

Australian Government

Carbon Neutral Program

Public Disclosure Statement



THIS DOCUMENT WILL BE MADE PUBLICLY AVAILABLE

Certification Summary

Responsible Entity name: Mirvac Industrial Developments Pty Ltd

Building / Project Name: Winning - Kemps Creek (Aspect Estate Warehouse 9)

Project Address: 804 Mamre Road, Kemps Creek NSW 2178

Certification Type: Certified carbon neutral for the upfront carbon emissions of the delivery phase of a building

This project Winning - Kemps Creek (Aspect Estate Warehouse 9) has been certified carbon neutral for the upfront carbon emissions of the delivery phase of the building by the GBCA against the Climate Active Guideline: Upfront Carbon for Buildings under the Climate Active Carbon Neutral Standard for Products and Services (the Standard).

| | |
|--|-----------------------------------|
| Total emissions offset | 18,476 tCO2-e |
| Offsets bought | 100% Verified Carbon Units (VCUs) |
| Renewable electricity used in the construction of the building | 0% |
| Technical Assessment | Completed |
| Third Party Validation | Completed |

Carbon Neutral Information

Description of the certification

The project is committed to achieving 6 Star Green Star as well as carbon neutral certification, as Mirvac has a mandate for their buildings to achieve the Climate Active Upfront Carbon Neutral certification.

Project description

This project is a 64,049 sqm industrial warehouse with 672 service area, as well as a 1,441 sqm office space split over 2 levels and two double-storey dock offices (150 sqm and 134 sqm, respectively). In addition, the warehouse is serviced by male, female and disabled amenities on all levels, 2 dock offices, 37 recessed docks, and 37 on-grade docks.

| | | |
|---|---|-------------------------------------|
| The building is registered with the GBCA to achieve either: | Green Star – Homes rating | <input type="checkbox"/> |
| | Green Star rating (Legacy tools) [Design & As Built v1.3] | <input checked="" type="checkbox"/> |
| | Green Star Buildings rating | <input type="checkbox"/> |
| The Responsible Entity has achieved either | Green Star Homes rating and <ul style="list-style-type: none">Green Star Buildings - Life Cycle Impacts | <input type="checkbox"/> |
| | Green Star – Design & As-Built rating and <ul style="list-style-type: none">Credit 15 – Greenhouse Gas EmissionsCredit 19A - Life Cycle Assessment | <input checked="" type="checkbox"/> |
| | Green Star Buildings rating and | <input type="checkbox"/> |

all the below *Green Star Buildings* credits

- Upfront Carbon Emissions – Minimum Expectations
- Energy Use - Minimum Expectations
- Energy Source – Exceptional Performance
- Other Carbon Emissions – Exceptional Performance

Date of practical completion.

22/05/2024

Emissions Boundary

Inside the emissions boundary

- Embodied emissions in construction materials incorporated into the structure (A1-A3)
- Embodied emissions in materials used during construction (e.g. permanent formwork) (A1-A3)
- Transport of materials to the construction site (A4)
- Construction energy, including electricity, diesel, petroleum (A5)
- Construction waste (A5)

Outside the emissions boundary

- Tenancy fitout
- Base buildings operations (B6)
- Tenancy operations (B6)
- Building refurbishment or maintenance during operational lifetime (B1-B7)
- Demolition at end of life (C1-C4)

The certification and emissions boundary is for a new development incorporating the base building of offices and a warehouse. Future emissions, including by occupants in the use phase are excluded.

