



6th Sep 2019

GEOSCAPES Reference: # 181108

To: **Department of Planning and Environment**

Via email: tdekruij@awedwards.com.au

Re. Lane Cove West Data Centre (SSD 9741) – Summary of changes

Dear Sir/Madam,

Since the previous SSD drawings (LDA01-LDA07 Rev B dated 03.07.19) and LVIA report (LVIA01 Rev B dated 02.07.19) the following amendments have been made:

- 1) A reduction to the building footprint has allowed a larger proposed landscape area to the western boundary. This has allowed for significantly more tree, shrub and groundcover planting. Species and spacings are as per the VMP and Bushfire recommendations.
- 2) The previously proposed OSD Basins from the civil consultant, have now been removed which will allow for further revegetation planting closer to natural grade.
- 3) Further planting as described in point 1, provides a better long-term screening outcome for visual receptors located Southwest from the site. This is demonstrated in the LVIA report within photomontages of viewpoints 8 to 11.
- 4) The northern façade of the building has been amended so that no undercroft spaces are visible, this was apparent on the previous submission from viewpoints 1 and 2.

Yours faithfully

A handwritten signature in black ink, reading 'B. Gluszkowski'.

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Proposed Data Centre, Lane Cove West, NSW 2066 - SSD 9741

LANDSCAPE DESIGN REPORT – LDR01

Prepared for:

GREENBOX

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Document Status

Issue	Issue	Signature	Date
C	REVISED FOR SSD SUBMISSION	BG	26.08.19
B	REVISED FOR SSD SUBMISSION	BG	02.07.19
A	FOR SSD SUBMISSION	BG	18.12.18

1.0 - The Project

The project at Lot 1 in DP1151370, known and referred to within documentation as 1 Sirius Road, comprises of a proposed data centre, including data halls A-F, main office, substation, crane bays, plant equipment, car parking, road access and associated earthworks and landscaping. The applicant is GreenBox Architecture.

The site has an area of approximately 3.9 hectares and is located within the Lane Cove Council Local Government Area. It is bound by the Sirius Road to the east, Lane Cover River to the west, the M2 and Stringybark Creek to the north and Lane Cover River to the south. A 10m setback is required from the existing bushland which is present to the north, west and south. This setback and other deep soil areas allow for landscape buffer planting to 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 must adhere to 'Planning for Bushfire Protection' guidelines by the NSW RFS.

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 LDA-00 to LDA-07 and Geoscapes Report LVIA01 - Landscape and Visual Impact Assessment. It addresses the following:

Urban Design & Visual

- *proposed open space and landscaped areas for the overall development*
- *suitable landscaping incorporating locally indigenous species;*

2.0 - Overall Design Approach

2.1 Available Landscaping Areas and Controls

A total area of 14472m² (36.68% of site area) is available for landscape planting.

Bushfire Controls provided by Travers Ecology:

Within APZ zones

Trees are to be maintained to ensure;

Canopy cover does not exceed 15%

Trees (at maturity) do not touch or overhang the building

Tree canopies (at maturity) should be well spread out and not form a continuous canopy



Lower limbs should be removed up to a height of 2m above ground
Preference should be given to smooth barked and evergreen trees.

Shrubs are to be maintained to ensure;

Large discontinuities or gaps in vegetation

Shrubs should not be located under trees

Shrubs should not form more than 10% of ground cover

Clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of vegetation.

Grass is to be maintained to ensure:

A height of 10cm or less

Leaves and debris is removed.

DCP Controls:

Part E Industrial Development E9

Part E Industrial Development – Locality 1 – Land Off Sirius Road E11 to E13

Part H Bushland Protection

Part J Landscaping

To comply with the DCP, bushfire requirements and VMP, landscaping design aims to provide the following:

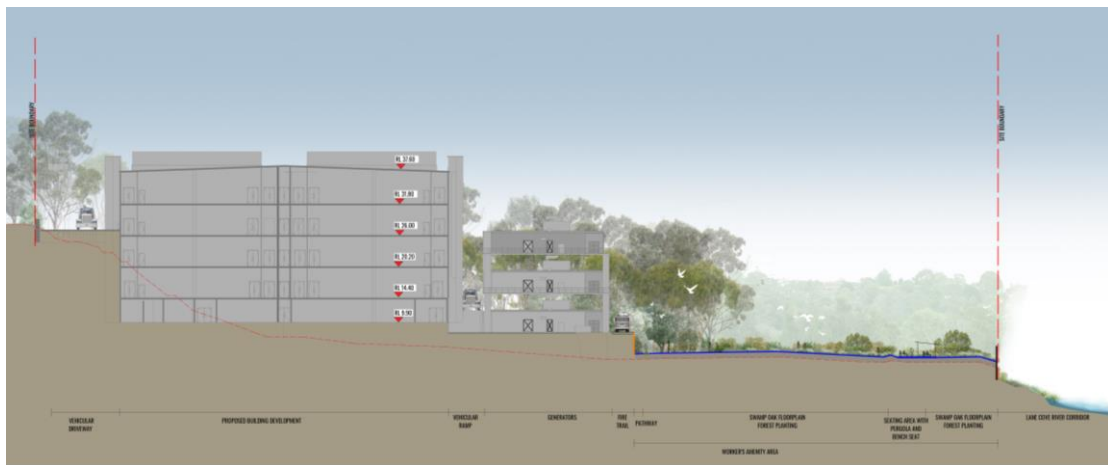
- Adhering to the bushfire requirements as set out by Travers Ecology
- Adhering to the VMP requirements as set out by Travers Ecology
- Preservation and retention of existing trees where possible on the advice of the project Arborist
- Strengthen local character with the use of local indigenous species. These are to be selected predominantly from the appendix 1 of the Part J of the Lane Cove Council DCP
- Provision of 10% of the site for Landscape Amenity for workers
- Provision of 36% Landscape Area
- To help screen and filter views of the development for users of the adjacent bushland and visual receptors within the wider context with tree and shrub planting



3.0 – Proposals

3.1 North

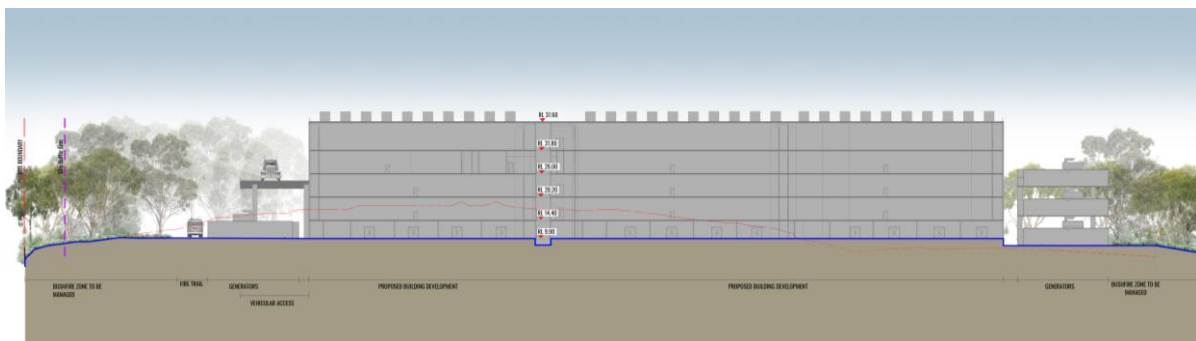
The 10% (4000m²) amenity for workers is proposed in this area. This is due to the existing topography being generally flatter than other parts of the site and the opportunity to enjoy the aspect and proximity to the Lane Cover River. Native grasses are intended to be kept to height of 100mm, and a path is provided leading to sheltered seating area. This seating area is included to provide shade amenity and passive relaxation. Planting of indigenous plant species are proposed as per the VMP to complement the existing backdrop of adjoining bushland. A 4m fire trail is required to comply with RFS requirements.



North South Section

3.2 East and West

An indigenous seed mix of local grasses is proposed to help prevent soil erosion and enable regular slashing/mowing to a height of 100mm. Existing trees are retained where possible and additional planting is provided in the form of scattered trees and shrubs. Smooth barked species and evergreen trees and shrubs are preferred.



East to West Section.



