: Discretion restricted to: Any adverse effects on the transport network. If the NZ Transport Agency is deemed to be a potentially affected person, any adverse traffic or transportation effects identified by the NZ Transport Agency, and/ or the written approval of the NZ Transport Agency. Matters addressed in controlled activity conditions A21.1 above. The actual or potential impact of the activity (including safety and efficiency impacts) on a State highway, a	Does not comply. The activity will generate significant new traffic movements. Refer A14.A above.

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Item	Permitted	Resource Consent	Compliance
	does not involve more than 200 vehicle movements per day. A21.A.2 Notwithstanding Rule A21.A.1, any subdivision is a controlled activity if it subdivides land accessed via the Te Rapa Interchange adjacent to the Te Rapa Factory and the peak hour traffic flows do not exceed the following limits: AM Peak (7.30 - 9.30am) All Ramps - 300 vehicles per hour (vph) PM Peak (4.00 - 6.00pm) North Bound On-Ramp - 150 vph All other Ramps - 300 vph If the site is also accessed via another route, that/those other access(es) shall remain subject to the provisions in Rule A 21.1. Control reserved over: • matters referred to in Appendix B (Engineering Standards) • adequacy of the access for its intended use • space for utilities • traffic safety and efficiency • amenity values • length and width of access leg or access standards, including to retain potential future use of allotments, and • vehicle entrance design and dimensions • separation distances between vehicle entrances and intersections • sight distances i. need for forming or upgrading roads in the vicinity due to increased traffic from the subdivision. Note: For A21.A.1(c) please refer to Explanation and Reason 29.35A.	national route or regional arterial road taking into account the activity's distance from, and intended use of, that State highway national route or regional arterial road. Intersection and/or access design including (but not limited to) berms, road markings and signage, through lanes, turning bays, slip lanes, sight distances, lighting, signalisation, surfacing and drainage. Note that a shared access serving more than 8 allotments is prohibited see rule A1. For these subdivisions a road must be constructed and vested in the Council.	
A22 Provision for connection to land beyond the site	A22.1 Subdivision is a controlled activity if: - an access corridor 20m wide, to land adjoining the site, is identified and left unobstructed, where - the adjoining land is capable of further subdivision into 4 or more allotments, as a controlled activity, and	A22.2 Subdivision that does not comply with a condition for a controlled activity is a discretionary activity.	The road layout includes for access linking to future roads in the adjoining properties.

Item	Permitted	Resource Consent	Compliance
	ii. an access corridor over the land being subdivided would provide the most direct and practicable access route from the adjoining land to the road network. b) in the Te Kauwhata structure plan area an access corridor 20m wide connecting to any road corridor on the site boundary is vested in Council. Control reserved over: • matters referred to in Appendix B (Engineering Standards) • adequacy of the access for its intended use, having regard to the area, constraints on the road network, and likely traffic generation • space for utilities • traffic safety and efficiency • compensation for the subdivider.		
A23 Roads	A23.1 Subdivision is a controlled activity if all roads in the subdivision are constructed to: - to comply with this appendix, and - to link and be compatible with the existing road network, and - to provide for the safe movement of both vehicular and non-vehicular traffic, and - to provide access for emergency vehicles. - so that in the Te Kauwhata Structure Plan area no cul-de-sac exceeds 100m in length, and - so that in the Te Kauwhata Structure Plan area, public transport is provided for except where the road is a cul-de-sac less than 100m long. Control reserved over: • matters in Appendix B (Engineering Standards) • the function of affected roads in Table 8 • traffic efficiency and safety • alignment, length and width of road, to service the allotments and adjoining land • amenity values, including effects of noise and dust, and of increased traffic	A23.2 Subdivision that does not comply with a condition for a controlled activity is a discretionary activity.	Does not comply. a) Roads will be 20m road reserve with space for footpaths, service trench, on road parking and stormwater devices. Lanes are 3m in the cross section. This does not meet the overall cross section width of 22m for Local "A" or "B" road cross section in the Te Kauwhata Structure Plan area. f) Public transport is not provided for specifically but the roads will be able to accommodate public transport vehicles given that they will meet the required cross sections.

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Item	Permitted	Resource Consent	Compliance
	• construction design, and materials • sight distances • screening for headlight glare • gradient and skew angle • need for forming or upgrading roads in the vicinity due to increased traffic from the subdivision • compliance with the Te Kauwhata Structure Plan • compliance with Appendix Og (Urban Design Guide, Te Kauwhata West Living) and Oga (Urban Design Guide) • numbers of culs-de-sac and linkages		Bus stops would easily be able to be incorporated in the cross section at a later date if public transport is desired
A24 Indicative roads	A24.1 Subdivision is a controlled activity where the land being subdivided includes an indicative road as shown on the Planning Maps, if: a) Land that generally corresponds with the alignment of the indicative road, or land that would provide a road reserve with equivalent functionality, is shown as a separate allotment and vested in the Council. b) Any subdivision and/or development within a structure plan area, or indicative road identified in the district plan takes into account, and demonstrates, how access will eventually connect between indicative roads and the roading network. Control reserved over: • alignment of the road, to achieve a safe and efficient road network • whether the land should be vested as road • construction requirements, or cash in lieu • need for forming or upgrading roads in the vicinity due to increased traffic from the subdivision • need for traffic control measures on roads due to increased traffic from the subdivision • need for footpaths, kerb and channel, or drainage on roads in the vicinity	A24.2 Subdivision that does not comply with a condition for a controlled activity is a discretionary activity.	The proposed road layout is not exactly as the Structure Plan layout but is in general accordance with the indicative layout providing the main collector road and local road access from this. The roading layout provides appropriate connectivity. The collector road is in approximately the same position. A roundabout shown in the Structure Plan is not included and T intersections are proposed instead. The proposed local road layout provides appropriate connectivity within the subdivision and is consistent with road layouts in the adjoining proposed subdivisions.

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Item	Permitted	Resource Consent	Compliance
	• cross-section requirements • need for segregation strips • requirements of Appendix A • land stability • amenity matters including batter slopes • connectivity between indicative roads and the roading network.		
A25 Road reserve widening	A25.1 Subdivision is a controlled activity if: a) land within 7m of the centre line of the carriageway of an existing rural arterial or collector road is shown as a separate allotment and vested in the Council as road. Control reserved over: • matters referred to in Appendix B (Engineering Standards) • the function of affected roads in Table 8 • traffic efficiency and safety • compensation payable to the landowner	A25.2 Subdivision that does not comply with a condition for a controlled activity is a discretionary activity.	Complies. New roads will be vested in Council.

Combined Notification and I04 Decision Report Subdivision Consent

Section 95, I04, I04A, I04B and I04D of the Resource Management Act 1991

Reporting Planner:	Summer Salmon	App Number:	SUB0163/14
Property Ref:	2009600	Site Visit on:	30 April 2015

Applicant:	Silverspur Developments Limited
Property Address:	24 Wayside Road, Te Kauwhata
Legal Description:	Lot 2 DP 385781 comprised in Computer Freehold Register 343559
Site Area:	17.01ha
Operative Plan	Waikato District Plan (Waikato Section) 2013
Activity Status:	Waikato District Plan - Non-Complying National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health - Discretionary
Zoning:	Living Zone Te Kauwhata West
Policy Area:	Indicative Roads Remediation Policy Area Segregation Strip Te Kauwhata Structure Plan Boundary Waikato River Catchment Walkway, Cycleway, Bridleway
Proposal:	To undertake a four-staged subdivision to create 130 residential lots, five lots to vest as road, two access lots, two lots for local purpose reserves for drainage and one lot for recreation reserve.

1.0 INTRODUCTION

Pursuant to s88 of the Resource Management Act 1991, Waikato District Council (WDC) has received an application from Silverspur Developments Ltd (the applicant) who seek to undertake a subdivision to create 130 residential lots within 4 stages within the Te Kauwhata West Living Zone. Lots will vary in size from 675m² to 1168m². In addition to the residential lots, two jointly owned access lots (JOAL's), a recreation reserve to vest, two drainage reserves to vest and roads to vest will also be created. A summary of each stage is shown in the table below.

Stage	Total Area	Lots Created
I	5.7825ha	48 residential lots (Lots 1-32, Lot 54 and Lots 116-130); Road To Vest (Lot 132) JOAL (Lot 131) Local Purpose Reserve (Lot 133) Balance lot (Lot 141)

2	2.2718ha	21 residential lots (Lots 33-53) Road To Vest (Lot 134) Balance lot (Lot 142)
3	4.2674ha	26 residential lots (Lots 55-70 and Lots 106-115) Road To Vest (Lots 136 & 137) Recreation Reserve (Lot 135) Balance lot (Lot 143)
4	4.6882ha	35 residential lots (Lots 71-105) Road To Vest (Lots 140) Local Purpose Reserve Drainage (Lot 139) JOAL (Lot 138) Balance Lot (Lot 144) amalgamated with Lot 87

Details of the subdivision are as follows:

Roading

The subdivision will require the creation of local roads that are to be vested in Waikato District Council. A main collector road (shown as Road A on the scheme plans) will intersect with Wayside Road and provide frontage to lots. Local roads are proposed to provide individual access to lots. Three jointly owned access lots are proposed for access to rear lots.

Water Supply

Council reticulated water is available within the location of the subject site. It is proposed that new lots connect to the Te Kauwhata Community Supply.

Effluent Disposal

Council wastewater reticulation is to be constructed to cater for future development of the subject site. It is anticipated that infrastructure will be in place prior to dwellings built within new lots. The local purpose reserve (Lot 133) shall house a pump station that will serve new lots created within the subdivision, and future development within neighbouring properties.

Stormwater Management

No Council stormwater reticulation is provided within Te Kauwhata West. The applicant has proposed to use a range of stormwater methods to control stormwater, including road swales filter strips, infiltration trenches, rain gardens, permeable pavements, two stormwater ponds and onsite attenuation within proposed lots.

Building Platforms

The applicant has shown complying building platforms within new lots to demonstrate new dwellings can be built to meet the District Plan bulk and location requirements.

Reserves

A portion of the Hilltop Reserve identified within the Te Kauwhata structure plan is within the site. The subdivision proposal includes this strategically located reserve within its design. The area around the hilltop (7771m²) will be vested as recreation reserve.

Two local purpose reserves (LPR) are proposed and located on the lowlands of the site. Each reserve will contain a stormwater pond and one will also contain a pump station.

Contaminated Land

Historically, the subject land has been used as an experimental farm, established in Te Kauwhata in 1886, for researching different crops, including vegetables, fruit trees, berry fruits and grapes classed as HAIL activities.

Easements

Water easements in gross are required over public water reticulation in jointly owned access Lots. Wastewater easements in gross are required over public wastewater reticulation which is to be located through private properties. Stormwater easements in gross are required for rights to drain stormwater through private properties. ROW easements are required for Lots 6-9 and for Lots 99-101.

1.2 Description of Site

Currently the proposed site is being used as an orchard with a small adjoining processing yard. The site is located in the Lower Waikato basin, approximately 1.8km northeast of the Waikato River. The proposed subdivision is approximately 1.5km west of the Te Kauwhata Township. The surrounding areas consist of farmland and lifestyle properties.

The subdivision area is essentially undulating with occasional shallow depressions. The site is divided into two portions, east and west, by a north to south trending ridgeline. On the northern site boundary, the lower parts of the basins contain low lying boggy areas with the start of small streams. There were two springs noted at the site, one on the eastern flank of the ridgeline and one on the western hills.



Image 1 – Aerial of site and surrounding area

1.3 Legal Interests in the Property

There are no interests on the Certificate of Title that would restrict the proposal from proceeding.

1.4 History

Historically the subject land was zoned Country Living. Subdivision consent to create 28 rural-

residential lots and one road to vest on the subject land was granted in November 2007 (Ref: SUB0034/08). The subdivision was not given effect to and expired.

2.0 REASON FOR THE APPLICATION

2.1 Waikato District Plan

The Waikato District Plan was made operative on 5th April 2013.

An assessment of the proposal's compliance with the relevant rules of the Operative District Plan has been completed.

In summary, the proposal triggers consent under the following rules:

Rule #	Rule Name	Status of Activity	Comment
21.65	Frontage	Discretionary	Lot 62 does not achieve road frontage of at least 15m (i.e. 13.39m ²)
21B.4	Remediation Policy Area	Restricted Discretionary	The land was previously used for HAIL activities (experimental farm researching different crops including vegetables, fruit trees, berry fruits and grapes).
21B.19	Allotment Size	Discretionary Activity	Two of the 10 blocks created as part of the subdivision will have less than the required 25% of allotments greater than 900m ² in size: - Block Lots 89-101 = 15% - Block Lots 70-80 = 0% Roads and reserves are defined as utility allotments and all are in excess of 50m ² .
21B.20	Rear allotments	Discretionary	Three of the 10 blocks will contain more than 10% rear allotments: - Block Lots 1-21 = 19%; - Block Lots 89-101 = 23%; - Block Lots 81-88 = 25%. Lot 87 has an access leg abutting both of its side boundaries.
21B.21	Boundary with Country Living Zone	Discretionary	18 out of the 20 lots created with a boundary that adjoins the Country Living Zone do not comply with the requirement for a minimum boundary width of 30m along the boundary that adjoins the Country Living Zone.
21B.23	Earthworks	Restricted Discretionary	Earthworks will alter pre-existing contours by more than 1.5m in some areas across the property; cut depth of up to 5.82m and fill of up to 6.91m. Retaining walls up to 3m in height
21B.26	Off road	Restricted	Walkway replaced with a road.

	walkways	Discretionary	
21B.28	Staged subdivision	Non complying	The rule requires compliance with Figure 1: Te Kauwhata West Living Zone Stage One Staging Plan of the District Plan. The staging proposed is not consistent with the staging plan of the District Plan.
A21	Access and entrances	Restricted Discretionary	There is no provision for access lots within the Living Zone of the Te Kauwhata Structure Plan Area. The proposal involves the creation of an access lot to serve Lots 6-9 and a further access lot to serve lots 98-100. Lot 87 has rear access on both side boundaries and does not comply with Table 4.
A21.A	Road Network – Safety and Functions	Restricted Discretionary	The activity will generate additional vehicle movements to the site (approximately 1,300 vehicles per day).
A24	Indicative Roads	Discretionary	An indicative road shown on the planning maps is proposed to be replaced with an access lot.

As outlined in the table above, the application is deemed to be a Non-Complying activity under the operative planning documents, being the highest status indicated by the above rules.

2.2 National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health

Regulation 5(5) of the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES) describes a change in land use as an activity to which the NES applies where an activity that can be found on the Ministry for the Environment Hazardous Activities and Industries List (HAIL) has occurred.

Regulation 6 of the NES specifies that an applicant must establish if any HAIL activities have occurred on the subject site. The applicant can do this by adopting one of two methodologies:

1. Review of all relevant council records including dangerous goods files, property files, registers, databases, resource consent databases, records available from Regional Council;
2. Preliminary Site Investigation undertaken by a suitably qualified and experienced practitioner in accordance with the current Ministry for the Environment's Contaminated Land Management Guidelines No. 1 Reporting on Contaminated Sites in New Zealand.

In this case, the subject land has been used as an experimental farm, established in Te Kauwhata in 1886, for researching different crops, including vegetables, fruit trees, berry fruits and grapes classed as HAIL activities.

A Soil Assessment Report has been prepared and submitted by Groundwater and Environmental Services as part of the application. This report was prepared for the underlying Country Living Zone subdivision (SUB0034/08) and as such was prepared back in 2007 prior to the NES coming into effect in 2009. The site investigation included a site walkover, the gathering

of information from previous owners as to activities undertaken on the land, and soil sampling to determine if any contaminants were present on the site from historical activities. The report concludes that the land is suitable for residential development and no further investigations are required. A copy of the report is attached in Appendix F of the application.

Councils Environmental Health Officer has reviewed this report and concludes that the report uses inappropriate guidelines due to being prepared pre-NES, but it was also prepared as due diligence prior to the purchase of the property, not specifically for a 129 lot subdivision proposal. The report fails to include a review of historical aerial photography and relies solely on the use of composite sampling for analysis of the site which is inappropriate and does not meet the requirements of the Ministry for the Environment Contaminated Land Management Guidelines. Councils EHO is concerned that if historical chemical storage sheds, loading or wash down areas existed on the site then there could be hot spots of contamination on the land which would require targeted sampling to identify and delineate for remediation.

All soil samples taken as part of the soil assessment were taken to 200mm and described as clay. Councils EHO describes this as odd, given that the majority of organochlorine pesticides and metalloids such as lead arsenate associated with horticultural activities, are likely to be concentrated in the more organic surface soils/topsoil, usually to a depth of around 150mm (although they can be deeper).

On account of these shortfalls, Councils EHO recommends that the applicant submit a detailed site investigation prepared by a suitably qualified and experienced practitioner in accordance with the current edition of the Ministry for the Environment Contaminated Land Management Guidelines No: 1, Reporting on Contaminated sites in New Zealand.

In the absence of a detailed site investigation, the consent is a Discretionary Activity in accordance with the provisions of the NES.

3.0 SECTION 95A ASSESSMENT FOR THE PURPOSE OF PUBLIC NOTIFICATION

3.1 Notification at Applicant's request or rule in the plan that you must notify - s.95A(2)(b) &(c)

The applicant did not request that the application be notified. There are no rules in the Operative Plan relevant to this proposal that require that the application must be notified.

