Hunter Central Logistics Park
Master Plan Report

Prepared for: Barr Property and Planning

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moir
landscape architecture

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OVERVIEW

Hunter Central Logistics Park will be an exemplar of quality industrial development that values the contribution of sustainable landscaping as a means to enhance the environmental, aesthetical and social outcomes of this major economic investment for the Hunter Region.

Overview

INTRODUCTION

The proposed Hunter Central Logistics Park forms part of the Beresfield – Black Hill Employment Zone which is identified as a 'Catalyst Area' under the Greater Newcastle Metropolitan Plan (GNMP). Its proximity to existing and future expanded transport corridors makes it ideal for industrial development. Its desired role in Greater Newcastle as outlined in the GNMP is for it to become a 'freight and logistics hub, with complimentary manufacturing and light industrial activity'. This project plays a key role in delivering the objectives of the GNMP. The Hunter Central Logistics Park is a high-profile development that will set a benchmark for high quality, sustainable landscape treatments befitting of its status within the GNMP.

The project site was formerly a poultry farm and research facility. Evidence of past land uses remain in the form of patchwork cleared paddocks, farming infrastructure and dilapidated buildings. The site is currently used for cattle grazing. It is the intention of the landscape master plan to take cues from the past land uses, as well as the remnant vegetation communities, to weave landscape themes throughout the industrial estate to contribute to the overall character of the development, differentiating it from other industrial and business park developments within the Greater Newcastle area.

PURPOSE OF THE MASTER PLAN

The development proposal will require extensive re-profiling of the site and clearing of vegetation to accommodate level sites suitable for industrial development purposes. The purpose of the landscape master plan is to ensure landscape planning is carefully considered from the outset of the project, to ensure any negative impacts associated with large scale clearing and bulk earthworks can be mitigated from an environmental, social and aesthetical perspective.

The master plan will set the framework and provide design guidance for all future development. It will provide Cessnock City Council the confidence that a high-quality landscape is delivered over a period of time in a cohesive form that considers the site's unique characteristics. The landscape master plan will become a document that clearly outlines the standard of landscape that is required for any future development within the public realm as well describe the desired outcomes for landscaping within the individual lot frontages.

The objectives of the landscape master plans include;

- Ensure the natural environment is respected and protected through appropriate landscape treatments.
- Integrate landscape with stormwater management
- Deliver the objectives of Cessnock City Council DCP 2010 – E.18 Black Hill Employment Area
- Create a distinctive character
- Ensure safety
- Enable sustainable landscape management
- Acknowledge and highlight past land uses.

These objectives will be delivered through a set of guiding principles, aimed at ensuring the long-term development and occupation of the site is established and maintained to a high standard, in an environmentally responsible manner.

RELEVANT PLANNING DOCUMENTS

Cessnock City Council's Development Control Plan (DCP) 2010 sets the objectives and controls for new development. It is an exhaustive document covering all types of development. Of relevance to this project from a landscaping perspective are the following sections and their specific aims, objectives and controls that are applicable to this development;

C.7 Trees & Vegetation Management

- Maintain the vegetated character of the local area
- Promote an awareness of the value of trees
- Maintain the environment protection and amenity of trees and native vegetation throughout the Cessnock City Council LGA

D.3 Industrial Development

- Improve the visual amenity of industrial development through implementing effective low maintenance landscaping of the industrial sites
- Landscaping of front setback to a minimum 6m wide
- Landscaping of the side and rear setbacks that are visible from public spaces
- Landscaping to soften large expanses of hardstand areas such as car parking.

E.18 Black Hill Employment Area

- Protect and enhance riparian areas
- Retain bushland within visually prominent locations
- Reduce the visual impact of development on the streetscape
- Provide adequate area of low maintenance landscaping
- Screen unsightly development from public view
- Create a pleasant and attractive work environment
- Consider planting *Corymbia maculata, Eucalyptus microcorys* and *Waterhousia floribunda* street trees.

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CONTEXT

Context

REGIONAL CONTEXT

The Beresfield – Black Hill employment zone is situated approximately 30km from Newcastle. It is at the junction of the M1 Motorway and John Renshaw Drive, which links to the Hunter Expressway. The M1 is planned for future expansion from Black Hill to Raymond Terrace which will provide even greater access to major transport routes to the north of the site. It is the access to major roads, the Port of Newcastle and existing railway that makes this site an ideal location for a logistics hub.

