



NSW Government
4 Parramatta Square
Parramatta NSW 2150
nabers.gov.au

NABERS Embodied emissions materials form

New non-residential developments must complete this form

From 1 October 2023, all new non-residential developments must report on embodied emissions using this form in NSW, where the NSW government's State Environmental Planning Policy (Sustainable Buildings SEPP) 2022 applies. You must disclose the amounts of key materials at the development application and construction certificate stages.

[More on the Sustainable Buildings SEPP](#)

Embodied carbon emissions are generated across the full life cycle of a building from "cradle to grave". Embodied carbon made up 16% of the whole-of-life carbon footprint of Australia's buildings in 2019 [1]. The purpose of this form is to report on material quantities only, to support project team discussions about potential reduction in emissions from key materials. The form does not include embodied emissions factors. This reporting form will be updated to reflect the NABERS Embodied Carbon tool when it's available in 2024.

Step 1: About the building

In the 'About the building' tab, you will add the location, function, and type of building you are planning to construct. You will also need to add information that describes the building, including gross floor area, number of floors, area of carpark, and more. Collecting this information will allow the NSW Government to compare similar buildings.

Step 2: Quantity of materials

In the 'Quantity of materials' tab, you will add the amounts of materials that you will use to construct your building. You only need to complete those fields relevant to your building. Leave fields that aren't relevant to your building blank. We recognise that there will be uncertainty, particularly at DA stage, so please use your best estimates where information is unknown (e.g., based on past projects).

How much do I need to include?

You must include all parts of the building delivered by the main contractor, covering at least 80% of the total materials bill. For example, if you spent \$100,000 on materials, you need to include the material amounts of at least \$80,000 of those materials in this form.

Wherever possible, consider materials costs only, not labour, plant or equipment. However, where you cannot split out the materials costs, please simply be consistent in the way the costs are reported throughout the spreadsheet.

Enter the **quantity of materials** (excluding labour, plant, equipment, margins and taxes) for:

- (1) Structure (substructure and superstructure) within the envelope of the building. Also include any ancillary buildings that are necessary for the main building to function (for example, plant that is in a separate building).
- (2) Envelope (cladding, curtain walls, roofing, windows, doors etc.)
- (3) Permanent internal walls and doors. At minimum, this should include all structural walls.
- (4) External works (hard landscaping, carparks, etc.) outside of the building envelope.

Enter the **cost of materials** (excluding labour, plant, equipment, margins and taxes) for:

- (5) Building services (mechanical, electrical, plumbing, vertical transport, etc.) required to run the core of the building. Exclude special equipment required by a particular tenant.

You must enter the amounts of materials in SI units (commonly known as the metric system). These are generally consistent across the various products on the market. However, you might need to convert the units of some materials (for example, convert volume to kg).

Step 3: Certifier details

In the 'Certifier' tab you will add the details of the person who has entered data, and the person who has certified the accuracy of the data. The certifier must be a quantity surveyor, designer, engineer or NABERS assessor.

Step 4: Attach to approval

Attach this Excel spreadsheet to your development application or construction certificate application.

The data collected in this form will be used by the NSW Government to inform future policy development.

Help!

If you have general questions about reporting on the embodied emissions of your building, you should contact your local council or consent authority.

If you have technical questions about this spreadsheet, please contact NABERS:
nabers@environment.nsw.gov.au

[1] Green Building Council of Australia, 2021, <https://new.gbca.org.au/news/gbca-news/gbca-and-thinkstep-release-embodied-carbon-report/>

Step 1: About the building

Fill out blue cells

| Building location and site data | Value | Unit | Note | Comment |
|-------------------------------------|---|------|--|---|
| Building address | 171 John Oxley Drive Port Macquarie NSW | | | |
| Postcode | 2444 | | Required | Postcode of building |
| Town/city | BLACKMANS POINT + 12 other localities | | Town/city/suburb/region automated from postcode (may not give exact town name) | Town/city/suburb/region of the building site. |
| Distance to nearest major city/town | 7 | km | Enter for rural/regional locations only | Declare the shortest route by road to your site from the centre of your nearest major city (>100,000 people). The route must be traversable by a semitrailer truck. |
| Project stage | Development Application | | Required | Stage of development |
| New build or major renovation? | New build | | Required | |
| Brownfield or greenfield site? | Greenfield | | Required | |