3.2 Rule in the Plan that precludes public notification - s95A(3)

There are no rules in the Operative Plan relevant to this proposal that preclude public notification.

3.3 Effects that may or must be disregarded - S 95D(a),(b),(d) and (e)

Pursuant to section 95D, if a rule or national environmental standard permits an activity with that effect the adverse effect of that activity **may** be disregarded. Subdivision is not permitted, therefore no permitted baseline is considered applicable to the proposal. Effects on owners and occupiers of the subject site and adjacent sites, persons whom have given written approval and the effects on trade competition **must** be disregarded.

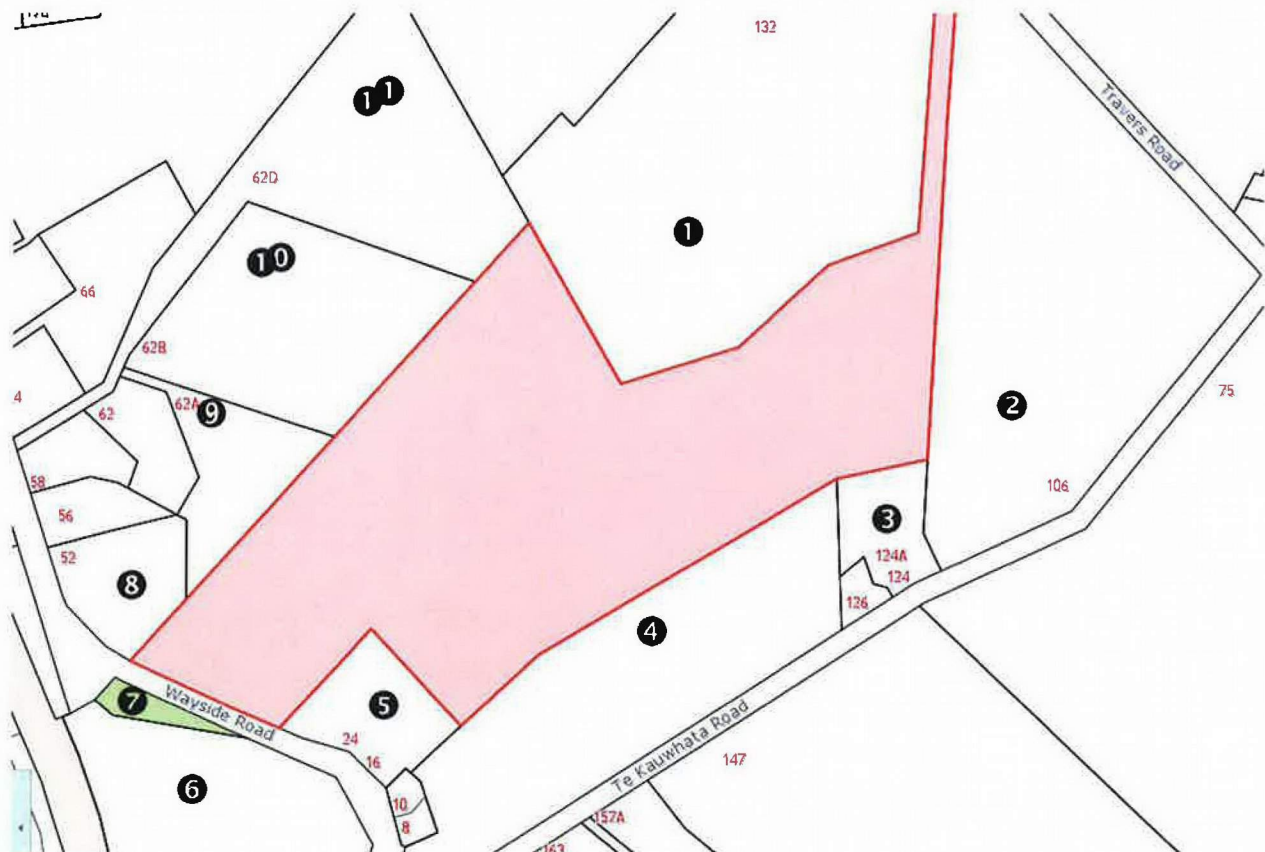


Image 2: Adjacent parties to be disregarded under S95D

Adjacent Properties:

- Property 1 - 132 Travers Road: Jetco Waikato Limited;
- Property 2 - 106 Te Kauwhata Road: JR Smith;
- Property 3 - 124 Te Kauwhata Road: CM & JM Dunlop;
- Property 4 - 4 Wayside Road: HB, LK, MA & PR Boldero;
- Property 5 - 16 Wayside Road: Greenways Orchards Limited;
- Property 6 - Pt Sec 93 Blk XV Maramarua SD SO 53333: Her Majesty the Queen;
- Property 7 - Lot 1 DPS 39290; WEL Networks Ltd;
- Property 8 - 52 Wayside Road: Liston Trustee Services Limited;
- Property 9 - 62A Wayside Road: NJ & NJ Patterson & RM Harding;
- Property 10 - 62B Wayside Road: KJ & WA Peach;
- Property 11 - 62D Wayside Road: Brian Jones, KW Trustees.

Written approvals have been received from the following parties and effects on these parties have been disregarded:

- Property 2 - 106 Te Kauwhata Road: JR Smith;
- Property 3 - 124 Te Kauwhata Road: CM & JM Dunlop;
- Property 4 - 4 Wayside Road: HB, LK, MA & PR Boldero;
- Property 5 - 16 Wayside Road: Greenways Orchards Limited;
- Moko Tauariki on behalf of Nga Muka Development Trust.

3.4 Assessment of Adverse Environmental Effects – s95A(2)(a)

The proposal has an overall 'non-complying' activity status; therefore there are no restrictions on matters to be considered with an assessment of effects. Effects on the wider environment considered relevant in this case consist of geotechnical effects and liquefaction, land transport and traffic safety, servicing of lots, stormwater management, earthworks, landform and landscape and urban amenity and ecological impacts.

Geotechnical Effects & Liquefaction

A Geotechnical Investigation was undertaken by OPUS who provided preliminary comments regarding geotechnical matters including liquefaction. The assessment identified a number of potential constraints to the site including:

- unstable areas such as landslips, soft ground, gullies and stream channels;
- very weak soils at depths of 3 to 12m below ground level in some areas;
- approximately 4m of very soft ground straight from the ground level in the lowest lying parts of the site;
- high ground water in areas across the site;
- vast majority of soils at the site contain soft clay and silt which are likely to result in low permeabilities;
- potential for soils to liquefy and vertical liquefaction induced settlement during a significant seismic event due to site soils grain size, density, strength and the high water table;
- signs of instability included hummocky surfaces, crescent-shaped depressions, trees leaning uphill and a spring;
- soft soils in lower elevations around the site reduce bearing capacity and founding conditions.

Based on the findings the following recommendations were provided:

- minimal earthworks and excavations;
- specific engineered foundations in areas containing weaker soils;
- individual lot geotechnical investigations for lots within areas where soft soils will not achieve required bearing capacity, ground improvement or reinforcing measures to be employed (e.g. rib raft type foundations);
- avoiding construction within lowest elevations or engineered ground conditions in these areas;
- engineering the unstable slopes in the area directly east of the central ridge, possible retaining structures required;
- following the completion of an earthworks plan, further stages of ground investigation are undertaken to provide information to enable detailed design.

The OPUS report was reviewed by Coffey Geotechnics Ltd on behalf of Council. The Coffey report (reference GENZHAMI17208AA-AB, dated 5 March 2015) suggested further consideration should be given to seismic conditions for the proposed development in terms of the level of risk associated with development of the site and suggested mitigation measures to avoid, remedy or mitigate any adverse effects of the proposal. On this basis, a subsequent addendum to the original report was prepared by OPUS and provided to Council. The report provided further recommendations to be implemented at detailed design stage to ensure the geotechnical effects of the proposal will be no more than minor:

- An assessment of potential liquefaction effects with regard to the final proposed site layout and structures;
- All slopes that have the potential to impact the development must be assessed for stability in both static and seismic cases and appropriate factors of safety chosen for each case. Where structures or infrastructure may be negatively affected appropriate mitigation measures shall be implemented;
- Foundation design for each building must be made with regard to bearing capacity, settlement and the results of a liquefaction assessment OR appropriate ground improvements must be designed to provide an acceptable reduction of risk to the proposed structures;

- Services, fills, embankments and roads must be appropriately designed to reduce or mitigate negative effects from liquefaction, slope instability and groundwater. In particular (but not exclusively) potential settlement, buoyancy and lateral spreading risks.
- All geotechnical design works shall be supervised, managed and signed off by a Chartered Professional Engineer with geotechnical specialism and practice area

Coffey reviewed the addendum and concluded that the recommendations are appropriate. If consent is granted, conditions of consent will require the recommendations be implemented.

Overall, subject to implementation of conditions of consent, the geotechnical effects of the proposal will be no more than minor.

Earthworks

Earthworks associated with recontouring of land and construction of infrastructure and earthworks to be undertaken within the proposed lots can adversely impact on the greater environment in respect to noise, dust and odour. In this case, the volumes and areas of earthworks proposed are significantly greater than the permitted standards under the District Plan. The depths of cut and fill are also greater than permitted levels. Given the size and varied topography of the land and the necessity to construct roads and footpaths and install services, the proposed level of earthworks are anticipated. The application advises the following:

“..the site ranges in height from 43 metres to 18 metres. The height difference across the site is therefore up to 25 metres”;

and,

“Cuts up to a max of 5 metres, and fill up to a max of 6 metres in depth are proposed as part of the earthworks in the construction of the subdivision. Cuts and fill have been minimised as much as possible to achieve some of the design considerations identified in Appendix Oga2 — Urban Design Guide, but given the extreme contour on the site in some locations retaining existing contour is not an option”.

In terms of noise and dust, the effects of the proposed earthworks will be temporary in nature, and I am satisfied that should consent be granted, conditions of consent will ensure that works are undertaken in a manner which ensures no minor adverse effects result.

In this case, stormwater ultimately discharges into the Whangamarino Wetland. As such, it is important that erosion and sedimentation controls are put in place prior to commencement of earthworks to ensure the wetland is not compromised. If consent is granted, a condition of consent will require that a Geotechnical Assessment Report be provided detailing earthworks specifications, staging and duration of earthworks, and erosion and sediment controls.

The application advises that a consent from Regional Council is required for the earthworks but the Applicant has not applied for this as yet. Regardless, erosion and sediment controls are to be in accordance with Waikato Regional Council’s Erosion and Sediment Control-Guidelines for Soil Disturbing Activities: January 2009.

I consider the visual effects of undertaking earthworks on such a large scale may create adverse visual effects. These are discussed below under amenity effects where it is concluded that the effects on the environment will be no more than minor.

I am satisfied that any adverse effect associated with earthworks on the environment will be no more than minor and the sediment and erosion control measures will ensure all waterways are protected from sedimentation discharge.

Landform and landscape

The property includes flat areas, gently rolling areas and steep areas within the western and southern portion of the property. District Plan provisions highlight that the distinctive landforms and rolling landscape in the Te Kauwhata Structure Plan area contribute to the high amenity values of the area by adding character and open space, while creating views towards natural features including the Whangamarino wetland, where it is important that future development responds sensitively to these landscapes. It is envisaged within the district plan provisions that development be designed to take advantage of the features of the site (i.e. vegetation, waterways and terrain), in particular development should seek to limit the extent of earthworks.

In light of potential geotechnical issues at the site, as discussed above, it is even more important to minimise earthworks at this particular site.

In respect to land modification, the applicant has adopted a strategy to limit earthworks within the proposal in the design of the subdivision. The topography of the land is challenging in that the site ranges in height from 43 metres to 18 metres and it could be said that, in this case, the necessity to construct roads and building platforms with acceptable vertical geometry competes with the desire for minimal earthworks.

The applicant has provided an earthworks gradient plan. This illustrates that the majority of the property will either retain the existing landform or require minimum cuts or fill.

Where possible, roads align to the existing landforms with the exception along one part of the main collector road and along most of the road contained within Lot 136 where the topography of the land requires some significant cuts to achieve more level road gradients.

Further earthworks are required in certain areas to provide some uniformity for building platforms given the depressions and peaks in landform across the site.

Retaining walls are proposed to be constructed around the drainage reserves and at the rear of some of the proposed lots within Stages 2 and 3. The definition of building in the District Plan means:

‘a fence, or a wall other than a retaining wall, less than 2 metres in height, or a retaining wall or retaining structure less than 1.5 metres in height, provided that where a fence or non-retaining wall is placed at the top of the retaining wall, the combined height is less than 2 metres’.



Image 3 – Retaining Wall Plan

I am satisfied that the scale of the non-compliant earthworks required, and mitigation that will accompany the proposal (i.e. the orientation of roads and allotments sympathetic to the contours of the land), will mean that the areas of cut and fill will not be an over-riding feature of the proposal that can significantly detract from the amenity of the location. On balance, the natural contours of the property will be retained to an acceptable level. I am satisfied that adverse effects are considered no more than minor, and the existing topography will be the dominant landscape feature of the site. Landscaping in and around the retaining walls is discussed below under Amenity & Urban Design.

Amenity & Urban Design

The earthworks associated with levelling the land and constructing the infrastructure will be temporary in nature and the land will either be re-grassed or reverted to road, footpath etc.

Noise during the construction phase will need to comply with the standards in the District Plan and will be temporary in nature.

Schedule Oga of the Waikato District Plan sets out the Urban Design Guidelines for land within the Te Kauwhata West Living Zone. The guidelines detail urban design concepts to be considered during the resource consent process and seek to provide high quality amenity outcomes to maximise benefits to developers, residents and communities. The District Plan states:

The future character of neighbourhoods is largely determined by the street pattern, section sizes and shapes and relationship to open spaces/community facilities.

The desired urban design outcomes are

- Subdivisions that integrate with the natural environment, and cultural and heritage features
- A connected street pattern
- Attractive streetscapes

- *Section shapes that create private outdoor living courts on the sunny side of a house*
- *Open spaces and community facilities that have street frontage for surveillance and amenity reasons*
- *Low impact stormwater management integrated with streetscapes and open space.*

An Urban Designer, Mr Chris Butler of Harrison Grierson, was engaged by Council to assess whether the proposal was in general accordance with the urban design guide. The review considered specific outcomes sought by the guidelines, and analysed each specific criteria including permeability of the roading network, spatial variety and integration with the natural environment, legibility within the subdivision and robustness of development within the subdivision. All of these criteria contribute to the overall pleasantness for future residents to the subdivision, and the wider community also.

To ensure appropriate urban design concepts are incorporated as part of the development of the subject site, conditions of consent will require that the relevant design elements of the Urban Design Guidelines within the District Plan and those recommendations provided by the Urban Designer are implemented. Specifically, the following measures will need to be undertaken to ensure effects relating to urban design are no more than minor:

- High visibility and easy access to the Hilltop Reserve by providing appropriate links via roads and footpaths;
- Roads to be constructed to ensure safe and efficient movement of people, vehicles and goods:
- Provision of adequate vehicular access to each allotment;
- Linking and being compatible with the current road network;
- Providing adequate access for emergency vehicles;
- Appropriate construction/installation of other utilities to safeguard health and safety and provide an adequate supply to each allotment. The layout of any utility reticulation network shall be constructed to accommodate the anticipated demand, and withstand the anticipated pressures and loads in its locality;
- Street lighting to be provided where necessary to ensure the safety of road users and pedestrians. All street lighting and lighting fixtures will be designed, installed and maintained to minimise glare on road users and minimise light spill onto adjoining properties;
- Street planting which meets the requirements of the relevant design elements of the Urban Design Guide to be required to be implemented. A Road Reserve Planting Plan will be required to be prepared and submitted to Council for approval;
- Registering fencing covenants on titles of lots fronting the road and backing onto the recreation reserve and drainage reserves to avoid high closed boarded fencing to maximise the outlook across the subdivision and increasing safety for residents and users.

The average lot size of all allotments will be 875m² as required under the District Plan provisions with 50% of all lots per block being in excess of 800m. With the exception of 2 of the 10 blocks of lots created as part of the subdivision, all blocks shall contain 25% of lots in excess of 900m². The applicant has applied to provide a large reserve area and an active reserve frontage following discussions with Council. All of these things will ensure better outcomes in terms of amenity and urban design.

The roading network is an integral aspect that impacts on the urban design of a development. The applicant proposes designs for the local roads and the collector road through the development in accordance with cross sections prepared for the Te Kauwhata Structure Plan. The collector road includes a central median. Should consent be granted, conditions of consent will require the preparation and implementation of a planting plan for the road reserves in

accordance with the expectations of the structure plan.

Stormwater management within the site will require each lot to attenuate rain water within the properties using water tanks. Cumulatively, such tanks have the potential to adversely affect urban amenity if not located appropriately within the site (i.e. at the rear of a dwelling), or if they are a prominent feature of a property when viewed from a public space. I am satisfied that mitigation is available to avoid any adverse visual effect (i.e. height restrictions on tanks to allow effective planting of shrubs to screen them, or screening by the dwelling).

Specifically relating to non-compliances of the proposal I make the following comments regarding urban design:

Access Lot

One of the indicative roads shown on the Te Kauwhata structure plan maps is proposed to be replaced with an access lot (Lot 131). In accordance with the structure plan, the indicative road is supposed to be constructed to public road standard 22m in width and should run through the adjoining property (Property 5) to the south and then cut back in an 'L' shape through the subject site again as shown by the red arrow in Image 4 below.