3.3 Southern Boundary

This area contains the entry approach from Sirius Road. On the eastern side, existing landscaping associated with the Harley Davidson development is proposed to be retained. On the western side landscape areas exist along the verge and have also been incorporated between the proposed retaining wall and the adjoining development. Native trees, shrubs and mass planted groundcovers have been proposed in these areas.

4.0 – Planting and Schedules

Indigenous plant species for APZ and revegetation areas have been selected from the VMP. Plant species listed in the VMP have been. This is in response to the objectives for landscaping of new development contained within the Council DCP. All planting will be low water use.



PROPOSED GENERAL LANDSCAPE AND APZ PLANTING						
CODE	BOTANICAL NAME	COMMON NAME	MATURE HEIGHT	SIZE	PLANTING DENSITY	QTY*
Canopy trees						
ANG COS	<i>Angophora costata</i>	<i>Sydney Red Gum</i>	20m	AS PER VMP	As Shown	6
COR GUM	<i>Corymbia gummifera</i>	<i>Red Bloodwood</i>	30m	AS PER VMP	As Shown	4
EUC RES	<i>Eucalyptus resinifera</i>	<i>Red Mahogany</i>	25m	AS PER VMP	As Shown	3
SYN GLO	<i>Syncarpia glomulifera</i>	<i>Turpentine tree</i>	25m	AS PER VMP	As Shown	3
Sub-canopy trees						
ACA PAR	<i>Acacia parramattensis</i>	<i>Parramatta Wattle</i>	12m	AS PER VMP	As Shown	10
ALL LIT	<i>Allocasuarina littoralis</i>	<i>Black Sheoak</i>	10m	AS PER VMP	As Shown	9
ELA ret	<i>Elaeocarpus reticulatus</i>	<i>Blueberry Ash</i>	10m	AS PER VMP	As Shown	6
MEL LIN	<i>Melaleuca linariifolia</i>	<i>Snow in Summer</i>	8m	AS PER VMP	As Shown	10
Shrubs 1 per 30m2						
ACA flo	<i>Acacia floribunda</i>	<i>Sally Wattle</i>	6m	AS PER VMP	As Shown	49
BRE obl	<i>Breynia oblongifolia</i>	<i>Coffee Bush</i>	6m	AS PER VMP	As Shown	34
BUR spi	<i>Bursaria spinosa subsp. spinosa</i>	<i>Blackthorn</i>	6m	AS PER VMP	As Shown	33
DOD tri	<i>Dodonaea triquetra</i>	<i>Common Hop Bush</i>	2m	AS PER VMP	As Shown	36
KUN amb	<i>Kunzea ambigua</i>	<i>Tick Bush</i>	2m	AS PER VMP	As Shown	35
MEL thy	<i>Melaleuca thymifolia</i>	<i>Thyme Honey myrtle</i>	2m	AS PER VMP	As Shown	33
TRE tom	<i>Trema tomentosa</i>	<i>Native peach</i>	2m	AS PER VMP	As Shown	26
Groundcovers 4 per 1m2						
BLE car	<i>Blechnum cartilagineum</i>	<i>Gristle Fern</i>	0.4m	AS PER VMP	As per VMP	271
CEN asi	<i>Centella asiatica</i>	<i>Asiatic pennywort</i>	0.2m	AS PER VMP	As per VMP	2086
COM cya	<i>Commelina cyanea</i>	<i>Scurvy weed</i>	1m	AS PER VMP	As per VMP	2086
DIP var	<i>Dipodium variegatum</i>	<i>Blotched hyacinth orchid</i>	1m	AS PER VMP	As per VMP	2294
ECH cae	<i>Echinopogon caespitosus</i>	<i>Hedgehog Grass</i>	0.75m	AS PER VMP	As per VMP	2294
ENT mar	<i>Entolasia marginata</i>	<i>Panic Grass</i>	0.3m	AS PER VMP	As per VMP	2149
ENT str	<i>Entolasia stricta</i>	<i>Right angled grass</i>	0.8m	AS PER VMP	As per VMP	2149
IMP cyl	<i>Imperata cylindrica</i>	<i>Cogongrass</i>	0.6m	AS PER VMP	As per VMP	2439
JUN usi	<i>Juncus usitatus</i>	<i>Common Rush</i>	0.6m	AS PER VMP	As per VMP	2439
LOM lon	<i>Lomandra longifolia</i>	<i>Spiny Head mat rush</i>	0.8m	AS PER VMP	As per VMP	145
MIC sti	<i>Microlaena stipoides</i>	<i>Weeping Grass</i>	0.8m	AS PER VMP	As per VMP	2439
OPL aem	<i>Opismenus aemulus</i>	<i>Basket grass</i>	0.3m	AS PER VMP	As per VMP	2086
OPL imb	<i>Opismenus imbecillis</i>	<i>Basket grass</i>	0.3m	AS PER VMP	As per VMP	2086
THE tri	<i>Themeda triandra</i>	<i>Kangaroo Grass</i>	0.7m	AS PER VMP	As per VMP	2411



