

# *READYMIX DISTRIBUTION CENTRE*

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## *VISUAL IMPACT ASSESSMENT*

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## EXECUTIVE SUMMARY

Readymix Holdings propose to develop a regional distribution centre at Kellogg Road, Rooty Hill. A visual impact assessment of the proposal has been undertaken by CONTEXT as a component of the Environmental Impact Statement being prepared by NECS for Readymix Holdings.

The proposed development site is located in a valley surrounded by low undulating hills extensively modified by urban development, including industrial, residential, commercial and recreational zones. The site forms part of an industrial corridor but is bordered on two sides by open space and reserve.

View catchment analysis through field and desktop investigations allowed the identification of critical viewing points in the areas surrounding the site. Each of the locations identified was assessed in relation to the impact of the proposed development.

A degree of visual impacts occur in Nurragingy Reserve, Blacktown Olympic Park, Rooty Hill Reserve, Rooty Hill Town Centre and from North Parade, the M7, the Main Western Railway Line and Eastern Creek Rd. Lesser impacts occur in surrounding residential areas.

Recommended mitigation measures to ameliorate the visual impacts identified include the provision of screen planting around the boundary of the site, painting the industrial buildings and plant in a colour sympathetic to the surrounding native vegetation, and limiting the spill of night time lighting from the site.

The landscape master plan addresses these recommendations by increasing the density of plantings around the boundaries of the site, both inside and potentially outside the site. The design also addresses the visual amenity within the site, including provision for tree and shrub planting and turfed areas.

## 1.0 INTRODUCTION

This visual impact assessment was commissioned by Readymix as a component of the environmental impact assessment being prepared by NECS for Readymix Holdings Pty Ltd. The report has been prepared by CONTEXT.

The aim of the report is to provide an assessment of visual impacts resulting from the proposed development of a regional distribution centre at the Readymix site in Rooty Hill. The report also recommends mitigating measures to ameliorate the visual impacts identified and presents a landscape master plan for the site which incorporates these measures.

## 2.0 METHODOLOGY

### 2.1 Visual Impact Assessment Process

The method used to assess the visual impacts of the proposed development and determine mitigation measures has included the following steps:

*1. Existing Visual Environment*

Appraisal of the existing visual environment

*2. View Catchment Analysis*

Identification of the critical viewing locations and the nature of their views toward the site

*3. Visual Impact Assessment*

Evaluation of the visual impacts of the proposed development

*4. Mitigation Measures*

Recommendation of mitigation measures to address the impacts identified

### 2.2 Investigations

Field investigations were undertaken during February 2005 to allow on-site evaluation of:

- Local landscape characteristics
- Site visibility and important viewing locations
- Significant visual site features and characteristics
- Current on site and surrounding land uses

Desktop investigation was also conducted to:

- Determine land ownership and accessibility
- Determine view catchments
- Correlate field observations with digital and hard copy landscape information (maps, aerial photographs etc)

A series of photomontages were generated to aid in the assessment of the visual impacts from key locations.

## **3.0 EXISTING VISUAL ENVIRONMENT**

### **3.1 Existing character of surrounding landscape**

The site is located in a broad valley surrounded by low undulating hills extensively modified by urban development. The valley is aligned approximately north south and is principally comprised of natural vegetation and open space areas within the Eastern Creek floodplain, with a still developing corridor of heavy industry on the western edge of the valley. The adjacent slopes to the east and west have gentle grades and are characterised by low density residential development, predominantly in the form of detached housing. The principle landscape character types surrounding the site have been identified in Figure 3.1.

Close to the site, the valley is crossed by one major road and the Main Western Railway line. The M7, which is currently under construction, traces the western edge of the industrial corridor and separates it from the residential area immediately to its west.

In the immediate vicinity of the site, Nurragingy Reserve flanks the eastern side and contains dense stands of Sydney Coastal River Flat Forest (SCRFF) and Cumberland Plain woodland (CPW), which periodically open out to informal grassed areas and picnic bays. The Reserve is traversed by Eastern Creek and is joined by Angus Creek which enters the Reserve from the southern part of the Readymix site.

To the south, the Main Western Railway line separates the Readymix site from Blacktown Olympic Park, which comprises a number athletic and sports fields in a predominantly open grassed setting, with a few clusters of trees and some buildings.

The bulky sheds and approximately 45m tall stack of the OneSteel Mini Mill occur on the neighbouring property, immediately to the west of the Readymix site, and, by virtue of their height and bulk, constitute a landmark within the valley.

The northern boundary of the site faces the industrial corridor running to the north. Several sites within this corridor are currently undergoing development or have been cleared of vegetation in preparation for development, including a large cleared area immediately to the north. The angular section of boundary in the north east of the Readymix site currently occupied by Humes, faces Nurragingy Reserve.

### **3.2 Existing visual character of the site**

The overall site includes the Readymix site and railway siding area. Five distinct character precincts can be identified within the overall site, as follows:

- Existing industrial buildings, facilities and plant in the northern part of the site currently occupied by Humes.
- Predominantly open cleared area, dominated by weed infested stockpiles, in the central part of the site.
- Tall native vegetation following the line of Angus Creek. The vegetation consists of SCRFF and CPW of high, medium and low conservation value. Refer to the Flora and Fauna Assessment for further information on the existing vegetation.
- Predominantly open grassed area adjacent to the railway tracks east of the M7.
- Unkempt grassed area and drainage swale with woody weeds adjacent to the railway tracks west of the M7.

These character precincts have been identified in Figure 3.2.

## 4.0 PROJECT DESCRIPTION

The proposed distribution centre includes the following major elements:

- Regional office building which incorporates a quarry materials and concrete testing laboratory
- Rail siding with aggregate unloading facility
- Noise walls alongside the railway siding, one adjacent to Nurragingy Reserve and the other adjacent to Rooty Hill railway station
- Storage bin area and load out facilities (up to 33.5m high)
- Ground storage and reclaim facilities
- Blending plant
- Noise wall alongside the storage bin and associated plant
- Conveyor system linking the unloading station to the storage and truck load out facilities
- Workshop, stores and amenities facilities, truck wash-down facilities, truck refuelling, weighbridges, truck and car parking
- Concrete batching plant (including silos up to 23.5m high)
- Bridges at two locations over Angus Creek, and
- Realignment of North Parade

At present there are no buildings on the Readymix Distribution Centre site and approximately one third of the site is covered in native vegetation. Most of the facilities will occupy the large cleared area in the northern portion of the site, as shown in Fig 4.1. The layout has been designed to retain and protect the majority of the existing vegetation within the site, with particular regard to vegetation identified as of high conservation value, as indicated in Fig 4.2.