LOCAL CONTEXT

The project site will be accessed from John Renshaw Drive. It is one of two sites that forms the Black Hill Industrial Employment Zone. The other site sits immediately adjacent to the eastern boundary and is currently being assessed through its master plan development application. Remnant vegetation and riparian corridors concentrated in the northern portion of the site form part of a regional biodiversity corridor and are designated for protection.

SITE ANALYSIS

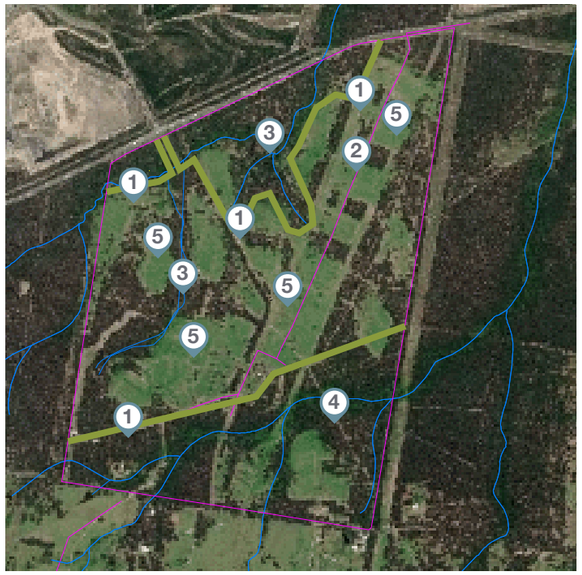
The project site is 210 hectares characterised by cleared pasture land set amongst remnant vegetation communities comprising of;

- *Spotted Gum - Red Ironbark - Grey Gum shrub - grass open forest of the Lower Hunter*
- *White Mahogany - Spotted Gum - Grey Mrytle shrubby open forest of the central and lower Hunter Valley.*

It is immediately surrounded by rural properties and bushland to the east, west and south of the site. The northern boundary is formed by John Renshaw Drive with the light industrial estate in Beresfield providing a ‘snapshot’ of the future development of the Black Hill Industrial Area. An open cut mine directly north of the site is a further reminder of the industrial aspirations for the area.

The project site is undulating with a number of creeks and riparian corridors dissecting the site. The two main water courses found on the site form part of Weakley Flat Creek (northern portion of the site) and Viney Creek (southern portion of the site). These range from heavily vegetated ‘natural’ creek lines through to modified drainage lines transferring water to onsite catchment dams. Level pads in large clearings are reminders of the chicken sheds of what was once a large-scale operation. So too are the sign posted roads and allotment boundaries that are scattered throughout the site. Fences, gates, cattle grids, water infrastructure and built structures are further reminders of the past land uses.

Images of the site



1. Boundary between disturbed land and natural bushland
2. Electrical easement
3. Weakleys Flat Creek
4. Viney Creek
5. Clearings and pasture grass from farming activity

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VISION & PRINCIPLES

Vision & Principles

VISION

Hunter Central Logistics Park will be an exemplar of quality industrial development that values the contribution of sustainable landscaping as a means to enhance the environmental, aesthetical and social outcomes of this major economic investment for the Hunter Region.

PRINCIPLES

It is recognised that the landscaping of the site plays a key role in establishing a distinct character that reflects the overall philosophy and objectives of the development. This will be achieved by adopting a set of guiding principles to inform the landscape design that will deliver the vision.

Sustainable Landscape Management

- Design low maintenance landscape treatments that can withstand the local climatic conditions.
- Specify materials that are robust, can be easily replaced and readily available.
- Investigate water harvesting opportunities to irrigate the landscape areas.
- Specify locally occurring native species along the conservation area edges
- Limit irrigation to feature landscape areas.

Ensure Safety

- Incorporate integrated Crime Prevention Through Environmental Design Principles (CPTED).
- Acknowledging the 24 hour operations, provide clearly visible and well-lit streets and pedestrian paths.
- Maintain sightlines through the use of low planting and setbock of trees from view lines.
- Specify tree species that are a low risk in an urban setting.

Respect Natural Environment

- Protect the waterways by managing and improving stormwater quality within and leaving the site through integrated landscape and stormwater management interventions.
- Specify provenance plant stock in revegetation and rehabilitation works.
- Retain and protect native vegetation communities within the conservation areas

Distinct Character

- Celebrate the past land use through thematic landscaping.
- Incorporate feature landscaping at entry points to create a welcoming experience.
- Create a high-quality landscape that differentiates this development from others.
- Consider incorporating public art to reinforce a narrative and sense of place .

