



22 November 2013

Johanna Nolan  
Lend Lease  
The Bond  
30 Hickson Road  
Millers Point NSW 200

Dear Johanna,

**Re: 4 Murray Rose Avenue ESD Statement,**

The new office development at 4 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. 4 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.

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#### Indoor Environment Quality (IEQ)

- Good access to natural light and views
- 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.
- Provision of 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 100m<sup>2</sup> 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, PVC and Timber

#### Land Use & Ecology

- No degradation to existing condition of site.

#### 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 4 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

A handwritten signature in blue ink that reads "Stacey Johnson".

Stacey Johnson  
Sustainable Design Consultant, Design

Cc: Graham Carter, Manager Sustainable Design

Green Star Points Schedule (Indicative)

<b>Management</b>		
Man-1	Green Star Accredited Professional	2
Man-2	Commissioning Clauses	2
Man-3	Building Tuning	2
Man-4	Independent Commissioning Agent	1
Man-5	Building Users' Guide	1
Man-6	Environmental Management	2
Man-7	Waste Management	2
<b>TOTAL</b>		<b>12</b>
<b>Indoor Environment Quality</b>		
IEQ - 1	Ventilation Rates	1
IEQ - 2	Air Change Effectiveness	2
IEQ - 3	Carbon Dioxide Monitoring and Control	1
IEQ - 4	Daylight	1
IEQ - 5	Daylight Glare Control	0
IEQ - 6	High Frequency Ballasts	1
IEQ - 7	Electric Lighting Levels	1
IEQ - 8	External Views	1
IEQ - 9	Thermal Comfort	2
IEQ - 10	Individual Comfort Control	0
IEQ - 11	Hazardous Materials	na
IEQ - 12	Internal Noise Levels	2
IEQ - 13	Volatile Organic Compounds	3
IEQ - 14	Formaldehyde Minimisation	1
IEQ - 15	Mould Prevention	1
IEQ - 16	Tenant Exhaust Riser	1
<b>TOTAL</b>		<b>18</b>
<b>Energy</b>		
Ene -	Conditional Requirement	
Ene - 1	Greenhouse Gas Emissions	9
Ene - 2	Energy Sub-metering	2
Ene - 3	Lighting Power Density	2
Ene - 4	Lighting Zoning	1
Ene - 5	Peak Energy Demand Reduction	0
<b>TOTAL</b>		<b>14</b>
<b>Transport</b>		
Tra - 1	Provision of Car Parking	0
Tra - 2	Fuel-Efficient Transport	1
Tra - 3	Cyclist Facilities	3
Tra - 4	Commuting Mass Transport	5
<b>TOTAL</b>		<b>9</b>

<b>Water</b>		
Wat - 1	Occupant Amenity Water	5
Wat - 2	Water Meters	1
Wat - 3	Landscape Irrigation	1
Wat - 4	Heat Rejection Water	4
Wat - 5	Fire System Water Consumption	0
<b>TOTAL</b>		<b>11</b>
<b>Materials</b>		
Mat - 1	Recycling Waste Storage	2
Mat - 2	Building Reuse	na
Mat - 3	Reused Materials	0
Mat - 4	Shell and Core or Integrated Fit-out	1
Mat - 5	Concrete	2
Mat - 6	Steel	1
Mat - 7	PVC Minimisation	1
Mat - 8	Sustainable Timber	1
Mat - 9	Design for Disassembly	1
Mat - 10	Dematerialisation	0
<b>TOTAL</b>		<b>9</b>
<b>Land Use &amp; Ecology</b>		
Eco -	Conditional Requirement	
Eco - 1	Topsoil	0
Eco - 2	Reuse of Land	0
Eco - 3	Reclaimed Contaminated Land	0
Eco - 4	Change of Ecological Value	1
<b>TOTAL</b>		<b>1</b>
<b>Emissions</b>		
Emi - 1	Refrigerant ODP	1
Emi - 2	Refrigerant GWP	0
Emi - 3	Refrigerant Leaks	1
Emi - 5	Stormwater	0
Emi - 6	Discharge to Sewer	5
Emi - 7	Light Pollution	1
Emi - 8	Legionella	
Emi - 4	Insulant ODP	1
<b>TOTAL</b>		<b>9</b>
<b>Summary</b>		
<b>TOTAL UNWEIGHTED POINTS</b>		<b>83</b>
<b>TOTAL WEIGHTED POINTS</b>		<b>65</b>