GEOSCAPES
LANDSCAPE ARCHITECTS

Proposed Industrial Estate, 884-928 Mamre Road, Kemps Creek

LANDSCAPE DESIGN REPORT – LDR01

Access Logistics Park – SSD 17647189

Prepared for:

ALTIS PROPERTY PARTNERS

Prepared By:

Ben Gluszkowski
Director
Registered Landscape Architect #5868

GEOSCAPES
Suite 215/284 Victoria Avenue
Chatswood, NSW 2067

Geoscapes Pty Ltd
ABN 84 620 205 781
ACN 620 205 781

Document Status

Issue	Issue	Signature	Date
D	LANDSCAPE SECTIONS UPDATED	BG	01.09.21
C	SECTION 2.0 AMENDED	BG	24.08.21
B	FOR SSD SUBMISSION	BG	20.07.21
A	FOR SSD SUBMISSION	BG	16.07.21

1.0 - The Project

The project at Lots 52 & 53 in DP259135, known and referred to within documentation as 884-928 Mamre Road or 'Access Logistics Park', comprise of a proposed industrial estate containing 16 lots. Lot 2 will construct and operate a single warehouse of 35,000m2 GFA, lots 5 to 16 will be subject to individual future development applications for each warehouse.

The proposal will also include road access, streetscape planting, car parking and hardstand to lot 2, landscaping to lots 1, 2 and 3 road and a bio basin to Lot 16. The applicant is Altis Property.

The site has an area of 20 hectares and is located within the Penrith City Council Local Government Area. It is bound by the Mamre Road to the west and is situated within the Mamre Road Precinct as identified on SEPP WSEA mapping.

A 10m wide landscape setback is required from the TfNSW widening boundary. As a necessity for the treatment and temporary storage of site stormwater, this will contain an OSD and Bio-retention basin. As a result, lot 3 has been proposed to create a landscape buffer zone which will be located between the cadastral boundary and the TfNSW boundary. The lot 3 buffer zone combined with planting along the northern boundary and streetscape tree planting, will help filter views of the development and integrate the site within its broader environment. As much of the site has been classified by the Bushfire Consultant as being an IPA, identified areas of planting will adhere to recommendations in the Peterson Bushfire report.

This design report has been prepared as part of an SSD submission to the Department of Planning and is to be read alongside Geoscapes drawings 200827_LDA-00 to LDA-09 (Estate), 200826_LDA-00 to LDA-10 (Lot 2) and Geoscapes Report VIA01 - Visual Impact Assessment. These documents are intended to address the relevant SEARs issued for the project by the DPIE:

Urban Design & Visual Impact

- demonstration of how the development will achieve design excellence in accordance with any relevant environmental planning instrument provisions and the objectives for good design in Better Placed (Government Architect NSW, 2017);

- a detailed assessment of the development against Section 4 of the draft Mamre Road Precinct Development Control Plan including justifications for any departures from relevant controls;

a visual impact assessment (including photomontages, perspectives and cross sections) of the development layout and design, including staging, site coverage, setbacks, open space, landscaping, height, bulk and scale, colour, building materials and finishes, façade design, signage and lighting. The assessment must

consider potential impacts on:

§ views, vistas, open space and significant vantage points in the broader public domain;

§ nearby private receivers;

§ edge conditions and interface treatments between the site and adjoining land;

§ Mamre Road;

- detailed landscaping plans showing suitable landscaping which incorporates endemic species as well as how it maximises opportunities for green infrastructure, consistent with Greener Places (Government Architect NSW, 2020).