| Floor area by NCC building classification | Gross (GFA) | Net (NLA/NSA/UFA) | Unit | Note | |
|---|-------------|-------------------|------|---|---|
| Please enter all floor areas relevant to your building. Leave areas blank if not applicable. Please enter Gross Floor Area (GFA) for all building classifications. Please also enter the corresponding net area (Net Lettable Area, Net Sellable Area or Usable Floor Area) where it is commonly used for that building classification. | | | | | |
| Class 1a: Detached residential buildings | | | m² | Required for Class 1a: Detached residential houses, townhouses | Gross Floor Area (GFA), as defined by the AIQS Australian Cost Management Manual |
| Class 1b: Boarding houses and hostels | | | m² | Required for Class 1b: Boarding house, guest house, hostel | Net area (Net Lettable Area, Net Sellable Area, Usable Floor Area), as defined by the PCA's Method of Measurement |
| Class 2: Multi-unit residential buildings | | | m² | Required for Class 2: Multi-unit residential, including apartment buildings | |
| Class 3: Other residential buildings | | | m² | Required for Class 3: Other residential buildings | |
| Class 4: Residential inside non-residential | | | m² | Required for Class 4: Residential building inside a non-residential building, e.g., caretaker residence | |
| Class 5: Office buildings | | | m² | Required for Class 5: Office building | |
| Class 6: Retail buildings | | | m² | Required for Class 6: Retail building, e.g., shop, restaurant, café | |
| Class 7a: Carparks | | | m² | Required for Class 7a: Carparks | |
| Class 7b: Warehouse-type buildings | | | m² | Required for Class 7b: Warehouses, wholesalers and storage facilities | |
| Class 8: Industrial buildings | | | m² | Required for Class 8: Industrial buildings, e.g., factories and workshops | |
| Class 9a: Healthcare buildings | | | m² | Required for Class 9a: Healthcare, e.g., hospitals, clinics, day surgeries | |
| Class 9b: Civic buildings | 3,861 | 3,026 | m² | Required for Class 9b: Civic buildings, e.g., theatres, civic centres, train stations | |
| Class 9c: Aged care and personal care buildings | | | m² | Required for Class 9c: Aged care and personal care | |
| Class 10a: Non-habitable buildings | | | m² | Required for Class 10a: Non-habitable buildings including sheds, carports and private garages | |
| Class 10b: Miscellaneous structures | | | m² | Required for Class 10b: Miscellaneous structures, including fences, masts, antennas, retaining walls and swimming pools | |
| Class 10c: Bushfire shelters | | | m² | Required for Class 10c: Bushfire shelters not attached to a Class 1a building | |
| Total | 3,861 | 3,026 | m² | Required: Sum of m² inputs must be more than 0. | |

| Project information | Value | Unit | Note | |
|---|------------|---------------|----------|---|
| Total cost of project | 20,639,192 | AUD excl. GST | Required | Include labour, materials, transport, plant, equipment and professional fees. Exclude GST, land, finance, escalation and other costs. |
| Building design life | 50 | years | Required | If uncertain, enter 50 years |
| Estimated envelope life | | years | Optional | |
| Estimated replacement cycle for mechanical services | | years | Optional | |
| Estimated replacement cycle for vertical transportation | | years | Optional | |

| Dimensions of the building and the site | Value | Unit | Note | |
|---|-------|------|---------------------------------------|---|
| Site area | 9,884 | m² | Required | Total area of site to external boundary. |
| Shared services or infrastructure | No | | Required | Indicate if there are shared services that the building utilises, or shared foundations, basement or podium |
| Building footprint area | 2,130 | m² | Required | Total floor area of the ground floor measured to the outside edge of the floorplate. |
| Typical floor area (if different to building footprint area) | | m² | Only needed if different to row above | |
| Typical floor perimeter | 347 | m | Required | |
| Area of external carpark (not included in GFA) | 3,005 | m² | Required. Enter 0 if not applicable. | |
| Area of external hardstand (not included in GFA) | 725 | m² | Required. Enter 0 if not applicable. | |
| Area of other hard landscaping (not included in GFA) | 0 | m² | Required. Enter 0 if not applicable. | Include all other impervious areas. For example, patios, paths and driveways (not already included in carparks and hardstands above). |
| Number of floors/storeys above ground, including ground floor | 2 | no. | Required | |
| Number of floors/storeys below ground | 1 | no. | Required. Enter 0 if not applicable. | |
| Number of floors/storeys of car parking | 0 | no. | Required. Enter 0 if not applicable. | |
| Total height above ground | 12 | m | Required | Measured from the average finished grade to the highest point of the building, excluding protrusions (lighting rods, masts, chimneys, etc.) |