The portion of the site occupied by Humes site is already extensively covered in industrial buildings, plant and storage areas. The area of the site in which new facilities are proposed is currently occupied primarily by car parking. Proposed facilities in this area include the regional office building, laboratories and associated multi-storey car parking.

## 5.0 VIEW CATCHMENT ANALYSIS

The primary view catchment for the site, as based upon theoretical line of sight mapping, is largely defined by the low ridges of the valley surrounding the site. These occur in the residential areas to the east and west of the site and in Rooty Hill Reserve to the south.

The majority of potential views to the site within this view catchment, however, are obscured by vegetation or built form, the effects of which are compounded by the gently undulating nature of the topography. Major visual obstructions surrounding the site, which block the majority of views from the West, North West and South West, include the new M7, existing vegetation, and industrial plant immediately to the west of the site. Similarly, vegetation within Nurragingy Reserve obstructs views to the site from roads and suburbs from the east and north east. The ridgeline and vegetation occurring at the north of the site prevents most views to the site from the north.

Figures 5.1 and 5.2 illustrate the principle locations from which the site is viewed and the nature of those views. These views are described in Section 6.0.

## 6.0 IMPACT ASSESSMENT

### Nurragingy Reserve

#### *Existing views*

A number of locations along the western and southern boundary of Nurragingy Reserve have filtered views into the Readymix site (refer Fig 5.2 Photos 1 & 2 and Figure 6.1). Existing plantings along most of the length of the boundary as well as vegetation within the site serve to visually screen the majority of the site, however in certain areas the density and width of the plantings is insufficient to completely prevent visual penetration. These views generally extend only a short distance into the site and include the following:

- Grass, weeds and disturbed ground of the open area in the northern half of the Readymix site
- Industrial plant near the eastern boundary of the Humes site
- SCRFF & CPW along the line of Angus Creek
- The grassed area beside the existing railway tracks

#### *Proposed views*

Filtered views of the bulk storage bins will occur from some locations along the western boundary, most notably the open grassed area near the north western boundary of the site (refer Figure 6.2). Proposed native tree and shrub plantings within the site to supplement the existing boundary plantings within the reserve will reduce the visual impact of the development at these locations (refer Section 7.0 & 8.0).

The southern boundary of the Reserve will have filtered views into the site, primarily of North Parade, the proposed noise wall and the existing and proposed native tree and shrub plantings (refer to Section 7.0 & 8.0). Views of the railway siding will be obstructed by the proposed noise wall and landscaping.

### North Parade

#### *Existing views*

North Parade runs adjacent the railway line and has immediate views of the existing tracks and associated infrastructure (refer Figure 5.2 Photo 3 and Figure 6.3). The area is currently grassed, bounded by native vegetation on the northern edge. The SCRFF vegetation adjacent Angus Creek obstructs any views to the northern part of the Readymix site.

#### *Proposed views*

North Parade will be relocated a small distance to the north. East of the dump station views from North Parade will be obstructed by the proposed 5 metre high noise wall and associated native ornamental shrub planting (refer Figure 6.4), while to the west close range views of the tracks will be obtained. The conveyor belt, aggregate unloading facilities and associated plant will also be evident from North Parade, although native ornamental tree and shrub planting will lessen the impact of these elements. Users will also receive sporadic views of operational activities, predominantly train unloading and vehicular movements (refer Sections 7.0 & 8.0).



Viewers at this location will largely consist of Readymix workers, rail maintenance crew and council workers, as North Parade is a closed road. North Parade has been identified as a possible future bicycle connection in the regional network.

### **Main Western Line**

#### *Existing views*

The railway line contains views of the entire length of the proposed location for the railway siding, conveyor belt, aggregate unloading facilities and associated plant. East of the M7 the area is currently predominantly grassed, bounded by native vegetation on its northern edge. The SCRFF vegetation adjacent Angus Creek obstructs any views to the northern part of the Readymix site.

To the west of the M7, the platforms and tracks have immediate views of an unkempt grassed area and drainage swale with woody weeds, which the new siding, noise wall and landscaping are proposed to replace (refer to Figure 5.2 Photo 4 and Figure 6.5).

#### *Proposed views*

East of the M7, travellers on the Main Western Line would receive close range views of the proposed railway siding, noise wall, aggregate unloading facilities and associated plant. Proposed tree, shrub and groundcover plantings will lessen the impacts of these views (refer Sections 7.0 & 8.0).

West of the M7, the tracks and platforms would view the proposed railway siding and noise wall (refer Figure 6.6).

### **Blacktown Olympic Park**

#### *Existing views*

Clear views toward the site occur from a number of locations within the Olympic Park (refer Figure 5.2 Photo 5 and Figure 6.7). The views are of the existing vegetation along Angus Creek and the area adjacent to the railway line, which is partly obstructed by the elevated tracks.

#### *Proposed views*

The tops of the bulk storage bins are the main elements which will be visible from Blacktown Olympic Park, extending above the tree line (refer Figure 6.8). Although the bins are situated relatively close to the view, the dominance of the foreground vegetation reduces the visual impact from this location. The aggregate unloading facilities will also be visible from certain vantage points, however the impacts of these will be minimal due to the proposed noise wall.

### **Rooty Hill Reserve**

#### *Existing views*

Rooty Hill has 360 degree views, including surrounding residential areas, the industrial corridor, open space and reserve areas, the new M7, and the Main Western Railway line (refer Figure 5.2 Photo 6 and Figure 6.9). The views toward the site, approximately one kilometre in distance away, are dominated by the existing vegetation within the site and adjacent Narraginy Reserve, and industrial buildings and plant, in particular those of the Onesteel Mini Mill.

The parts of Rooty Hill Reserve which possess views of the Readymix site currently do not contain any formal recreational facilities and are therefore attract relatively few recreational users.

#### *Proposed views*

The tops of the bulk storage bins and silos are the main element of the proposed development visible from Rooty Hill Reserve, protruding above the vegetation along Angus Creek (refer Figure 6.10). While these elements are clearly visible from this vantage point, the presence of other industrial buildings and plant, particularly those in the adjacent OneSteel Mini Mill site, effectively reduces their conspicuousness in the view. Their impact will be further reduced by the colour of the bins and silos, which will be chosen to be sympathetic to the surrounding native vegetation (refer Section 7.0).

### **Eastern Rd**

#### *Existing views*

There are currently intermittent views toward the site along Eastern Rd, from adjacent Rooty Hill Reserve to the eastern boundary of Blacktown Olympic Park. These views take in the vegetation along Angus Creek and the area beside the railway line.