Image 4 – Structure Plan Roading Layout

I do not consider the proposed access lot will achieve the intention of a 22m public road in terms of connectivity through the subdivision. However, if the road was formed to the required standard, this would mean a 22m wide corridor would need to be preserved to serve four allotments (Lots 6-9) until such time as the neighbouring property is subdivided (if at all). The shape of the road ('L' shape) also creates an 'orphan lot' between two residential lots as it cuts back in to join the road contained within Lot 132 of the subdivision. This creates issues regarding who will own and maintain the 'orphan lot' and also requires that the owners of Lots 6-9 maintain a wide berm possibly in perpetuity (if the neighbouring lot is never subdivided).

As it is proposed, the access lot will be 6m in width; enabling enough room for access for Lots 6-9. Given the small size of the neighbouring property (Lot 3 DP 306539 being 1.175ha in size), and the fact that it has approximately 115m of frontage to Wayside Road, I consider the proposed access lot will not adversely affect the overall outcomes in terms of connectivity for the Te Kauwhata West Residential Zone. For these reasons and in terms of practicality, this is a good outcome in terms of urban design and amenity.

Retaining Walls

The construction of retaining walls can impact on visual amenity and urban design. In this case, retaining walls are proposed in three specific locations around the site as shown in the 'Proposed Engineering Works Plan' dated April 2015 (refer Figure 5 below). The plan gives a clear indication of the location and height of the proposed retaining walls required as part of the subdivision works. Mr Butler comments that it is standard practice that any retaining walls exceeding 1.5m in height require a barrier fence on top for safety purposes (i.e. to reduce the risk of falling). He recommends that this fencing be a maximum of 1.2m in height and be of a visually permeable construction. (i.e. pool fencing). This will ensure that the potential adverse visual effects of high retaining walls are not further exacerbated by additional high, closed boarded fencing on top of retaining walls. I note that to ensure any barrier fences are of appropriate height, I recommend the barrier fences be a minimum of 1.1m in height in line with the NZ Building Code. Mr Butler provides the following comments on each of the three walls proposed:

Wall 1 - Abutting drainage reserve Lot 133:

Lot 133 will contain a proposed stormwater pond and proposed wastewater pump station. Proposed retaining walls around the exterior of the drainage reserve could be up to a maximum height of 2.0m. It is recommended that some landscaping be undertaken in this reserve to help screen the higher areas of retaining and the wastewater pump station. It is felt that this would help integrate this infrastructure and 'hard edge' with the countryside living zoned land to the north-west.

Wall 2 – Running along the rear boundary of Lots 54 – 63:

While this retaining wall could reach up to 3.0m in height, the location of the wall 'mid-block' means that potential adverse visual effects on the streetscape will be minimal. The wall at its highest point will be buffered from Road C by lots with street frontage (48 and 51) and two rear lots (49 and 50). Dwellings on these lots combined with likely landscaping by the eventual owners, will ensure that the visibility of retaining will be fleeting.

Wall 3 – Abutting the southern and eastern boundaries of Drainage Reserve Lot 139:

This retaining wall will be up to 2.0m high and highly visible from Road E. As access lot G and surrounding houses are elevated above and overlook the reserve, it is not considered to be a significant CPTED (crime prevention through environmental design) risk, however amenity planting along the base of the wall and in the reserve could help minimise any adverse visual effects associated with significant retaining

In conclusion, Mr Butler comments that he is generally comfortable with the location and size of the retaining walls proposed. *“Retaining is not proposed on the street and the most significant portion of retaining, both in length and height, is located midblock and will be predominantly screened by housing and landscaping. Retaining walls exceeding 1.5m in height will require a barrier fence on top. This fence should be a maximum of 1.5m high and be visually permeable in design (i.e. pool fencing). Additional screening can be provided via complimentary landscaping within each lot”.*

Rear Allotment, Reduced Road Frontage and Utility Allotments greater than 50m²

There are 7 rear lots proposed to be created as part of the subdivision. In some blocks more than 10% of the lots will be rear lots and the activity therefore cannot comply with Rule 21B.20. However, the overall presence of rear lots within the subdivision is low and their limited presence will not impact significantly on the overall amenity of the area.

Lot 62 does not achieve road frontage of at least 15m and is proposed to have road frontage of 13.39m. In addition to this the average lot size of all allotments is 868.54m² but is required to be 875m².

Roads and reserves are defined as utility allotments and all are in excess of 50m². Most roads and reserves will fail this rule within the DP. However, the size of the roads are necessary for appropriate access around the site, for the installation of services, parking, street planting and lighting and are generally in accordance with the Te Kauwhata Structure Plan. The size of the drainage reserves are determined by the size of the stormwater ponds necessary to cater for stormwater discharge. The hilltop reserve is an essential design component of the subdivision and is reflective of the structure plan.

Lots backing onto land within the Country Living Zoned (CLZ)

20 of the 18 lots backing onto the CLZ will not comply with the required 30m boundary width rule of the DP. I consider the effects of this non-compliance are localised and have not been discussed here.

By implementing these measures, I consider the subdivision will be aesthetically pleasing to view and to live in. The recommended design elements will make the subdivision pedestrian friendly and safe. There will be connectivity to the hilltop reserve and in and around the subdivision (and to adjacent properties) which will provide good outcomes in terms of public amenity and safety.

Overall, I consider the effects relating to amenity and urban design will be no more than minor.

Effects of the Proposed Staging of the Subdivision

Rule 21B.28.2 of the District Plan outlines that an activity that does not comply with a controlled activity is a non-complying activity. A controlled activity requires adherence to a staging plan shown in the District Plan (i.e. Figure 5: Te Kauwhata West Living Zone Stage One Staging Plan). This Plan covers multiple land parcels under different ownership.

With the exception of the land contained within proposed Lot 42, all of the subject land is located within Stage 1 of the Staging Plan as shown in District Plan (see Figure 6 below). Stage 1 is divided into sub-stages. Although not expressly stated in the District Plan, it is assumed the sub-stages are to occur in alphabetical order. The subject site contains land within all four sub-stages 1A, 1B, 1C and 1D.

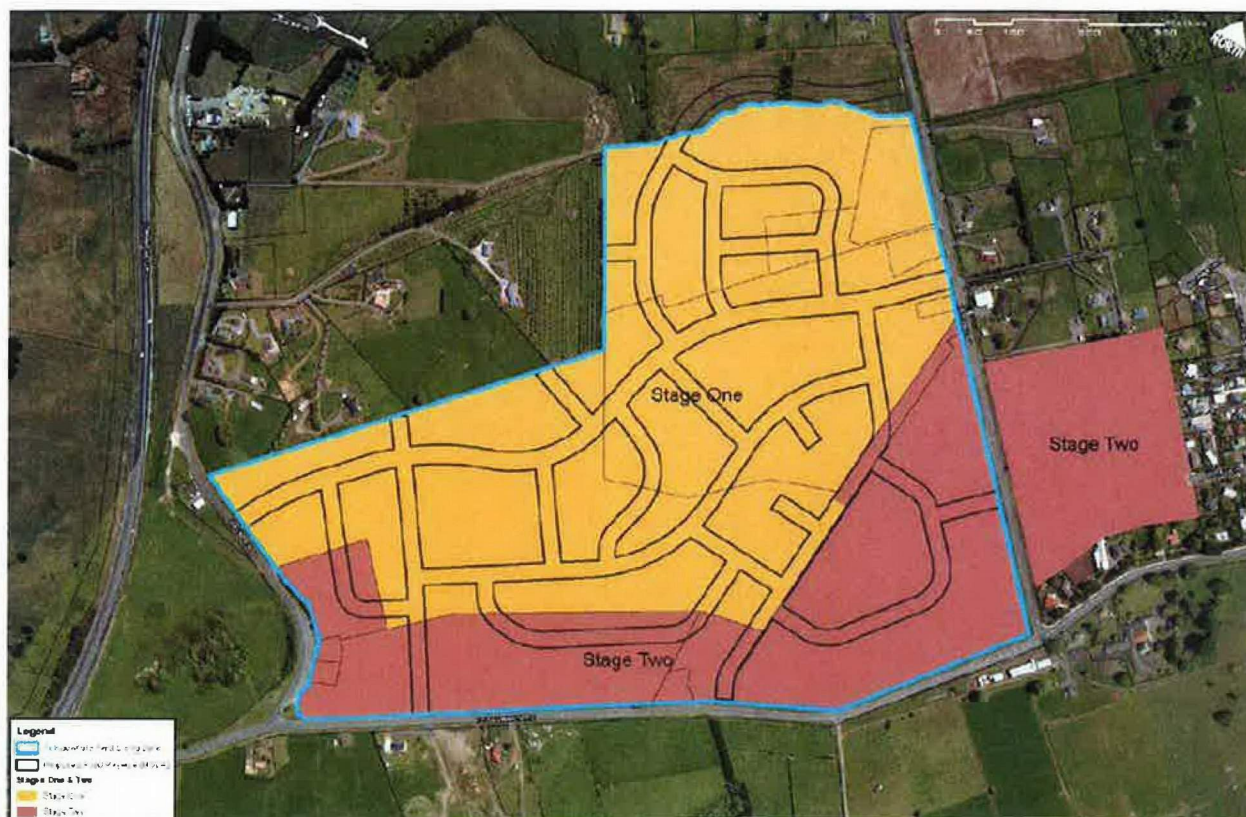


Image 5 - Te Kauwhata West Living Zone Full Staging Plan

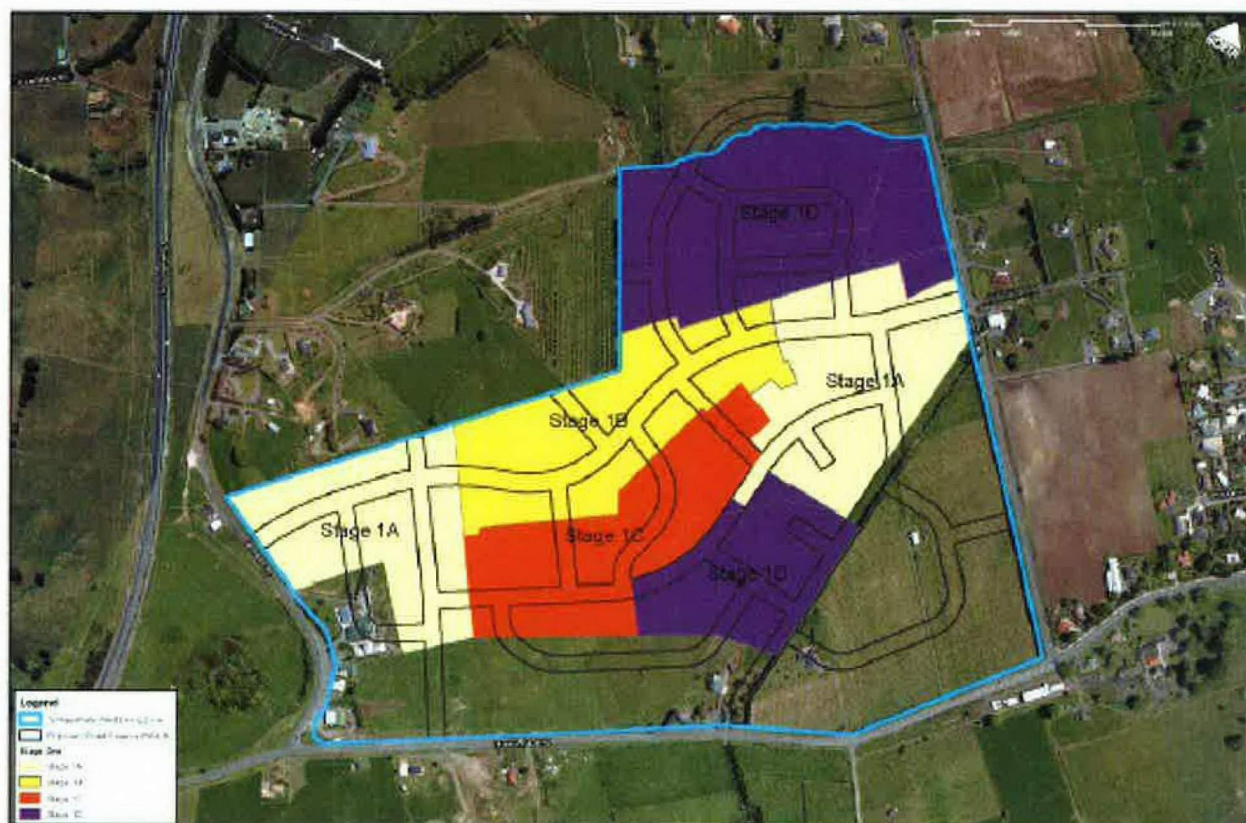


Image 6 - Te Kauwhata West Living Zone Stage One Staging Plan

The staging of the proposed subdivision does not align with the staging plan (see Figure 7 below).

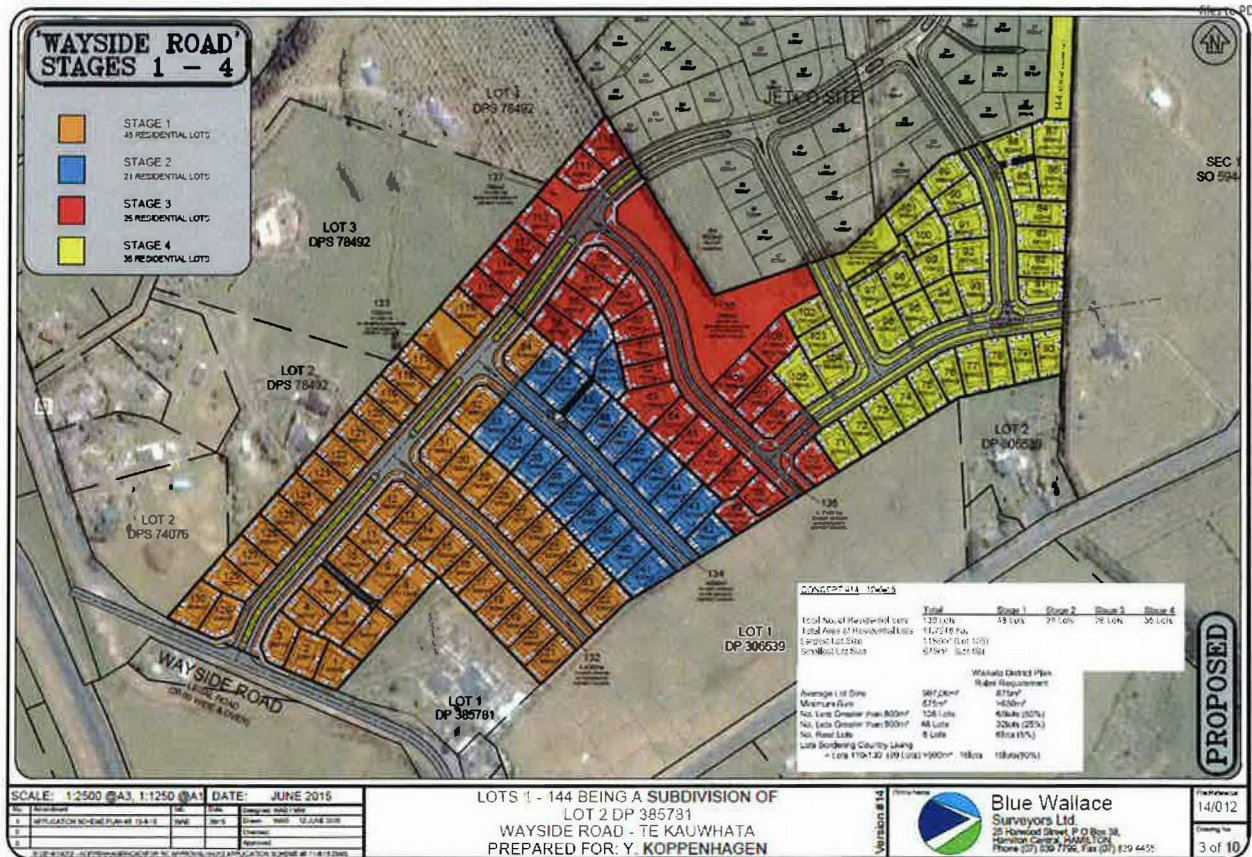


Image 7 - Proposed Staging Plan

It is understood that the staging provisions are in place to reduce the occurrence of adhoc development and to ensure appropriate infrastructure is available for the proposed levels of development. When considering adverse effects anticipated by the rule, the following is relevant.

- The subdivision will be required to be completed in numerical order; being Stage 1 through to Stage 4;
- The site is divided into two portions, east and west, by a north to south trending ridgeline. As such, stormwater will drain to the east or west depending on which side of the ridgeline the roads and/or lots are located. The staging plan does not take this into account. Stages 1 and 2 will drain to the drainage scheme to the west proposed and Stages 3 and 4 will drain to the drainage scheme to the east and to the north on an adjoining site. The proposed staging has taken this into consideration to ensure the appropriate infrastructure is in place prior to development.
- Conditions of consent can ensure that earthworks are top soiled and regrassed in quick order upon completion of works. This will mean that any adverse visual effect created by sporadic earthworks and bare earth will be temporary;
- Existing and proposed infrastructure is available or will be constructed prior to development to cater for the subdivision as a whole. Councils Water Services Team Leader has confirmed that the existing water supply infrastructure currently has capacity to service the 130 lots and the proposed staging will not affect the ability to provide each lot with water supply. The subject property is divided into two catchment areas; East (Stages 1 and 2) and West (Stages 3 and 4) for wastewater design. The western catchment reticulation will connect to a new pumping station as part of Stage 1 of the subdivision. The eastern catchment will connect to an existing pumping station on the adjacent Jetco property as per the Te Kauwhata structure plan which has capacity to service this catchment.
- The proposal supplies infrastructure (i.e. connecting roads, particularly the collector road) to adjoin properties as intended within the staging plan of the district plan.