Inside emissions boundary

Quantified

- Embodied emissions in construction materials incorporated into the structure (A1-A3)
- Embodied emissions in materials used during construction (e.g. permanent formwork) (A1-A3)
- Transport of materials to the construction site (A4)
- Construction energy, including electricity, diesel, petroleum (A5)
- Construction waste (A5)

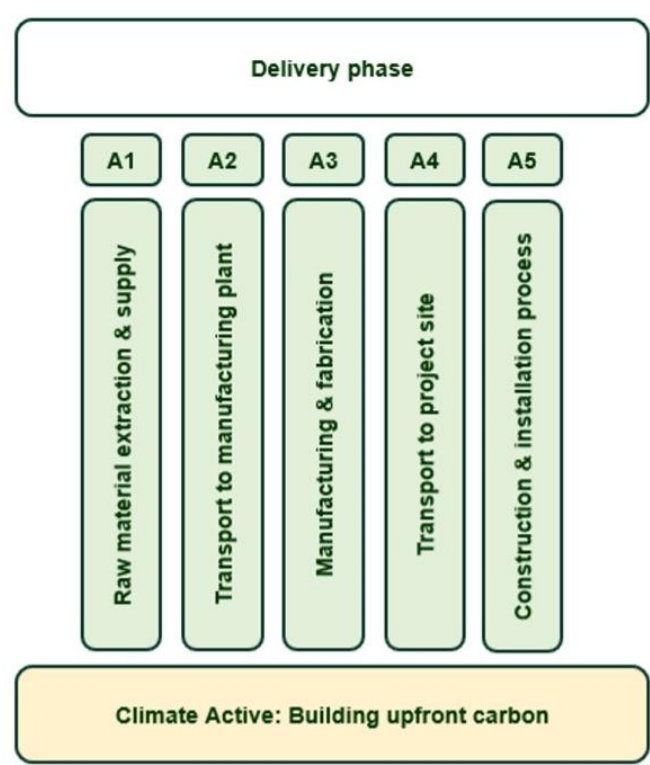
Non-quantified

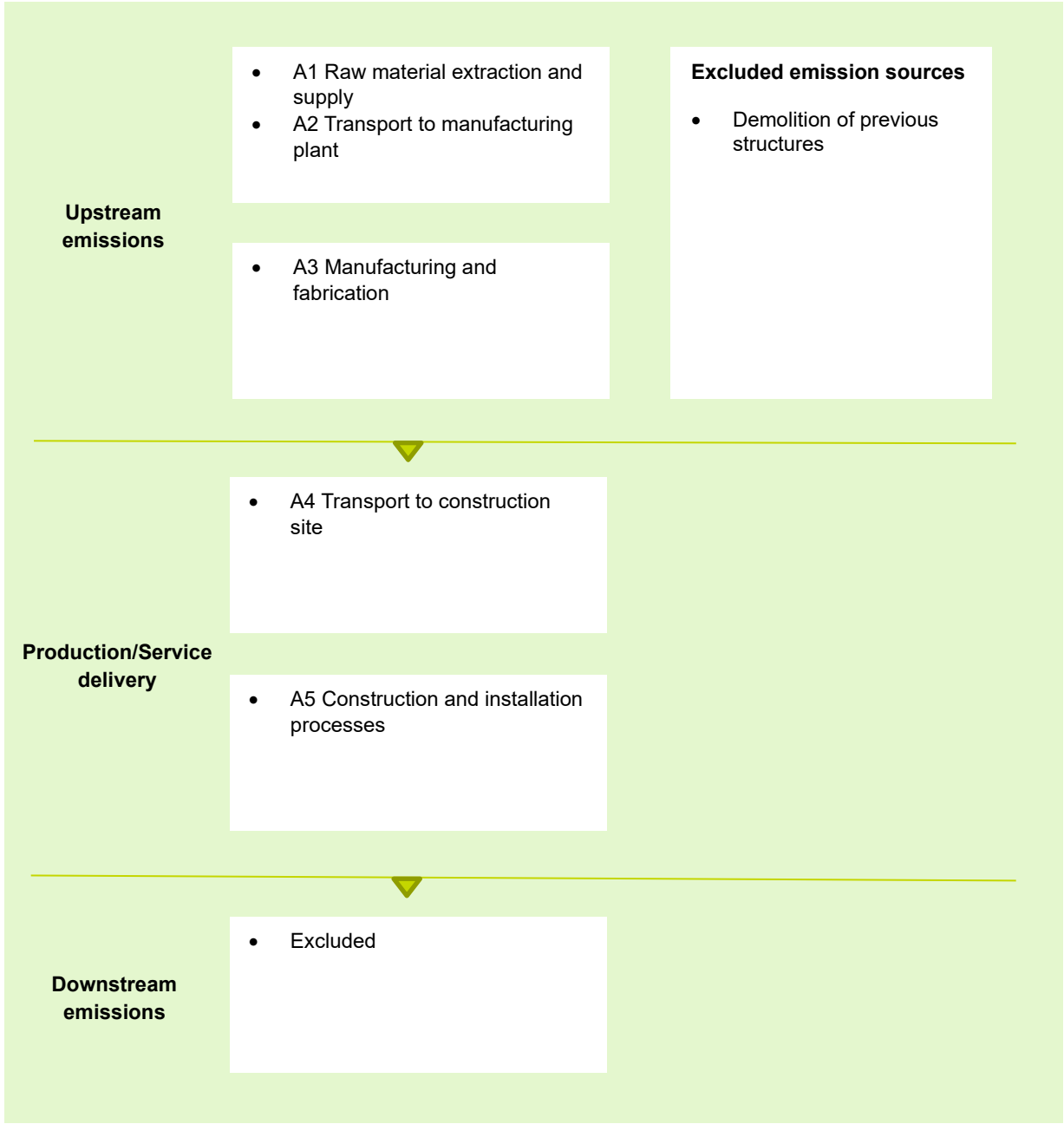
Outside emissions boundary

- Tenancy fitout
- Base buildings operations (B6)
- Tenancy operations (B6)
- Building refurbishment or maintenance during operational lifetime (B1-B7)
- Demolition at end of life (C1-C4)

The certification is for a new development incorporating the base building of offices and a warehouse. Future emissions, including by occupants in the use phase are excluded.

Product Process Diagram





Data Management plan for non-quantified sources

N/A

Emissions Reductions

Emissions Reduction Strategy

The emissions strategy was three-fold.

Firstly, upfront emissions (Modules A1-A5) were reduced through improved material selection and optimisation of the building design. Particular focus was given to concrete and steel uses, as well as construction waste.

Secondly, a solar PV system was included in the development in order to allow for renewable energy generation, offsetting a portion of the building's emissions in the use phase.

Thirdly, offsets were purchased in order to cover the remaining emissions associated with the construction of the project.

Energy Efficiency

The project is targeting a 6 Star Green Star rating under the Green Star Design & As Built v1.3.

