Boffa Miskell

Memorandum

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Attention:	Natasha Flavell, Associated Development Manager & Hinsan Li, Development Manager
Company:	Fletcher Building Ltd
Date:	20 August 2023
cc	Frank Pierard, Urban Designer, Barker and Associates
From:	Julia Wick, Principal Landscape Architect
Message Ref:	Landscape Effects and Design Advice [Memo]
Project No:	BM221155 – Silverdale West Dairy Flat Industrial Area Masterplan

Silverdale West Dairy Flat Industrial Area plan Change – Landscape Effects Assessment and Design Advice

Introduction & Project Background

Fletcher Development Ltd (Fletchers) are seeking resource consent (plan change) for the Silverdale West Industrial Area, Auckland. The Silverdale West area forms part of the wider Silverdale West Dairy Flat Industrial Area. It is an approximately 107.35ha site located to the west of State Highway 1 (SH1) motorway from Dairy Flat / Hibiscus Coast interchange in the north and Dairy Flat Highway in the west (refer figure 1 below).

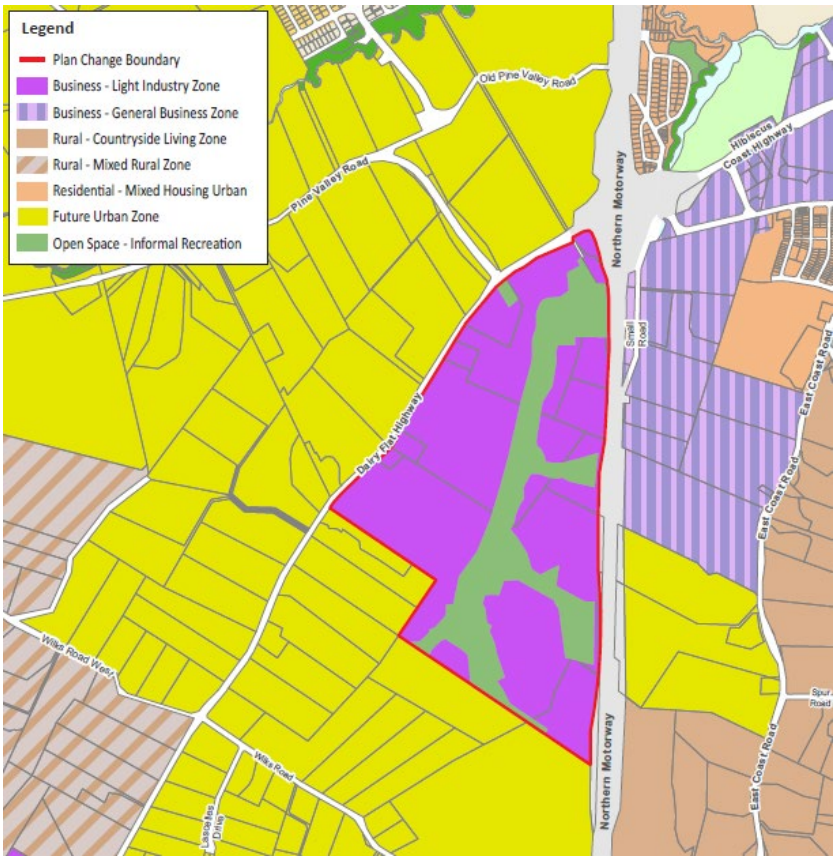

Figure 1: Silverdale West Industrial Plan Change area identified in red.

In April 2020, Auckland Council finalised the Silverdale West Dairy Flat Industrial Area Structure Plan (refer figure 2 below). The Landscape Assessment (BGLA, 2019)[1] prepared as background to the structure plan identified the critical matters to address from a landscape perspective. These included the interface with SH1; the relationship with land uses outside the structure plan area; and the need to visually 'break up' the appearance of development, particularly when viewed from an elevated perspective. To address this a number of landscape interventions were identified within the structure plan. These included: Riparian Margins (min 20m buffer) to all streams, landscape buffers along stream networks, a 40m Landscape Framework buffer along SH1, a 10m landscape buffer along Dairy Flat Highway, a connected stream network with cycle and walkways, gateway entrance points, Kanuka forest and the identification of viewshafts from SH1 (travelling north) towards Lloyd Hill and its environs.