- When considering potential adverse effects on the surrounding neighbours and the community, the visual effects and traffic effects of the development are anticipated by the DP and as such are considered to be no more than minor and no different to those arising from a development that met the staging rule of the plan.

It is considered that the intent of the staging rule can be achieved through mitigation, and any adverse effect is considered no more than minor.

Contaminated Land

Councils Environmental Technical Specialist has reviewed the application and the PSI provided with the application and is satisfied with the proposal subject to the following recommendations which will form conditions of consent if consent is granted:

Prior to the commencement of any earthworks associated with the consent the consent holder will need to submit the following reports, prepared by a suitably qualified and experienced practitioner in accordance with current Ministry for the Environment Contaminated Land Management Guidelines, to the satisfaction of Waikato District Council's Environmental Technical Specialist:

- A Detailed Site Investigation Report (DSI) addressing the areas of potential contamination.*
- A Remedial Action Plan (RAP) addressing the remediation of all areas of confirmed contamination, as per the findings of the DSI.*
- A Site Validation Report verifying that all contaminated areas identified in the submitted DSI report have been satisfactorily remediated in accordance with the approved RAP and that soils on site meet applicable soil contaminant standards as set by the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.*

I consider that if these conditions of consent are implemented, the effects relating to contaminated land will be no more than minor.

Ecological Impacts

Development in Te Kauwhata is expected to have a strong association with ecological values of the wetland environments in the vicinity of the township, in particular the Whangamarino Wetland and Lake Waikare. In this case, stormwater ultimately discharges into the Whangamarino Wetland. It is intended that planting within road reserve that forms part of a suite of low impact storm water control methods acts to treat storm water off roads, where that storm water may leave the site at green field rates to then enter the Whangamarino wetland.

Conditions of consent will also require the planting of the drainage reserve area and within the road reserve with selected species that enhance the ecological significance of the area.

The ecological effects of the proposal will be no more than minor.

Land Transport and Traffic Safety

The subdivision will create 130 residential lots or approximately 1,300veh/day, using a typical trip generation of approximately 10trips/day/lot. The wider structure plan will generate additional traffic.

Roading is an integral component of urban development, as an interconnected network with good accessibility provides desirable urban transport outcomes alongside traffic safety and efficiency.

WDC RAMM records the 2013 traffic volumes of the three affected roads as:

- Te Kauwhata Road Arterial Road 2,873veh/day

- | | | |
|----------------|------------|------------|
| • Travers Road | Local Road | 669veh/day |
| • Wayside Road | Local Road | 526veh/day |

Initially, Wayside Road will be the only access to the subdivision for the first three stages (95 lots). Once Stage 4 is completed access through the adjacent property (Jetco subdivision) to Travers Road will be possible. Subdivision of other properties will provide additional points of access to Te Kauwhata Road and Travers Road.

The Te Kauwhata structure plan provides guidelines of an indicative roading layout. This includes planning maps with indicative roads (i.e. location important and intention important) and connections to neighbouring lots to ensure integrated development is undertaken. As indicative roads are a guideline, alternatives are available. Any alternative should achieve the aim of the structure given the community expectations of transport outcomes.

The structure plan layout and the proposed subdivision scheme layout have been overlaid in a plan provided by the applicants agent (refer Image 6 below). The proposal deviates from the structure plan layout. Specifically, the following deviations have been identified:

- Removal of a 'Local A' road along the eastern boundary of the site (along Lot 144);
- Changes of some roads within the structure plan roading hierarchy;
- Modified access between the structure plan area and Te Kauwhata Road. Three road intersections are included; however the eastern most intersection is located further east. A right-of-way access parallel to Te Kauwhata Road is shown;
- Access to the south-western portion of the site is to be via a 6m wide private right-of-way (Lot 131), rather than Local B road;
- Relocation of proposed collector road roundabout further north (identified as Lot 137);
- Connection through 106 Wayside Road and Jetco subdivision through creation of a loop road (not part of this application).
- The number of intersections (three) with Travers Road is consistent with the structure, some minor relocation is indicated.
- Minor changes to the alignment of some roads within the site.

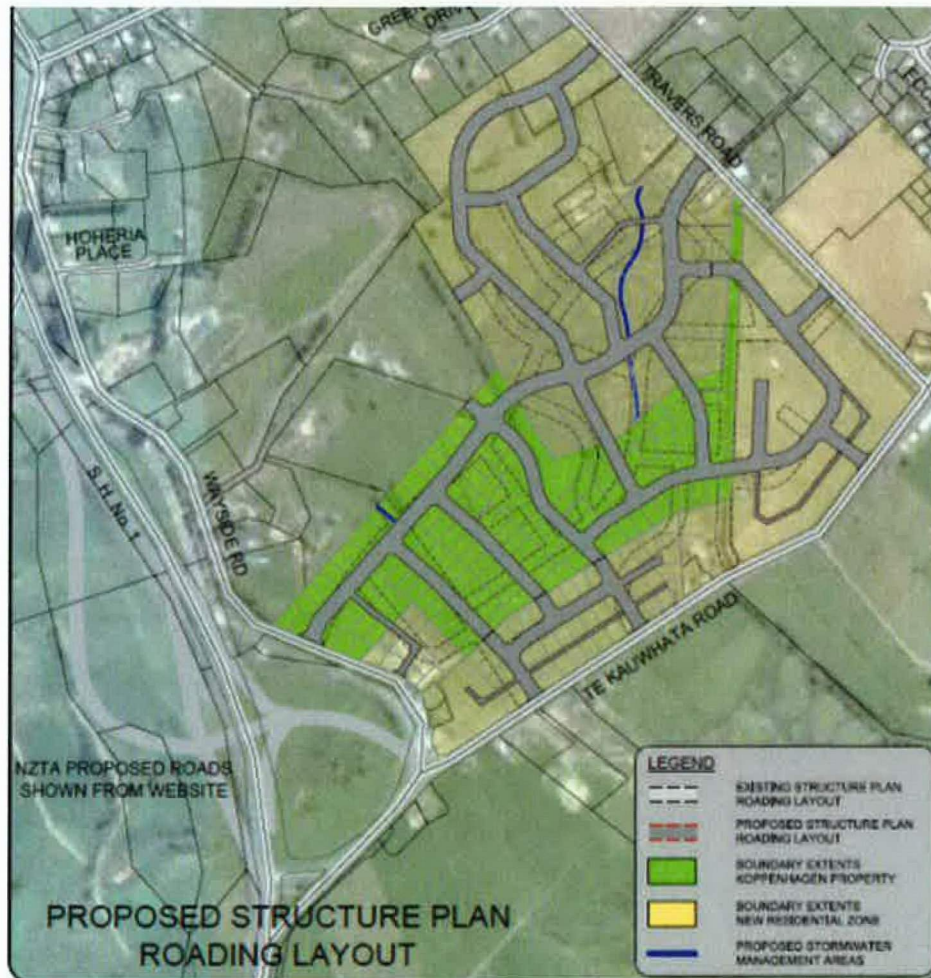


Image 6 – Structure plan roading layout vs proposed roading layout

To assess the effects of traffic safety and the efficiency of the roading network, Council engaged Alistair Black of Gray Matter (Traffic Engineer) to provide technical comments on behalf of Council. A report prepared and submitted to Council titled 'Silverspur Development, Wayside Road: Review of Subdivision Application' dated 8 June 2015 sets out Mr Blacks comments and recommendations. For ease of reference, I have included Mr Blacks comments in relation to the departures from the structure plan roading layout below in italics:

Access to Te Kauwhata Road and Travers Road

This application proposes changes that influence the layout of the wider structure plan area. The proposed layout:

- *Retains three local road intersections with Te Kauwhata Road although the eastern most local road is now located on the neighbouring property to the east;*
- *Retains three local road intersections with Travers Road as per the structure plan; and*
- *Shows that a right-of-way can be provided parallel to Te Kauwhata Road. This would remove the need for direct property access which is restricted by Rule A21.1(g).*

The most significant of these changes is the removal of the local road along Lot 144 and its intersection with Te Kauwhata Road. The internal connectivity provided by the indicative road has been replaced by other proposed roads in the area and would be enhanced by connection of the Smith land to the Jetco subdivision as indicated in this concept. The proposed local road intersection is 300m east of the location shown on the structure plan.

In general, the road network proposed for this site and the neighbouring properties appears to achieve the intent of the structure plan and significant adverse effects from the changes in layout

and access to the wider network are unlikely.

Application of Cross Sections (road hierarchy)

The structure plan provides guidance in regard to the hierarchy of roads depending on the anticipated volumes of traffic along the road. The typical cross sections provided by the applicants agent show Road F constructed to the higher standard (Local A). As shown below, the structure plan intended for this road to link with Te Kauwhata Road. As part of the proposed changes, Road D will connect with Te Kauwhata Road and is likely to attract more traffic than Road F. Therefore it would be more appropriate for Road D to be constructed to Local A standard and Road F to Local B.

We also suggest that Road G and Road B be constructed to Local A standard as they act as an internal loop road and provide connectivity to the existing road network and revised cross sections and scheme plans were supplied on 20 May 2015 that included the recommended changes.

The recommended road hierarchy for this subdivision and adjacent properties is illustrated in Image 7 below.

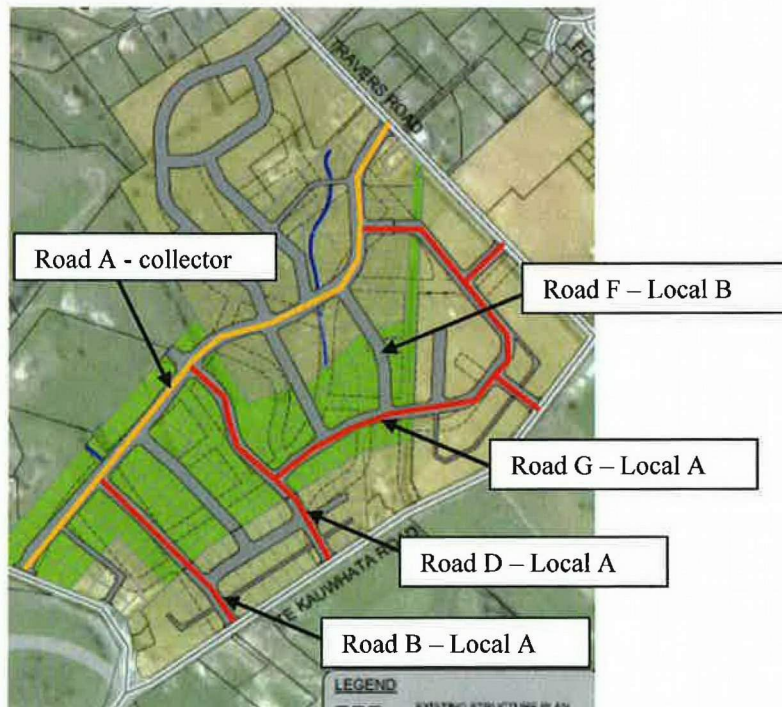


Image 7: Recommended Road Hierarchy

Replacing an Indicative Road with an Access Lot

One of the indicative roads (indicative road intent important Local B) supposed to be constructed as a 22m wide public road is proposed to be constructed as an access lot to serve vehicle and pedestrian access to Lots 6-9 and pedestrian access only to an adjoining allotment. In terms of traffic safety and the efficiency of the roading network, the effects on the wider environment as a result of the departure from the structure plan, will be no more than minor. The access lot will be 10m in width which will provide sufficient space for a carriageway to the required standard and allow for a footpath for safe pedestrian access within the subdivision and into the adjoining allotment to the south (Property 5).

The roading layout has impacts on urban amenity in regards to connectivity in and around the subdivision (i.e. vehicle, bicycle and pedestrian access) and space for parking and planting. These effects are discussed under urban amenity effects below, where it was concluded that urban amenity effects will be no more than minor on the environment.

Relocation of roundabout and access to adjacent land

The structure plan included a local road (intent important) to Lot 2 DPS78492 via a roundabout at the first local road intersection (where Lot 121 is now shown). The proposed subdivision removes this access and relocates the roundabout further north (adjacent to Lot 112).

Access to the Country Living Zone (CLZ) is maintained through a local road access at the location indicated on the structure plan. This intersection is to be constructed as a T-intersection as part of this subdivision with provision for upgrade to a roundabout if a fourth leg accessing the CLZ is required.

A concept plan provided in the application shows that the proposed kerb lines provide for the future construction of a roundabout with a central island radius of 11m and a 7m circulating width or a 9m radius island with 9m circulating width. These dimensions are consistent with Austroads guidance and should be able to accommodate a 12.5m rigid truck and 19m semi-trailer respectively as the design vehicle.

Stage 4 balance Lot 144 and removal of indicative local road

The structure plan identifies a local road along the balance Lot 144. This is not included in the proposed layout. As discussed above, removal of this local road is unlikely to have significant adverse effects as the intent of the structure plan and network connectivity has been maintained. There are potential effects with regard to development potential. This lot should be incorporated into subdivision activities for the adjacent properties.

Rear Accesses adjacent to Lot 88

Rule A21.1d) requires compliance with the performance standards in Table 4. This requires that "front lots must not have access legs to rear lots on both side boundaries". The subdivision plan shows that Lot 87 will have rear accesses on both sides; to Lots 86 and 87 to the south and Lot 37 of the neighbouring Jetco subdivision to the north.

The transportation effects of this non-compliance relate to the potential for adverse road safety effects at the entrances. Lots 86, 87 and Jetco Lot 37 will be accessed by 4m wide right-of-ways. Lot 88 will be accessed by a 3m crossing. Therefore along this 28.72m length of road there will be 11m of vehicle crossing.

Along this section of footpath the entrances are more closely spaced than if there were no rear accesses. This increases a pedestrian's exposure to conflict with vehicles using these entrances. The entrances are low volume (typically 10veh/day/dwelling) and conflict is likely to be low speed and low severity. The typical cross-section for this road (Road F) shows the footpath located 2m from the property boundary, further decreasing the risk of conflict.

We note that Clause 4.4(1) of the Land Transport (Road User) Rule (2004) states “a driver entering or exiting a driveway must give way to a road user on the footpath, cycle path or shared path”.

The NZ Transport Agency Pedestrian Planning and Design Guide (Figure 14.11) recommends that visibility splays are installed in area of high pedestrian flows and where there are more than 200 daily vehicle access manoeuvres to ensure that pedestrians can be seen by drivers. This can be achieved by avoiding tall boundary fences and dense vegetation within the splay. Pedestrian flows in the subdivision are not expected to be high and visibility splays are not considered necessary.

While there is an increased risk to pedestrians of conflict from the closely spaced entrances, pedestrians have right of way over manoeuvring vehicles and the location of the footpath away from the boundary reduces the risk of conflict. The likelihood of injury as the result of conflict is low. The probability of a pedestrian and a vehicle meeting is also low.

In relation to other matters, Mr Black addressed traffic effects in relation to the following matters:

Wayside Road

The main traffic related effects on the existing network are likely to be increased delay and exposure to crashes at the nearby intersections of Wayside Road/ collector road and Wayside Road/ Te Kauwhata Road. Currently, Wayside Road has a 7m sealed width with 0.5m unsealed shoulders typical of many local rural roads. There are some edge marker posts, but no edge lines. The northern end of Wayside Road currently forms a left-in/left-out intersection with SH1. As part of the Longswamp section of the Waikato Expressway this intersection will be closed.

In regard to the District Plan provisions; Wayside Road meets the minimum sealed width but does not provide for on-road parking or walking and cycling. The scheme plans show a proposed footpath across approximately half of the Wayside Road frontage. The footpath should extend along the full width of the site boundary.

The traffic volume on Wayside Road could increase by 950veh/day to approximately 1,500veh/day but may reduce once other connections to Te Kauwhata Road and Travers Road are completed. Traffic volumes of 1,000veh/day are typical for a local road. NZS 4404 suggests rural collector roads (~2,500veh/day) should have a 5.5/5.7m movement lane with 1.5m shoulder and 1.5m footpaths on both sides. This is consistent with the District Plan standard except that NZS 4404 does not specifically require on-street parking.

Due to the likely increase in traffic and for consistency with the adjacent road hierarchy we recommend that Wayside Road between the collector road and Te Kauwhata Road (approx. 320m) be upgraded to collector road standard as the adjacent properties are subdivided and developed. The land west of Wayside Road is zoned rural, therefore a footpath is unlikely to be required on that side of the road.

The adverse safety and efficiency effects of additional subdivision related traffic on Wayside Road are not expected to be significant provided that Wayside Road is progressively upgraded to a semi-urban collector road that includes:

- two x 3.5m lanes;
- kerb & channel and 3m shared path on eastern side of the road. The western side could retain a grass swale due to its rural zoning; and,
- provision for on-street parking on the eastern side of the road.

Without the upgrade the subdivision could lead to adverse efficiency effects arising from the new properties accessing Wayside Road and demand for on-street parking. Currently the proposed footpath stops short of the property boundary and does not safely provide for walking and cycling.