#### *Proposed views*

Intermittent views of the tops of the bulk storage bins will be possible along this route, although the vegetation planted within the M7 corridor and the existing vegetation on the site will limit the views. The distance of the views combined with the visual distractions of the OneSteel Mini Mill plant and Blacktown Olympic Park facilities further reduces the impact of these views.

### **M7**

#### *Existing views*

The M7 is currently under construction. Between Eastern Rd and the Main Western Railway Line there are currently clear views of the site, primarily of the area adjacent the railway tracks and the vegetation along Angus creek (refer Figure 5.2 Photo 7 and Figure 6.11). The views are likely to be limited once the vegetation to be planted within M7 corridor matures.

#### *Proposed views*

Intermittent views of the tops of the bulk storage bins will be possible along this route (refer Figure 6.12). The distance of the views combined with the visual distractions of the OneSteel Mini Mill plant and Blacktown Olympic Park facilities reduce the impact of these views.

### **Rooty Hill Town Centre**

#### *Existing views*

An unkempt grassed area and drainage swale with woody weeds currently occupy the site of the proposed railway siding, noise wall and landscaping in front of the existing railway tracks and platforms. Station St, Weston Lane and the car park at the rear of the town centre currently possess views of this space (refer Figure 5.2 Photo 8 and Figure 6.13).

#### *Proposed views*

Views to the new railway siding from Station St, Weston Lane and the car park adjacent at the rear of the shops would be obstructed by the proposed noise wall and associated screen planting of shrubs and groundcovers (refer Section 7.0 & 8.0 and Figure 6.14).

### **Rooty Hill Residential Area**

#### *Existing views*

Views from this area are limited to partial glimpses of the site only, primarily along Wolseley St and in its vicinity (refer Figure 5.2 Photo 9). Existing houses, fences and vegetation block the majority of potential views. The views which exist are dominated by existing buildings and plant in the industrial corridor.

#### *Proposed views*

Occasional views of the tops of the bulk storage bins would be obtained from this area. The distance of the view, combined with the visual distractions of the existing industrial buildings and plant near the site and the foreground built form and vegetation, will minimise the impacts of these views.

### **Plumpton Residential Area**

#### *Existing views*

The majority of views toward the site from this suburb are obscured by existing houses, fences and vegetation at close range (refer Figure 5.2 Photo 10). Some filtered long range views exist, particularly on higher ground. These views are currently dominated by the industrial buildings and plant surrounding the site. It is likely that the visual permeability from this locality will be further reduced as the relatively immature vegetation of the suburb becomes more established.

#### *Proposed views*

Occasional views of the tops of the bulk storage bins would be obtained from this area. However, the distance of the view combined with the visual distractions of the existing industrial buildings and plant near the site and of the foreground built form and vegetation, will minimise the impacts of these views.

### **Doonside Residential Area**

#### *Existing views*

This suburb to the west of the site has filtered views to the site from over two kilometres away (refer Figure 5.2 Photo 11). Existing houses, fences and vegetation block the majority of potential views. The views toward the site are dominated by the Blue Mountains in the background, with extensive tracts of native vegetation in the vicinity of the site as well as some nearby industrial buildings.

#### *Proposed views*

Occasional views of the tops of the bulk storage bins would be obtained from this area. The distance of the view, combined with the visual distractions of the Blue Mountains and existing industrial buildings and plant near the site will minimise the impacts of these views.

## **7.0 MITIGATION MEASURES**

The following mitigation measures are recommended for the proposal:

### **7.1 Planning and Design Phase**

Measures which can be adopted during the planning and design phase include

#### *Boundary planting design*

It is recommended that the density of boundary screen plantings be increased both within the site and potentially in Nurragingy Reserve. Refer to Figure 7.1.

#### *Industrial plant colour selection*

It is recommended that the bulk storage bins, silos, unloading station and other bulky elements, be painted in a colour sympathetic to the native vegetation on the site, as illustrated in the photomontages.

#### *Lighting Design*

The 24/7 day nature of the delivery despatch operations means that that lighting will be required in the site throughout the night. It is recommended that the lighting design for the site aim to:

- Avoid highlighting prominent industrial plant such as the bulk storage bins and silos
- minimise the spill of light into surrounding sites

## **7.2 Construction phase**

The construction phase is expected to take 24 months to complete. Measures to reduce visual impacts during this period relate to maintenance of the construction site in a neat and orderly state.

## **7.3 Operational phase**

Measures which can be adopted during the operational phase relate primarily to maintenance of the site in a clean and orderly state.

## **8.0 LANDSCAPE MASTER PLAN**

The landscape master plan for the site (refer Figure 8.1) incorporates the principles established in Section 7.0 regarding mitigation of the visual impacts of the site. Key elements of the landscape design include:

- Ornamental groundcover planting to Kellogg Rd site entrance
- Small native ornamental tree planting in the proposed car park in the Readymix site
- Native ornamental tree and shrub screen planting within the Readymix site along the western site boundary, supplementing existing boundary planting within the OneSteel site
- Native ornamental shrub and groundcover screen planting to the noise wall adjacent the storage bin facilities
- Grassed buffer zone with drainage swales between the existing vegetation along Angus Creek and the proposed development
- Tree and shrub screen planting of CPW/SCRFF species within the Readymix site along the eastern site boundary, supplementing existing boundary planting within Nurragingy Reserve
- Potential additional tree and shrub boundary screen planting of CPW species along the western and southern edge of Nurragingy Reserve (i.e. within the Reserve), supplementing existing boundary planting
- Native ornamental shrub and climber screen planting between new North Parade and the new railway siding, including to the noise wall

- Tree planting of CPW species and ornamental native shrub screen planting between the new North Parade and conveyor belt
- Tree and shrub planting of CPW species within the site between North Parade and the OneSteel site, reinforcing the edge of the existing vegetation in the OneSteel site
- Native ornamental shrub and climber screen planting to the noise wall adjacent Rooty Hill Station (both within and outside the site boundary)
- Native ornamental tree and shrub planting at frontage of the proposed office building in the Humes site
- Native ornamental shrub and climber planting along the boundary of the Humes site adjacent the proposed office building and laboratories
- Potential additional tree and shrub screen planting of CPW species in the road reserve adjacent the northern boundary of the Humes site (i.e. outside the site), supplementing existing boundary plantings

Appropriate species of trees, shrubs and groundcovers for native ornamental and SCRFF/CPW plantings, as identified on the plans, are suggested below.

