

IN THE MATTER OF the Resource Management
Act 1991

AND

IN THE MATTER OF a resource consent
application (ref: SUB0009/17)
by **Te Kauwhata Land
Company** Ltd at 24 Wayside
Road, Te Kauwhata

STATEMENT OF EVIDENCE OF LAUREN WHITE

1.0 INTRODUCTION

Qualifications and experience

- 1.1 My name is Lauren White and I am a Senior Urban Designer at Harrison Grierson. I hold a Bachelor of Architectural Studies and a Master of City Planning and Urban Design (with Distinction) from the University of Cape Town and have approximately 20 years' experience as a practicing urban designer. For the past 12 years I have worked at Harrison Grierson Consultants Limited, with a significant focus on masterplanning residential development projects, most notably in the Auckland Region but also further afield. I am also a Professional Teaching Fellow at the University of Auckland and hold a chair position on the Auckland Urban Design Panel.
- 1.2 Working in a multi-disciplinary company, alongside land development engineers, has given me a clear understanding of the practicalities and realities of implementing residential subdivision and housing development in a variety of contexts, including large scale greenfield developments as well as smaller infill or redevelopment projects.
- 1.3 This statement of evidence is given on behalf of Waikato District Council (WDC) in relation to the application by Te Kauwhata Land Ltd (TKL) for resource consent to develop land at 24 Wayside Road, Te Kauwhata. This application seeks to subdivide the 16.5 hectare site into 164 lots, along with roading and open space.

Involvement in the project

- 1.4 I became familiar with this site in 2015 when I peer reviewed an urban design assessment prepared on request of Waikato District Council by Chris Butler, my colleague at Harrison Grierson, in relation to the application by Silverspur Developments Ltd. Mr Butler supported that application and it was subsequently approved.
- 1.5 I was not party to the subsequent process of design development and amendment that has led to the current application by Te Kauwhata Land Limited.

1.6 In March 2017, at the request of Waikato District Council, I provided urban design advice as co-author of the Review of Urban Design and Landscape Visual Assessment Report in relation to the TKL proposal and its departure from the consented Silverspur application. This review identified a number of concerns, some of which were adequately addressed or justified by the applicant. The remaining areas of concern included:

- The extent of cut on the Hilltop Reserve and the modification to its form;
- The number of rear lots and increased block depth/size; and
- The increase in yield/density.

Alongside my colleague Lisa Jack, I provided further advice to WDC with respect to the applicant's S92 response where the same concerns were again identified and discussed.

1.7 I have visited the site recently to appreciate its location, context and unique attributes.

1.8 I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note (2011) and agree to comply with the Code. Except where I state that I am relying upon the specified evidence of another person, my evidence in this statement is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions which I express.

2.0 SCOPE OF EVIDENCE

2.1 With the background knowledge of the original Silverspur proposal, my evidence includes an urban design review of the current proposal by Te Kauwhata Land Ltd, and its' potential outcomes and effects. This review is undertaken with reference to the Urban Design Guide for the Te Kauwhata West Living Zone (the sections of which have been used to structure this evidence), as well as general best practice urban design, in line with the New Zealand Urban Design Protocol, to which Waikato District Council is a signatory.

3.0 EXECUTIVE SUMMARY

3.1 From an urban design perspective, I do not support the application by Te Kauwhata Land Ltd or its amended designs developed through the S92 process (changes to the Hilltop Reserve). It is not consistent with best practice urban design in a number of important respects including:

- the large blocks and extent of permeability
- significant number of rear lots;
- the resultant density and perceived intensity; and
- the extent of modification to the Hilltop Reserve and its ability to function as a landmark.