If consent is granted, a condition will require that the recommended upgrades to Wayside Road be implemented.

Wayside Road/ Collector Road Intersection

Figure 4.9 of the Austroads Guide to Road Design Part 4A provides warrants for right turn treatments. Assuming a major road (Wayside Road) volume of 100veh/hr, a right turn bay would not be required at this intersection. Basic intersection widening would be appropriate to allow vehicles to pass those waiting to turn right into the collector road.

Wayside Road/ Te Kauwhata Road Intersection

As part of the Waikato Expressway project a roundabout is to be constructed at the intersection of Wayside Road and Te Kauwhata Road. The 130 lot subdivision could increase the traffic using the roundabout by approximately 1,300veh/day. However, alternative points of access will be created as other stages of the structure plan are completed.

Austroads Guide to Traffic Engineering Practice, Part 3 Roundabouts, Figure 3.3 indicates that a single lane roundabout is suitable for entry flows of 200veh/hr and circulating flows of >1,000veh/hr, well above the traffic expected from the structure plan. The increase in traffic is not expected to have a significant adverse effect on efficiency or safety of the roundabout.

Road Cross Sections

Appendix A of the District Plan provides specific road cross sections for the Te Kauwhata Structure Plan. The scheme plans include a range of cross-sections that demonstrate application of the typical cross-section in various situations that are likely to arise during detailed design. For example four collector road cross-sections are included:

- With central swale and no parking bays (typical mid-block situation where tree pits are installed);
- With central swale and parking bays on both sides (typical mid-block situation without tree pits);
- Without central swale and no parking bays (used near intersections where additional space is required for turning movements or tree pits); and
- Without central swale and parking bays on both sides.

The following table compares the District Plan cross sections (Figures 4B2 and 4B3) with those proposed in the application.

Road Type and Reference	District Plan Standard	Proposed Cross-Section and Application
Collector Road (>1,500vpd) within Te Kauwhata Structure Plan	Figure 4B2 25.5m wide road reserve 2 x 4m traffic lanes with 5m grass swale 2.65m parking bays/ tree pit 1.5m footpath and 3m wide shared path.	Collector Road (Road A) ✓ complies ✓ complies, grass swale removed in some places ✓ complies ✓ complies

Local A Road within Kauwhata Structure (500vpd to 1,500vpd)	Figure 4B3 22m wide road reserve 2 x 3.5m traffic lanes 1.5m footpath on both sides 2.5m parking bays/ tree pit 3.5m grass swale	Local Road A (Road F) ✓ complies ✓ complies ✓ complies, but in different location × only 2.35m wide parking bays × no swale where there are parking bays. Where provided grass berm is split into two sections 1.65m and 2.0m wide
Local B Road within Kauwhata Structure (<500vpd)	Figure 4B3 22m wide road reserve 2 x 3m traffic lanes 1.5m footpath on both sides 2.5m parking bays/ tree pit 4.0m grass swale	Local Road B (Roads B, C, D, E, G) ✓ complies ✓ complies ✓ complies, but in different location × only 2.35m wide parking bays × no swale where there are parking bays. Where provided grass berm is split into two sections 1.65m and 2.5m wide

The proposed collector road cross-sections demonstrate compliance with the District Plan standards.

Differences in the local road cross-sections are discussed below:

The District Plan standards show the footpath immediately adjacent to the carriageway separated by a gap kerb. This will result in stormwater runoff from the road flowing over the footpath to reach the swale. The proposed cross-sections locate the footpath between the roadside swale and property boundary. While some stormwater will flow across the footpath the potential 2m wide catchment is greatly reduced from 5.5m/6m. The proposed cross section locates pedestrians further from the carriageway and is likely to be safer for pedestrians and result in a higher level of pedestrian amenity.

Where parking bays are provided, the grass swale has been replaced with two smaller grass berms that do not have the same ability as a swale to store or treat stormwater. There are no transportation effects from this difference but it could impact on maintenance responsibilities and stormwater design.

The reduction in parking bay width from 2.5m to 2.35m is not considered significant. There is a slightly increased risk that a parked vehicle could intrude into the traffic lane but the proposed width exceeds the minimum width of 2.3m specified in NZS 2890 Parking Facilities for on-road parallel parking spaces. The District Plan requires that dwellings provide one off-street car park per bedroom, reducing the demand for on-street parking.

In general, the proposed cross-sections are consistent with the District Plan standards. There are some minor departures for the proposed local roads relating to reduced car park width, relocation of the footpath and extent of swales. The transportation effects of these departures on the safe and efficient operation of the network are expected to be no more than minor.

Individual vehicle crossings

The scheme plan illustrates that each lot can be provided with individual vehicle crossings. Access points to all rear allotments, or allotments which have frontage to two roads, will be required to be constructed prior to 224c if consent is granted to ensure safe access to lots.

Other comments

In general, the road network proposed for this site and the neighbouring properties appears to achieve the intent of the structure plan and significant adverse effects from the changes in layout and access to the wider network are unlikely.

The proposed roading layout provides for connectivity within the subject land but also with adjacent properties zoned for residential use.

Footpaths will be constructed on both sides of all roads (except along the access lot which will feature a footpath on one side of the accessway only) to ensure safe pedestrian access around the subdivision.

All of the roads will comply with the required road width standards of the District Plan and parking is provided for as per road cross-sections submitted with the application.

Overall I consider the effects on land transport and traffic safety will be no more than minor.

Servicing

Wastewater

There is public reticulation available along Wayside Road in the vicinity of the property. The subdivision is to be fully reticulated with sewer and each lot is proposed to be provided with individual connections to the wastewater supply. The proposal includes the construction of a wastewater pump station within Lot 133 which also contains a stormwater pond which is to vest in the Waikato District Council as Local Purpose Reserve Drainage. Due to the topography of the site, the property is split into two catchment areas (east and west) for wastewater design. The west internal sewer reticulation will connect to the new pump station within Lot 133 as per the Te Kauwhata structure plan. The east part of the internal reticulation is to connect to the existing, Council owned, pump station located on the adjacent property to the north (Jetco). Councils Water Services Team Leader has confirmed that this pumping station is sized appropriately to cater for the eastern catchment of the subdivision.

The construction of the pump station is proposed to occur within Stage 2. However, the timing of construction will need to occur prior to occupation of any new dwelling on the property.

The rising main from the pump station is to be laid in the proposed roading corridor. As such it is not anticipated that any easements will be required for the pump station.

Councils Development Engineer has assessed the application and is satisfied with the proposal subject to conditions which require that wastewater design and engineering plans are to be provided and approved by Council prior to commencing the construction works of the proposed wastewater system.

Conditions of consent will require that no new dwelling is to be inhabited prior to an operating waste water scheme in the area.

Councils Development Engineer has assessed the application and is satisfied that wastewater can be appropriately disposed of subject to conditions which require that the reticulated sewer system and the pump station are designed appropriately and that each lot in the subdivision is provided with a gravity connection. The reticulation is required to be vested to Council prior to any discharges to the system.

Water

The proposed internal water supply reticulation is shown on the 'Services Plans-Water Reticulation' plan provided as part of the application dated May 2015 and prepared by Blue Wallace Surveyors Ltd. Each lot is to be provided with individual connections to the water supply. Te Kauwhata Town Supply extends along Wayside Road and Te Kauwhata Road. There is an existing 150mm diameter water main along Wayside Road in the vicinity of the subject property. The subdivision will connect to the public water main on Wayside Road. Council's Water Services Team Leader has confirmed that the existing capacity is sufficient for the water

demand for 130 lots and the proposed staging of the subdivision will not compromise the ability to provide each lot with water supply.

Councils Development Engineer has assessed the application and is satisfied with the proposal subject to conditions requiring that the internal water supply reticulation be designed and constructed in accordance with the Hamilton City Council Infrastructure Technical Specification (ITS) and as per the recommendations given in the OPUS and Coffey's geotechnical reports to mitigate any effects from the potential liquefaction.

The infrastructure is proposed to be laid within the grass berm within the road reserve.

Telephone and Power

Telephone and power is proposed to be supplied to each lot. WEL Network and Chorus have provided confirmation that they can extend their networks to the boundary of the subject site to provide connections.

Overall, I consider that each lot can be serviced appropriately and that any adverse effect on the wider environment will be no more than minor.

Stormwater Management

There is no Council stormwater reticulation in the area that can provide for concentrated stormwater as a result of impervious surfaces across the site. The land is undulating and divided into two distinct catchment areas (west and east), both of which ultimately discharge into the upper reaches of the Whangamarino Wetland. The western catchment naturally discharges into a tributary which is located in land directly to the north of proposed stages 1 and 2 and into adjoining Lot 3 DPS 78492. The eastern catchment discharges into a drain which runs through the adjoining Jetco Subdivision. This catchment has been split into two sub-catchments; one which will discharge into a stormwater pond to be constructed as part of Stage 3 of the subdivision and one which will discharge into a stormwater pond that has been partially constructed, and is to be upgraded as part of the development of the Jetco Subdivision. The tributaries join and then flow east under the low point in Travers Rd prior to discharging into the Whangamarino Wetland.

A Stormwater Management Plan prepared by OPUS and dated 5 September 2015 and addendum reports by OPUS dated 7 April 2015 and 17 July 2015 have been provided by the applicant. The reports investigate options for the key stormwater infrastructure to ensure that stormwater is appropriately treated before being discharged into the Whangamarino Wetland.

Ground soakage was considered however it was concluded that existing soils do not have the desired permeability, making on-site soakage systems an unsuitable stormwater management option.

The stormwater management system that is proposed to be employed for the subdivision will consist of

- Rainwater tanks to be used on all residential sections throughout the development for flow attenuation of stormwater runoff from residential roofs, and sized to accommodate the 10% AEP event. The tanks will have a throttled discharge into the stormwater reticulation and an overflow discharging into the street.
- Vegetated swales in the roads will be used to treat stormwater, and will also reduce the time of concentration and peak flow for the catchment by decreasing the flow velocity.
- Three stormwater ponds to attenuate and treat stormwater runoff from the sub-catchments in the subdivision. The ponds are to be sized to attenuate the 10 % AEP year critical storm back to the 10 % AEP green fields discharge rate.

Suitable overland flow paths will be required across the site and from the soakage systems in particular. The lots are proposed to be elevated above the road network and overland flows from lots will drain to the roading network and eventually discharge into the Waikato River.

Stormwater design will be influenced by further geotechnical investigations and conditions of consent that the design incorporates the recommendations of any further geotechnical investigations.

Councils Development Engineer is satisfied that stormwater for the site can be managed in an acceptable manner on the proviso that a stormwater design is prepared for roads prior to the commencement of works and for new dwellings at the time of building by a suitably qualified person.

Overall, I consider that stormwater can be managed appropriately and that effects on the wider environment will be no more than minor.

Conclusion

I am satisfied that suitably experienced technical expert has been obtained, where such experts have concluded that adverse affects relative to their expertise where acceptable subject to conditions. I am satisfied that further non-compliant aspects of the proposal that are highlighted within the above assessment are of a nature where either mitigation exists to avoid any adverse effect, or the adverse effect was of such a small scale that they are unlikely to be noticeable. Overall, I am satisfied that any adverse effects on the environment will be no more than minor.

3.5 Special Circumstances s95A(4)

There are no special circumstances that warrant public notification.

4.0 SECTION 95B ASSESSMENT FOR THE PURPOSE OF LIMITED NOTIFICATION

4.1 Rule in the Plan that precludes limited notification - s95B

There are no rules in the plan that preclude limited notification.

4.2 Effects that may be disregarded - S 95E(2)(a)

Pursuant to section 95E, if a rule or national environmental standard permits an activity with that effect the adverse effect of the activity on the person may be disregarded. The permitted baseline described in section 3.3 is also relevant to effects on people and will therefore not be readdressed here.

4.3 Statutory Acknowledgment Area - s95E(2)(c)

The application is not within a statutory acknowledgment area.

4.4 Assessment of adversely affected persons under section 95E

The following assessment is for the purposes of identifying any affected persons in accordance with the requirements of Section 95B of the RMA.

Of the 11 adjacent properties identified in Image 2 above, the owners & occupiers of four of the properties have provided written approvals, being:

Property 2 - 106 Te Kauwhata Road: JR Smith
Property 3 - 124 Te Kauwhata Road: CM & JM Dunlop
Property 4 - 4 Wayside Road: HB, LK, MA & PR Boldero;
Property 5 - 16 Wayside Road: Greenways Orchards Limited;

In addition to this, Nga Muka Development Trust (NMDT) provided written approval for the application on behalf of local Iwi on 15 May 2015.

It is noted that, following receipt of written approvals from the above people, there were further amendments to the application relating to stormwater discharge. Iwi requested to see the amended stormwater information. I do not consider the stormwater amendments change the level of effects on Iwi or any other party over and above those effects they have already provided approval for and as such, I did not request that the applicant re-obtain written approvals from these people.

Effects on people who have provided written approvals have been disregarded.

Those people who own and/or occupy the properties identified as adjacent in Figure 3 above, other than those who have provided written approvals, are the only other parties deemed to be potentially affected by the proposal due to the distance of other residential buildings from the subject site. These people include the owners and occupiers of the following properties:

Property 1 - 132 Travers Road: Jetco Waikato Limited;
Property 6 - Pt Sec 93 Blk XV Maramarua SD SO 53333: Her Majesty the Queen;
Property 7 - Lot 1 DPS 39290; WEL Networks Ltd;
Property 8 - 52 Wayside Road: Liston Trustee Services Limited;
Property 9 - 62A Wayside Road: NJ & NJ Patterson & RM Harding;
Property 10 - 62B Wayside Road: KJ & WA Peach;
Property 11 - 62D Wayside Road: Brian Jones, KW Trustees.

The actual and potential adverse effects on people are assessed below:

Property 1 - 132 Travers Road: Jetco Waikato Limited

I consider the effects on the owners and occupiers of this property will be less than minor for the following reasons:

- The land is zoned for residential purposes and the potential level of development that is likely to occur if the subdivision is granted, is anticipated by the provisions of the District Plan, along with all of the infrastructure that is needed to service such a subdivision;
- The noises, lighting and traffic movements generated by such a development are also anticipated within the Living zone;
- The subdivision will incorporate the relevant urban design concepts detailed within the District Plan to ensure high amenity outcomes, including appropriate road and footpath widths, layout and treatments, linkages to the river and the walkway, the installation of services and fencing restrictions;
- Consent for a 70 lot subdivision has been granted on this property and construction works are currently underway. The proposed subdivision has been designed to link into the 'Jetco' subdivision and together will generally achieve the intention of the Te Kauwhata Structure Plan.

Property 6 - Pt Sec 93 Blk XV Maramarua SD SO 53333: Her Majesty the Queen
Property 7 - Lot 1 DPS 39290; WEL Networks Ltd

Property 6 is a medium sized block of land within the Rural Zone. The land is currently vacant and most of the land drops significantly below the level of Wayside Road. The land is owned by her Majesty the Queen and will be used by NZTA as part of the Waikato Expressway.

Property 7 is a small utility allotment owned by WEL Networks Ltd and contains a small substation and a shed.

No people reside on the properties and the activities on these properties are not considered to be sensitive to the subdivision or associated development. In reverse however, there is a possibility that the future owners of the lots fronting Wayside Road in the vicinity of the substation may experience noise generated from the substation. To ensure that there are no conflicts created between the two different activities (i.e. residential vs substation activities), I consider it would appropriate to impose a condition, if consent is granted, requiring a no-complaints covenant be registered on the residential lots in the vicinity. Specifically, these lots include Lots 129 and 130. Lots 1 to 3 also have frontage to Wayside Road but will be on the opposite side of the Wayside/Main Collector Road intersection and in excess of 60m from the substation.

Property 8 - 52 Wayside Road: Liston Trustee Services Limited

Property 9 - 62A Wayside Road: NJ & NJ Patterson & RM Harding

Property 10 - 62B Wayside Road: KJ & WA Peach

Property 11 - 62D Wayside Road: Brian Jones, KW Trustees.

These properties are within the Country Living Zone and share a common boundary with the subject site (to the south). The proposed subdivision will change the existing environment considerably. However, the land is zoned living and the number of lots to be created, and consequently the level of development that is likely to follow, is generally aligned with the provisions of the District Plan. However, the District Plan provisions seek that a buffer area between Country Living Zone properties and Residential Zone properties by increased residential lot sizes and frontage lengths along shared boundaries. In this case, 20 of the 18 lots created will have a shared boundary of less than the required 30m in width and a lot area of less than the required 900m². As a consequence there are potential adverse amenity effects on the owners/occupiers of these properties.

The Urban Designer engaged by Council, Mr Butler, has reviewed the application and has recommended the following measures be implemented to mitigate the effects created by reduced lot sizes and reduced shared boundary widths:

- 1) It is recommended that the following landscaping and fencing controls be provided for the rear boundaries of lots abutting Country Living zoned land:
 - Fencing of boundaries abutting Country Living zoned land should be a maximum of 1.2m in height and be of a post and rail construction. This is to be constructed at the subdivision stage;
 - It is recommended that a hedge (maximum height 1.5m) be planted within each lot, abutting the Country Living zone boundary. This is to be completed at the subdivision stage.
 - It is recommended that a minimum of one specimen tree (pb95 or larger) be planted in the rear yard of each lot abutting the Country Living zone. It is recommended that this be condition of consent and carried over to the title of each lot.
- 2) It is recommended that fencing along boundaries abutting recreation or drainage reserve be a maximum height of 1.2m and be of a visually permeable construction to maximise visibility and enhance opportunities for passive surveillance.