In order to achieve this rating (particularly as it relates to energy efficiency performance), a number of initiatives have been included in order to demonstrate a set improvement on a standard practice building using the reference building pathway. These initiatives are outlined below.

- HVAC and HWS energy consumption reduction: this includes the energy improvements from the building systems as modelled for Credit 15
- Lighting reductions: this includes a reduction in LPD against the NCC, as modelled for Credit 15.
- Solar PV: a 650kW system with 500W Panels was installed across the development. The renewable energy supplied by this has been included, as modelled for Credit 15.
- Water efficient fittings and fixtures: higher WELS rating fixtures and fittings have been installed in the development. The water use reduction has been included as per the Potable Water Calculator in Credit 18.
- Improved Landscape Irrigation: the species selections for the site have lower average crop coefficients than standard practice, which leads to a lower irrigation requirement. The water use reduction has been included as per the Potable Water Calculator in Credit 18.
- A 200kL Rainwater Tank has been installed. The amount of rainwater that is used has been included plus the embodied impacts of installing rainwater tanks and pumps.

Upfront Carbon

- Portland cement reduction: all in-situ concrete elements throughout the development have included varying proportions of Fly Ash, in order to reduce the amount of Portland cement. Other measures including thickness reduction, steel reinforcement and concrete strength

grade change in comparison to the reference building design have also been modelled where applicable. These elements include all ground-bearing and suspended slabs, hardstands and footings.

