



JANDAKOT AIRPORT HOLDINGS PTY LTD

BATTER LANDSCAPE PLAN SITE516 WPC

1. Introduction and Background

1.1. Purpose

The purpose of this Batter Landscape Plan is to provide a strategy for the landscaping of the Precinct 6 batter behind Site 516.

The aims of the landscaping works are to:

- Stabilise batters through revegetation using local, water-wise species.
- Provide visual amenity (screening) for neighbouring residents located to the south of the development.

JAH has previously undertaken a very similar and successful landscaping program. Tranen Revegetation Systems were engaged in 2014 to develop and implement a landscaping revegetation plan for a number of locations around the airport that required revegetation for the purpose of both soil stabilisation and amenity screening. JAH has specifically based this Batter Landscape Plan on Tranen's revegetation of the batter between Precinct 5 developments and neighbouring residents.

Works will be consistent with the JAH Landscape Development Guidelines and the Jandakot Airport Bushland Rehabilitation and Revegetation Guidelines (noting the works are classified as landscaping and the Bushland Rehabilitation and Revegetation Guidelines are not strictly applicable).

1.2. Site Description

The landscaping site is located at the rear of Site 516. It is an area of approximately 344m in length and 7m wide (i.e. 2408ha.)

The site is easily accessible via a 3m wide limestone management track between the base of the batter and the boundary fence.

The batter is constructed using white sands from the adjacent area. The entire batter has been covered in a mix of topsoil and mulch sourced from an adjacent recently cleared area.



Figure 1. Area to be landscaped

2. Landscape Stages

2.1. Stage 1 –Topsoil and Residual Seed Bank

As described above, the 7m wide batter has already been covered in a mix of topsoil and mulch. The topsoil, from an area recently cleared of banksia woodland, contains a natural 'seed bank' that will provide a source of a wide variety of native species. The mulch mixed with the topsoil serves to provide some initial stabilisation (i.e. dust control) to the batter and will provide some 'structure' to assist the growth and survival of seedlings following germination of seeds contained within the topsoil and subsequent planting of tubestock.



Figure 2. Completion of Landscaping Stage 1.

2.2. Stage 2.1 – Seedlings/Tubestock

The batter will be planted with tubestock, including a selection of trees, shrubs and perennial grasses. The species selected is based on the species utilised by Tranen in the 2014 revegetation of the Precinct 5 batter (see Table 1 below). The list will be reviewed and refined prior to the Batter Landscape Plan being implemented, noting the species selection and numbers planted may be amended due to the availability of seed and other factors.

Tubestock will be planted at a rate of 2.5 plants per m². This is well above the target of 1 plant per m² that has been traditionally applied at Jandakot Airport, noting a portion of tubestock will likely die over the first summer. However it should be noted that the seed bank in the topsoil is likely to supplement tubestock deaths over time, noting the 2014 Tranen work achieved plant densities of over 3 per m² in Precinct 5.

The tubestock will be sourced from a native plant production nursery (e.g. Natural Area Services) and plants ordered ahead of time to ensure availability at the necessary planting time. Planting will occur in mild wet winter conditions, ensuring maximum survival rates. No irrigation is planned, however the adjoining management track will allow access for water carts (i.e. emergency watering) in the event of extended dry weather conditions posing a threat to the survival of the plants.

The different tree species will reach different heights and thus provide effective screening as they mature. For e.g., *Corymbia calophylla* and *Eucalyptus marginata* will reach approximately 20+ metres when mature, whereas *E. totidiana* and the *Banksia* species will reach lower maximum heights. The trees will be planted in the bottom, more stable portion of the batter.

Planting will be undertaken by JAH Groundstaff. If internal resources are insufficient to undertake planting at the required time, contractors will be engaged to undertake the work.

Table 1. Tubestock required for Site 516 rear batter.

Tubestock (to be reviewed prior to order)	Number Required (estimate)
Trees	
<i>Acacia saligna</i>	174
<i>Allocasuarina fraseriana</i>	104
<i>Banksia attenuata</i>	172
<i>Banksia ilicifolia</i>	40
<i>Banksia menziesii</i>	163
<i>Corymbia calophylla</i>	100
<i>Eucalyptus marginata</i>	100
<i>Eucalyptus totidiana</i>	150
<i>Nuytsia floribunda</i>	50
Total Trees	1053
Shrubs	
<i>Acacia pulchella</i>	220
<i>Allocasuarina humilis</i>	174
<i>Astroloma xerophyllum</i>	100
<i>Beaufortia elegans</i>	175
<i>Bossiaea eriocarpa</i>	130
<i>Daviesia divaricata</i>	174
<i>Daviesia physodes</i>	174
<i>Eremaea pauciflora</i>	174
<i>Gastrolobium capitatum</i>	130
<i>Gompholobium tomentosum</i>	130
<i>Hakea prostrata</i>	130
<i>Hypocalymma angustifolium</i>	110
<i>Hypocalymma robustum</i>	130
<i>Jacksonia furcellata</i>	174
<i>Jacksonia sternbergiana</i>	174
<i>Kunzea glabrescens</i>	174
<i>Melaleuca seriata</i>	174
<i>Melaleuca thymoides</i>	220
<i>Persoonia saccata</i>	220
<i>Regelia ciliata</i>	260
<i>Regelia inops</i>	260
<i>Scholtzia involucreata</i>	130
<i>Stirlingia latifolia</i>	130
Total Shrubs	3867
Perennial herbs	
<i>Amphipogon turbinatus</i>	130
<i>Anigozanthos humilis</i>	130
<i>Anigozanthos manglesii</i>	130
<i>Conostylis aculeata</i>	130
<i>Dianella revoluta var divaricata</i>	130
<i>Hemiandra pungens</i>	174
<i>Kennedia prostrata</i>	174
<i>Patersonia occidentalis</i>	174
Total perennial herbs	1172
TOTAL PLANTS	6092

2.3. Stage 2.2 – Direct Seeding (if required)

At this stage direct seeding is not proposed but remains a contingency option. JAH has a store of provenance seed in a seed bank managed by Tranen. Whilst this seed is being kept primarily for revegetation works in Conservation Precincts (when and if required), excess seed can be utilised in other projects on the airport.

3. Targets and Maintenance

Similar to previous batter revegetation works adjoining residential neighbouring properties, the following targets will apply:

- Plant densities of at least 1 plant / m² after 3 years.
- No noxious or declared species evident and weed cover remains less than 20% (consistent with the Jandakot Airport Weed Management Plan and bushland condition defined as 'good' or above).

The batter will be monitored by the JAH Environment Manager and/or JAH Groundstaff to ensure targets are met. Should the plant density target not be achieved, additional planting will occur at the next planting opportunity (i.e. the following winter).

Prior to the planting of tubestock, the batter will be treated to remove weeds (hand removal or targeted spot spraying by suitably qualified weed technician). Ongoing weed management will occur, likely via a combination of JAH groundstaff and contracted weed sprayers.