Table 8.1: Suggested species

<b>NATIVE ORNAMENTAL SPECIES</b>		
Botanical Name	Common Name	Mature Height
<b>Trees</b>		
<i>Allocasuarina torulosa</i>	Forest She-oak	12 - 15m
<i>Casuarina glauca</i>	Swamp Oak	to 10m
<i>Leptospermum juniperinum</i>	Prickly Tea Tree	to 3 m
<i>Leptospermum laevigatum</i>		
<b>Shrubs and Groundcovers</b>		
<i>Baeckea densifolia</i>	Weeping Baeckea	to 1m
<i>Baeckea virgata</i>	Twiggy Baeckea	to 4m
<i>Banksia spinulosa</i>	Hair Pink Banksia	to 4m
<i>Callistemon 'Dawson River'</i>	Bottle Brush	to 5m
<i>Callistemon 'Endeavour'</i>	Bottle Brush	to 4m
<i>Callistemon salignus</i>	Willow Bottlebrush	to 8m
<i>Doryanthes excelsa</i>	Gymea Lily	to 3m
<i>Grevillea 'Coconut Ice'</i>	Coconut Ice Grevillea	to 2m
<i>Grevillea 'Honey Gem'</i>	Honey Gem Grevillea	to 4m
<i>Grevillea 'Robyn Gordon'</i>	Robyn Gordon Grevillea	to 1m
<i>Hakea salicifolia</i>	Willow Hakea	to 6m
<i>Kunzea ambigua</i>	Tick Bush	to 3m
<i>Leptospermum 'Cardwell'</i>	Tantoon	to 1m
<i>Leptospermum 'Copper Glow'</i>		2-3m
<i>Melaleuca linariifolia</i>	Snow in Summer	to 3m
<i>Melaleuca nodosa</i>		to 3m
<i>Rhagodia nutans</i>	Nodding Salt Bush	0.2m
<b>Grasses</b>		
<i>Dianella caerulea var caerulea</i>	Paroo Lily	to 1m
<i>Dianella revoluta</i>	Spreading Flax Lily	to 1m
<i>Lomandra longifolia</i>	Mat Rush	700mm
<i>Pennisetum 'Nafray'</i>		to 0.8m
<b>Climbers</b>		
<i>Cissus antartica</i>	Kangaroo Vine	to 5m

<i>Hardenbergia violacea</i>	False Sarsparilla	to 2m
<i>Pandonea pandorana</i>	Wonga Wonga Vine	to 5m

### SYDNEY COASTAL RIVER FLAT FOREST SPECIES

Botanical Name	Common Name	Mature Height
<b>Trees</b>		
<i>Angophora floribunda</i>	Rough Barked Apple	18m
<i>Casuarina glauca</i>	Swamp Oak	15m
<i>Eucalyptus amplifolia</i>	Cabbage Gum	15m
<i>Eucalyptus moluccana</i>	Greybox	25m
<i>Eucalyptus tereticornis</i>	Forest Red Gum	45m
<b>Shrubs</b>		
<i>Acacia binervia</i>	Two-veined Hickory	10-15m
<i>Acacia falcata</i>	Acacia	4m
<i>Acacia floribunda</i>	Gossamer Wattle	5m
<i>Acacia implexa</i>	Hickory Wattle	12m
<i>Backhousia myrtifolia</i>	Grey Myrtle	6m
<i>Bossiaea prostrata</i>	Creeping Bossiaea	300mm
<i>Bursaria spinosa</i>	Sweet Bursaria	4m
<i>Callistemon salignus</i>	Willow Bottlebrush	4.5-9m
<i>Daviesia ulicifolia</i>	Gorse Bitter-pea	1.5m
<i>Melaleuca linariifolia</i>	Snow-in-Summer	10m
<i>Melaleuca stypheloides</i>	Prickly Paperbark	10m
<b>Native Grasses and Groundcovers</b>		
<i>Carex appresa</i>	Tall Sedge	600mm
<i>Dianella revoluta</i>	Flax Lily	1m
<i>Echinopogon ovatus</i>	Forest Hedgehog grass	1m
<i>Eleocharis sphacelata</i>	Rush	1.5m
<i>Gahnia melanocarpa</i>	Saw Sedge	1m
<i>Imperata cylindrica</i>	Blady Grass	1m
<i>Juncus usitatus</i>	Common Rush	1m
<i>Lomandra longifolia</i>	Mat Rush	700mm
<i>Microlaena stipoides var stipoides</i>	Weeping Grass	500mm
<i>Stipa ramosissima</i>	Bamboo Grass	to 2m
<i>Themeda australis</i>	Kangaroo Grass	500mm

### CUMBERLAND PLAIN WOODLAND SPECIES

Botanical Name	Common Name	Mature Height
<b>Trees</b>		
<i>Eucalyptus amplifolia</i>	Cabbage Gum	15m
<i>Eucalyptus moluccana</i>	Greybox	25m
<i>Eucalyptus tereticornis</i>	Forest Red Gum	45m
<b>Shrubs</b>		
<i>Acacia binervia</i>	Two-veined Hickory	10-15m
<i>Acacia falcata</i>	Acacia	4m
<i>Acacia floribunda</i>	Gossamer Wattle	5m
<i>Acacia implexa</i>	Hickory Wattle	12m
<i>Bursaria spinosa</i>	Sweet Bursaria	4m
<i>Melaleuca decora</i>	Paperbark	7m
<i>Melaleuca stypheloides</i>	Prickly Paperbark	10m

**Native Grasses and Groundcovers**

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<i>Bossiaea prostrata</i>	Creeping Bossiaea	to 1m
<i>Dianella revoluta</i>	Flax Lily	1m
<i>Echinopogon ovatus</i>	Forest Hedgehog grass	1m
<i>Lomandra longifolia</i>	Mat Rush	700mm
<i>Microlaena stipoides var stipoides</i>	Weeping Grass	500mm
<i>Stipa ramosissima</i>	Bamboo Grass	to 2m
<i>Themeda australis</i>	Kangaroo Grass	500mm