- Colorbond and Zinalume (EPD): the BlueScope Colorbond Environmental Product Declaration (EPD) was applied to the project's walls and roofs.
- Construction waste diversion: the waste contractor has provided waste reports, showing that significant amounts of waste have been diverted from landfill, as per Credit 22.

Climate Active carbon neutral products and services

N/A

Emissions Summary

Summary

| Stage | At Practical Completion (t CO ₂ -e) |
|---|---|
| <i>A1-A3: Product Stage</i> | 14,337.92 |
| <i>A4: Transport of Equipment and Materials</i> | 1,866.61 |
| <i>A5: Construction</i> | 2,270.91 |
| Total Emissions | 18,475.44 |
| Functional units offset | 77,386 out of 77,386 |
| Emissions intensity per functional unit | 0.24 |
| Any uplift factors that were included in the emissions total | N/A |

The functional unit is sqm of GFA. The project has a GFA of 77,386sqm.

Carbon Offsets Summary

Co-benefits

Mirvac Industrial Developments Pty Ltd has offset 18,476 tonnes of CO2-e stapled with Greenfleet offsets to support a net positive embodied carbon position for Warehouse 9, Aspect Industrial Estate, Kemps Creek.

| Project description | Type of offset units | Registry | Date retired | Serial Numbers / hyperlink* | Stapled quantity | Vintage | Quantity | Eligible Quantity (tCO2 -e) (total quantity retired) | Eligible Quantity used in previous reporting periods | Eligible Quantity used for this reporting claim | Percentage of total (%) |
|--|------------------------------|----------|--------------|---|------------------|-------------------------|----------|--|--|---|-------------------------|
| The Kasigau Corridor REDD Project - Phase II The Community Ranches | Verified Carbon Units (VCUs) | VEER A | 16/12/2024 | 12137-387476134-387480859-VCS-VCU-259-VER-KE-14-612-01012020-31122020-1 | 4726 | 01/01/2020 - 31/12/2020 | 4726 | 4726 | 0 | 4726 | 26% |
| The Kasigau Corridor REDD Project - Phase | Verified Carbon | VEER A | 16/12/2024 | 12137-387492173-387505922- | 13750 | 01/01/2020 - 31/12/2020 | 13750 | 13750 | 0 | 13750 | 74% |

| | | |
|--|-----------------|---|
| II The Community Ranches | Units (VCUs) | VCS-VCU- 259-VER- KE-14-612- 01012020- 31122020-1 |
| | | |
| Total offsets retired this report and used in this report | | 18,476 |
| Total offsets banked for use future years: (if any) | | 0 |

* Refer to Appendix for Climate Active screenshots of retirement.

| Type of offset units | Quantity (used for this reporting period claim) | Percentage of total |
|------------------------------|---|---------------------|
| Verified Carbon Units (VCUs) | 18476 | 100% |

Table 7. Additional offsets cancelled for purposes other than Climate Active Carbon Neutral Certification (N/A if not required)

| Project description | Type of offset units | Registry | Date retired | Serial number (and hyperlink to registry transaction record) | Vintage | Eligible Quantity (tCO2-e) | Purpose of cancellation |
|---------------------|----------------------|----------|--------------|--|---------|----------------------------|-------------------------|
| N/A | | | | | | | |

Renewable Energy Certificate (REC) summary

Not Applicable – No Renewable Electricity was purchased for the construction of this building.

Appendix A: Offsets Retirement

Pangolin Associates Certificate

18,476

tonnes CO₂-e

This certificate verifies that

Mirvac Industrial Developments Pty Ltd
for Warehouse 9,
Aspect Industrial Estate, Kemps Creek

has offset 18,476 tonnes of greenhouse gas emissions with the
purchase and retirement of certified carbon credits.