Upon implementation of these measures Mr Butler is comfortable that the effects on adjoining neighbours will be less than minor for the following reasons:

- The average width of lots proposed along the CLZ boundary is 25m – only 5m less per lot than what is allowed under the rules. If the 30m minimum width of lots abutting the CLZ were to be enforced as per the DP rules, this would see a reduction of only four lots. When viewed from CLZ land to the north east of the site, the infringement would be negligible.
- The typical size of lots abutting the CLZ is 900m². This is consistent with, if not larger than the typical average lot size across the remainder of the subdivision. This ensures that the intensity of lots when viewed from CLZ properties is not exaggerated at the urban/countryside interface. Furthermore, it is noted that the adjacent CLZ land rises approximately 10m moving east from the boundary with the site. While this level will be similar to the finished contour across much of the subject site, the noticeable depression between Lots 114 and 121 which continues into the CLZ land, will create a noticeable vertical separation. It will also mean that some of the existing lifestyle properties in the CLZ will have elevated views over the site, thus making a clear distinction between the lots bordering the CLZ (subject to 30m lot widths) and those located further east (not subject to the same lot width) difficult to discern from these viewpoints.
- The design choice of longer/narrower lot geometry, as opposed to shorter/wider lots, recognises the traditional house shape and the preference to maximise the amount of private open space (to the rear of the dwelling). This arrangement will support a typically deeper rear yard, increasing the physical separation between the dwelling on each lot and the CLZ land.
- The application of fencing and landscaping controls along the rear boundary of lots abutting the CLZ is seen as the most effective way of 'addressing' the countryside interface. Landscaping and fencing will help to soften the visual appearance of the increased intensity, and create a consistent landscape/character edge abutting the CLZ properties which otherwise would not exist.

Summary

Overall, it is considered that adverse effects on people as a result of the proposal will be less than minor.

5.0 SECTION 95 NOTIFICATION RECOMMENDATION AND DECISION UNDER DELEGATED AUTHORITY

Pursuant to section 95A & B application SUB0163/14 for a Non-Complying activity shall proceed on a NON NOTIFIED basis for the reasons discussed above:

Reporting Planner:



Summer Salmon
Consents Planner
Dated: 10/9/15.

Approved By:



Consents Team Leader
Dated: 11/09/15.

6.0 SECTION 104

A decision was made under section 95 of the Act to process the application on a non-notified basis. An assessment of the application under section 104 of the Act is provided below.

As a Non-Complying Activity, section 104D states that Council may only grant consent to the applicant's proposal if the effects are no more than minor (s104D(1)(a)) or the proposal is not contrary to the policies and objectives of the relevant plans (s104D(1)(b)). If consent is granted Council may impose conditions under section 108.

Matters to be considered by the Council when assessing an application for resource consent under s104 of the Act include: subject to Part 2, any actual and potential effects on the environment and any relevant objectives, policies, rules or other provisions of a Plan or Proposed Plan; and any other matters considered relevant and reasonably necessary to determine the application.

7.0 SECTION 104D(1)(A) - ADVERSE EFFECTS ON THE ENVIRONMENT

7.1 The following actual and potential effects are relevant to this proposal:

The assessment of adverse effects in the approved notification report is also relevant for the purposes of the assessment required under s104D(1)(a) and therefore will not be repeated here.

It is considered the adverse effects of the proposal on the environment are able to be avoided, remedied or mitigated through the imposition of conditions.

Overall, I consider the effects on the environment will be no more than minor.

8.0 SECTION 104D(1)(B) – RELEVANT PROVISIONS

8.1 Waikato Regional Policy Statement/Operative Regional Plan

The proposal is not contrary to the relevant provisions of the Operative and Proposed Waikato Regional Policy Statement. The proposal is not contrary to the relevant provisions of the Operative Waikato Regional Plan.

8.2 Operative Waikato District Plan - Waikato Section

8.2.1 Operative Objectives and Policies

The following operative Objectives and Policies of the district plan are considered relevant to the proposal:

Chapter 1A: Waikato District Growth Strategy

The District Plan states:

'The Waikato District Growth Strategy...seeks to direct the majority of growth into settlements, with the expected significant growth of the larger towns and expansion of existing villages that are supported by services and facilities. Increasing the density of development will ensure that most efficient use is made of infrastructure, services and facilities, will reduce the demand for land, and will reduce the need for

travel and the travel distances’.

A key issue for the district is to ensure that population growth and associated built development is directed and managed in a way that results in efficient and high amenity urban areas.

In this case, the proposed development is located near the Te Kauwhata township in an area identified for growth. Services can be provided to the lots. The subdivision will be developed to ensure high quality living environments and the varying lot sizes will ensure that choice and variety in housing types are provided for. As such, I consider the proposal is not contrary to the provisions under Chapter 1A.

Chapter 6: Built Environment

Chapter 6 aims to ensure that development is grouped in order to make the most efficient use of existing utilities, with growth of an urban nature occurring within towns and villages. Where this is not possible, on-site management of the effects of land use and development is expected.

The applicant has demonstrated that each lot can be serviced appropriately (water, wastewater, power, phone). Stormwater discharge can be managed across the site. Conditions of consent will ensure that new and/or existing systems are designed and constructed to standard and extended where necessary.

I consider the proposal is not contrary to these objectives and policies.

Chapter 8: Land Transport

Chapter 8 seeks to ensure development promotes an integrated, safe, responsive and sustainable operation of the land transport network. Inappropriate subdivision and development can adversely affect the connection between the network and adjoining land.

The proposal has been assessed by a Traffic Engineer. The purpose of this assessment was to ensure the proposal will result in a safe and efficient roading network. The conclusions drawn by the suitably qualified professional is that subject to conditions for any consent granted, the subdivision will result in an acceptable roading network. I therefore consider that the proposal is not contrary to the applicable land transport provisions of the District Plan.

Chapter 13: Amenity Values

The objectives and policies of Chapter 13 aim to locate activities appropriately so that any new activities establishing in an area recognise existing, accepted amenity levels, which reflect common management practices in the area and the effects of existing activities.

In this case, the subject land is located in a generally rural/rural-residential environment and residential activities are not necessarily compatible with activities that are undertaken in the area. Although the proposal will not be in keeping with the surrounding area, the land is zoned for residential purposes and as such, I consider that the amenity effects of allowing this proposal will be minor as the level of density and therefore the associated visual, noise and traffic effects are consistent with the expectations of the District Plan. Therefore, I consider that the proposal is not contrary to the above objectives and policies.

Chapter 15: Te Kauwhata Structure Plan

Within the Te Kauwhata Structure Plan Area the objectives and policies aim to retain the village characteristics by maintaining open space, amenity trees, views to natural landscape via compliance with the Urban Design Guide. As outlined earlier within this report, a review of the proposal against the Te Kauwhata West Living Zone has been undertaken on the behalf of Council by a suitably experienced professional, where it was concluded that on balance, the outcomes of the guidelines will be achieved by the proposal. The subdivision will require

modification and development of the property in a manner that it is intended for with the residential zoning.

Other than the non-compliance with Rule 21B.19.1(a)(iii) which requires that at least 25% of all lots within each neighbourhood block are 900m² or greater in size; overall the proposed lots are consistent with the intent of the District Plan Rules. Only two of the 10 neighbourhood blocks created, will have less than 25% of lots less than 900m² in size. As required by the District Plan, each of the proposed lots has a net size of at least 650m²; the average net site area of all lots is in excess of 875m²; and at least 50% of all lots within each neighbourhood block will be greater than 800m² in size. In the original scheme plan provided by the applicant, the proposal could comply with all of the lot size requirements. However, the reserve was smaller in size and there was little road frontage to the recreation reserve. As a compromise, the subdivision now has minor non-compliances in terms of lot sizes, but achieves a larger reserve with an active road frontage and a higher amenity value overall.

Amenity planting, particularly within road reserves and the local purpose and drainage reserve will be undertaken in accordance with landscaping envisaged in the District Plan. Public space will include the hilltop reserve that is to be created as anticipated within the Te Kauwhata Structure Plan, which will provide views toward surrounding natural features. Overall the proposal is deemed consistent where relevant with the provisions of the Waikato District Plan.

Infrastructure associated with the development includes the construction of local roads, stormwater management devices, and waste water and water reticulation. Water reticulation is within the area, where new lots will connect to this. Waikato District Council own the existing wastewater pumping station on the adjacent property to cater for the eastern catchment of the subdivision and a new wastewater pumping station will be required to be constructed as part of Stage 1 of the subdivision to cater for the western catchment of the subdivision. The applicant proposes to construct roads within the site, and provide effective stormwater management devices. Stormwater management within the subject site will mean that stormwater leaving the site will be at a greenfields rate. This infrastructure provided within the subject site will be connected and integrated with neighbouring properties zoned for residential development. The proposed development will be undertaken in an integrated manner in respect to provision of infrastructure.

The proposal includes the creation of a hilltop reserve that has substantial road frontage and allows for passive recreation and views out to the natural features of the surrounding area.

The applicant has proposed a road network with an acceptable level of connectivity, as confirmed by Council's technical expert. While not being exactly consistent with the structure plan layout for roading, connectivity around the subdivision and adjacent residential zoned properties will not be compromised and the intent of the layout will be achieved. The collector road will be of a width to provide for public transport should this be used in the future. Adequate frontage should be available for bus stops. Streets will include landscaping to ensure attractive streetscapes occur. There are rear lots within the proposed layout, however the presence of rear lots is minimal and will not be a particularly noticeable feature of the proposal. The road alignments are sympathetic to natural contours so that the need for earthworks is minimised as far as is practical given the challenging topography of the site in areas. While not being completely consistent with all the above provisions, the overall intent of the land transport provisions will be met by the proposal.

Overall, I conclude the proposal is not contrary to the objectives and policies of the District Plan and other relevant plan provisions.

9.0 S104D CONCLUSION

It is considered, based on the above assessment that the effects of the proposal will be less than minor, thereby passing the first threshold test as set out in s104D(1)(a). It is also considered that the proposal is not contrary to the objectives and policies of any relevant plans. Overall, the proposal passes both threshold tests as set out in s104D(1), and as such, Council may consider granting consent to the proposal following an assessment against s104 of the Act.

10.0 S104 ASSESSMENT

The relevant effects and matters considered and the conclusions made under s104D do not change from those assessed under s104 and I conclude the effects of the proposal are acceptable and the proposal is consistent with the objectives and policies of the relevant district and regional plans.

10.1 S104 (1)(c) Other Matters

10.1.1 Development Contributions

Under the Local Government Act 2002, Councils were permitted to take development contributions towards the costs that capital growth imposes on the community. The financial contribution policy of the Council's Long Term Plan incorporates a development contribution based on the capital expenditure for infrastructure and community facilities for that ten year period. The development contribution estimated for this proposal is \$3,971,007.00 (excl. GST).

11.0 SECTION 106 – CIRCUMSTANCES IN WHICH THE SUBDIVISION MAY BE REFUSED

The land and structures on the land will not be subject to material damage by erosion, falling debris, subsidence, slippage or inundation from any source.

Any subsequent use that is likely to be made of the land is not likely to accelerate, worsen, or result in material damage to the land, other land, or structure by erosion, falling debris, subsidence, slippage, or inundation from any source.

Sufficient provision has been made for physical access to each allotment created by the subdivision although a s93 notice in accordance with the Government Roding Powers Act 1989 has yet to be obtained to gain legal access. However, I do not consider this a reason to decline the consent given that the road has been transferred to Council ownership from NZTA and the Councils Roding Manager has no significant concerns with the proposed location of the intersection to Great South Road.

Conditions of consent can ensure that the effects referred to above are avoided remedied or mitigated.

The proposal complies with Section 106 of the RMA.

12.0 PART 2 MATTERS

Section 8

Section 8 concerns the principles of the Treaty of Waitangi. In this case, there are no known or recorded sites, areas of matters of interest to Iwi or Maori. The applicant consulted with Iwi and Iwi provided written approval for the application. Therefore it is considered that section 8 has been given regard to in the processing of this application

Section 7

Section 7 of the Act sets out other matters that Council is to have particular regard to in achieving the purpose of the Act. The matters of relevance to this application are:

- (b) *the efficient use and development of natural and physical resources*
- (c) *the maintenance and enhancement of amenity values;*
- (f) *maintenance and enhancement of the quality of the environment*

As detailed above, I consider that the amenity values of the area will be maintained and enhanced. The land is zoned for residential purposes and so I consider the land will be used and developed efficiently. I consider I have had regard to those relevant matters set out under section 7.

Section 6

Section 6 of the Act requires a number of matters of national importance to be recognised and provided for. Of relevance to this application are the following matters:

- (a) *the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:*
- (b) *the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:*
- (d) *the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:*
- (e) *the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:*
- (f) *the protection of historic heritage from inappropriate subdivision, use, and development:*

Stormwater discharge will be managed appropriately via conditions of consent to ensure the natural character of the wetlands and lakes within the vicinity of the site will be protected. A discharge permit is required to be obtained from regional council and stormwater discharge will need to be in accordance with conditions of this consent.

There are no recorded archaeological sites or known sites of significance to Iwi on the subject land. Any taonga/ historic heritage found at the site will be managed in accordance with Heritage NZ's protocols. Iwi have been consulted and have given written approval for the proposal.

I consider the matters under section 6 have been recognised and provided for.

Section 5

The overriding purpose of the Act is to promote the sustainable management of natural and physical resources. I consider that the proposal achieves the purpose and principles of the Act. It provides for residential activities in an appropriate area designated for such activities. The social and economic wellbeing of future owners of the properties will be provided for while avoiding, remedying and or mitigating any adverse effects on the environment.

Having regard to the above assessment it is concluded that the proposal is consistent with the principles (sections 6-8) of the Resource Management Act 1991. Overall the application is considered to meet the relevant provisions of Part 2 of the RMA as the proposal achieves the purpose (section 5) of the RMA being sustainable management of natural and physical resources.

12.0 RECOMMENDATION

The Applicant is proposing to undertake a subdivision in the Living Zone to create 130 residential lots at a property located at 24 Wayside Road, Te Kauwhata within the Living Zone. Under the Operative Waikato District Plan, the proposal has been assessed as a Non-Complying Activity.

The actual and potential effects of the proposal are considered to be no more than minor. The proposal is not contrary to the objectives and policies of the District Plan. As such, the application passed through the both gateway tests and was assessed against s104 of the Act.

Under s104, I again concluded that the proposal was not contrary to the objectives and policies of the District Plan and that the effects of the proposal will be no more than minor.

I concluded the proposed activity met the purpose and principles of Part 2 of the Act.

Therefore, subject to the conditions listed within the decision to be served under section 113, the proposal can **be granted** under the Operative District Planning document.

Reporting Planner:



Summer Salmon

Consents Planner

Dated: 10/9/15

Peer Reviewed By:



Consents Team Leader

Dated: 11/09/15

Schedule I

Conditions of Consent

Resource Consent No: SUB0163/14

All stages

For the purposes of this consent, any reference to 'residential lots' within this section titled 'All Stages' shall be taken to mean the residential lots created within the relevant stage as follows:

- Stage 1: Lots 1 to 32 (inclusive), Lot 54 and Lots 116 to 130 (inclusive);
- Stage 2: Lots 33 to 53 (inclusive);
- Stage 3: Lots 55 to 70 (inclusive), and Lots 106 to 115 (inclusive);
- Stage 4: Lots 71 to 105 (inclusive) and Lot 144 (to be amalgamated with Lot 87).

General

1 The Land Transfer Plan to give effect to this resource consent shall be generally consistent with the application and any further information provided by the applicant for SUB0163/14 and the approved plans prepared by Blue Wallace Surveyors Ltd, Ref 14/012, dated June 2015, as follows:

- (a) Lots 1-144 being a subdivision of Lot 2 DP 385781 Wayside Road – Te Kauwhata, Drawing 2 of 10;
- (b) Staging Plan – Overall Staging Plan, Drawing 4 of 10;
- (c) Staging Plan – Stage 1 Detail Plan, Drawing 5 of 10;
- (d) Staging Plan – Stage 2 Detail Plan, Drawing 6 of 10;
- (e) Staging Plan – Stage 3 Detail Plan, Drawing 7 of 10;
- (f) Staging Plan – Stage 3 Roundabout Detail Plan, Drawing 8 of 10;
- (g) Staging Plan – Stage 4 Detail Plan, Drawing 9 of 10;
- (h) Lots 1-144 being a subdivision of Lot 2 DP 385781 Stormwater Catchment Plan, Drawing 10 of 10.

Copies of the approved plans are attached.

- 2 Pursuant to Section 36 of the Resource Management Act 1991 the consent holder shall pay the actual and reasonable costs incurred by the Waikato District Council when monitoring the conditions of this consent.
- 3 Council's processing fees are to be paid in accordance with the Council's schedule of fees and charges prior to the signing of the s224 certificate.
- 4 A competent and suitably qualified engineer shall be employed to prepare all engineering design plans required to be submitted to Council and to supervise and provide certification of the approved engineering works in accordance with the Hamilton Infrastructure Technical Specifications.
- 5 Prior to s223 and s224 approval all buildings shall comply with the permitted

activity rules relating to building coverage, setbacks, and daylight angles relative to the new boundaries.

- 6 The four stages of the subdivision shall be completed in numerical order (i.e. Stage 1 through to Stage 4) as depicted on the approved staging plan.