4.0 THE APPLICATION SITE AND IMMEDIATE SURROUNDS

- 4.1 The application site and its existing context has been well described in accompanying reports, particularly the Landscape and Visual Assessments prepared on behalf of the applicant and by landscape architect, Lisa Jack. The anticipated context of the site is also acknowledged and accepted in relation to its future suburban development as part of the Te Kauwhata West Living Zone. As such, the rules of the Te Kauwhata West Living Zone inform my urban design baseline.
- 4.2 The development can be regarded as a greenfield development on the outskirts of Te Kauwhata. It's not strictly contiguous with the older established suburban development of the village. It will however adjoin ongoing development at Waikare Estate on the adjacent site (with lots typically in the 800 to 900m² range) and will integrate with it along Bragato Way and ultimately be surrounded by residential development on the north eastern and southern sides. The site's northern boundary and that with State Highway 1 will adjoin a countryside living environment and forms the edge of the urban area in the planning period of the Waikato District Plan. As such, it will establish part of the village's boundary with its countryside setting.
- 4.3 The site's topography is varied and rolling, with generally moderate slopes (between 1:20 and 1:10) with some instances of steep slopes (1:3 or 1:4). The western slopes at the base of the existing high point (RL 43 approx) has a gradient of approximately 1:7. This high point is visible and notable from surrounding areas, and establishes the skyline when approached from Wayside Road (at the approximate location of the future intersection with Bragato Way) as well as on approach from the east along the existing portion of Bragato Way.
- 4.4 Recent development in Waikare Estate is typically large single level houses (say 220m²) by house builders like Golden Homes on platformed sections.

5.0 THE URBAN DESIGN GUIDE FOR TE KAUWHATA WEST LIVING ZONE

5.1 I consider the Urban Design Guide for the Te Kauwhata West Living Zone to be an appropriate and practical framework to guide development. The purpose of the Urban Design Guide or 'guidelines', is to achieve the desired objectives of the Te Kauwhata Structure Plan by focussing on subdivision design and promoting the following outcomes:

- *A permeable transport network;*
- *Subdivisions which integrate with the natural environment and cultural heritage features;*
- *Attractive, tree lined streetscapes;*
- *Section shapes and sizes that create sufficient space for private outdoor living courts, preferably on the sunny side of the house;*
- *Open spaces and community facilities that have street frontage for surveillance and amenity reasons; and*

- *Low impact stormwater management and integrated with streetscapes and open space.*

5.2 The guidelines are expressly ordered in a hierarchical format to reflect the relative importance of the urban design considerations and the influence they have in shaping the urban form and amenity. As such, the guidelines advise that greater consideration is given to those that influence large scale site planning, for example, the subdivision pattern.

6.0 URBAN DESIGN REVIEW OF THE TKL APPLICATION

6.1 As this application is for subdivision only and does not consider land use elements specifically, this review is focussed on the higher level criterion Og2 *Urban Design and Responsive Environments* and Og3 *Subdivision Design Guidance*, rather than lot specific guidance under Og4 and Og5. Reference is also made to Og7, *Assessment Criteria* and OG8 *Te Kauwhata Environment*.

6.2 Under Og2 and Og3 the following criteria are covered by the guidelines and form the basis of assessment:

- *Permeability*
- *Spatial variety*
- *Legibility*
- *Robustness*
- *Visual appropriateness*
- *Site planning*
- *Integrating natural features*
- *Streetscape design*

6.3 **Og2.1 Permeability:** The roading layout of the subdivision is generally consistent with that of the Te Kauwhata District Plan Zoning Map. Bragato Way functions as the main link route and local roads provide connections to the south and east and connects Waikare Estate. The proposal contains no cul de sacs, which can adversely affect connectivity within a development, while future pedestrian connections are anticipated through the recreation reserve (Lot 135), which will further enhance east-west permeability through the site.

6.4 The degree of permeability in the subdivision is however reduced by the relatively large average size of the blocks which have perimeter distances of up to approximately 800m. The design guide recommends that blocks contain up to 20 lots in order to promote a convenient pedestrian network. Twenty lots of approximately 875m² would have a perimeter length of approximately 650m. A block distance of 800m reduces the choice in route and user convenience.

6.5 **Og2.3 Spatial Variety:** There is a variety of lot sizes within the subdivision, ranging from 600m² to over 1000m². Lots adjoining the Countryside Living Zone are generally larger and assist the transition to the more rural environment.