Project: The Kasigau Corridor REDD Project - Phase II The Community Ranches Project, Kenya
Stapled with 18,476 Greenfleet Australia Forestry Offsets
Registry: Verra
Serial No. 12137-387482173-387505922-VC0-VCU-259-VER-KE-14-012-01012020-31122020-1 - Qty 18,750
12137-387476134-387480859-VC0-VCU-259-VER-KE-14-012-01012020-31122020-1 - Qty 4,726

Date issued: 16 December 2024



Iain Smale
Managing Director, Pangolin Associates Pty Ltd

Pangolin

Associates

Tailored, integrated sustainability services.

SYDNEY | ADELAIDE | BRISBANE | MELBOURNE | PERTH

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www.pangolinassociates.com

Verified Carbon
Standard
A VERRA STANDARD

ABN 28 145 544 819

 greenstar

VERRA Registry - 1

| VERRA Standards for a Sustainable Future | | | | | | | | | | | | | | | | |
|--|------------|---|-------------------|-----------|------------|--|---|---|---------------------|-----------------------------|----------------------|----------------------------|---------------------------------------|------------------|--|--------------------|
| Home | | | | | | | | | | | | | | | | |
| RETIRED UNITS | | | | | | | | | | | | | | | | |
| From Vintage | To Vintage | Serial Number | Quantity of Units | Unit Type | Project ID | Project Name | Project Type | Additional Issuance Certifications | Origination Program | Project Site State/Province | Project Country/Area | Account Holder | Retirement Reason | Beneficial Owner | Retirement Reason Details | Date of Retirement |
| 01/01/2020 | 31/12/2020 | 12137-387492173-387505922-VCS-VCU-259-VER-KE-14-612-01012020-31122020-1 | 13750 | VCU | 612 | The Kasigau Corridor REDD Project - Phase II The Community Ranches | Agriculture Forestry and Other Land Use | CCB-Biodiversity Gold, CCB-Climate Gold | | Coast Province | Kenya (KE) | Penguin Associates Pty Ltd | Retirement for Person or Organization | Greenfleet | Mirvac Industrial Developments Pty Ltd has offset 18,475 tonnes of CO2-e with Greenfleet to support a net positive embodied carbon position for Warehouse 9, Aspect Industrial Estate, Kemps Creek | 16/12/2024 |
| 1 - 1 : 1 | | | | | | | | | | | | | | | | |
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| VERRA Registry - Powered by APX Technology | | | | | | | | | | | | | | | | |

VERRA Registry - 2

| VERRA Standards for a Sustainable Future | | | | | | | | | | | | | | | | |
|--|------------|---|-------------------|-----------|------------|--|---|---|---------------------|-----------------------------|----------------------|----------------------------|---------------------------------------|------------------|--|--------------------|
| Home | | | | | | | | | | | | | | | | |
| RETIRED UNITS | | | | | | | | | | | | | | | | |
| From Vintage | To Vintage | Serial Number | Quantity of Units | Unit Type | Project ID | Project Name | Project Type | Additional Issuance Certifications | Origination Program | Project Site State/Province | Project Country/Area | Account Holder | Retirement Reason | Beneficial Owner | Retirement Reason Details | Date of Retirement |
| 01/01/2020 | 31/12/2020 | 12137-387476134-367480659-VCS-VCU-259-VER-KE-14-612-01012020-31122020-1 | 4726 | VCU | 612 | The Kasigau Corridor REDD Project - Phase II The Community Ranches | Agriculture Forestry and Other Land Use | CCB-Biodiversity Gold, CCB-Climate Gold | | Coast Province | Kenya (KE) | Penguin Associates Pty Ltd | Retirement for Person or Organization | Greenfleet | Mirvac Industrial Developments Pty Ltd has offset 18,476 tonnes of CO2-e with Greenfleet to support a net positive embodied carbon position for Warehouse 9, Aspect Industrial Estate, Kemps Creek | 16/12/2024 |
| 1 - 1 : 1 | | | | | | | | | | | | | | | | |
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Greenfleet Offset Certificate



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