OPPORTUNITIES & CHALLENGES

Opportunities:

- Reference past land uses of the site to create a distinct landscape character.
- Leverage the environmental conservation zones as a visual buffer from adjoining residents and public roads.
- Improve the riparian corridors through considered stormwater management and incorporation of endemic native landscape revegetation.
- Create a welcoming entry through feature landscaping, built structures and highlighting the crossing of Weakley Flat Creek.
- Collect seed within the conservation areas and propagate for re-use, ensuring provenance stock acclimatised to the area is used.
- Incorporate the diverted creek line running adjacent to the main internal road into the streetscape to create a landscape feature that visually and physically connects the riparian areas.
- Use tree species and spacings to reinforce the hierarchy of roads.
- Implement landscape guidelines for industrial lots to create a cohesive landscape theme throughout the development.

Challenges:

- Large scale clearing and levelling of the site will be difficult to visually screen from all vantage points.
- The long-term staging of the development will see maturing of the landscape at different times.
- Ensuring there is adequate space for trees and limiting conflicts with underground services.
- Managing weeds migrating from adjoining properties and riparian corridors.

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MASTER PLAN

LANDSCAPE TYPES

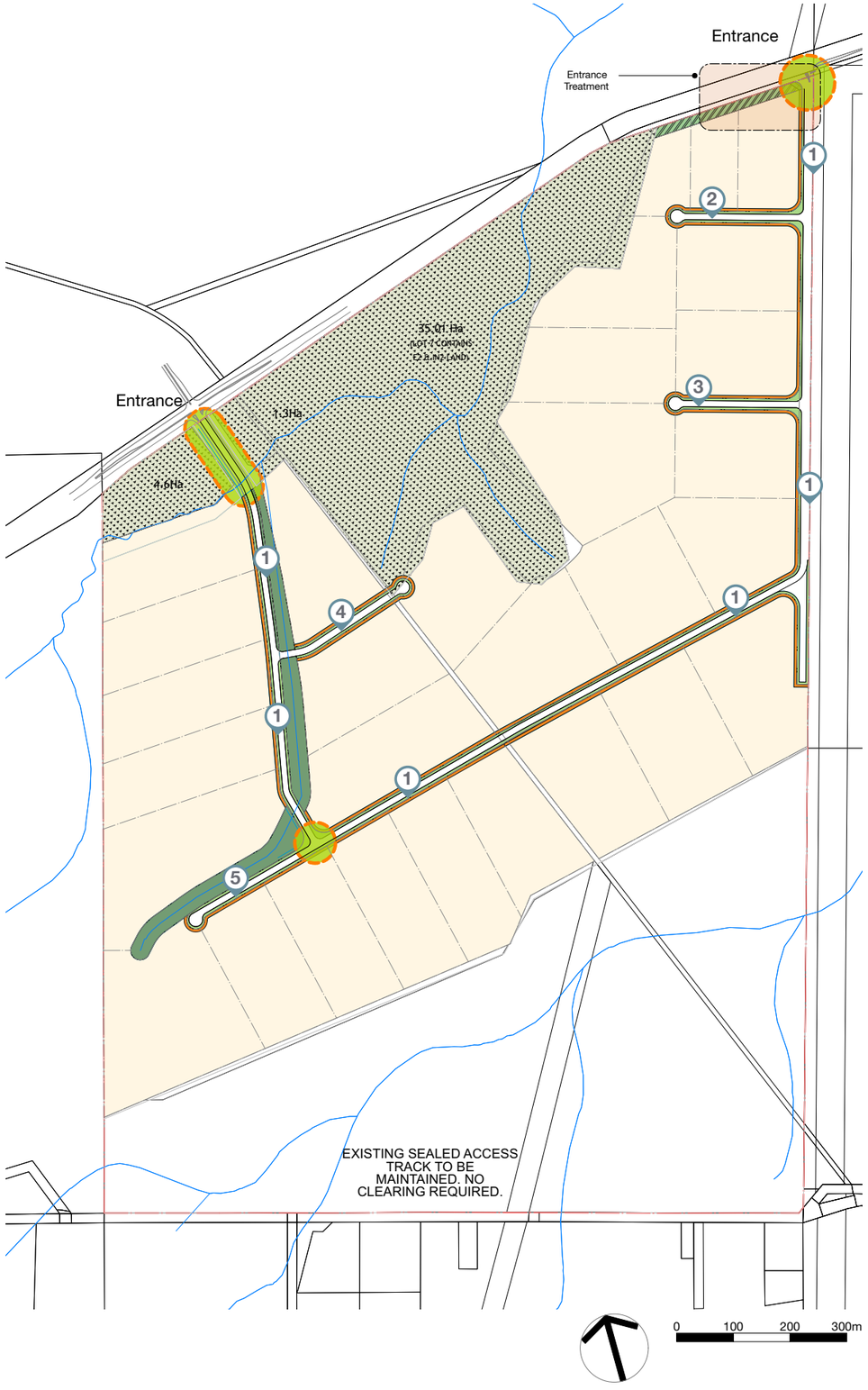
In order to deliver the landscape principles of the project, four distinct landscape treatments have been identified in the landscape master plan. These include;