SMOOTH-BARKED APPLE - RED BLOODWOOD OPEN FOREST

CODE	BOTANICAL NAME	COMMON NAME	MATURE HEIGHT	SIZE	PLANTING DENSITY	QTY*
Shrubs 1 per 5m2						
ACA lin	<i>Acacia linifolia</i>	<i>White Wattle</i>	5m	AS PER VMP	As Shown	25
ACA lon	<i>Acacia longifolia</i>	<i>Sydney golden wattle</i>	8m	AS PER VMP	As Shown	25
BRE obo	<i>Breynia oblongifolia</i>	<i>Coffee Bush</i>	6m	AS PER VMP	As Shown	25
DOD tri	<i>Dodonaea triquetra</i>	<i>Common Hop Bush</i>	2m	AS PER VMP	As Shown	25
GRE bux	<i>Grevillea buxifolia</i>	<i>Grey spider flower</i>	2m	AS PER VMP	As Shown	25
GRE ser	<i>Grevillea sericea</i>	<i>Silky Grevillea</i>	2m	AS PER VMP	As Shown	25
KUN amb	<i>Kunzea ambigua</i>	<i>Tick Bush</i>	3m	AS PER VMP	As Shown	25
LEP tri	<i>Leptospermum trinervium</i>	<i>Paperbark Teatree</i>	2m	AS PER VMP	As Shown	25
LEP pol	<i>Leptospermum polygalifolium</i>	<i>Tantoon</i>	3m	AS PER VMP	As Shown	25
OZO dio	<i>Ozothamnus diosmifolius</i>	<i>Rice flower</i>	2m	AS PER VMP	As Shown	25
PER pin	<i>Persoonia pinifolia</i>	<i>Pine leaved Geebung</i>	3m	AS PER VMP	As Shown	25
PER lin	<i>Persoonia linearis</i>	<i>Narrow leaved Geebung</i>	5m	AS PER VMP	As Shown	25
WOO pun	<i>Woolfsia pungens</i>	<i>Snow Wreath</i>	2m	AS PER VMP	As Shown	25
ZIE pil	<i>Zieria pilosa</i>	<i>Hairy Zieria</i>	1.5m	AS PER VMP	As Shown	25
Groundcovers 4 per 1m2						
ARI vag	<i>Aristida vagans</i>	<i>Threeawn speargrass</i>	0.80m	AS PER VMP	As per VMP	580
AUS pub	<i>Austrostipa pubescens</i>	<i>Speargrass</i>	1.0m	AS PER VMP	As per VMP	580
BLE car	<i>Blechnum cartilagineum</i>	<i>Gristle fern</i>	1.0m	AS PER VMP	As per VMP	580
CEN asi	<i>Centella asiatica</i>	<i>Asiatic pennywort</i>	0.2m	AS PER VMP	As per VMP	543
DIA cae	<i>Dianella caerulea</i>	<i>Blue flax Lily</i>	0.5m	AS PER VMP	As per VMP	580
DIP var	<i>Dipodium variegatum</i>	<i>Blotched hyacinth orchid</i>	1.0m	AS PER VMP	As per VMP	543
ENT str	<i>Entolasia stricta</i>	<i>Right angled grass</i>	0.8m	AS PER VMP	As per VMP	543
IMP cyl	<i>Imperata cylindrica</i>	<i>Cogongrass</i>	0.6m	AS PER VMP	As per VMP	543
LOM lon	<i>Lomandra longifolia</i>	<i>Spiny head Mat rush</i>	0.8m	AS PER VMP	As per VMP	580
MIC sti	<i>Microlaena stipoides</i>	<i>Weeping Grass</i>	0.8m	AS PER VMP	As per VMP	543
OPL aem	<i>Oplismenus aemulus</i>	<i>Basket grass</i>	0.3m	AS PER VMP	As per VMP	543
OPL imb	<i>Oplismenus imbecillis</i>	<i>Basket grass</i>	0.3m	AS PER VMP	As per VMP	543
THE tri	<i>Themeda triandra</i>	<i>Kangaroo Grass</i>	0.7m	AS PER VMP	As per VMP	580