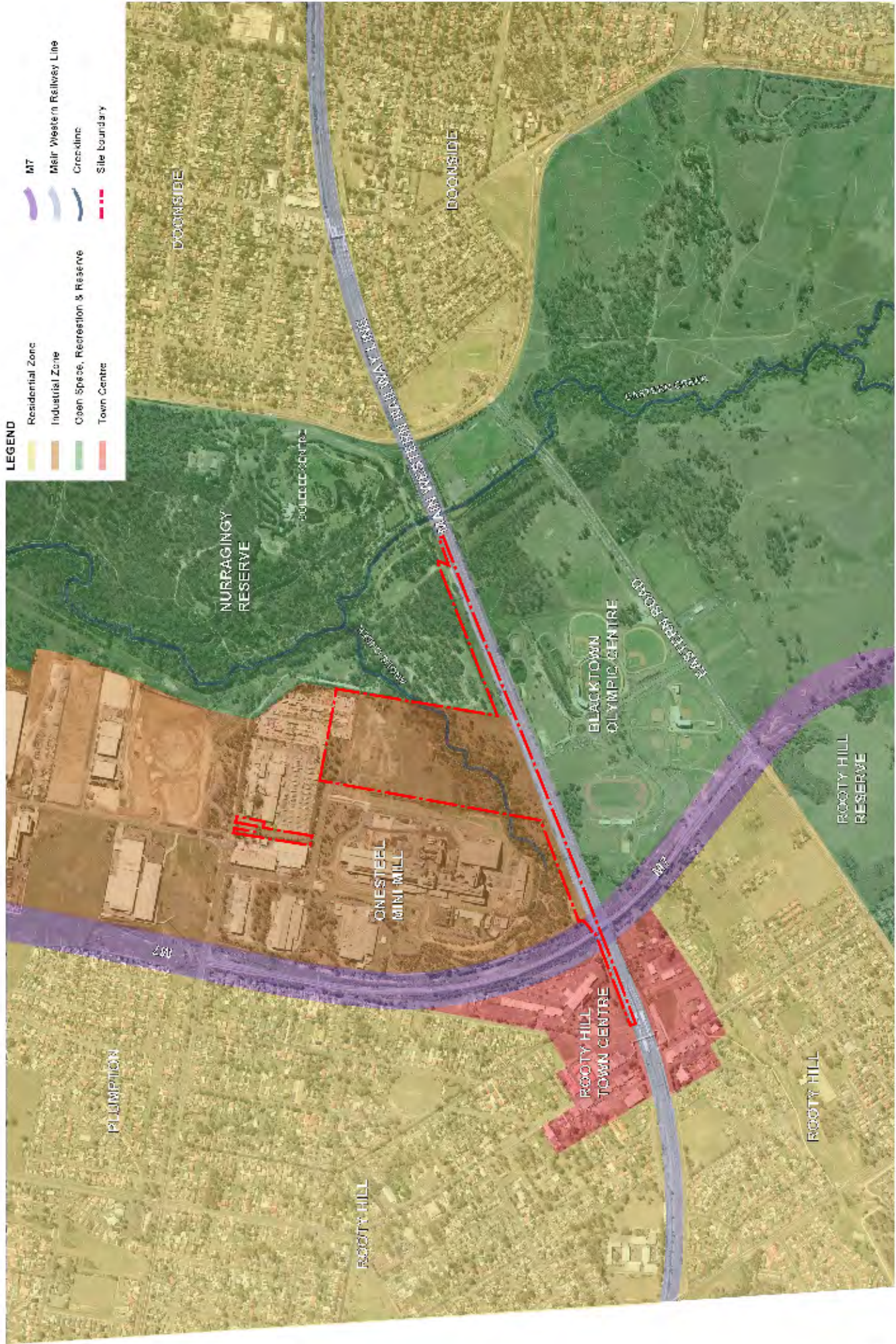
## 9.0 BIBLIOGRAPHY

NECS (2003) *Environmental Impact Statement Technical Report, Concrete Batching Plant Kellogg Rd Rooty Hill, 2003*

NECS (2004) *Proposed Regional Distribution Centre Flora and Fauna Assessment, 2004*

CONTEXT (2004) *M7 design documentation drawings*

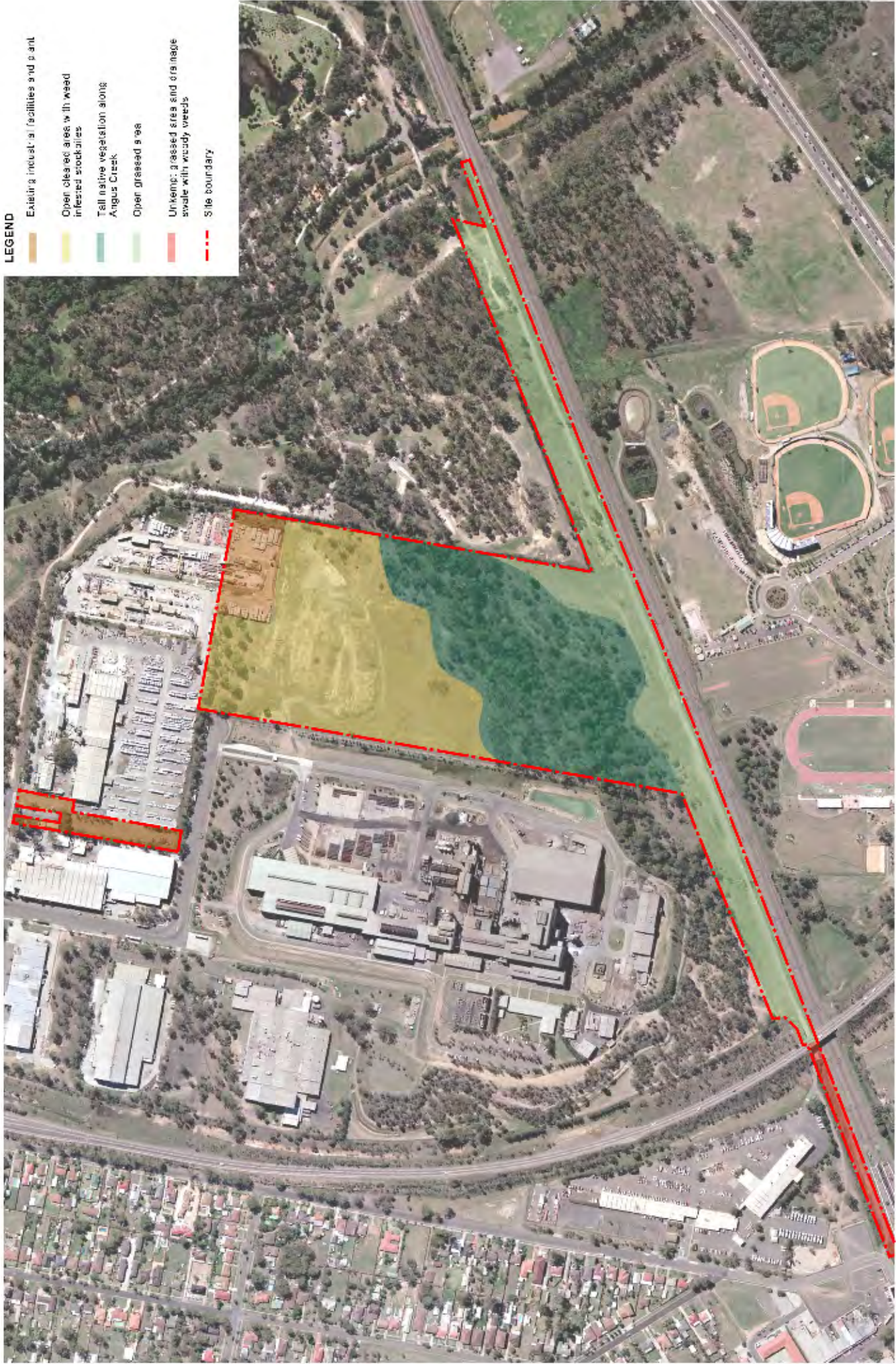




**LEGEND**

- Residential Zone
- Industrial Zone
- Open Space, Recreation & Reserve
- Town Centre
- M7
- Meir Western Railway Line
- Creeklime
- Site boundary