Highlight – Dramatic landscape that identifies key entrances and intersections, providing an attractive focal point and sets a landscape theme.

Structure - Planting of street trees that creates an orderly and legible structured landscape that reinforces the road hierarchy and provides a sense of scale to the streets and built form.

Showcase – High amenity landscaping to lot frontages, entrances and building surrounds that contributes to the overall landscape amenity of the development viewed from the public domain areas.

Habitat – Diversity of locally occurring native species contributing to the biodiversity of the site and creating a transition buffer between the urban development and conservation areas.



STREET TREES

Street 1 - Corymbia maculata
Eucalyptus microcorys
Eucalyptus fibrosa
Eucalyptus punctata

Street 2 - Corymbia maculata
Jacaranda mimosifolia
Populus simonii

Street 3 - Waterhousea floribunda
Ulmus parvifolia
Platanus x acerifolia

Street 4 - Eucalyptus microcorys
Magnolia grandiflora
Angophora costata

Street 5 - Waterhousea floribubda
Eucalyptus glaucina
Quercus palustris

Natural bushland to be retained

Habitat

Structure

Showcase

20m wide buffer planting area to John Renshaw Drive

Highlight

Creek

PLANT SPECIES

Highlight

Trees
Corymbia maculata
Eucalyptus microcorys
Quercus palustris

Shrubs
Banksia spinulosa
Rhagodia spinescens ‘Aussie Flat Bush’
Baeckea virgata
Grevillea spp.
Hardenbergia violacea

Groundcovers
Grevillea ‘Royal Mantle’
Anigozanthos sp.
Myoporum parvifolium
Lomandra fluviatilis ‘Shara’
Dianella caerulea ‘Little Jess’
Pennisetum advena
Pennisetum alopecuroides ‘Nafray’
Hibertia violacea

Structure

Trees
Corymbia maculata
Eucalyptus microcorys
Eucalyptus punctata
Eucalyptus glaucina
Waterhousia floribunda
Jacaranda mimosifolia
Populus simonii
Ulmus parvifolia
Platanus x acerifolia
Magnolia grandiflora
Angophora costata
Quercus palustris

Showcase

Trees
Melaleuca quinquenervia
Quercus phellos
Platanus x acerifolia

Shrubs
Banksia spinulosa ‘Birthday Candles’
Rhagodia spinescens ‘Aussie Flat Bush’
Grevillea spp.
Melaleuca ‘Claret Tops’
Melaleuca linariifolia ‘Snowstorm’

Groundcovers
Pennisetum advena
Pennisetum ‘Nafray’
Anigozanthos sp
Myoporum parvifolium
Lomandra fluviatilis ‘Shara’

Habitat

Trees
Eucalyptus fibrosa
Eucalyptus punctata
Melaleuca nodosa
Melaleuca decora

Shrubs
Correa reflexa
Grevillea montana
grevillea parviflora subsp. parviflora
Hardenbergia violaceae
Melaleuca nodosa

Groundcovers & Grasses
Entolasia stricta
Aristida vagans
Panicum simile
Dianella revoluta
Lomandra multiflora
Goodenia rotundifolia
Dichelachne micrantha
Eragrostis brownii
Themeda triandra

LANDSCAPE BUFFER

A 20m wide landscape buffer is proposed at the north-eastern corner of the site fronting John Renshaw Drive extending from the eastern edge of the retained bushland to the eastern entrance to the development. The intent is to reduce visual impacts for motorists travelling along John Renshaw Drive. A 10m wide buffer was proposed in the LVIA document for the project, previously prepared by Moir Landscape Architecture. Increasing the buffer to 20m will result in increased screening and reduce the opportunity for direct views into the development from John Renshaw Drive. It is proposed to use species native to the area for the planting of the buffer.