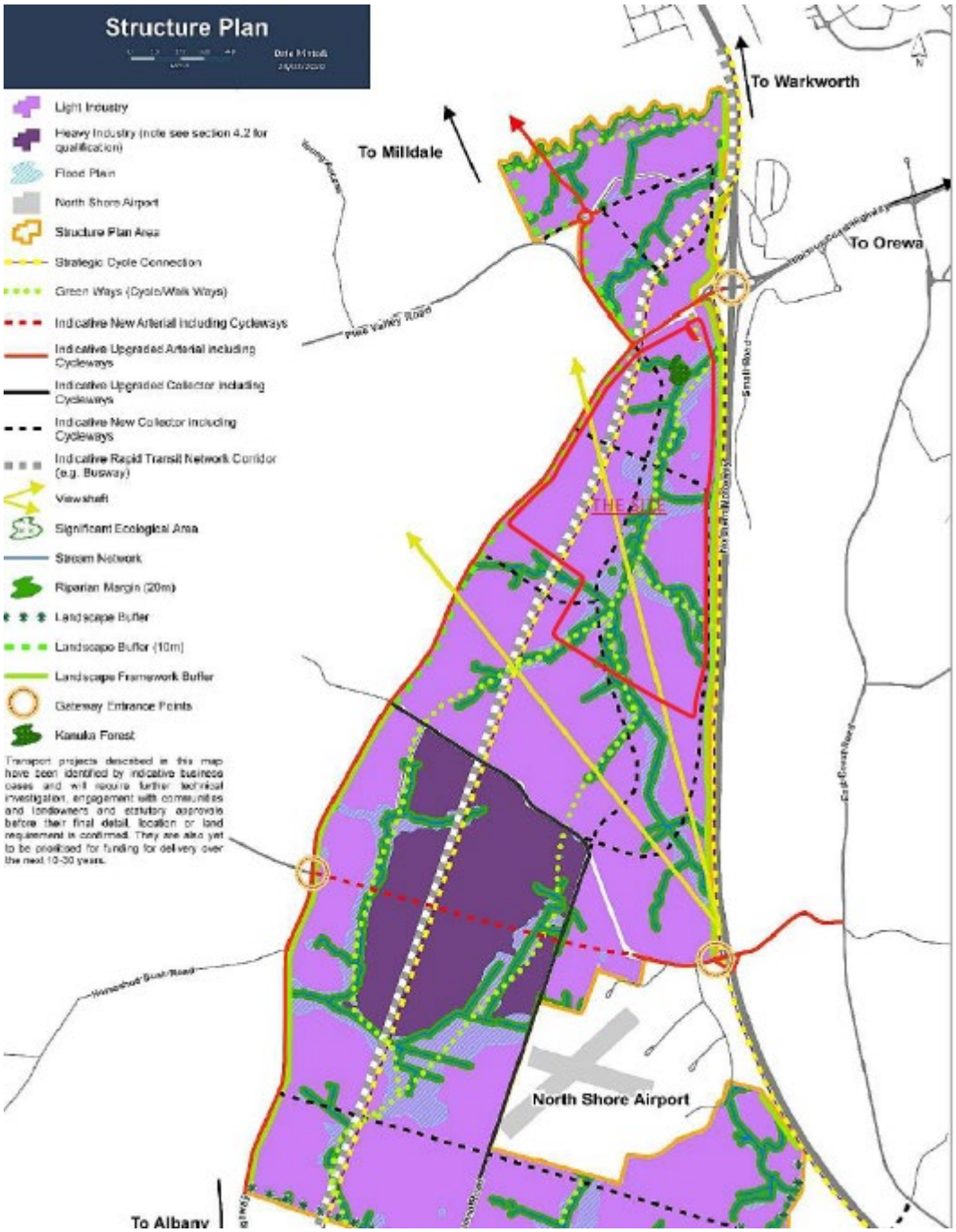

Figure 2: Auckland Council Silverdale West Dairy Flat Industrial Area Structure Plan

[1] Refer Draft Silverdale West Dairy Flat Industrial Area Structure Plan – Landscape Report Prepared for Auckland Council by Bridget Gilbert (2019).