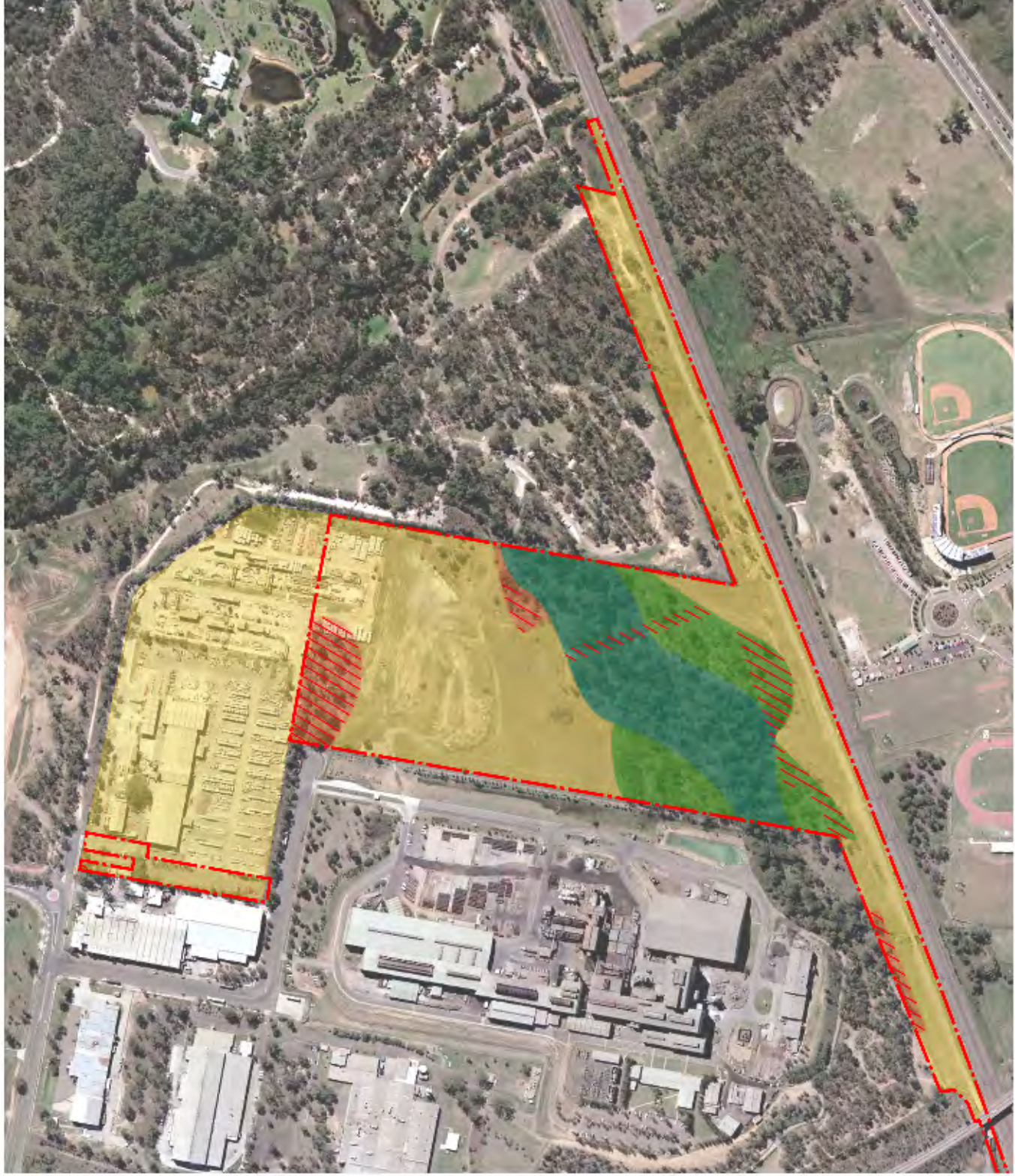


**LEGEND**

- Existing industrial facilities and plant
- Open cleared area with weed infested stockpiles
- Tall native vegetation along Angus Creek
- Open grassed area
- Unknown grassed area and drainage swale with weedy weeds
- Site boundary