ENTRY PLANTING

Mass planting of native grasses is proposed at the intersection of John Renshaw Drive and the entry road as a feature. Utilising low grasses takes into consideration sight lines for vehicles entering and exiting the proposed development.

Mass Planting Schedule

Code	Botanical Name	Common Name	Pot Size	Mature Height	Mature Spread
MP1 Mass Planting					
DIA rev	*Dianella revoluta*	Flax Lily	Tubestock	0.7 - 0.9m	0.6 - 0.9m
HAR vio	*Hardenbergia violacea*	False Sarsaparilla	Tubestock	0.8 - 0.9m	1.2 - 2.0m
LOM lon	*Lomandra longifolia*	Spiny-headed Mat-Rush	Tubestock	0.6 - 0.9m	0.4 - 0.6m
THE tri	*Themeda triandra*	Kangaroo Grass	Tubestock	0.4 - 0.7m	0.3 - 0.5m

20m Buffer Planting Schedule

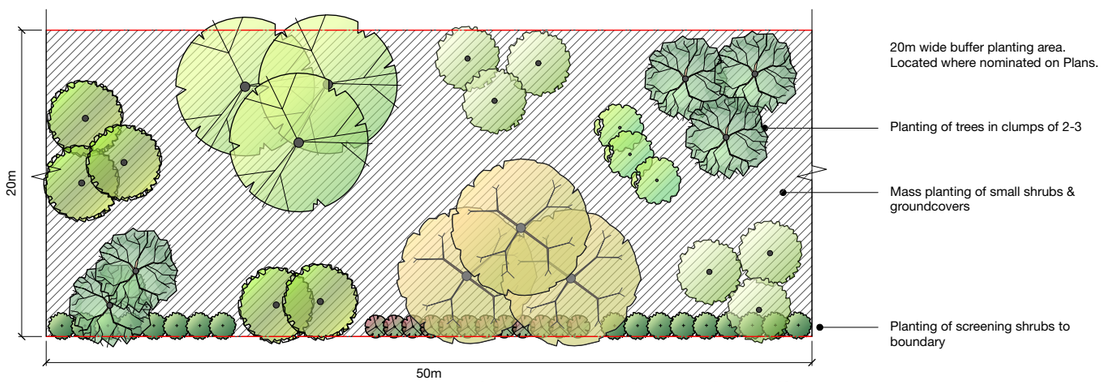
Code	Botanical Name	Common Name	Pot Size	Mature Height	Mature Spread
Trees					
ACM smi	*Acmena smithii*	Lillypilly	200mm	7 - 10m	4 - 6m
ALL tor	*Allocasuarina torulosa*	Forest Oak	200mm	5 - 10m	3.5 - 6m
BAC myr	*Backhousia myrtifolia*	Grey Myrtle	200mm	5 - 7m	3 - 4m
COR mac	*Corymbia maculata*	Spotted Gum	200mm	15 - 20m	6 - 10m
EUC pun	*Eucalyptus punctata*	Grey Gum	200mm	20 - 25m	5 - 8m
EUC umb	*Eucalyptus umbra*	Broad-leaved White Mahogany	200mm	15 - 20m	6 - 10m
Shrubs & grasses					
CAL lin	*Callistemon linearis*	Narrow-leaved Bottlebrush	Tubestock	3 - 4m	2 - 3m
COM fra	*Commersonia fraseri*	Blackfellow's Hemp	Tubestock	3 - 5m	1.2 - 2.0m
DIA rev	*Dianella revoluta*	Flax Lily	Tubestock	0.7 - 0.9m	0.6 - 0.9m
GOO ova	*Goodenia ovata*	Hop Goodenia	Tubestock	0.75 - 0.90m	0.3 - 0.6m
HAR vio	*Hardenbergia violacea*	False Sarsaparilla	Tubestock	0.8 - 0.9m	1.2 - 2.0m
LOM lon	*Lomandra longifolia*	Spiny-headed Mat-Rush	Tubestock	0.6 - 0.9m	0.4 - 0.6m
PHY hir	*Phyllanthus hirtellus*	Thyme Spurge	Tubestock	0.6 - 0.75m	0.9 - 1.2m
THE tri	*Themeda triandra*	Kangaroo Grass	Tubestock	0.4 - 0.7m	0.3 - 0.5m