As part of a private plan change for the first stage of rezoning a masterplanning process for the Silverdale West area is currently underway. This masterplan (referred to below as the 'Silverdale West Triangle') is principally driven from a landscape and urban design perspective and is being prepared by Barker & Associates (B&A) alongside a multi-disciplinary team and significant urban design and landscape input. The masterplan whilst showing future development, in line with the structure plan also adopts the landscape interventions and principles identified in the structure plan. Light Industrial land uses are proposed consistent with the area identified in the structure plan, built development will have a predominately 20m height limit and apply the height in relation to boundary standards as set out in the Auckland Unitary Plan (AUP).

As part of the development of this masterplan Boffa Miskell Ltd (BML) have been requested by Fletcher Development Ltd (Fletchers) as the developer, to provide landscape effects assessment and advice in relation to the 40m 'landscape framework buffer' identified in the Auckland Council Structure Plan along the eastern SH1 edge of the Site and the 10m landscape buffer along the Dairy Flat Highway (north western) edge of the site. This includes a review in respect of the background and design intent of the buffers and development of design recommendations to be adopted into the masterplan, being prepared by B&A.

As part of this assessment the author has visited the site on a number of occasions, including most recently on 8 December 2022. The author is also familiar with the wider area and has been involved in numerous resource consent applications within the wider area, assisting both private landowners and Auckland Council (in a peer review capacity).

Landscape Framework Buffer – Background and Intent

The BGLA Landscape Assessment prepared as background to the structure plan[2] identified the following key observations with respect to the landscape character of the study area:

- The complex patterning of watercourses throughout the Study Area.
- The high visibility of the Silverdale West Triangle in views from the elevated SH1 corridor and the rural residential properties on the ridgeline to the east.
- The importance of the view from SH1 immediately north of the Wilks Road overbridge, out over the Silverdale West Triangle to the hills beyond.
- The sensitivity of the rural residential properties on the ridgeline to the east to urban change throughout the Silverdale West Triangle.
- The importance of the SH1 and Dairy Flat Highway as a 'visual gateway' to the Hibiscus Coast.
- The influence of the highly visible, large-scale Business and Recreation based development throughout the elevated slopes on the eastern side of SH1 adjacent the northern portion of the Silverdale West Triangle on the character and amenity of the wider visual catchment extending between SH1 and Dairy Flat Highway.
- The busy highway of Dairy Flat Highway (and coinciding with the AUP(OP) RUB) is considered to form a robust and defensible edge from a landscape perspective.
- Future Urban zoning of the land to the northwest (i.e. west of Dairy Flat Highway) suggesting a compatible 'edge' to industrial land use in this location.

[2] Refer Draft Silverdale West Dairy Flat Industrial Area Structure Plan – Landscape Report Prepared for Auckland Council by Bridget Gilbert (BGLA 2019).

Based on this analysis it was identified in the BGLA Landscape Assessment that the following landscape related development principles should underpin the future development to ensure that landscape related effects are appropriately managed[3]:

- Establishment of a 40m landscape buffer along the SH1 boundary of the Study Area.
- Maintenance of key viewshafts out over the site from SH1 to the hills beyond.
- Reinforcement of the SH1 corridor, Dairy Flat Highway and SH1 Silverdale interchange as an attractive entrance to the Hibiscus Coast.
- The requirement of a minimum 10m width landscape buffer along the Dairy Flat Highway frontage adjoining FUZ or Structure Plan areas

During the feedback consultation process the width of the landscape framework buffer along SH1 was queried. In response council sought to retain the buffer but identified that the buffer could be '*reduced where existing protected vegetation or consented landscape planting provides an effective visual screen to industrial development when viewed from the motorway*'[4]. Section 4.6.3 of the Silverdale West Dairy Flat Industrial Area Structure Plan provides further commentary on this landscape buffer. This identifies that the 40m wide buffer was introduced to the SH1 corridor to achieve the specific outcome of 'Creating an attractive gateway from SH1 /Silverdale Interchange'. It furthermore identifies that there are situations where the landform, such as banks and hillocks, and existing planting obscure views of the area from the motorway and that it is possible to amend the 40m landscape buffer along SH1 where existing unmodified land form features that will be retained, existing protected vegetation on private land, or consented landscape planting, provides an effective visual screen that mitigates to the same extent adverse visual effects of industrial development in views from the motorway.