**LEGEND**

Cleared - Disturbed

Cumberland Plain Woodland - Moderate

Cumberland Plain Woodland - Poor

Sydney Coastal River-Flat Forest - Poor

Vegetation potentially effected by the proposal

Site boundary







**Ready Mix Distribution Centre, Rooty Hill**  
 Fig 5.1: View Catchment Analysis

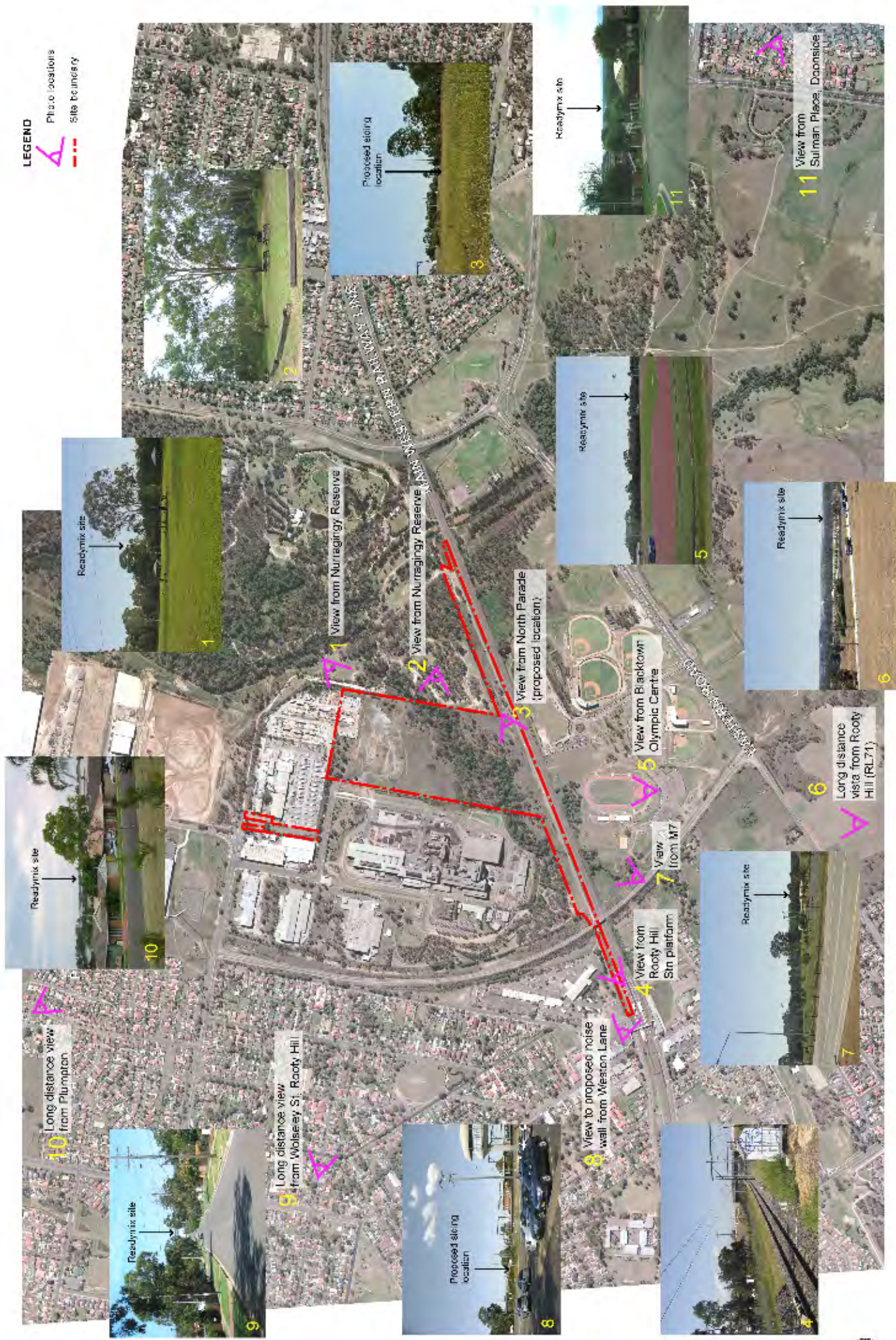
Prepared for READY MIX DISTRIBUTION CENTRE by CONTEXT Landscape Design  
 2012 February 2012

Scale: NTS  
 Draw No: LS-03500-02  
 Ref. No: 05/00



**LEGEND**

-  Photo locations
-  Site boundary

































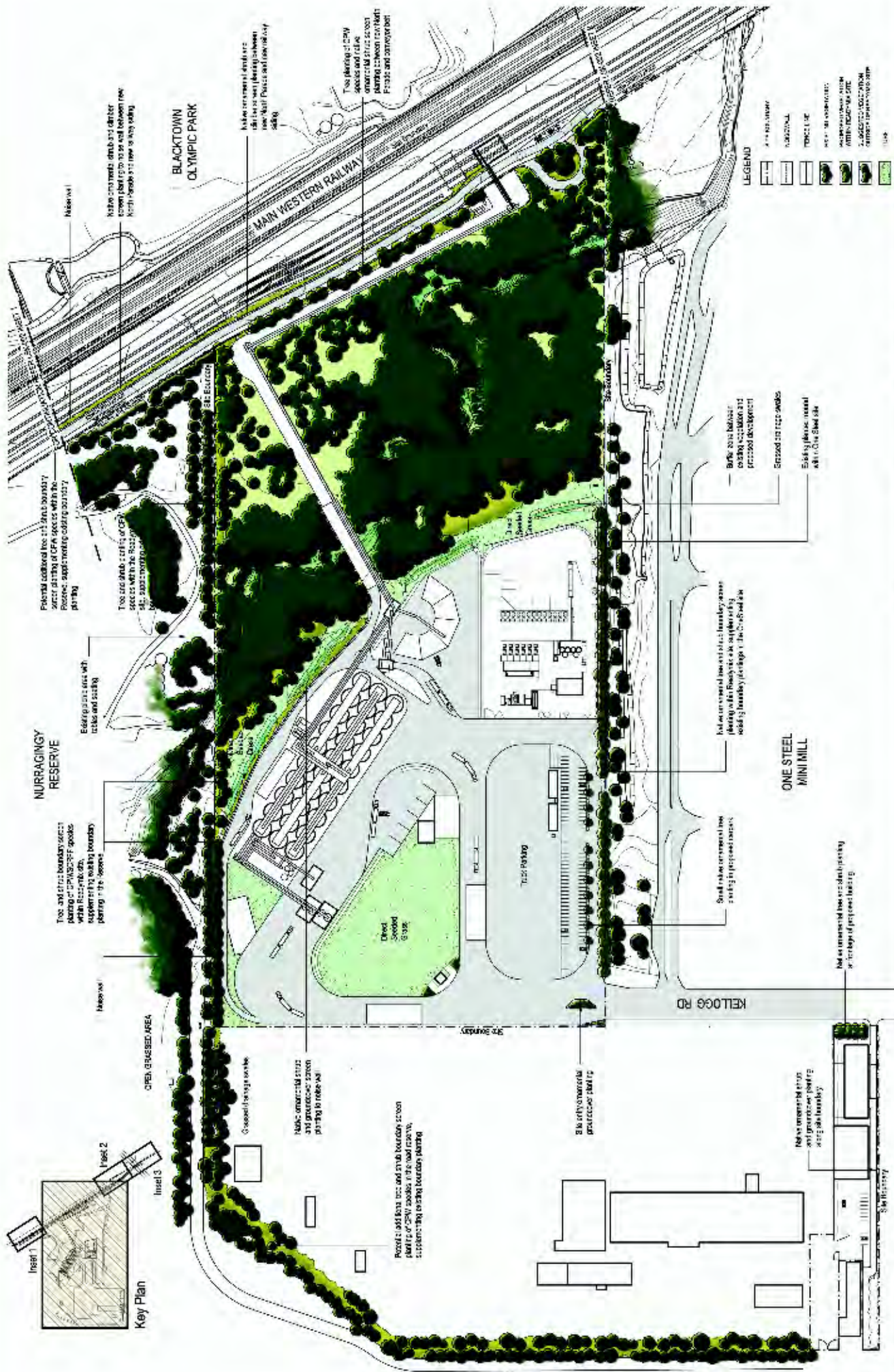


**LEGEND**

- Sydney Coastal River Flat
- Cumberland Plain Woodland species
- Sydney Coastal River Flat
- Cumberland Plain Woodland species (outside of site area)
- Ornamental trees
- Ornamental native shrub planting
- Site boundary
- Noise Wall