| Structural material choices | Value | Unit | Note | |
|---|---------------------|------|--|--|
| Foundation type | Slab-on-ground | | Required | |
| Frame type (dominant) | Reinforced concrete | | Required | |
| Suspended floor type (typical) | Reinforced concrete | | Only needed for multi-storey buildings | |
| Describe low carbon materials specified in your building (e.g. green concrete, low carbon bricks) | TBC | | Required | |
| Describe recycled content specified in your building (e.g. recycled steel) | TBC | | Required | |

Step 2: Quantity of materials

Complete all blue cells that are applicable to the building. Leave items that aren't applicable blank.

Fill out blue cells

| Material category | Sub-category 1 | Sub-category 2 | Sub-category 3 | Value | Unit of measure | Comment | AIQS ACMM Code | ICMS3 (Level 3 Codes Construction) |
|--|-------------------------|----------------|----------------|---------|-----------------|---|----------------|------------------------------------|
| Structure | | | | | | | | |
| The structural parts of the building that are below ground (substructure) and above ground (superstructure). This includes fill below the substructure, foundations, basement levels, suspended floors, wall structure, roof structure, stairs, lift shafts and balconies. It excludes external areas such as hardstands, carparks, patios, etc. | | | | | | | | |
| Coverage of structural material spend | - | - | - | 88 | % | Required. Coverage of spend for structural elements entered below. Minimum requirement = 80%. Exclude head contractor preliminaries and margins. | | |
| Concrete in-situ | ≤10 MPa | - | - | | m³ | Please enter reinforcing steel as part of "Reinforcing steel" below | 01_SB or 02-11 | 02 or 03 |
| Concrete in-situ | >10 MPa to ≤20 MPa | - | - | | m³ | Please enter reinforcing steel as part of "Reinforcing steel" below | 01_SB or 02-11 | 02 or 03 |
| Concrete in-situ | >20 MPa to ≤32 MPa | - | - | 1,063.0 | m³ | Please enter reinforcing steel as part of "Reinforcing steel" below | 01_SB or 02-11 | 02 or 03 |
| Concrete in-situ | >32 MPa to ≤40 MPa | - | - | | m³ | Please enter reinforcing steel as part of "Reinforcing steel" below | 01_SB or 02-11 | 02 or 03 |
| Concrete in-situ | >40 MPa to ≤50 MPa | - | - | 52.0 | m³ | Please enter reinforcing steel as part of "Reinforcing steel" below | 01_SB or 02-11 | 02 or 03 |
| Concrete in-situ | >50 MPa to ≤60 MPa | - | - | | m³ | Please enter reinforcing steel as part of "Reinforcing steel" below | 01_SB or 02-11 | 02 or 03 |
| Concrete in-situ | >60 MPa to ≤80 MPa | - | - | | m³ | Please enter reinforcing steel as part of "Reinforcing steel" below | 01_SB or 02-11 | 02 or 03 |
| Concrete in-situ | >80 MPa to ≤100 MPa | - | - | | m³ | Please enter reinforcing steel as part of "Reinforcing steel" below | 01_SB or 02-11 | 02 or 03 |
| Concrete in-situ | >100 MPa | - | - | | m³ | Please enter reinforcing steel as part of "Reinforcing steel" below | 01_SB or 02-11 | 02 or 03 |
| Concrete pre-cast panel | - | - | - | | m³ | Please enter reinforcing steel in relevant line items below. If not known at DA stage, please make your best estimate. If not known at CC stage, please ask your supplier. | 01_SB or 02-11 | 02 or 03 |
| Concrete block | Hollow core | - | - | | m³ | Enter as cubic metres, calculated as (area in m²) * (thickness in mm / 1000). Please include all block fill concrete and all reinforcing steel in relevant line items above/below. | 01_SB | 02 or 03 |
| Concrete block/brick | Solid | - | - | 154.0 | m³ | Enter as cubic metres, calculated as (area in m²) * (thickness in mm / 1000) | 01_SB | 02 or 03 |
| Concrete block/brick | Solid AAC | - | - | | | Solid Aerated Autoclaved Concrete (AAC) block. | 01_SB | 02 or 03 |
| Mortar | - | - | - | 34,527 | kg | Enter as cubic metres, calculated as (area in m²) * (thickness in mm / 1000). | 01_SB | 02 or 03 |