Analysis

Landscape Framework Buffer – 40m along SH1

- Visual Mitigation (residential properties) – The BGLA LVA identifies a number of elevated properties to the east of the site along East Coast Road that will be particularly sensitive to urban change throughout the industrial area. These properties are elevated some 50m higher than the proposed industrial area site and have elevated views over the site to the landscape beyond. A number of these houses are surrounded by established vegetation[5]. The proposed industrial development will be an obvious land use change; however, it is not considered that the introduction of a landscape buffer strip along the eastern boundary of the site will substantially mitigate the effects of this change. This is predominately due to the elevated nature of views over the subject site, no matter the scale of the vegetation in a buffer zone on the SH1 boundary views to the wider industrial area will remain. A more effective form of mitigation for these properties is through visually 'breaking up' the proposed industrial buildings. This will be achieved, through the proposed landscape interventions included as part of the masterplan such as the planted stream corridors (20m width), large scale tree planting to internal streetscape and amenity planting throughout.
- Visual mitigation from SH1– As described above the topography of the site largely has an easy contour with some gentle undulations and localised pockets of more elevated contour. The SH1 corridor is mostly elevated above the site by approximately 4m, however on occasion the raised site contour is higher than the SH1 road corridor (up to 6m in places) and thereby screens views into the Site. Travelling along SH1 the surrounding land use has a mixed-use character with the North Shore Airport and the Bus Depot located to the southwest, and the highly visible, large-scale business and recreation-based development throughout the elevated slopes on the eastern side of SH1. Whilst

[3] Note the below only includes elements as they relate to the landscape framework buffer along the eastern SH1 boundary and the 10m landscape buffer on the Dairy Flat Highway

[4] Refer Silverdale West Dairy Flat Industrial Area Structure Plan - Response to feedback on the Draft Structure Plan, April 2020

[5] It is noted that this planting cannot be considered as mitigation, however, it is likely that this planting would be largely retained/maintained as it provides a high level of privacy, amenity and screening to the existing SH1 corridor

the proposed masterplan represents a change from rural open space to a more urban form of development, due to existing surrounding land uses it is not considered that simply seeing further industrial buildings from SH1 to the west will result in a significant adverse effect. At the same time, it is important to ensure that a high amenity interface is provided to between the SH1 corridor and the proposed industrial area for passing motorists.

- Visual corridors - There are some conflicting outcomes in the structure plan particularly in respect of achieving visual 'mitigation' to the SH1 corridor via a planted buffer to screen development whilst also ensuring there are views from SH1 through / over the industrial area to the surrounding hills (Lloyd Hill environs) and wider landscape. The requirements for both these outcomes need to be taken into consideration in the more site-specific design of the landscape buffer.

- Gateway to Hibiscus Coast - Another key outcome resulting from the landscape buffer along the SH1 corridor is the reinforcement of the SH1 corridor as an 'attractive entrance to the Hibiscus Coast'. Rather than simply providing a designated 'depth' to this corridor it is considered this gateway effect can be equally or better achieved through the more detailed design of the type and structure of the planting (e.g. as opposed to simply providing a standard 40m width, ensure the planting provides for tree clusters / upright groupings and diversity of interest etc). Further recommendations are provided in the recommendations section of this report.

- There is no information in either the structure plan or the background documents identifying type / species and grade of planting to be provided in the landscape buffer. Nor is the buffer identified for any ecological purpose / mitigation, with this being achieved through the stream buffer and offset planting.

Landscape Buffer – 10m along Dairy Flat Highway (adjoining FUZ or structure plan areas)

- Gateway to Hibiscus Coast – The key outcome resulting from the 10m landscape buffer along the Diary Flat highway was to create an 'attractive entrance to the Hibiscus Coast'. There was no reference to the need to provide visual mitigation through this area with the Future Urban zoning of the land to the northwest (i.e. west of Dairy Flat Highway) suggesting a compatible 'edge' to industrial land use in this location. Rather than simply providing a designated 'depth' to this corridor it is considered this gateway effect can be equally or better achieved through the more detailed design of the type and structure of the planting (e.g., as opposed to simply providing a standard 10m width, ensure the planting provides for tree clusters / upright groupings and diversity of interest etc).