LEGEND

- Extent of work
- Site boundary
- Lot boundary
- MP1 — Mass Planting Type 1 Mass planting at entry - Refer to MP1 planting schedule
- 20m wide buffer planting area to John Renshaw Drive - Refer to 20m Buffer Zone Detail & Planting schedule
- T — Turf
- Structure - Refer to Hunter Central Logistics Park Masterplan
- Showcase - Refer to Hunter Central Logistics Park Masterplan
- Industrial Lot

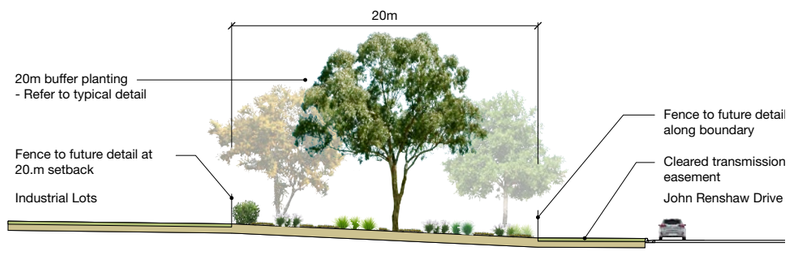
SECONDARY ENTRY TREATMENT

0 10 20 30 40m



TYPICAL 20m BUFFER ZONE PLANTING DETAIL

0 5 10 15 20m



TYPICAL 20m BUFFER ZONE SECTION

0 5 10 15 20m

PRECEDENT PROJECT EXAMPLES

Highlight – Dramatic landscape that identifies key entrances and intersections, providing an attractive focal point and sets a landscape theme

Structure - Planting of street trees that creates an orderly and legible structured landscape that reinforces the road hierarchy and provides a sense of scale to the streets and built form.

Showcase – High amenity landscaping to lot frontages, entrances and building surrounds that contributes to the overall landscape amenity of the development viewed from the public domain areas.

Habitat – Diversity of locally occurring native species contributing the biodiversity of the site and creating a transition buffer between the urban development and conservation areas.

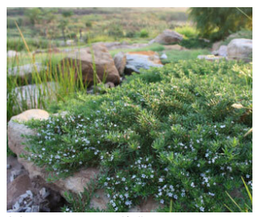
PLANT IMAGES

Highlight – Dramatic landscape that identifies key entrances and intersections, providing an attractive focal point and sets a landscape theme


Fraxinus pennsylvanica


Banksia spinulosa


Anigozanthos humillis


Myoporum parvifolium

Structure - Planting of street trees that creates an orderly and legible structured landscape that reinforces the road hierarchy and provides a sense of scale to the streets and built form.


Corymbia maculata


Eucalyptus microcorys


Waterhousia floribunda


Angophora costata


Ulmus parvifoila

Showcase – High amenity landscaping to lot frontages, entrances and building surrounds that contributes to the overall landscape amenity of the development viewed from the public domain areas.


Melaleuca quinquenervia


Quercus phellos



Platanus x acerifolia


Pennisetum 'Nafray'


Melaleuca 'Claret Tops'

Habitat – Diversity of locally occurring native species contributing the biodiversity of the site and creating a transition buffer between the urban development and conservation areas.


Panicum simile


Entolasia stricta


Leptosperma laterale


Melaleuca decora


Lomandra multiflora


Goodenia rotundifolia


Grevillea parviflora subsp. parviflora

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ENTRY INDICATIVE CONCEPT

Entry Indicative Concept

INDICATIVE CONCEPT DESIGN INTENT

The intention is to incorporate an entry statement that signifies The Hunter Logistics Hub as a high-quality industrial development that is different to the surrounding industrial estates. It is proposed that the statement is a large scale ‘artistic’ feature that can be viewed from a distance in both directions. The landscape treatments and material palette will set the tone for the landscape design throughout the development. The use of rusted steel and recycled, weathered timber posts are a reference to the past rural land use; juxtaposed by a contemporary steel ‘ribbon’ signifying a new direction for the immediate area.

View west along John Renshaw Drive toward western entrance to development

Aerial perspective view from proposed intersection into the development from the western entrance