2.0 - Design Approach

2.1 Design Excellence and Meeting the Objectives of 'Better Placed'

Landscaping has been designed to meet the objectives for design excellence as in accordance with relevant planning provisions and good design as per the Government Architect NSW 2017, 'Better Placed' document. This has been achieved in the following ways:

- 1.Better Fit –
    - By understanding the immediate rural context of the site landscape species have been proposed to continue patterns that are already present within the existing landscape. This helps in the mitigation of visual impacts for receivers.
- 2.Better Performance –
    - Utilising native and endemic species to respond to the local rural character while also proving low water-use buffer zones. This reduces the need for irrigation in these areas.
    - Treat stormwater by using OSD's and bio-basins planted with suitable native sedges and grasses.
    - Provide canopy cover and 'cool streets' to combat urban heat island effects.
    - Adhere to bushfire recommendations as stated in the bushfire report.
- 3.Better Working –
    - By adopting a high-quality landscape setting around the estate, an aesthetically pleasing outlook will be created. This is especially important for workers and everyday users of the estate.
- 7.Better Look and Feel –
    - Creating identifiable streetscapes with evergreen street trees and layered planting within lots facing the street.
    - Creating a sense of place and identity for the buildings and estate by planting a mix of native and exotic species. This will provide seasonal interest with the use of deciduous and evergreen trees, flowering shrubs and groundcovers.
    - Using estate signage to create identifiable and unique access points.

2.2 Applicable Section 4.0 Draft Mamre Road DCP Controls & Design Responses

The following text below describes how the landscape design responds to the relevant controls of the Draft Mamre Road DCP

Relevant Section & Controls	Response
4.2.1 Building Heights	
(7) Visual Impact	A Visual Impact Assessment has been prepared as part of this application. Refer to report VIA01
4.2.3 Landscaping	
1) Landscape Area	A 10m landscape setback has been provided to the Mamre Road frontage. In addition, Lot 3 has been created which adds an additional 1450m2 to allow for landscape buffer planting along Mamre Road.
2) Landscape Plans	Detailed landscape plans have been prepared for the Estate and Lot 2 works, refer to relevant drawings. The drawings have been prepared by an AILA Registered Landscape Architect.
3) Landscape Canopy Cover	The 40% control is an aspirational figure within the Greater Sydney Regional Plan. Due to the nature of the development this figure is not usually possible to achieve. However, 272 trees are proposed to be planted within the estate works and 129 in lot 2. More tree planting will be introduced as part of future DA applications to each lot.
4) Outdoor Recreation	These have been provided within the Architectural documentation for lot 2 .
5) Pervious Area	LOT 2 proposes a landscape area of 6.4% of the total lot 2 boundary. There are also additional pervious areas can be created within parking areas. The estate works propose an OSD and bio basin to Lot 1 and buffer zone to lot 3 which creates and additional 5885m2 of landscape area. There are also 6m wide verges either side of the access road and bio basin to the east.
6) Front Setback Trees	Trees cannot be planted in the majority of the front setback due the restrictions of the OSD and bio basin. However, lot 3 had been created specifically to include canopy tree planting which is in scale with the proposed development. Trees are expected to reach 10m -15m.
7) Carpark Tree Planting	Tree planting has been incorporated into island beds at a rate of 1 per 10 car spaces.
8) Remnant Vegetation	N/A
9) Mounding	Although not mounded due to space, the proposed lot 3 has tree planting to Mamre Road
10) Screen Planting	Carparks and hardstand areas are screened with the use of evergreen hedges and a mix of trees shrubs and groundcovers. The southern interim Acoustic fence is to be planted with native climbers to soften the impact of the noise wall on the adjoining land-owner.

12) Species Selection	A large proportion of native and endemic low water species have been incorporated in the estate and lot 2 proposals. These are mainly concentrated within the streetscape and buffer zones to site boundary edges. A mix of native and exotic trees, shrubs and groundcovers are proposed to lot 2 around carparking and entry areas.
13) Street Tree Pot Size	Pot sizes are specified at 100L
14) Tree Space	Trees have generous space to grow into within the streetscape, lot 3 and lot 2. It would be expected that trees would reach full to 90% maturity within these conditions.
15) Consolidate Landscape Areas	Lot 2 proposes large landscape setbacks to the access road and Mamre Road, these are continuous areas around the building.
16) Weeds Species	No weed species are proposed
17) Groundcovers as grass alternative	Grass/turf is specified only within the streetscape

2.3 Visual Impact Assessment

Refer to report 200827_SSD_RPT_VIA01 for a detailed visual impact assessment containing analysis and photomontages from key visual receptors.