Advice Note

This condition is imposed to ensure the appropriate infrastructure is available to each residential allotment.

Prior to application for approval of the survey plan (s223), the Consent Holder shall comply with the following conditions:

- 7 No earthworks or construction works shall commence prior to approval of the following documents as required by the subsequent conditions:
- (a) Geotechnical Assessment Report;
 - (b) All engineering design plans;
 - (c) The Detailed Site Investigation Report; and,
 - (d) The Remedial Action Plan.

Geotechnical Assessment Report

- 8 A Geotechnical Assessment Report informing the subdivision layout and infrastructure design shall be submitted to and approved by Council.

The report shall include/address those matters as set out in Section 2.2.3(a) – (n) within the Hamilton Infrastructure Technical Specifications.

Where works are proposed to be staged, the engineering design shall include information regarding how earthworks, stormwater and road formation shall be managed at the stage boundary and/or development boundaries.

The report shall be undertaken in accordance with (but not be limited to) the following:

- (a) Hamilton Infrastructure Technical Specifications;
- (b) The restrictions and recommendations identified in the report prepared by Paul King of OPUS entitled, 'Concept Stormwater Management Plan, ref: 3-38720.00, dated 5 September 2014', including 'Stage 1 Geotechnical Assessment Report, ref: 3-38720.00/004HC, dated 15 August 2014', and subsequent report 'Addendum to Stage 1 Geotechnical Assessment Report' ref: 3-38720.00, dated 7 April 2015 and Addendum Stormwater Report dated 17 May 2015 prepared by OPUS.

Specific design requirements for the construction of residential buildings within any of the residential lots shall be subject to a Consent Notice under s221 of the Resource Management Act 1991.

Engineering Design Plans

- 9 All engineering design shall be undertaken in accordance with (but not be limited to) the following:

- (a) The Operative Waikato District Plan 2013;
- (b) Hamilton Infrastructure Technical Specifications: 2014 and the Waikato District Council Supplement: 2014;
- (c) Waikato District Council Water Supply Bylaw 2014;
- (d) The restrictions and recommendations identified in the 'Concept Stormwater Management Plan', ref: 3-38720.00, dated 5 September 2014', including 'Stage I Geotechnical Assessment Report, ref: 3-38720.00/004HC, dated 15 August 2014', and subsequent report 'Addendum to Stage I Geotechnical Assessment Report' ref: 3-38720.00, dated 7 April 2015 prepared by OPUS, and Addendum Stormwater report dated 17 May 2015 prepared by OPUS;
- (e) Plans titled 'Proposed Engineering Works – Stages 1-4, Services Plans' ref: 14/012 drawings 1-4, dated May 2015.

Three Waters

- 10 Detailed engineering plans including calculations and specifications shall be submitted to and approved by the Council for the following:
- (a) Water reticulation including water connections for all residential lots and connection/s into the existing public network;
 - (b) Wastewater reticulation including the wastewater pump station to be constructed within Stage I.
 - (c) Stormwater management system including reticulation serving all residential lots, stormwater treatment and detention devices (i.e. ponds constructed within Stages 1 and 3) and overland flow paths.

Roading

- 11 Detailed engineering plans including calculations and specifications shall be submitted to and approved by the Council for the following:
- (a) The intersection between Wayside Road and Road A as depicted on the approved subdivision scheme plans (Version # 14) in accordance with Austroads: Guide to Road Design, Part 4A;
 - (b) The upgrade of Wayside Road to a semi-urban collector road standard along the full length of the subject property road including intersection widening and footpath, services berm, kerb and channel and on-street parking along the eastern side of Wayside Road;
 - (c) Roads A to G as depicted on the approved subdivision scheme plans (Version # 14);
 - (d) Lot 131 (Right of Way A) as depicted on the approved subdivision scheme plans (Version # 14);
 - (e) Road layout plan including parking arrangements, road marking, signs, vehicle crossings, street lighting and landscaping.

Advice Note:

Refer Appendix A of the Waikato District Plan for typical road cross sections showing service lines for Te Kauwhata Structure Plan Area.

Retaining Walls

- 12 A detailed engineering plan including calculations and specifications for retaining walls as depicted on the approved 'Retaining Wall Plan' shall be designed by a suitably qualified engineer and shall be submitted to and approved by the Council. The design shall include/incorporate the following:

- (a) Location and dimensions of retaining walls
- (b) All retaining walls exceeding 1.5m in height shall require a barrier fence of a minimum height of 1.1m and a maximum height of 1.2m on top of the wall and the barrier fence shall be of a visually permeable construction (e.g. pool fencing).

Advice Note:

Building Consents will be required for any proposed retaining walls not exempt under Schedule 1 of the Building Act 2004.

Easements

- 13 Easements for rights of way and rights to drain water and wastewater shall be shown on the survey plan and included in the memorandum.
- 14 Easements in gross in favour of Council for all public water, wastewater (including rising mains) and stormwater reticulation located in private property shall be shown on the survey plan and included in the memorandum.

The width of the easement over the pipe line shall be in accordance with the 'Easement Policy' of the Waikato District Council.

- 15 Easements in gross for the right to drain stormwater in favour of the Council over all identified overland flowpaths that have been approved by the Council shall be shown on the survey plan and included in the memorandum.

Prior to application for issuance of the S224(c) certification, the Consent Holder shall comply with the following conditions:

General

- 16 Easements in gross shall be prepared by the Consent Holder's Solicitor and shall include Council's standard conditions for easements in gross for the right to drain public water, wastewater and stormwater.
- 17 Written Confirmation shall be provided from network utility operators for telecommunications and energy supply confirming that the connections and reticulations have been placed underground to the boundaries of each residential lot and balance lot within each stage.

Prior to commencement of works including earthworks

- 18 The consent holder shall notify Council (Team Leader Land Development Engineer or delegated officer) in writing, of their intention to begin works, a minimum of 14 days prior to commencement.

Soil Remediation

- 19 The following reports prepared by a suitably qualified and experienced practitioner in accordance with the Ministry for the Environment Contaminated Land Management Guidelines, shall be submitted to and approved by the Council:
 - (a) A DSI addressing the areas of potential contamination;
 - (b) A RAP addressing the remediation of all areas of confirmed contamination, as per the findings of the DSI;

Advice Note:

If the RAP requires earthworks in excess of consented volumes and/or areas a variation to this consent or a new consent may be required.

Pre-Construction Meeting

- 20 A Pre-Construction Meeting shall be held for each stage of construction to confirm the following;
- (a) Auditing requirements;
 - (b) Provisional dates and notification lead time for verification tests;
 - (c) Quality System Checklist requirements.
- 21 Erosion and sediment controls shall be put in place in accordance with the requirements of the approved Geotechnical Assessment Report and shall remain in place to the satisfaction of Council.

Remediation Earthworks

Site Validation Report

- 22 A Site Validation Report prepared by a suitably qualified and experienced practitioner in accordance with the Ministry for the Environment Contaminated Land Management Guidelines, shall be submitted to and approved by the Council.

The report shall verify that all contaminated areas identified in the submitted DSI report have been satisfactorily remediated in accordance with the approved RAP and that soils on site meet applicable soil contaminant standards as set by the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011.

No construction works or earthworks, other than remediation earthworks shall commence prior to approval being given.

During Earthworks

- 23 Earthworks shall be undertaken in accordance with the approved Geotechnical Assessment Report.

Advice Note:

The consent holder is to be advised that any consented works within the road reserve requires an approved Corridor Access Request (CAR). An application for a CAR is to be made to the Council's Roading Compliance Officer including appropriate Traffic Management Plan in accordance with the Hamilton Infrastructure Technical Specifications 2014.

Post-Earthworks

Geotechnical Completion Report

- 24 A Geotechnical Completion Report as per NZS4404: 2010 Section 2.6 shall be submitted to and approved by the Council.

The report shall be accompanied by a statement of professional opinion on the suitability of land for building construction as per NZS4404: 2010 Schedule 2A.

No construction works shall commence prior to approval being given.

If earthworks are staged a Geotechnical Completion Report shall be submitted and approved prior to commencement of construction within each stage.

Overland Flows

- 25 A completion report from a suitably qualified engineer shall be submitted to and approved by the Council to confirm that stormwater overland flow paths comply with Rule 5.3 of Appendix B of the Waikato District Plan and the recommendations contained within the s92 response letter ref: 3038720.00 dated 11 May 2015 prepared by OPUS.

The constructed overland flow paths and discharge points shall be clearly provided on an as-built plan provided by a Licensed Cadastral Surveyor.

During Construction

- 26 The consent holder shall undertake all construction works in accordance with the approved engineering plans.

Accidental Discovery Protocol

- 27 In the event of any archaeological site or waahi tapu being discovered or disturbed while undertaking works to give effect to the conditions of this consent, the works in the area of the discovery shall cease immediately, and Iwi and the Council shall be notified within 48 hours. Works may recommence with the written approval of the Council. Such approval shall be given after the Council has considered:
- (a) Tangata Whenua interests and values;
 - (b) The consent holder's interests;
 - (c) Any archaeological or scientific evidence.

- 28 The consent holder shall construct a fence and plant a hedge directly behind the fence along the full length of the rear (north-western) property boundary of Lots 110-128 and Lot 130 (inclusive).

The fence and the hedge shall not exceed a height of 1.2m and 1.5m respectively.

The fence shall be of a post and rail construction.

- 29 The Consent Holder shall install a permanent datum in terms of Moturiki Datum, physically on a common public location where each subsequent owner/s of all lots within all stages of the subdivision has/have legal access in accordance with the Hamilton City Council Infrastructure Technical Specifications. The exact N-E position/s of this/these datum/s shall be detailed on a site plan, to the satisfaction of Council.

Post Construction

Certification

- 30 The following as-built information, in accordance with the requirements of the Hamilton Infrastructure Technical Specifications, shall be provided to the satisfaction of the Council for:
- (a) Stormwater, wastewater and water networks, including all stormwater treatment and detention devices and pump stations;
 - (b) Roading and access lots, pavements, footpaths, and street furniture including lighting.
- 31 A “Producer Statement – Construction” shall be provided for each separate works (including retaining walls) undertaken as part of the consented subdivision to the satisfaction of Council.

Advice Note:

An acceptable format for certification upon completion of works can be found in the Hamilton City Development Manual, Volume 4: Part 9 Appendix 4(ii).

- 32 A “Certificate of Completion of Development Works” prepared and signed by the Developers Representative, shall be provided to confirm that all consented works have been carried out in accordance with the approved plans, appropriate standards and all relevant reports to the satisfaction of Council

Advice Note:

An acceptable format for a “Certificate of Completion of Development Works” can be found from the Hamilton City Development Manual, Volume 4: Part 9 Appendix 4(i).

- 33 Prior to wastewater and stormwater reticulations being accepted as public assets by the Council, the consent holder shall undertake a CCTV inspection, with accompanying log sheets, of all new sewer and stormwater pipes including all connections greater than 100mm diameter in accordance with the latest version NZ Pipe Inspection Manual. The CCTV inspection and log sheets, shall be forwarded to the Council or delegated officer for appraisal prior to requesting a final inspection.
- 34 A schedule of vested assets detailing cost and a brief description within the categories of roading (including street lights, street furniture and street plants), water, wastewater and stormwater shall be provided to Council.
- 35 A defects liability period of twelve months commencing from the date of issue of the 224(c) certificate shall apply for assets to vest. A bond amount set at one and a quarter times the estimated cost of the works, as agreed, or, in the absence of an agreement, as estimated by Council, is required for the duration of the defects liability period.

All costs associated with the provision of a bond will be the responsibility of the consent holder.

In accordance with section 221 of the Resource Management Act 1991 the following conditions shall apply on an ongoing basis by the subdividing owner and subsequent owners and shall be registered against the relevant certificates of title.

- 36 The current and future owners of all residential lots shall be advised that:
- (a) at the time of building consent application, they undertake foundation design in accordance with the restrictions and recommendations identified in the approved Geotechnical Completion Report unless an alternative report for proposed foundation works, undertaken by a suitably qualified and experienced Geotechnical Engineer, is approved in writing by Council;
 - (b) water tanks shall be a maximum of 1m above the finished ground level and where possible water tanks shall be located at the rear of the dwelling or incorporated into the design of a building which prevents the tank being visible from the road.
- 37 The current and future owners of Lots 101, 102, 108, 109, 116, 117 and 138 shall be advised that any fencing along boundaries abutting recreation or drainage reserves shall be a maximum 1.2m in height and shall be of a visually permeable construction.
- 38 The current and future owners of Lots 110-128 and Lot 130 (inclusive) shall be advised of the following:
- (a) A minimum of one specimen tree (pb95 or larger) shall be planted in the rear yard within the first planting season (April to September) following occupation of a dwelling within the lot. If the specimen tree dies or is damaged or is removed then it shall be replaced within six weeks with a similar species of the same size and thereafter maintained by the consent holder;
 - (b) The existing post and rail fence and the hedge planted directly behind the fence located along the full length of the rear (north-western) property boundary shall be retained and maintained in perpetuity. The fence and the hedge shall not exceed a height of 1.2m and 1.5m respectively.
- 39 The current and future owners of Lots 129 and 130 shall be advised that their property is located in close proximity to a substation located on Lot 1 DPS 39290. Where land use activities on this property are carried out in accordance with the relevant plan requirements, the property owner, or their successor in title shall not bring any proceedings for damages, negligence or nuisance arising from the use of that land; or make nor lodge; nor be party to; nor finance nor contribute to the cost of any application, proceeding or appeal (either pursuant to the Resource Management Act 1991 or otherwise) designed or intended to limit, prohibit or restrict the continuation of the operations of any activity on the property, including without limitation, any action to require the surrounding landowners/occupiers to modify the operations carried out on their land.
- 40 Consent notices shall be prepared by Council's Solicitor at the consent holders cost.
- Advice Note:
Please request your consent notice be prepared prior to requesting 224c approval.

STAGE I

Prior to application for approval of the survey plan (s223), the Consent Holder shall comply with the following conditions:

- Amalgamation Condition
- 41 That Lot 131 hereon (Right of Way A - legal access) be held as four undivided one-fourth shares by the owners of Lots 6-9 hereon and that individual Computer Freehold Registers be issued in accordance therewith (refer LINZ Request # 1312688).

Prior to the application for s224 approval the Consent Holder shall comply with the following Conditions:

- 42 Lot 131 (Right of Way A) and entrance and entrances to Lot 3, Lot 12, Lot 31, Lot 32, Lot 54, and Lot 129 shall be constructed.
- 43 Lot 132 shall vest in Council as road.
- 44 Lot 133 shall vest in Council as Local Purpose Reserve – Drainage.

Advice Note:

Pursuant to Section 106(2) of the Local Government Act 2002 Development Contributions for the following services (GST inclusive) shall be paid to Waikato District Council for the additional lots:

Infrastructure	Number of additional HEU's	Fee per lot	Total Amount
Community Facilities	48	\$ 3,061.00	\$146,928.00
District Wide Roding	48	\$ 535.00	\$25,680.00
Roads and Transport	48	\$6,790.00	\$325,920.00
Stormwater	48	\$493.00	\$23,664.00
Wastewater	48	\$7,514.00	\$360,672.00
Water	48	\$12,390.00	\$594,720.00
Total Development Contributions			\$1,477,584.00

The amounts of the contributions payable at the time of issue of a Section 224(c) Certificate are those fees and charges prevailing at the time the application for resource consent was lodged.

Pursuant to section 208(a) of the Local Government Act 2002 a territorial authority may in the case of a development contribution required under section 198(1)(a), withhold a certificate under section 224(c) of the Resource Management Act 1991 until the required development contribution has been paid.

STAGE 2

Prior to application for approval of the survey plan (s223), the Consent Holder shall comply with the following conditions:

Engineering Plans

- 45 A detailed engineering plan including calculations and specifications shall be submitted to and approved by the Council for the following:
- (a) Rights of Way C & D as depicted on the approved subdivision scheme plans (Version # 14) for Stage 2;
 - (b) The entrance to serve the Rights of Way C & D as depicted on the approved subdivision scheme plans (Version # 14) for Stage 2.

Prior to the application for s224 approval the Consent Holder shall comply with the following Conditions:

- 46 Rights of Way C & D and their respective entrances shall be constructed.

- 47 Lot 134 shall vest in Council as road.

Advice Note:

Pursuant to Section 106(2) of the Local Government Act 2002 Development Contributions for the following services (GST inclusive) shall be paid to Waikato District Council for the additional lots:

Infrastructure	Number of additional HEU's	Fee per lot	Total Amount
Community Facilities	21	\$ 3,061.00	\$64,281.00
District Wide Roding	21	\$ 535.00	\$11,235.00
Roads and Transport	21	\$6,790.00	\$142,590.00
Stormwater	21	\$493.00	\$10,353.00
Wastewater	21	\$7,514.00	\$157,794.00
Water	21	\$12,390.00	\$260,190.00
Total Development Contributions			\$646,443.00

The amounts of the contributions payable at the time of issue of a Section 224(c) Certificate are those fees and charges prevailing at the time the application for resource consent was lodged.

Pursuant to section 208(a) of the Local Government Act 2002 a territorial authority may in the case of a development contribution required under section 198(1)(a), withhold a certificate under section 224(c) of the Resource Management Act 1991 until the required development contribution has been paid.