- 6.6 This represents a fairly limited variety but this is an outcome of a single residential zoning which applies across the entire site. This naturally determines a specific range and character for residential development. The distance of the site from Te Kauwhata Village makes medium density housing or even attached housing typologies challenging from both a market and 'proximity' argument.
- 6.7 **Og2.5 Legibility:** The subdivision provides a modified grid structure which, along with a hierarchy of roads, contributes to a legible environment. The larger lots on the Countryside Living Zone boundary also provide clues to the transition and difference between that zone and the suburban environment. The proposed roading pattern also provides a boundary with the reserve space which assists with legibility.
- 6.8 **Og2.7 Robustness:** Robustness does not play a significant function at the neighbourhood level due to the singular residential zone. At an individual lot level, each of the lots is designed to accommodate a complying building platform and private open space lots (with the exception of a small number where the applicant has illustrated an alternative). The alignment of blocks in a north-west, south-east alignment is good for solar gain, which reduces the potential number of south facing lots.
- 6.9 **Og2.9 Visual Appropriateness:** In the context of greenfield subdivision design, the extent to which the subdivision pattern of blocks and lots sets up a basis for visually appropriate development is important. This is established in part by lot size and particularly lot frontage, density, building height and coverage. Other contributors to visual character include building and landscaping materials and plant species. In this regard, I also consider relevant the visual clues provided by development relative to its location in the wider village such as proximity to the town centre or rural boundary. It is this idea of the urban –rural transect where density and activity increases with proximity to the centre which provides residents and visitors with an understanding of their location relative to other parts of the village.
- 6.10 With respect to the TKL application, the relevant issues include the interface with and transition to the Countryside Living Zone and the perceived density or spaciousness within the development, particularly in relation to the wider village context.
- 6.11 Whilst I am comfortable with the anticipated interface with the Countryside Living Zone, I do not support the proposed residential density. The applicant has proposed a density higher than that anticipated by the District Plan for the Te Kauwhata West Living Zone which controls residential density through both minimum net lot areas (650m²) and minimum average lots areas (875m²) as follows:
- *the total building coverage on lots with a net site area of 650m² and less than 700m² does not exceed 25%, or*
 - *the total building coverage on lots with a net site area of 700m² or greater does not exceed 35%.*

- 6.12 As mitigation for the additional number of dwellings, the applicant has proposed a blanket maximum building coverage of 30% across all sites in the development. This will result in a finer grain of development, that being an increased number of smaller houses over the site as opposed to fewer larger houses. The applicant has argued that because the overall *potential total* building coverage will be less than that permitted under the current rules (and as illustrated by the consented Silverspur proposal), the perceived density of development will be less.
- 6.13 I disagree with this statement and in my opinion, the images included in Appendix D of the applicant's S92 response – Urban Design Supplementary Assessment by Mansergh Graham Landscape Architects (and reproduced here as **Attachment 1**) illustrate the finer grain of development proposed by TKL. I presume that the image of the proposed outcome under the complying Silverspur development illustrates a building footprint of 35% of the net site area of each lot. It would therefore depict maximum building platforms with an average of 306m² (the average lot size in the consented Silverspur application meets the 875m² requirement). I believe that this extent of building coverage is unlikely to be maximised as dwellings in Te Kauwhata are typically modest in size. According to QV.co.nz, in 2011, the average size of dwellings in the Waikato District was 114m², one of the lowest 10 in New Zealand. Whilst new housing establishing in Waikere Estate is typically 220 to 225m² in size, I consider it unlikely that the average dwelling in this development will approach 300m² in size. As such, I consider a complying development would have a more spacious and green appearance than that of the proposed development.
- 6.14 As such, the visually perceived density will be higher than that of the adjacent development at Waikere Estate and other complying developments in the Te Kauwhata West Living Zone, particularly when viewed from a distance. Furthermore, this perceived density could potentially rival that of new residential areas in the town centre (average lot size of 600m²) and would result in a development which does not adequately respect the transect transition from rural to urban.
- 6.15 The applicant has also proposed a blanket consent to increase building coverage on lots between 650 and 700m² in area on the basis that the existing maximum of 25% will not allow a sufficiently sized house to be built.
- 6.16 I do not accept this statement as I believe a variety of house sizes (and resultant price points) are appropriate for this development and in this context. Furthermore, through the rolling height restriction of 7.5m, dwellings have the opportunity for a first floor level and to terrace in response to the topography. The 25% maximum on smaller lots ensures the ability for on-site vegetation, particularly large trees which assist with visual integration of dwellings.