2.4 Bushfire Controls provided by Peterson Bushfire:

<u>The entire site is to be treated as an IPA</u>

The following recommendations have been applied to the landscape design and maintenance within the estate works and lot 2:

Trees are to be maintained to ensure;

- Trees (at maturity) do not touch or overhang the building
- Tree canopies should not be connected when at maturity. Gaps between crowns or groups of crowns are to be maintained at distances of 2 to 5m

Shrubs are to be maintained to ensure;

- Ensure gaps in the vegetation, such as between garden beds, to prevent the spread of fire towards the building;
- Clumps of shrubs should be separated from glazing and doors by a distance of at least twice the height of the vegetation.

Groundcovers are to be maintained to ensure:

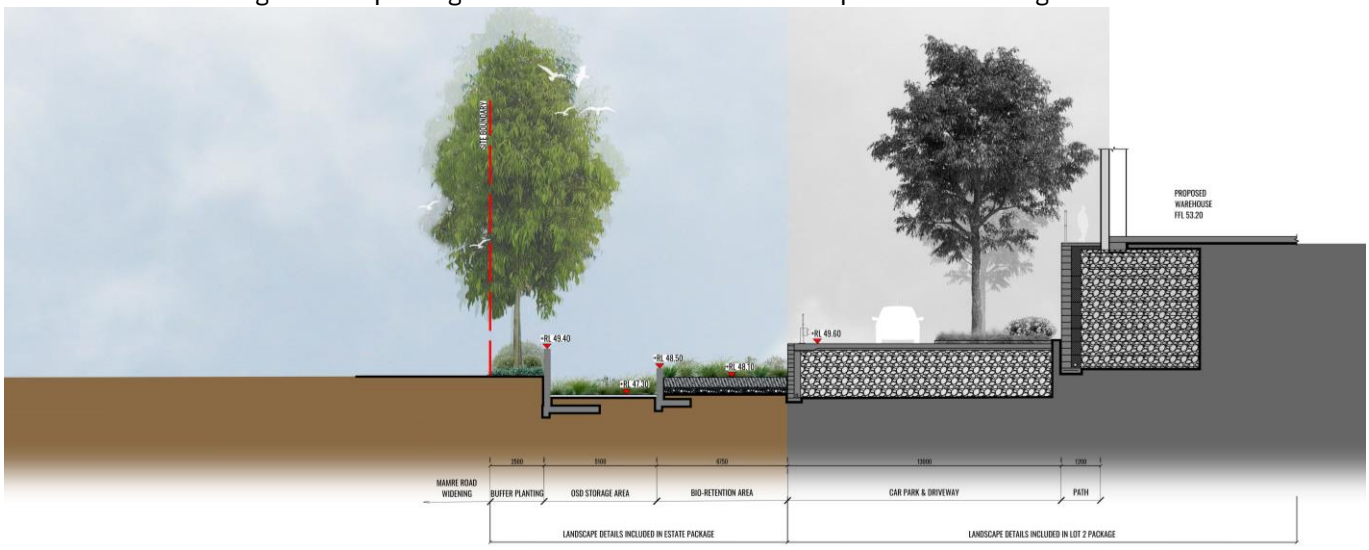
- Grass should be kept mown (as a guide grass should be kept to no more than 100mm in height);

- Leaves and vegetation debris should be regularly removed;
- Organic mulch is not to be used within 1 m of a building

