

SEARS Report

# St Francis Catholic College – Landscaping Works

130-160 Jardine Drive, Edmondson Park

ESD SERVICES

**JHA**

CONSULTING ENGINEERS

# DOCUMENT CONTROL SHEET

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Title	SEARS Report
Project	St Francis Catholic College – Landscaping Works
Description	Report for ESD SEARS
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# 1. EXECUTIVE SUMMARY

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This report has been prepared by JHA to identify the Ecologically Sustainable Design (ESD) initiatives which have been considered in the design of the proposed landscaping works at St Francis Catholic College, 130-160 Jardine Drive, Edmondson Park NSW 2174.

This report demonstrates compliance with the Secretary's Environmental Assessment Requirements (SEARs) which apply to the project and has been prepared to accompany a State Significant Development Application to the NSW Department of Planning and Environment. This report should be read in conjunction with the Architectural design drawings and other consultant design reports submitted as part of the application.

The report identifies how the principles of Ecologically Sustainable Design (as defined in clause 7(4) of Schedule 2 of the Environmental Planning and Assessment Regulation 2000) will be incorporated in the design and on-going operation phases of the development.

## 2. INTRODUCTION

### 2.1 Project Description

The proposed landscaping project is located in St Francis Catholic College, 130-160 Jardine Drive, Edmondson Park NSW 2174.

### 2.2 Site Location



Figure 1 – Aerial photo of site

The site is located in the suburban release area of Edmondson Park, approximately 1 km from the Edmondson Park town centre, 10km from Liverpool CBD, 17km from Campbelltown CBD, and 45km from Sydney CBD. The area will include low to medium density residential development, retail and commercial floor space as part of a town centre, as well as a heavy rail train station providing direct connectivity to Kingsford Smith Airport and the Sydney CBD. The site is well connected to the major road network, including Camden Valley Way, Campbelltown Road and the M7 Westlink.

## 2.3 Secretary's Environmental Assessment Requirements (SEARs)

This report acknowledges the SEARs prepared by the Secretary which notes the following in Section 8 of the document:

### 8. Ecologically Sustainable Development (ESD)

- *Detail how the ESD principles (as defined in clause 7(4) of Schedule 2 of the Environmental Planning and Assessment Regulation 2000) will be incorporated in the design and ongoing operation phases of the development.*
- *Include a description of the measures that would be implemented to minimise consumption of resources, water (including water sensitive urban design) and energy.*

Section 8 of the SEARS requirements are addressed in section 3 this report.

## 3. PRINCIPLES OF ECOLOGICALLY SUSTAINABLE DEVELOPMENT

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The principles of Ecologically Sustainable Development as defined in clause 7(4) of Schedule 2 of the Environmental Planning and Assessment Regulation 2000 have been incorporated into the design and on-going operation phases of the development as follows:

### 3.1 The Precautionary Principle

*Namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:*

- (i) *Careful evaluation to avoid, wherever practicable, serious or irreversible damage to the Environment; and*
- (ii) *An assessment of the risk-weighted consequences of various options.*

Project response:

This development is being designed in accordance with a range of ESD goals that pertain to the design, construction and operational stages. The development team will ensure that the landscaping works minimise the impact on the environment in the areas of energy, water and materials.

### 3.2 Inter-generational Equity

*Namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations.*

Project response:

This development will not cause any significant impact on the health, diversity and productivity of the environment.

### 3.3 Conservation of Biological Diversity and Ecological Integrity

*Namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration*

Project response:

Vegetation on the subject site is generally limited to turf. There are a limited number of mature trees located generally towards the front boundaries of the site. Until recently, the surrounding locality was primarily used for hobby farms and vacant land. As part of the locality's rezoning for urban purposes however, there has been extensive civil works to accommodate primarily low to medium density housing. It is noted that the locality, including the subject site, is biodiversity certified land according to the SEPP (Sydney Region Growth Centres) 2006.

The proposal will include new landscaping, inclusive of shrubs and trees. These design initiatives will contribute to the retention of the appearance and amenity of the streetscape. In addition, the development team shall follow a detailed tree management plan that aligns with Council requirements. Protection of

retained trees shall be in line with best practice and AS 4970-2009 Protection of Trees on Development Sites. Bonds will be applied to ensure maintenance procedures are followed for the protection of trees, with compliance reporting required for the duration of the bond.

Details of plant selection for landscaping works:

In general, large and small native trees will be planted to high section of embankment. Proposed large trees include *Lophostemon confertus* (Brush Box), *Eucalyptus tereticornis* (Forest Red Gum), *Corymbia maculata* (Spotted Gum) and *Tristaniopsis laurina* (Luscious' Water Gum). Smaller trees include *Acmena smithii* (Sublime Lilly Pilly), *Banksia integrifolia* (Coastal Banksia), *Elaeocarpus reticulatus* (Blueberry Ash) and *Eucalyptus caesia* (Silver Princess Gum). The planting to embankment will also include the following grasses and groundcover plants: *Pycnosorus globosus* (Billy Buttons), *Santolina chamaecyparissus* (Cotton Lavender), *Lomandra longifolia* (Spiny-Head Mat Rush), *Themeda australis* (Kangaroo Grass), *Myoporum parvifolium* (Yareena Creeping Boobialla), *Carpobrotus rossii* (Pigface), *Dichondra repens* (Kidney Weed), *Hibbertia scandens* (Guinea Flower), *Lomandra confertifolia* (Little Con Mat Rush) and *Myoporum parvifolium* (Yareena Creeping Boobialla). The following shrubs will serve as accents in the landscape: *Acacia cognata* 'Limelight' (River Wattle), *Adenanthos sericeus* (Woollybush), *Casuarina glauca* (Green Wave She-Oak), *Correa alba* var. *Alba* (White Correa) and *Leucophyta brownii* (Cushion Bush). Finally the following species are proposed for the swale/bioretention areas to help manage stormwater runoffs: *Austrostipa stipoides* (Prickly Spear Grass), *Baumea articulata* (Jointed twig-rush), *Carex appressa* (Tall Sedge), *Ficinia nodosa* (Knobby Club Rush), *Juncus usitatus* (Common Rush), *Baumea articulata* (Jointed twig-rush), *Eleocharis sphacelata* (Tall Spike Rush), *Schoenoplectus validus* (River Club-Rush) and *Triglochin microtuberosum* (Water Ribbons).

### 3.4 Improved Valuation, Pricing and Incentive Mechanisms

*Namely, that environmental factors should be included in the valuation of assets and services, such as:*

- (i) polluter pays, that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,*
- (ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,*
- (iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.*

Project response:

The design of this development has employed costing of different options to determine the optimum strategy with regards to major items of plant, with decisions being made based on whole of life costs in addition to capital expenditure.