

28 August 2012

Grant Eckett Lend Lease The Bond 30 Hickson Road Millers Point NSW 200

Dear Grant

Re: 3 Murray Rose Avenue ESD Statement,

The new office development at 3 Murray Rose Avenue, Sydney Olympic Park is being designed to achieve a high level of sustainability performance. The aim is to achieve a minimum 5 Star Green Star Office Design (v3) rating, a 5 Star NABERS Water rating and a 5 Star NABERS Energy Performance rating in design (subject to confirmation of the tenant's intended use).

The Green Star rating scheme, a voluntary national sustainable design rating tool set up and managed by the Green Building Council of Australia (GBCA) is being used to guide the design process. The Green Star scheme is a comprehensive rating system that evaluates the environmental design and construction of buildings and communities - 4, 5 and 6 Star ratings can be awarded by the GBCA. 3 Murray Rose Avenue will be designed to achieve a minimum of 5 Star in design.

The building is also being designed under the framework of the NABERS Energy scheme and is aiming to achieve a minimum 5 Star rating in design.

To achieve the ESD targets of 5 Star Green Star and NABERS Energy the development is considering incorporating the following items:

Management

- A Green Star Accredited Professional will be engaged to advise on the design and construction.
- Comprehensive commissioning and quarterly building tuning.
- Implementation of a simple building users' guide.
- Engagement of an Independent Commissioning Agent (ICA) to oversee the design and commissioning process.



Indoor Environment Quality

- Good access to natural light and views and the ability to reduce discomfort from glare.
- Outside air rates more than 50% above Australian standards.
- Carbon dioxide monitoring.
- High frequency ballasts to all luminaires.
- Use of low VOC paints, adhesives, sealants and flooring to minimise the amount of contaminants within the workplace.
- Provide a dedicated tenant exhaust riser.

Energy

- An energy efficient variable air volume air conditioning system.
- High efficiency mechanical equipment will be selected.
- Variable speed drives will be installed on pumps and fans where applicable.
- A high performance facade will be designed to balance the heat loads into the building, whilst meeting IEQ requirements.
- Energy efficiency T5 lights will be installed.
- Office lighting zoning sized to less than 100m² per zone.

Transport

- Cyclist facilities including bike racks, showers and lockers will be provided to encourage sustainable transport options for building occupants.
- Close proximity to major transport hubs

Water

- The onsite WRAMS recycled water network will be used in conjunction with water efficient fittings to minimise the use of potable water onsite.
- Efficient landscape irrigation system using recycled water from the WRAMS network.

Materials

- Storage area provided to facilitate waste recycling.
- Responsible selection of materials including Concrete, Steel and Timber

Land Use & Ecology

- No degradation to existing condition of site.
- Reclaiming contaminated land.

Emissions

- Zero ODP refrigerants and refrigerant leak detection.
- Thermal insulation to be ODP free.

Attached is an initial Green Star matrix showing how a 5 Star rating could be achieved for the 3 Murray Rose development. This will be further developed and finalised throughout the detailed design process.



A 5 Star NABERS Energy and 5 Star NABERS Water rating would result in the following savings:

- In excess of 70% less potable water consumed compared to a typical (2.5 Star) commercial building.
- In excess of 50% less greenhouse gas emissions compared to a typical (2.5 Star) commercial building.

These savings will also result in significantly reduced operating costs compared to an average commercial building.

Yours sincerely

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Stacey Johnson Sustainable Design Consultant, Design

Cc: Graham Carter, Manager Sustainable Design

Green Star - Office Design v3

Credit Summary for:

Category	Title	Credit No.	Points Available	Points Achieved		Points to Confirme
Management						
	Green Star Accredited Professional	Man-1	2	2		0
	Commissioning Clauses	Man-2	2	2		0
	Building Tuning	Man-3	2	2		0
	Independent Commissioning Agent	Man-4	1	1		0
	Building Users' Guide	Man-5	1	1		0
	Environmental Management	Man-6	2	2		0
	Waste Management	Man-7	2	2		0
<u> </u>		TOTAL	12	12		0
ndoor Environ	-					
	Ventilation Rates	IEQ - 1	3	1		0
	Air Change Effectiveness	IEQ - 2	2	0		0
	Carbon Dioxide Monitoring and Control	IEQ - 3	1	1		0
	Daylight	IEQ - 4	3	1		0
	Daylight Glare Control	IEQ - 5	1	1		0
	High Frequency Ballasts	IEQ - 6	1	1		0
	Electric Lighting Levels	IEQ - 7	1	1		0
	External Views	IEQ - 8	2	1		0
	Thermal Comfort	IEQ - 9	2	2		0
	Individual Comfort Control	IEQ - 10	2	0		0
	Hazardous Materials	IEQ - 11	0	na		0
	Internal Noise Levels	IEQ - 12	2	2		0
	Volatile Organic Compounds	IEQ - 13	3	3		0
	Formaldehyde Minimisation	IEQ - 14	1	1		0
	Mould Prevention	IEQ - 15	1	1		0
	Tenant Exhaust Riser	IEQ - 16	1	1		0
		TOTAL	26	17		0
Energy						
	Conditional Requirement	Ene -	-	-	0	0
	Greenhouse Gas Emissions	Ene - 1	20	9		0
	Energy Sub-metering	Ene - 2	2	1		0
	Lighting Power Density	Ene - 3	3	3		0
	Lighting Zoning	Ene - 4	2	1		0
	Peak Energy Demand Reduction	Ene - 5	2	0		0
		TOTAL	29	14		0
Transport						
•	Provision of Car Parking	Tra - 1	2	0		0
	Fuel-Efficient Transport	Tra - 2	1	1		0
	Cyclist Facilities	Tra - 3	3	3		0
	Commuting Mass Transport	Tra - 4	5	5		0
		TOTAL	11	9		0
Vater				Ŭ		
	Occupant Amenity Water	Wat - 1	5	5		0
	Water Meters	Wat - 2	1	1		0
	Landscape Irrigation	Wat - 3	1	1		0
	Heat Rejection Water	Wat - 3 Wat - 4	4	4		0
	Fire System Water Consumption	Wat - 4 Wat - 5	4	4 0		0
		TOTAL	12	11		0
laterials		IVIAL	14	11		
	Recycling Waste Storage	Mat - 1	2	2		0
	Building Reuse	Mat - 1 Mat - 2	0	na		0
	Reused Materials	Mat - 2 Mat - 3	0 1	0		0
		Mat - 3 Mat - 4	-			
	Shell and Core or Integrated Fit-out		2	2		0
	Concrete	Mat - 5 Mat - 6	3	2		0
	Chaol	n/lot G	2	2		0
	Steel			~		0
	PVC Minimisation	Mat - 7	2	0		-
	PVC Minimisation Sustainable Timber	Mat - 7 Mat - 8		0		0
	PVC Minimisation Sustainable Timber Design for Disassembly	Mat - 7 Mat - 8 Mat - 9	2	-		0 0
	PVC Minimisation Sustainable Timber	Mat - 7 Mat - 8 Mat - 9 <u>Mat - 10</u>	2 2 1 1	0 1 0		0 0
	PVC Minimisation Sustainable Timber Design for Disassembly Dematerialisation	Mat - 7 Mat - 8 Mat - 9	2 2 1	0 1		0
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Points to be	
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		TOTAL	8	4	
Emissions					
	Refrigerant ODP	Emi - 1	1	1	
	Refrigerant GWP	Emi - 2	2	0	
	Refrigerant Leaks	Emi - 3	2	1	
	Stormwater	Emi - 5	3	0	
	Discharge to Sewer	Emi - 6	5	5	
	Light Pollution	Emi - 7	1	1	
	Legionella	Emi - 8	1	0	
	Insulant ODP	Emi - 4	1	1	
		TOTAL	18	9	

Sub-total weighted points: 65

Innovation			
Innovative Strategies & Technologies	Inn-1	2	0
Exceeding Green Star Benchmarks	Inn-2	2	0
Environmental Design Initiatives	Inn-3	1	0
	TOTAL	5	0

Total weighted points: 65

Once certified this would equate to a Five Star rating.

The GBCA does not endorse any self-assessed rating achieved by the use of Green Star - Office V3. The GBCA offers a formal certification process for ratings of Four Stars and above; this service provides for independent third party review of points claimed to ensure all points can be demonstrated to be achieved by the provision of the necessary documentary evidence. The use of Green Star - Office V3 without formal certification by the GBCA does not entitle the user or any other party to promote the Green Star rating achieved.