- There is no information in either the structure plan or the background documents identifying type / species and grade of planting to be provided in the landscape buffer. Nor is the buffer identified for any ecological purpose / mitigation, with this being achieved through the stream buffer and offset planting.

Design Recommendations

Landscape Framework Buffer –along SH1

Based on the above analysis, in order to achieve the varying objectives of the structure plan (appropriate visual mitigation, views and amenity / gateway) the following is recommended for the eastern boundary landscape buffer[6].

- Formation of a gateway experience that announces the arrival into Hibiscus Coast. This can be achieved through the creation of a quality travelling environment that reflects the location and sense of place. Landscape is an important component of the overall gateway design and can be designed to be an effective gateway for moving travellers, in a high-speed environment.

- Landscape planting to achieve a quality 'Gateway' outcome can be achieved through the following:

[6] Further detailed information is provided in table 1 below as it relates to each lot along this corridor boundary.

- A varying 10m - 15m[7] width of continuous planting buffer along the eastern extent of the site / SH1 corridor. This 10m –15m corridor should accommodate a range of plant species and scales of vegetation to create an effective gateway feature.
- Plant species will be utilised to create multi-layered native plantings. Consisting of low edge planting, mid-height shrubs/trees as well as taller tree species along the full extent. This planting is to be arranged to achieve a regular structure and rhythm reinforcing a gateway feature.
- Planting should be a bold statement and utilise different form, texture, and colour, to ensure it successfully reads as a gateway feature in the high speed (100km/h) environment.
- Placement and establishment of trees will achieve this gateway effect, rhythm and scale along the SH1 corridor. Larger tree species (with the ability to grow to a minimum of 20m height at maturity) will provide for scale and containment of the road corridor as well as providing a vertical scale and a level of visual mitigation of the built environment.
- Tree species to be planted at a minimum size of 1.8 – 2.2m height / grade to ensure appropriate and timely establishment.
- Low native species planting should be introduced within the key viewshaft corridors from SH1 through / over the industrial area to the surrounding hills (Lloyd Hill environs). It is also recommended that these viewshaft corridors are reinforced through the careful placement of clusters of larger scale trees to frame and emphasise these longer distance views.

- All planting should be designed and planned to meet safety, sightline and long-term maintenance costs and requirements.
- Ensure best practice implementation and long-term maintenance to achieve good plant establishment and longevity.
- It is recommended at detailed design stage a conscious design approach is adopted that tests the proposed recommendations in both 3D and 2D format to ensure the desired, quality of ‘gateway’ response is achieved.

[7] Refer to table 1 below to summary of where buffer is recommended to be 5m or 15m in width.