SWAMP OAK FLOODPLAIN FOREST						
CODE	BOTANICAL NAME	COMMON NAME	MATURE HEIGHT	SIZE	PLANTING DENSITY	QTY*
Shrubs 1 per 3m2						
BRE obl	<i>Breynia oblongifolia</i>	Coffee Bush	6m	AS PER VMP	As Shown	210
BUR spi	<i>Bursaria spinosa subsp. spinosa</i>	Native Blackthorn	3m	AS PER VMP	As Shown	210
DOD tri	<i>Dodonaea triquetra</i>	Common Hop Bush	5m	AS PER VMP	As Shown	210
MEL thy	<i>Melaleuca thymifolia</i>	Thyme Honey myrtle	2m	AS PER VMP	As Shown	210
TRE tom	<i>Trema tomentosa</i>	Native peach	1.5m	AS PER VMP	As Shown	210
Groundcovers 6 per 1m2						
ARI vag	<i>Aristida vagans</i>	Threeawn speargrass	0.80m	AS PER VMP	As per VMP	1227
AUS pub	<i>Austrostipa pubescens</i>	Speargrass	1.0m	AS PER VMP	As per VMP	1227
BLE ind	<i>Blechnum indicum</i>	Swamp water fern	1.0m	AS PER VMP	As per VMP	1227
CEN asi	<i>Centella asiatica</i>	Asiatic pennywort	0.2m	AS PER VMP	As per VMP	1227
COM cya	<i>Commelina cyanea</i>	Scurvy weed	1m	AS PER VMP	As per VMP	1227
DIA cae	<i>Dianella caerulea</i>	Blue flax Lily	0.5m	AS PER VMP	As per VMP	1227
ECH cae	<i>Echinopogon caespitosus</i>	Hedgehog Grass	0.8m	AS PER VMP	As per VMP	1227
ENT mar	<i>Entolasia marginata</i>	Panic Grass	0.6m	AS PER VMP	As per VMP	1227
FIC nod	<i>Ficinia nodosa</i>	Knobby club rush	0.8m	AS PER VMP	As per VMP	1227
GAH cla	<i>Gahnia clarkei</i>	Tall Sawsedge	0.8m	AS PER VMP	As per VMP	1227
IMP cyl	<i>Imperata cylindrica</i>	Cogongrass	0.6m	AS PER VMP	As per VMP	1227
JUN usi	<i>Juncus usitatus</i>	Common Rush	0.6m	AS PER VMP	As per VMP	1227
LOM lon	<i>Lomandra longifolia</i>	Spiny head Mat rush	0.8m	AS PER VMP	As per VMP	1227
MIC sti	<i>Microlaena stipoides</i>	Weeping Grass	0.8m	AS PER VMP	As per VMP	1227
OPL imb	<i>Oplismenus imbecillis</i>	Basket grass	0.3m	AS PER VMP	As per VMP	1227
THE tri	<i>Themeda triandra</i>	Kangaroo Grass	0.7m	AS PER VMP	As per VMP	1227



5.0 – Conclusion

The proposed landscape design will create an indigenous rich environment that will be cohesive with the natural character of the Lane Cove River corridor and bushland. It will also help to mitigate the development from visual receptors by filtering views through vegetation. This will be especially important for those receptors at proximity to the development, while still complying with bushfire and VMP requirements. A low maintenance and low water use philosophy is to be adopted across the design.

An amenity area for the enjoyment of the workers has been included and will provide seating and rest opportunities.