3.0 – Landscape Proposals

3.1 Mamre Road

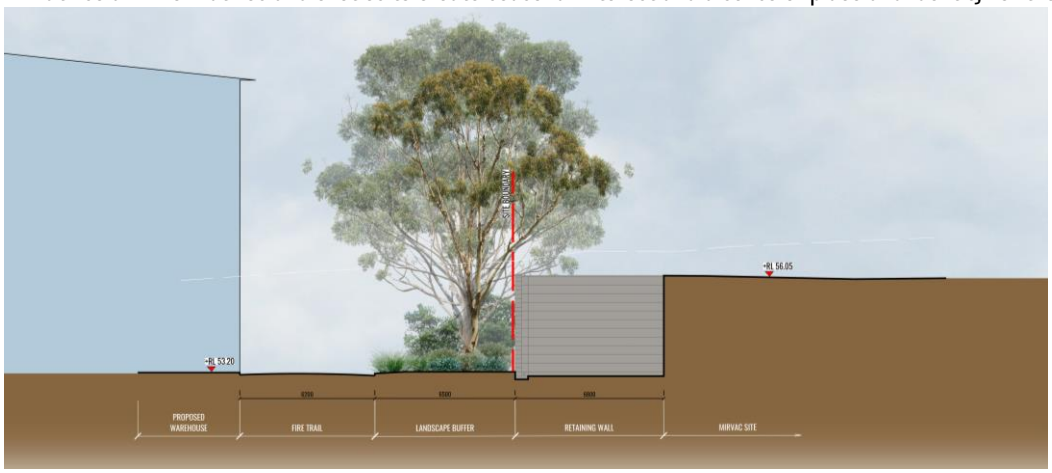
Along the entire length of lot 2, a bio-filtration and osd basin are proposed parallel to Mamre Road within the 10m wide landscape setback. This is to be densely planted with sedges and native grasses suitable for this WSUD application. To the front of the basin, lot 3 has been created between the cadastral boundary and the TfNSW Mamre Road widening boundary. This is to allow for evergreen tree planting to soften the basin wall and the impact of the buildings from Mamre Road.



East Section

3.2 Lot 2 Planting

The northern boundary will use a mix of endemic planting including those from the Cumberland Plain community. These will help to soften and screen the building for visual receptors along Mamre Road and the future Mirvac development adjacent. The rest of the estate will utilise a mix of natives and exotics to create seasonal interest and a sense of place and identity for the estate.



Lot 2 North Section

Section through Lot 2 and Estate Road

4.0 – Planting and Schedules

A mixture of natives and Cumberland plain species have been incorporated into design for the estate and lot 2. This is supplemented with a mix of natives and exotics to key areas of the estate including the entry and around the lot 2 carpark.