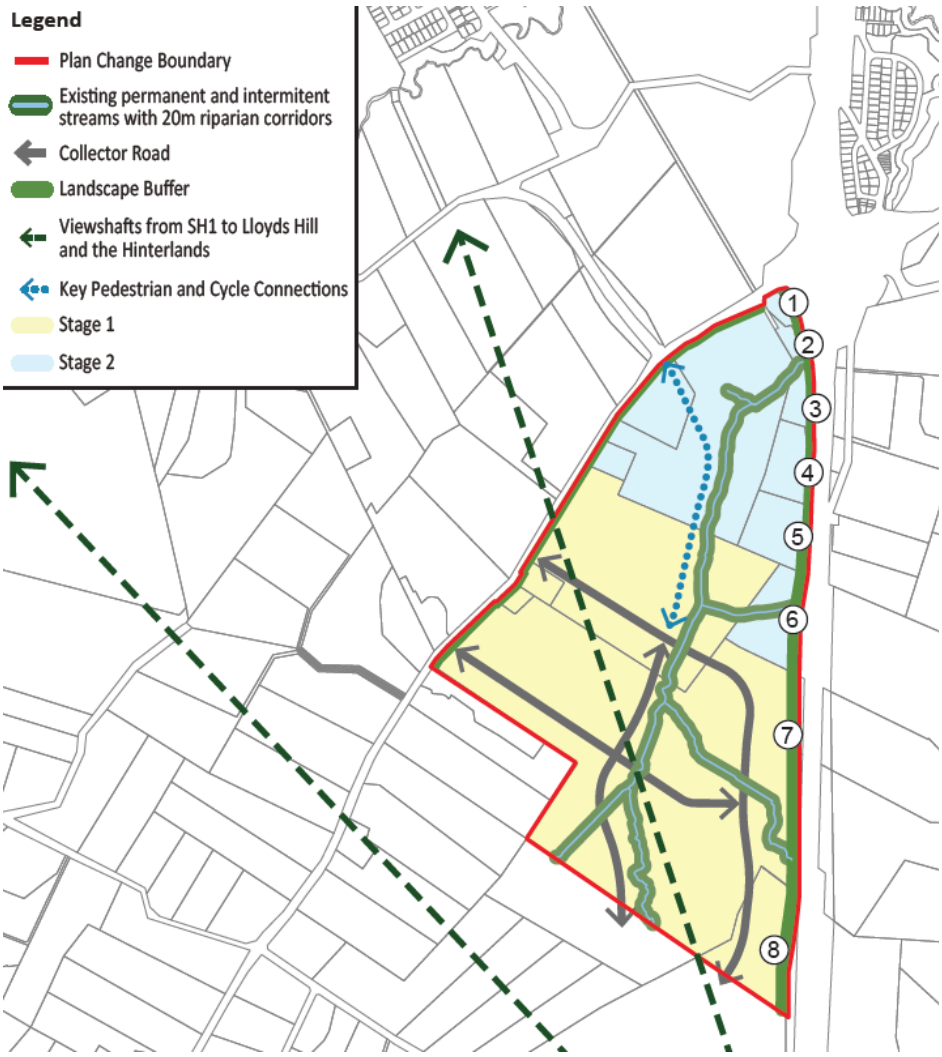

Figure 3: Silverdale West Industrial Plan Change Boundary identified in red. Lots / property numbers relates to Table 1 below.

Address **(Refer figure 3 above)**	**Comments / Design Approach / Recommendations**
1. 1738 Dairy Flat Highway (owned by Mammoth Ventures Ltd) Lot 1 DP 480626	Small 5481m^2 property with existing hardstand area. No existing vegetation on Site. Resource Consent has been granted (Refer LUC60381512) for a storage shed and office building on this property. Recommended buffer width 5m buffer. Plant species to create multi-layered native plantings consisting of low edge planting, mid-height shrubs/trees as well as taller tree species.
2. Diary Flat Highway (Dp Boocock No 2 Trustee Ltd) Lot 2 DP 480626	Small 5345m^2 property with existing access road and grazing. Small area of existing vegetation immediately adjacent (in road corridor), largely consists of Cabbage Trees and scrubby Manuka. Recommended 10m buffer. Plant species to create multi-layered native plantings consisting of low edge planting, mid-height shrubs/trees as well as taller tree species.
3. Sec 6 SO 308591, Dairy Flat Highway Silverdale 0931	Severance vested in crown. Established native vegetation around existing stormwater pond. Recommend including stormwater area into landscape buffer and treatment and provide enhancement planting to edge. Minimum 10m buffer through this area. Plant species to create multi-layered native

