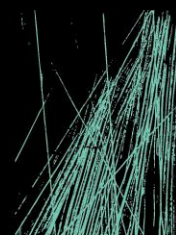


ENERGY EFFICIENCY AND SUSTAINABILITY REPORT

OXFORD FALLS GRAMMAR SCHOOL, OXFORD FALLS

SUSTAINABILITY SERVICES



JHA

JHASERVICES.COM

This report is prepared for the nominated recipient only and relates to the specific scope of work and agreement between JHA and the client (the recipient). It is not to be used or relied upon by any third party for any purpose.

DOCUMENT CONTROL SHEET

Project Number	190353
Project Name	Oxford Falls Grammar School
Description	New Carpark Building Development
Key Contact	Stefan Takac

Prepared By

Company	JHA
Address	Level 23, 101 Miller Street, North Sydney NSW 2060
Phone	61-2-9437 1000
Email	Gary.Tang@jhaengineers.com.au
Website	www.jhaservices.com
Author	Gary Tang
Checked	Lawrence Yu
Authorised	

Revision History

Issued To	Revision and Date								
Allen Jack+Cottier Architects	REV	Draft	Draft 2	Rev A	Rev B				
	DATE	09/12/2019	12/02/2020	12/03/2020	17/03/2021				
	REV								
	DATE								
	REV								
	DATE								

CONTENTS

1	INTRODUCTION	4
2	PROJECT DESCRIPTION	4
3	REFERENCE DOCUMENTATION	4
4	ESD OPPORTUNITIES	5

1 INTRODUCTION

JHA Engineers has been commissioned to provide an Energy Efficiency and Sustainability Report for the proposed Carpark building at 1078 Oxford Road, Oxford Falls, NSW 2100.

This report establishes the energy efficiency and sustainability initiatives that will be incorporated into the development.

2 PROJECT DESCRIPTION

The project is for a new carpark building with amenity rooms and potential future extensions. The site is located adjacent to a riparian zone within Northern Beaches Council Area.

NCC Climate Zone	Zone 5
NCC Building Classification & Use	Class 7a Carpark



NCC Climate Zone Location

3 REFERENCE DOCUMENTATION

The following documents were reviewed and referred to in the production of this report:

Architectural Drawings	Allen Jack+Cottier Architects, dated 02/03/21
Project Name & Number	OFGS Field of Dreams 18025
Drawings	REF201 [3] Ground Level Plan
	REF202 [3] Level 1 Plan
	REF203 [3] Roof Plan
	REF311 [3] Elevations – Sheet 1
	REF312 [3] Elevations – Sheet 2
	REF321 [3] Sections

4 ESD OPPORTUNITIES

Sustainability means the ability to optimise energy and water consumptions within limited resources on different scales.

Buildings produce greenhouse gases and other emissions that contribute to climate change and reduce the air quality of our environment. These happen in the construction phase, as well as during the operation of the building.

Incorporation of sustainability initiatives will result in a decrease in both embodied and operational energy, thus reducing the associated emissions.

The development of more sustainable building not only can benefit the environment but often means a reduction in operating cost, added value to the development and enhancement of the building's reputation. In addition to the compliance level of National Construction Code (NCC) 2016 Volume One Amendment 1, Section J, JHA recommends the following sustainability strategies for the proposed car park building development at Oxford Falls, NSW 2100 to achieve improved energy and water efficiency.

	Sustainable Practices	Proposed Measures
Energy	Lighting	Integration of natural lighting is recommended as this will decrease lighting energy usage. The use of LED or fluorescent lightings is also encouraged.
	Materials	Both embodied energy and carbon footprint can be reduced by prioritising sustainable, recycled, reused products or materials over other choices. GECA certified material is recommended.
	Standby power	Recommend the implementation of daylight sensors and zoning to cut off energy usage when the carpark building is not occupied to reduce wasting energy.
	Natural Ventilation	The carpark building is designed to be naturally ventilated and will have a system of natural ventilation complying with BCA and Section 4 of AS 1668.4.
Water	Fittings and fixtures	Recommend the installation of fittings and fixtures with high WELS Rating for the amenities. In addition, flow restrictors or taps with timed flows can be used to minimise water usage. Showerhead(if any): min 3 WELS Stars, Sink Tap: min 5 WELS Stars Toilet cistern and Urinals: min 4 WELS Stars

Full Name of Designer: Gary Tang
Qualifications: B.Eng, M.Eng.Sc
Address of Designer: JHA
Level 23, 101 Miller Street,
NORTH SYDNEY NSW 2060
Business Telephone No: (02) 9437 1000
Name of Employer: JHA

Yours sincerely,



Gary Tang
Sustainability Engineer