- 6.17 **Oga3.1.1 Site Planning – Connectivity:** As discussed already under the permeability Criterion, the proposed subdivision provides for a connected and walkable street network. There are no cul de sac and clear road connections to external land parcels, ensuring integration of the subdivision into the wider context.
- 6.18 **Oga3.1.2 and 3.1.3 Site Planning – Block Size and Shape:** As discussed already in point 5.6, the permeability of the subdivision is reduced through the relatively large block sizes. The depth of the blocks also results in a significant number of rear lots.
- 6.19 Whilst some rear lots are always likely in a subdivision of this nature (hence the District Plan allowance for up to 10% as a controlled activity), they are expressly discouraged by the Urban Design Guide as they result in the following undesirable conditions:
- Public-private conflict along sides of front lots, and “fronts to backs” with resulting loss of privacy, particularly for front lots;
 - Less sense of community – rear lots have less connection to the wider area;
 - More driveway crossings with houses spaced further apart and consequently less surveillance on the street;
 - Vehicle turning/manoeuvring is required on site, with increased impermeable surface and reduction of on-site recreation space.
- 6.20 The number of vehicle/driveway crossings also has an impact both on the perceived density as well as the amenity of the street. Additional vehicle crossings to rear lots limits the landscaping and number of street trees that can be provided, both of which can contribute to amenity. The applicant states: *“The number of vehicle crossings within the TKL proposal could be reduced if road frontage lots adjoining laneways took primary access from those laneways.”*
- 6.21 Notwithstanding the fact that the District Plan doesn’t provide for more than two owners to share a rear access way, vehicle crossings from laneways instead of the main street need to take into consideration the orientation of individual lots. The orientation of lots adjacent to laneways may well result in driveways and garaging locating on the northerly side of the lot, reducing the opportunity for dwellings and primary outdoor spaces to benefit for solar access.
- 6.22 Whilst, the applicant has proposed a number of mitigating measures to address the above issues namely:
- Wide shared laneways serving a maximum of two lots;
 - Additional yards/building setbacks; and
 - Planting and fencing controls;

The total number of rear lots (up to 35%) renders this proposal unsupportable. Low fencing on laneways may reduce the tunnel effect but also reduces privacy on front lots and trees planted in a narrow space are unlikely to offer significant scale. The level change also provides additional opportunities for overlooking compared to a simple “back to back” condition.

6.23 In my opinion, the consented Silverspur proposal was superior in this respect, where the depth of the block and the controls on the number of rear lots have driven an arrangement of lots which reinforces the function and importance of the street and establishes good conditions for privacy.

6.24 **Og3.3 Integrating Natural Features:** The urban design guide expressly identifies points to consider to achieve this integration, particularly incorporating natural features and minimising earthworks. Section Og7 – Assessment Criteria includes:

- *Natural landmarks such as ridges, valleys or knolls are used to maintain character and differentiate one neighbourhood from another*

6.25 The District Plan also has objectives and policies to respect and retain landscape character as follows:

Objective 15A.2.7 - Landscape, open space and amenity values of Te Kauwhata are maintained and enhanced

and

Policy 15A.2.8 - Subdivision, use and development should be located and designed so that it is sympathetic to natural features and landscapes, including retaining natural land contours and minimising earthworks.

15A.2.9 - Subdivision, use and development should be designed and located so that public open space, and landscape and amenity values are integrated into urbanised areas including:

- *retaining visually prominent areas as open space where they contribute significantly to the character of the area*
- *retaining amenity trees*
- *retaining riparian areas as open space and enhancing their landscape and ecological values*
- *ensuring urban lot sizes, shapes and orientations address site-specific issues including stormwater management, solar access, maintaining views from public open space and natural land contours.*
- *designing subdivisions so that streets and houses have views of natural features and landscapes where possible*
- *ensuring public open space has substantial road frontage.*

6.26 There are separate but connected issues which I will address under this criterion, namely:

- Earthworks
- Retaining walls
- The “knoll” reserve

Earthworks

6.27 The TKL application requires significant earthworks, including the substantial modification of the existing knoll or high point on the site (up to 7.6m), identified as a public open space.