STAGE 3

Prior to the application for s224 approval the Consent Holder shall comply with the following Conditions:

- 48 Entrances to Lot 58, Lot 69, Lot 70, Lot 106, Lot 111 and Lot 112 shall be constructed.
- 49 Lots 136 and 137 shall vest in Council as road.
- 50 A property valuation by an independent property valuer for Lot 135 (Recreation reserve) shall be obtained by both Council and the consent holder and provided to Council, with the valuation date being the date of approval of the subdivision.
- 51 Lot 135 shall vest in Council as Recreation Reserve.
- 52 The consent holder shall provide evidence that the stormwater pond on the adjoining property at 132 Travers Road being Lot 2 DP 464879 comprised in Computer Freehold Register 618010 (which Catchment 3 of the subdivision as shown on the approved Catchment Plan will discharge into), has been constructed to standard and the asset and land on which the pond is located has been vested in Council.

Advice Note:

Pursuant to Section 106(2) of the Local Government Act 2002 Development Contributions for the following services (GST inclusive) shall be paid to Waikato District Council for the additional lots:

Infrastructure	Number of additional HEU's	Fee per lot	Total Amount
Community Facilities	26	\$ 3,061.00	\$79,586.00
District Wide Rooding	26	\$ 535.00	\$13,910.00
Roads and Transport	26	\$6,790.00	\$176,540.00
Stormwater	26	\$493.00	\$12,818.00
Wastewater	26	\$7,514.00	\$195,364.00
Water	26	\$12,390.00	\$322,140.00
Total Development Contributions			\$800,358.00

The amounts of the contributions payable at the time of issue of a Section 224(c) Certificate are those fees and charges prevailing at the time the application for resource consent was lodged.

Pursuant to section 208(a) of the Local Government Act 2002 a territorial authority may in the case of a development contribution required under section 198(1)(a), withhold a certificate under section 224(c) of the Resource Management Act 1991 until the required development contribution has been paid.

STAGE 4

Prior to application for approval of the survey plan (s223), the Consent Holder shall comply with the following conditions:

Amalgamation Condition

- 53 That Lot 138 hereon (legal access) be held as four undivided one-fourth shares by the owners of Lots 98-101 hereon and that individual Computer Freehold Registers be issued in accordance therewith (refer LINZ Request # 1312688).
- 54 That Lot 87 hereon and Lot 144 hereon be held together and that one individual Computer Freehold Registers be issued in accordance therewith (refer LINZ Request # 1312688).

Engineering Design Plan

- 55 Detailed engineering plans including calculations and specifications shall be submitted to and approved by the Council for the following:
- (a) Lot 138 (Right of Way G) and Rights of Way E & F as depicted on the approved subdivision scheme plans (Version # 14) for stage 4;
 - (b) The entrance to serve Lot 138 and the Rights of Way E & F as depicted on the approved subdivision scheme plans (Version # 14) for Stage 4.

Prior to the application for s224 approval the Consent Holder shall comply with the following Conditions:

- 56 Lot 138 (Right of Way G) and Rights of Way E & F and their respective entrances and entrances to Lot 81, Lot 93, Lot 96, Lot 104 shall be constructed.
- 57 Lot 140 shall vest in Council as road.
- 58 Lot 139 shall vest in Council as Local Purpose Reserve – Drainage.

Advice Note:

Pursuant to Section 106(2) of the Local Government Act 2002 Development Contributions for the following services (GST inclusive) shall be paid to Waikato District Council for the additional lots:

Infrastructure	Number of additional HEU's	Fee per lot	Total Amount
Community Facilities	34	\$ 3,061.00	\$104,074.00
District Wide Roothing	34	\$ 535.00	\$18,190.00
Roads and Transport	34	\$6,790.00	\$230,860.00
Stormwater	34	\$493.00	\$16,762.00
Wastewater	34	\$7,514.00	\$255,476.00
Water	34	\$12,390.00	\$421,260.00
Total Development Contributions			\$1,046,622.00

The amounts of the contributions payable at the time of issue of a Section 224(c) Certificate are those fees and charges prevailing at the time the application for resource consent was lodged.

Pursuant to section 208(a) of the Local Government Act 2002 a territorial authority may in the case of a development contribution required under section 198(1)(a), withhold a certificate under section 224(c) of the Resource Management Act 1991 until the required development contribution has been paid.

10 July 2017



Gray Matter Ltd
2 Alfred Street,
PO Box 14178
Hamilton, 3252

Chris Dawson
Bloxxham Burnett and Olliver Ltd
PO Box 9041
Hamilton 3240

133_02

Dear Chris

TE KAUWHATA LAND LTD PROPOSED SUBDIVISION DEVELOPMENT – BENEFITS OF PROPOSED LAYOUT FOR MULTI MODAL ACCESSIBILITY AND ROW A.

As requested in your email to Alasdair Gray on Monday 3 July 2017, we include the following comments relating to the proposed ROW A and the benefits for multi modal accessibility of the proposal. We have reviewed the long section drawings provided and provide the following comments.

1. ROW A – Change to Public Road Status

We understand that the ROW A is now proposed as a public road with 14m wide road reserve. Initially it will provide access to 6 lots (60vpd). NZS 4404:2010 Land Development and Subdivision Infrastructure provides guidance for “lanes” which it defines as access for up to 20 lots (200 vpd) with a 9m road reserve and 5.5-5.7m wide carriageway. In terms of effects, extending to the boundary provides more options for the neighbouring property if it were to subdivide and compared to the consented layout is a positive effect on access. Although the width does not meet the Te Kauwhata Structure Plan cross section standards (since in the Structure Plan it is a Local B), the proposed cross section meets the NZS4404 lane standard for up to 20 lots and would operate as a shared space with low speed.

It would be possible to provide parking bays and underground services within the 14m width.

Compared to the consented layout, which had a ROW accessing 4 lots but not extending to the boundary, the proposed layout extends to the boundary and allows more flexibility in terms of road layout/access if the neighbouring property were to subdivide. This improves connectivity and supports active modes. Based on the NZS 4404:2010 standards, the proposed cross section would be suitable to service up to 20 lots (an additional 14 lots). We understand that the catchment is limited but that it will eventually be extended to the Juice factory site, although the Juice factory site itself will have access directly onto Wayside Road. We support the proposal as public road status (rather than ROW) as it avoids any future disputes regarding connections, services, maintenance etc. since standards/requirements are set by the Road Controlling Authority. There are few adverse effects from the reduced width in relation to road status. The main effect is in flexibility for future changes, and risks for manoeuvring. The limited catchment means that there is negligible risk of a change in role. Conditions requiring detailed design to consider services, parking, footpaths, visibility at intersections, entranceways, etc. avoid the potential risks from reduced manoeuvring space.

2. Multi Modal Accessibility

2.1. Observations

The long sections for the consented design appear to generally follow existing ground levels and result in some steep grades requiring retaining walls in some areas. The proposed TKL design includes significant earthworks (cut and fill) to reduce gradients (and remove the need for retaining walls) which is a significant benefit over the consented in terms of accessibility and mobility.

Alasdair Gray 027 249 7648 alasdair.gray@graymatter.co.nz
karen.hills@graymatter.co.nz

Karen Hills 021 923 905

Note that the consented road layout is slightly different to the proposed layout. In particular to the south of Lot 93 Road D in the proposed layout has a different alignment to the consented layout. Figure 1 is the consented layout.

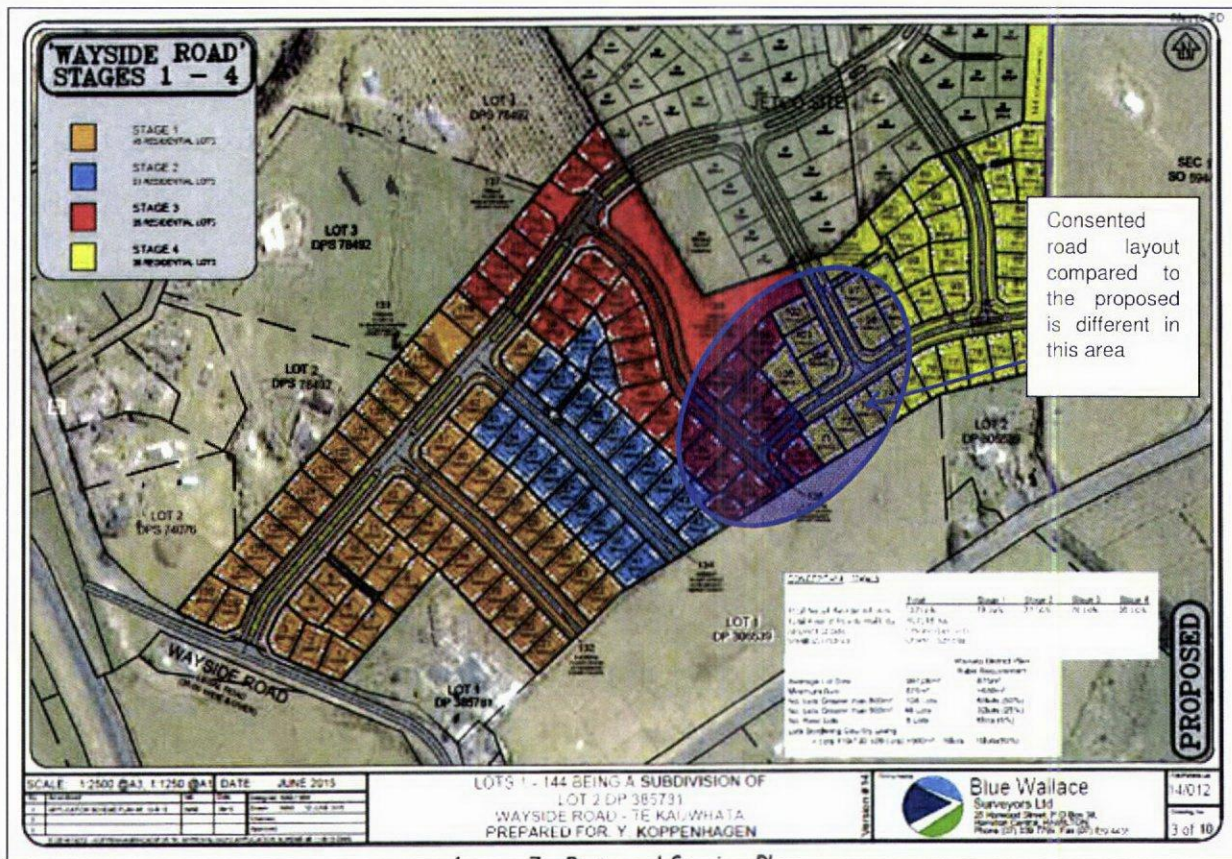


Figure 1: Consented Layout

2.2. Desirable Standards

NZS 4404: 2010 Land Development and Subdivision Infrastructure provides guidance on design for subdivisions. For roads providing access to up to 200 dwellings, the maximum grade is 12.5% and for up to 800 dwellings, the maximum grade is 10%.

Guidance¹ for the design of footpaths/access and mobility facilities state that where the gradient is steeper than 1 in 33 (3%) then level rest areas shall be provided for every 0.75m change in height to remain accessible for wheelchair users. This is consistent with Provision D1 of the Building Code which includes Acceptable Solutions for ramps and slopes applicable to buildings and access routes to buildings. Figure 2 of Provision D1 states that ramps over 7° (12%) are not for general use.

To ensure inclusion of mobility –impaired, and to maintain accessibility, footpath grades of 3% or flatter are desirable.

2.3. Evaluation

Flatter grades present more attractive opportunities for active modes, better mobility and improved safety through better visibility. Achieving road grades of less than 12.5% is required to meet road design standards. The proposed TKL design includes flatter grades overall since significant earthworks (up to 7.6m cut) are proposed. Apart from a short section along one road (around 30m at 10.3%), gradients are 8% or less.

¹ NZS 4121: Design for Access and Mobility –Buildings and Associated Facilities. NZTA Pedestrian Planning and design guide.

The histogram in figure 2 indicates the range and length of the long section gradients for both the consented and the proposed layouts. The graph shows that the consented layout has more length with steeper grades (over 7%) than the proposed.

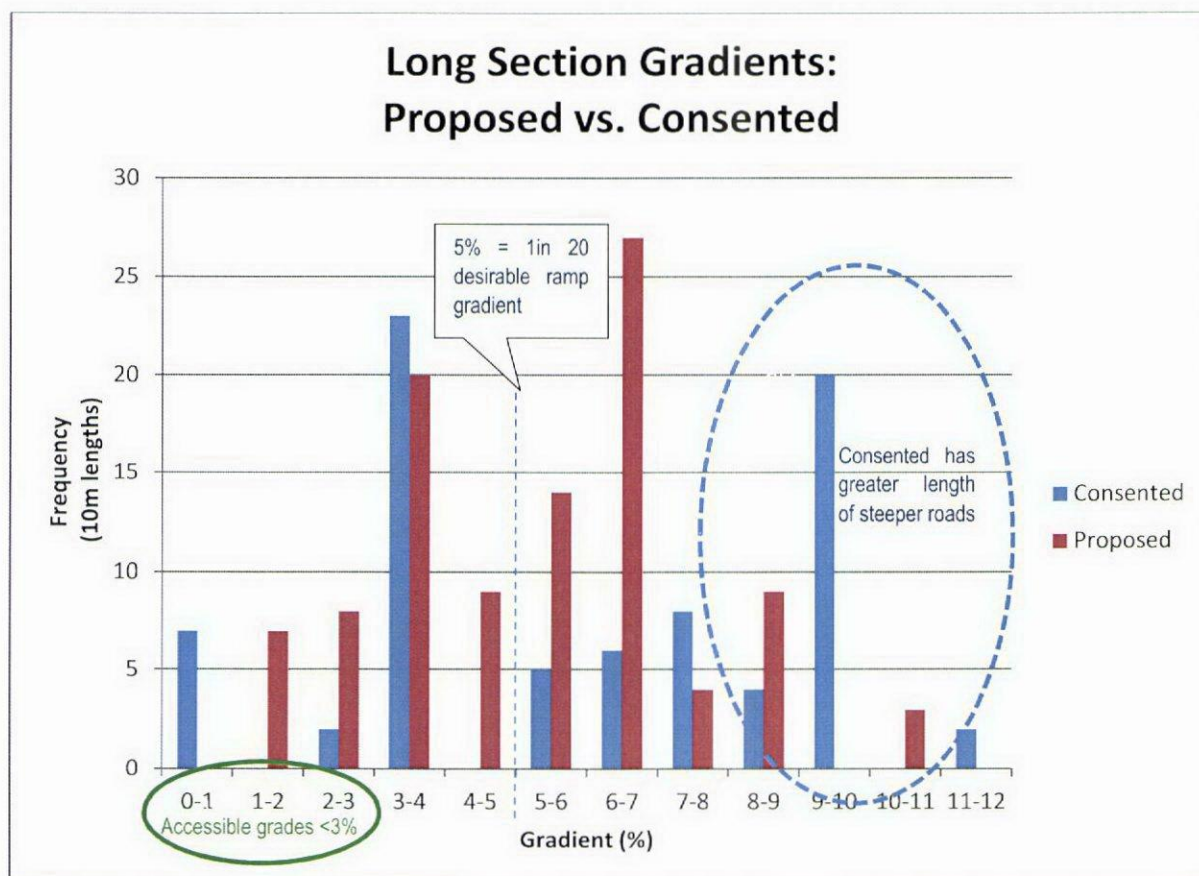


Figure 2: Histogram of road long section gradients²

The consented layout has some flatter sections (0-1%), however in terms of accessibility the proposed layout has more length overall in this category (<3%). This is a benefit over the consented layout, providing a safer and more accessible environment for active modes. It will assist with better visibility from driveways and support improved safety and mobility for active modes, mobility –impaired pedestrians and wheelchair users. The consented layout with retaining walls is a disadvantage for pedestrians since visibility would be expected to be impeded or restricted by retaining walls or steep grades at boundaries. The proposed layout results in safer property access due to improved visibility for all users. Getting in and out of properties will be easier and safer for all users.

2.4. Conclusion

A significant advantage of the proposed internal roading layout over the consented layout is the flatter road gradients, therefore much better supporting active transport modes within the subdivision. Compared to the consented layout which required retaining walls since the grades were so steep in some areas, the proposed design offers significant benefits for access and mobility. Significant earthworks (up to 7.6m cut) are proposed to reduce grades and provide a better subdivision layout that is more accessible for all modes. This will assist with better visibility from driveways and support improved safety and mobility for active modes, mobility –impaired pedestrians and wheelchair users. The extent of earthworks means that significant restrictive retaining walls included in the consented layout are not required resulting in better visibility and improved safety for all users.

² These are taken off the long section plans attached using the vertical geometry and chainage for the straight sections and ignores the vertical curves. This results in a longer length of proposed (1010m) compared to consented (770m) but is due to the amount and length of vertical curves in the consented layout.

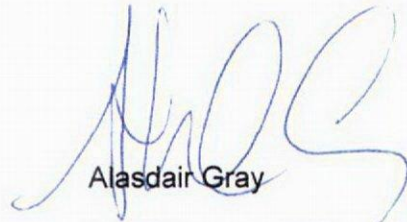
If you have any queries, please do not hesitate to contact us.

Yours sincerely

A handwritten signature in blue ink, appearing to be 'Naomi McMinn'.

Naomi McMinn

Civil/Transportation Engineer

A handwritten signature in blue ink, appearing to be 'Alasdair Gray'.

Alasdair Gray

Civil/Transportation Engineer