	plantings consisting of low edge planting, mid-height shrubs/trees as well as taller tree species.
4. 1744 Dairy Flat Highway. Sec 9 SO 308591, Sec 10 SO 308591	2.1924 ha site. Existing machinery storage area and hard stand area. There is existing planting (largely Manuka species) to the southern extent of this Site within the road corridor. Additional 10m landscape planting recommended through this interface to tie into and connect with the existing vegetation and treatment to the north. Recommend large scale tree species through this area to provide for vertical height.
5. 1748 Dairy Flat Highway. Pt Allot 210 Psh Of Okura SO 18072, Sec 19 SO 308591	2.7781 ha site. Existing industrial storage area. Site is largely level with existing road corridor. Some existing well-established vegetation to the road corridor interface and existing 16m width planting within the southern part of the Site. Recommend retaining all this roadside vegetation where possible in the northern section of the site as well as an additional 10m vegetated buffer with large scale tree species through this area to provide for vertical height. Retain planting to the south of the site and enhance / infill where possible to achieve a continuous treatment. Retain 16m depth minimum planted buffer to the south of the site, this will transition to the 15m depth recommended below.
6. 1748A Dairy Flat Highway (Evan Kemp, Tracey Soffe)	3.4377ha Site. Currently occupied with one house and open pasture with grazing. Existing small pond / wetland area to the road corridor with some existing exotic trees in poor health. Recommend removing exotic tree species through this site and the implementation of a 15m width planted buffer. Plant species to create multi-layered native plantings and consist of low edge planting, mid-height shrubs/trees as well as taller tree species.
7. 1636 Dairy Flat Highway (Fulton Hogan) Lot 1 DP 208687	59 ha site. Currently open pasture with grazing. No existing significant vegetation. Topography gently undulating and level with SH1 corridor. Recommend 15m width planted buffer. Plant species to create multi-layered native plantings and consist of low edge planting, mid-height shrubs/trees as well as taller tree species.
8. 193 Wilks Road (Fulton Hogan Limited) Lot 1 DP 433431	Part of 56ha Site currently open pasture with grazing. No existing significant vegetation. Topography gently undulating. Two localised high points in the north where site is higher than the SH1 road corridor (approximately 5m) with topography dropping away to the south to sit lower than SH1 corridor (approximately 5m). Recommend 15m width planted buffer along this extent. Plant species to create multi-layered native plantings and consist of low edge planting, mid-height shrubs/trees as well as taller tree species.

Table 1: Design recommendations for proposed Landscape Buffer (per property)

Western Landscape Buffer – Adjacent Dairy Flat Highway

Based on the above analysis, in order to achieve the objectives of the structure plan and create gateway to Hibiscus Coast the following is recommended for the western landscape buffer adjacent Dairy Flat Highway.

- Formation of a gateway experience that announces the arrival into Hibiscus Coast. This can be achieved through the creation of a quality travelling environment that reflects the location and sense of place. Landscape is an important component of the overall gateway design and can be designed to be an effective gateway for moving travellers, in a high-speed environment.
- Landscape planting to achieve a quality 'Gateway' outcome should be achieved through the following:
    - A 5m continuous planting buffer along the interface with Diary Flat Highway. This 5m corridor must be planted with a mixture of trees, shrubs or ground cover plants along the full extent to achieve multi-layered plantings and be arranged to achieve a regular structure and rhythm reinforcing a gateway feature.
    - Planting should be a bold statement and utilise different form, texture, and colour, to ensure it successfully reads as a gateway feature in the high-speed environment.
    - Larger tree species should be planted (that have the ability to grow to a minimum of 20m height at maturity) to provide for scale and containment of the road corridor. Tree species to be planted at a minimum size of 1.8 – 2.2m height / grade to ensure appropriate and timely establishment.
    - All planting must be appropriately maintained thereafter.

Conclusion

In relation to the eastern landscape framework buffer along SH1, planting is considered an effective screen to the proposed industrial area in views from the SH1 and the proposed 10m – 15m (plus existing vegetation) is sufficient to achieve an effective screen. A 40m buffer (as per the structure plan), whilst achieving a denser stand of planting is not necessary for the full extent of the corridor.

A 5m continuous landscape buffer is recommended for the Dairy Flat Highway. This should be planted to achieve an attractive 'gateway' to the Hibiscus Highway. A 10m buffer (as per the structure plan) is not necessary for this full extent in order to achieve an effective gateway.

The above recommendations should be included into the landscape masterplan and considered carefully through the detailed design stages of the project. Based on the above recommendations, the proposed buffers will achieve the recommended outcomes of the structure plan in that:

- Establishment of a continuous landscape buffer (between 10m – 15m) along the SH1 corridor interface to provide:
    - Appropriate visual screening / mitigation from the SH1 road corridor and assist with breaking up the bulk and massing of buildings when viewed from the residential properties to the east of the site (taking into consideration planting and riparian corridors within the wider industrial area and elevation of these properties).
    - Reinforcement of the SH1 corridor as an attractive 'gateway' and entrance to the Hibiscus Coast.
- Establishment of continuous 5m width landscape buffer along Dairy Flat highway to provide for an attractive gateway to the Hibiscus Highway.

Julia Wick

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Boffa Miskell

Peer Review

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Boffa Miskell