6.28 I understand that one of the drivers for changing the consented Silverspur (SS) subdivision pattern is to reduce the proposed road gradients. Whilst all of the SS consented roads meet the NZ4404 standard (no steeper than 12.5%), the applicant proposes to reduce the gradients in order to better encourage walking and cycling, along with reducing the need for retaining walls. From a review of the SS consented long sections, I believe that relatively few stretches of the consented road layout do not meet the applicant's adopted accessibility standard (i.e. a maximum grade of 8.3% as defined by Austroads Guide to Road Design). Consequently, relatively few lots would be challenged with respect to level access from the road. By way of example, a lot with a frontage of 16m on a road with a gradient of 12.5% (1:8) would rise or fall by two metres across that frontage, essentially only a metre on each side of the central area of the lot. Also, considering the size of these sections, there is ample distance to ramp either up or down from the road frontage.

6.29 Whilst I recognise the value of walking and cycling, I believe the greater earthworks (specifically the greater cut from higher ground areas) required to deliver these "accessible" grades reduces the ability of the subdivision to integrate with the topography and retain the natural landform. Furthermore, I believe that in addition to gentle gradient, there are other factors which also contribute to the incidence of walking and cycling, including:

- visual interest (housing, landscaping and incorporating views through/out of the area);
- distance (convenience and permeability affected by block size/perimeter)
- real and perceived safety (surveillance from houses along the frontage)
- amenity (numbers of street trees, driveway crossings etc.).

A focus on these aspects can help offset the steeper gradients proposed by the consented Silverspur application. For example, reducing the proposed block perimeters and the number of driveway crossings would also promote these transport modes.

6.30 In my opinion, the need to encourage walking and cycling needs to be balanced with the stated intentions of recognising land form and incorporating natural character. Respecting the steeper nature of this landscape contributes to retaining context and identity and provides a point of difference from other subdivisions. Retaining the steeper slopes also provides increased opportunities for dwellings to capture good views and more solar gain.

Retaining Walls

6.31 The use of retaining walls and/or batter slopes is inevitable with suburban residential development on land of this nature. I agree that their requirement should be minimised, particularly adjacent to public spaces such as reserves and roads as they can be costly, limit accessibility and reduce public safety.

6.32 The original Silverspur proposal was consented without the significant use of retaining walls; walls were proposed around two drainage reserves and once mid-block between Road C and D. The applicant has argued that subsequent detailed design has proven that more and higher retaining walls are necessary in order to achieve the desired road gradients and roading pattern.

6.33 The TKL proposal includes retaining walls on both front and rear boundaries as well as mid-block. Section Og7 of the Urban Design Guidelines includes an assessment criteria as follows:

- *Retaining walls are located along the rear and side boundaries and minimised in height with berms*

I support this criterion and consider the 2 and 3m retaining walls along the road frontage of Road C to be poor a urban design outcome due to the resultant interface with the public environment. The retaining walls would be better placed at mid-block locations where their limitations for access and potential visual and dominance effects can be minimised.

6.34 Significant earthworks, along with the incidence of high retaining walls is usually an indication that the proposed lot sizes are too small to accommodate dwellings and associated level outdoor areas through the use of batter slopes. Furthermore, platforming the sites at land development stage may provide an appealing product for house builders but prevents the ability of housing to “take up” the change in gradient and incorporate/hide retaining within the built form.

The Hilltop Reserve

6.35 The Te Kauwhata Structure Plan identifies the knoll as a public open space, with the intention of providing passive recreation and look out opportunities. The extent and form of the reserve has been an important urban design consideration since the review of the early Silverspur application. Under Section Og8 – *Te Kauwhata Environment*, the Urban Design Guidelines also identifies the reserve as one of seven attributes which define the Te Kauwhata environment. Along with features such as the Wangamarino Wetland and the town centre, the hilltop reserve is recognised as a high point to be retained and protected as a natural feature.