Estate Planting Schedule

Indicative Plant Schedule						
Code	**Botanical Name**	**Common Name**	**Mature Height**	**Spacing**	**Pot Size**	**Quantity***
Trees						
BET NIG	*Betula nigra*	River Birch	12m	As shown	100L	18
CUP ANA	*Cupaniopsis anacardioides*	Tuckeroo	10m	As shown	100L	66
ELA RET	*Elaeocarpus reticulatus 'Prima Donna'*	Blueberry Ash	10m	As shown	100L	24
FIC HIL	*Ficus microcarpa hillii*	Weeping Fig	10m	As shown	100L	1
TRI LAU	*Tristaniopsis laurina*	Water Gum	12m	As shown	100L	72
WAT FLO	*Waterhousea floribunda*	Weeping Lilly Pilly	10m	As shown	100L	91
Shrubs						
BRE obl	*Breynia oblongifolia*	Coffee Bush	3m	As shown	200mm	62
CAL lit	*Callistemon viminalis 'Little John'*	Bottlebrush	0.75m	As shown	200mm	28
DAV uli	*Daviesia ulicifolia*	Gorse Bitter-Pea	2m	As shown	200mm	61
DIL jun	*Dillwynia juniperina*	Prickly Parrot-Pea	3m	As shown	200mm	49
DOD vis	*Dodonea viscosa subsp. viscosa*	Sticky Hop Bush	3m	As shown	200mm	44
DOR exc	*Doryanthes excelsa*	Gymea Lily	3m	As shown	200mm	25
HAK ser	*Hakea sericea*	Needle Bush	7m	As shown	200mm	52
IND aus	*Indigofera australis*	Native Indigo	4m	As shown	200mm	47
OZO dio	*Ozothamnus diosmifolius*	Rice Flower	2.5m	As shown	200mm	44
PIT gol	*Pittosporum tenuifolium 'Golfball'*	Dwarf Pittosporum	0.4m	As shown	200mm	20
SYZ aus	*Syzygium australe 'Tiny Trev'*	Lilly Pilly	0.7-1m	0.5m Ctrs	200mm	198
WES gre	*Westringia fruticosa 'Grey Box'™*	Native Rosemary	0.45m	As shown	200mm	35
WES mun	*Westringia fruticosa 'Mundi'*	Native Rosemary	0.4m	6/m2	200mm	375
Grasses + Groundcover						
CAR ros	*Carpobrotus glauscens*	Native Pigface	0.3m	3/m2	140mm	802
DIA lon	*Dianella longifolia*	Blue Flax Lily	0.5m	5/m2	Tubestock	1445
DIA rev	*Dianella revoluta*	Flax Lily	0.5m	5/m2	Tubestock	1679
DIC rep	*Dichondra repens*	Kidney Plant	0.1m	3/m2	140mm	709
ERE blu	*Eremophila 'Blue Horizon'*	Emu Bush	0.25m	3/m2	140mm	78
GAZ tom	*Gazania tomentosa*	Gazania	0.3m	8/m2	140mm	325
HAR vio	*Hardenbergia violacea 'Mini Meema'*	Hardenbergia Meema	0.45m	3/m2	140mm	256
LOM tan	*Lomandra longifolia 'Tanika'*	Mat Rush	0.6m	5/m2	Tubestock	2004
MYO par	*Myoporum parvifolium 'Yareena'*	Creeping Boobialla	0.2m	3/m2	140mm	203
PEN alo	*Pennisetum alopecuroides 'Nafray'*	Nafray	0.7m	5/m2	Tubestock	623
SCA alb	*Scaevola albida*	Fan Flower	0.2m	4/m2	140mm	225
SEN ser	*Senecio serpens*	Blue Chalksticks	0.3m	3/m2	140mm	242
WES low	*Westringia fruticosa 'Low Horizon' ™*	Low Horizon Westringia	0.3m	3/m2	140mm	442
Vines/Climbers						
CLE ari	*Clematis aristata*	Goat's Beard	2m	0.4m Ctrs	Tubestock	672
Bio-Retention & OSD Basin Planting						
CAR app	*Carex appressa*	Tussock Sedge	1.0m	8m2	Tubestock	4156
DIA car	*Dianella caerulea*	Blue Flax Lily	0.7m	8m2	Tubestock	4156
FIC nod	*Ficinia nodosa*	Knobby Club-Rush	1.2m	8m2	Tubestock	4156
IMP cyl	*Imperata cylindrica*	Blady Grass	1.0m	8m2	Tubestock	4156
JUN usi	*Juncus usitatus*	Common Rush	1.2m	8m2	Tubestock	4156
LOM lon	*Lomandra longifolia*	Mat Rush	1.0m	8m2	Tubestock	4156
POA sib	*Poa sieberiana*	Grey Tussock Grass	0.8m	8m2	Tubestock	4156
THE aus	*Themeda australis*	Kangaroo Grass	1.5m	8m2	Tubestock	4156
**Plant numbers to be finalised at Detailed Design / CC-Tender stage*						