1. Site entry feature planting
2. Ornamental tree planting in proposed car park
3. Ornamental tree and shrub boundary screen planting within the ReadyMix site to supplement existing boundary planting in the OneSteel site
4. Tree and shrub boundary screen planting within the ReadyMix site to supplement existing boundary planting in Nurragingy Reserve
5. Potential tree and shrub screen planting to supplement existing screen planting outside of the site area
6. Ornamental shrub and climber screen planting to noise walls
7. Ornamental shrub and climber screen planting between new North Parade and railway siding
8. Ornamental tree and shrub planting between new North Parade and conveyor belt
9. Tree and shrub planting to reinforce existing vegetation edge
10. Ornamental tree and shrub planting at frontage of proposed office building
11. Ornamental shrub planting along site boundary





**Project:** READY MIX DISTRIBUTION CENTRE  
**Location:** ROOTY HILL  
**Document:** LANDSCAPE MASTER PLAN

**Scale:** 1:1000  
**Date:** 10/11/2016  
**Author:** [Name]

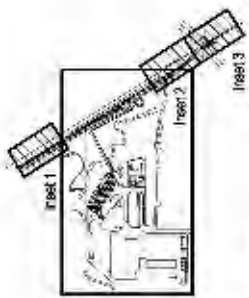
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 landscape design  
 10/11/2016  
 10/11/2016  
 10/11/2016  
 10/11/2016

**Ready Mix**

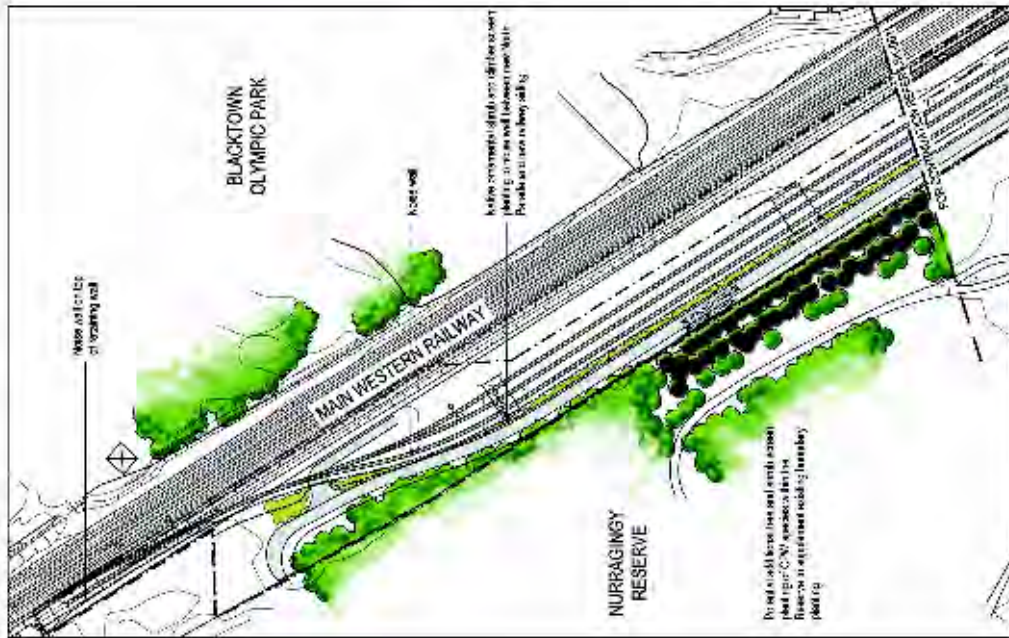
**North**

**Scale:** 0 10 20 30 40 50 60 70 80 90 100m

**NOTE:**  
 Refer to the attached documents for further details.  
 The plan is subject to the approval of the relevant authorities.  
 The plan is subject to the approval of the relevant authorities.  
 The plan is subject to the approval of the relevant authorities.



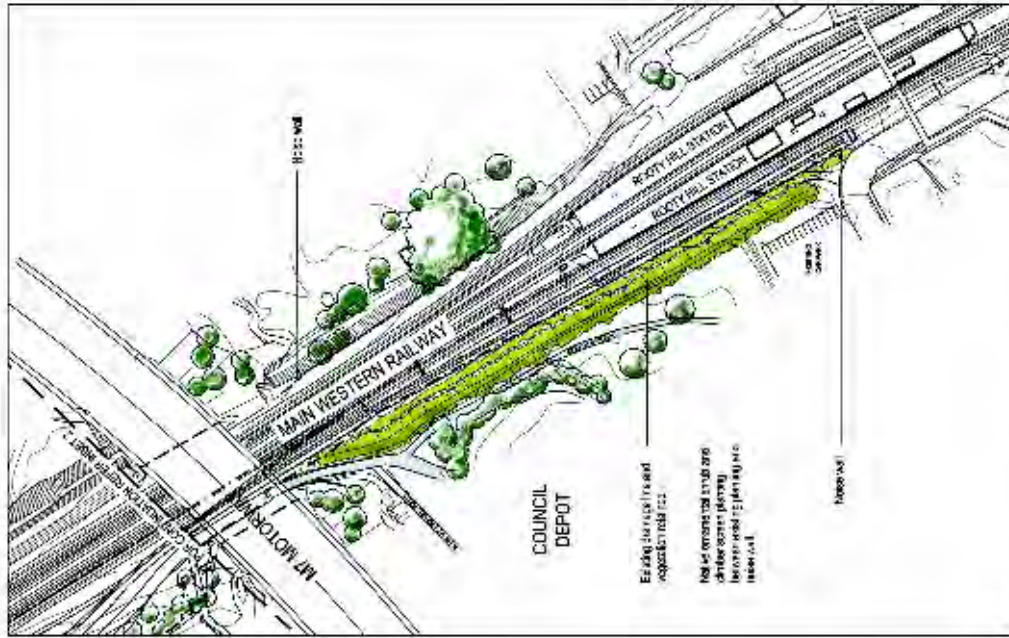
Key Plan



Inset 1



Inset 2



Inset 3

LEGEND

- ASPHALT PAVEMENT
- CONCRETE SLAB
- RETENTION WALL
- FENCING
- EXISTING VEGETATION
- PROPOSED VEGETATION
- PROPOSED TREE
- PROPOSED SHRUB

NO.	DATE	DESCRIPTION

NOTES:  
 1. Refer to the Architectural Report for details of the proposed site layout and the location of the proposed site.  
 2. All dimensions are in meters unless otherwise stated.  
 3. All dimensions are to the centerline of the road unless otherwise stated.



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