6.36 Section 6.25 of this statement includes the District Plan’s objectives and policies regarding natural landscape, particularly “*retaining visually prominent areas as open space where they contribute significantly to the character of the area*” and “*designing subdivisions so that streets and houses have views of natural features and landscapes where possible*”. This clearly points to the importance of natural features as landmarks for the wider area.

- 6.37 Externally, the natural high point of this site provides a local natural landmark for people in the wider area, assisting with way finding and legibility. Internally, it provides the site with a focal point and a place for passive recreation. It's also an opportunity for residents to visually connect with their rural village setting and enjoy visual relief in their urbanised area. As such, from an urban design perspective, important outcomes for this reserve include both its prominence, elevation and form along with its accessibility and extent of public road frontage.
- 6.38 I believe the consented Silverspur proposal did not detail any earthworking of the reserve land and included no walls to retain it. In contrast, the TKL proposal includes a general lowering of this elevated land form and the reconstruction of a high point (in a different location) in order to maintain opportunities for visual connection to surrounding countryside. The design also heavily modifies the contour and topography on two sides of the knoll in order to remove the need for retaining walls along the road boundary and this results in a visually artificial or engineered form.
- 6.39 In my opinion, the proposed general lowering of the land form, along with its engineered topography reduces the integrity of this natural feature and its ability to function as a landmark in the wider area.
- 6.40 **Og 3.5 – Streetscape Design:** A hierarchy of streets has been established through the subdivision design, with Bragato Way identified as the main connector route through its central median. Local roads provide parking bays and street trees contribute to public amenity. The laneways to rear lots however, increase the incidence of vehicle crossings which reduce the provision of street parking and street trees and thereby the overall amenity and pedestrian priority of the streets.

7.0 CONCLUSION

- 7.1 In summary, it is my opinion that the TKL proposal, through the extent of land modification, the increased density, platforming and use of rear lots is exceeding the inherent capacity of this land. As a result, the ability of the development to integrate with and retain the natural land form is reduced, an intention which is clearly expressed through the District Plan and the Te Kauwhata West Urban Design Guidelines. The proposal's anticipated density and perceived intensity is also inconsistent with its location relative to the town centre and the adjacent Countryside Living Zone.
- 7.2 Engineering design (specifically the greater levels of cut) ostensibly to provide more gentle road gradients and reduce retaining walls to prioritise **more** convenient accessibility has resulted in the loss of natural land form and character. Larger block sizes and greater numbers of rear lots has reduced walkability and on-lot privacy.
- 7.3 As such, it is my recommendation that Waikato District Council decline the application for consent.

DATE

15 November 2017

NAME

Lauren White

POSITION

Senior Urban Designer

SIGNED



Lauren White

Attachment 1

Images reproduced from Appendix D of the Applicants S92 Response – Urban Design Supplementary Assessment and Response to Peer Review by Mansergh Graham Landscape Architects



	Overall Lot Size	Overall Building Coverage	Number of Lots
Silver Spur	112586	38147	132
TKL	114813	34231	164

Silver Spur Subdivision
Scale: 1:1000

WAYSIDE ROAD SUBDIVISION DEVELOPMENT, TE KAUWHATA

C26

BUILDING COVERAGE COMPARISONS (SS) | CLIENT | TE KAUWHATA LAND LTD | PROJECT | 2016-018 | DATE | 21/07/2017 | REVISION | R1
SCALE 1:1000 (A1) 1:2000 (A3)
The purpose of this plan is to show the general intent of the design and may not be complete in every detail. This plan is not intended as a construction drawing and should not be used as such.



	Overall Lot Size	Overall Building Coverage	Number of Lots
Silver Spur	112586	38147	132
TKL	114813	34231	164

TKL Subdivision
Scale: 1:1000

WAYSIDE ROAD SUBDIVISION DEVELOPMENT, TE KAUWHATA

C25

BUILDING COVERAGE COMPARISONS (TKL) | CLIENT | TE KAUWHATA LAND LTD | PROJECT | 2016-018 | DATE | 21/07/2017 | REVISION | R1
SCALE 1:1000 (A1) 1:2000 (A3)
The purpose of this plan is to show the general intent of the design and may not be complete in every detail. This plan is not intended as a construction drawing and should not be used as such.