Lot 2 Planting Schedule

Code	Botanical Name	Common Name	Mature Height	Cumberland Plain Species	Spacing	Pot Size	Qty*
Trees							
ANG FLO	*Angophora floribunda*	Rough-barked apple	20m	✓	As shown	100L	9
ANG SUB	*Angophora subvelutina*	Broad-Leaved Apple	17-25m	✓	As shown	100L	9
EXO CUP	*Exocarpos cupressiformis*	Native Cherry	8m	✓	As shown	100L	10
FRA CIM	*Fraxinus pennsylvanica 'Cimmzam'*	Claret Ash	12m		As shown	100L	24
MEL STY	*Melaleuca styphelioides*	Prickly Paperbark	20m	✓	As shown	100L	8
TRI LAU	*Tristaniopsis laurina 'Luscious'*	Water Gum	8m		As shown	100L	9
QUE PAL	*Quercus palustris 'Pringreen' Green Pillar*	Fastigiated Pin Oak	14m		As shown	100L	15
WAT FLO	*Waterhousea floribunda 'Green Avenue'*	Weeping Lilly Pilly	10m		As shown	100L	49
Shrubs							
ACM smi	*Acmena smithii*	Lilly Pilly	5m		1.25m Ctrs	200mm	92
BRE obl	*Breynia oblongifolia*	Coffee Bush	3m	✓	As shown	200mm	23
DAV uli	*Daviesia ulicifolia*	Gorse Bitter-Pea	2m	✓	As shown	200mm	37
DIL jun	*Dillwynia juniperina*	Prickly Parrot-Pea	3m		As shown	200mm	17
DOD vis	*Dodonea viscosa subsp. viscosa*	Sticky Hop Bush	3m	✓	As shown	200mm	49
DOR exc	*Doryanthes excelsa*	Gymea Lily	3m		As shown	200mm	36
GRE ros	*Grevillea rosmarinifolia 'Crimson Villea'*	Crimson Villea Grevillea	0.7m		As shown	200mm	138
HAK ser	*Hakea sericea*	Needle Bush	7m		As shown	200mm	16
IND aus	*Indigofera australis*	Native Indigo	4m	✓	As shown	200mm	17
OZO dio	*Ozothamnus diosmifolius*	Rice Flower	2.5m	✓	As shown	200mm	72
RHA ind	*Rhaphiolepis indica*	Indian Hawthorn	1.5m		As shown or 0.8m Ctrs	200mm	156
VIB odo	*Viburnum odoratissimum*	Sweet Viburnum	2-4m		1.25m Ctrs	200mm	294
WES fru	*Westringia fruticosa*	Native Rosemary	1.5m		As shown	200mm	23
WES gre	*Westringia fruticosa 'Grey Box'™*	Native Rosemary	0.45m		As shown	200mm	125
WES nar	*Westringia fruticosa 'Naringa'*	Native Rosemary	2m		1.25m Ctrs	200mm	105
Grasses + Groundcover							
CAR ros	*Carpobrotus glauscens*	Native Pigface	0.3m		3/m2	140mm	517
DIC rep	*Dichondra repens*	Kidney Plant	0.1m	✓	3/m2	140mm	788
DIA lon	*Dianella longifolia*	Blue Flax Lily	0.5m	✓	5/m2	Tubestock	1613
DIA rev	*Dianella revoluta*	Flax Lily	0.5m	✓	5/m2	Tubestock	1847
ERE blu	*Eremophila 'Blue Horizon'*	Emu Bush	0.25m		3/m2	140mm	408
HAR vio	*Hardenbergia violacea 'Mini Meema'*	Hardenbergia Meema	0.45m	✓	3/m2	140mm	1535
LOM mul	*Lomandra multiflora*	Club Rush	0.6m	✓	5/m2	Tubestock	1568
LOM tan	*Lomandra longifolia 'Tanika'*	Mat Rush	0.6m		5/m2	Tubestock	698
MYO par	*Myoporum parvifolium 'Yareena'*	Creeping Boobialla	0.2m		3/m2	140mm	349
PEN alo	*Pennisetum alopecuroides 'Nafray'*	Swamp Foxtail grass	0.7m		5/m2	Tubestock	113
POA lab	*Poa labilladeri*	Tussock Grass	0.5m		5/m2	Tubestock	1271
RHA spi	*Rhagodia spinescens*	Aussie Flat Bush	0.5m		3/m2	140mm	288
SCA alb	*Scaevola albida*	Fan Flower	0.2m	✓	4/m2	140mm	600
SEN ser	*Senecio serpens*	Blue Chalksticks	0.3m		3/m2	140mm	307
WES low	*Westringia fruticosa 'Low Horizon' ™*	Low Horizon Westringia	0.3m		3/m2	140mm	415

**Plant numbers to be finalised at Detailed Design / CC-Tender stage*

5.0 – Conclusion

The proposed landscape design aims to fulfil the objectives and controls of the Draft Mamre Road DCP while creating an enriching environment for workers and people using the estate. Screening of the development to receptors along Mamre Road has been accommodated with the creation of lot 3 which will contain native evergreen trees along the Mamre Road frontage.