| Reinforcing steel | Bar & mesh | - | - | 210,117 | kg | Include all reinforcing steel bar/mesh in the building's structure in this row. Usually this is calculated as kg/m² per concrete element and then summed. Example: 10 m³ of 40 MPa concrete @ 100 kg/m³ + 5 m³ of 50 MPa concrete @ 150 kg/m³ = 1,750 kg reinforcing steel. | 01_SB or 02-11 | 02 or 03 |
| Reinforcing steel | Fibre & strand | - | - | | kg | Include all steel fibre reinforcing and steel strand in the building's structure in this row. | 01_SB or 02-11 | 02 or 03 |
| Structural steel | Hot rolled structural | - | - | 75,490 | t | Examples include universal beams, universal columns and welded beams | 01_SB | 02 or 03 |
| Structural steel | Cold formed structural | - | - | | t | Examples include C purlins, Z purlins and all light gauge steel framing | 01_SB | 02 or 03 |
| Structural steel | Other welded structural | - | - | | t | | 01_SB | 02 or 03 |
| Structural steel | Plate | - | - | | t | Include any allowance for connections here | 01_SB | 02 or 03 |
| Structural steel | Sheet | - | - | | t | | 01_SB | 02 or 03 |
| Stainless steel | - | - | - | | t | Primarily for engineered timber structure connections | 02_11 | 02 or 03 |
| Reinforced concrete piles | Concrete | - | - | | m³ | Please enter reinforcing steel in the line below. If not known at DA stage, please make your best estimate. If not known at CC stage, please ask your supplier. | 01_SB | 02 or 03 |
| Reinforced concrete piles | Steel reinforcing | - | - | | kg | If not known at DA stage, please make your best estimate. If not known at CC stage, please ask your supplier. | 01_SB | 02 or 03 |
| Steel piles | - | - | - | | t | Where concrete and reinforcing steel are also used, enter these in the rows above. | 01_SB | 02 or 03 |
| Timber poles/piles | - | - | - | | m³ | Where concrete and reinforcing steel are also used, enter these in the rows above. | 01_SB | 02 or 03 |
| Timber (solid) | Sawn softwood | - | - | | m³ | | 02_11 | 02 or 03 |
| Timber (solid) | Sawn hardwood | - | - | | m³ | | 02_11 | 02 or 03 |
| Timber (engineered) | CLT | - | - | | m³ | | 02_11 | 02 or 03 |
| Timber (engineered) | Glulam | - | - | | m³ | | 02_11 | 02 or 03 |
| Timber (engineered) | LVL | - | - | | m³ | | 02_11 | 02 or 03 |
| Timber (engineered) | OSB | - | - | | m² | Enter as cubic metres, calculated as (area of wall in m²) * (thickness in mm / 1000) | 02_11 | 02 or 03 |
| Brick | Heat cured | - | - | | m³ | Enter as cubic metres, calculated as (area of wall in m²) * (thickness in mm / 1000) | 02_11 | 02 or 03 |
| Structural Insulated Panel (SIP) | Steel outer | - | - | | m² | | 01_SB | 02 or 03 |
| Structural Insulated Panel (SIP) | Aluminium outer | - | - | | m² | | 01_SB | 02 or 03 |
| Structural Insulated Panel (SIP) | Engineered timber outer | - | - | | m² | | 01_SB | 02 or 03 |
| Fill | - | - | - | | t | Include purchased material only. Exclude site-won material. | 01_SB | 01 |
| Sand & gravel | - | - | - | | t | Include purchased material only. Exclude site-won material and sand/gravel in concrete. | 01_SB | 01 |
| Waterproofing membrane | Bituminous | - | - | 425 | m² | | 01_SB | 01 or 02 or 03 |
| Waterproofing membrane | Polyethylene | - | - | | m² | | 01_SB | 01 or 02 or 03 |
| Other structural (Describe and add unit >>) | | - | - | | | Please enter a description for any structural material that does not fit a predefined classification | | |
| Other structural (Describe and add unit >>) | | - | - | | | Please enter a description for any structural material that does not fit a predefined classification | | |
| Other structural (Describe and add unit >>) | | - | - | | | Please enter a description for any structural material that does not fit a predefined classification | | |

Envelope

The skin of the building that separates the internal building from the external environment. This includes the roof cladding, wall cladding, windows, doors and internal/external shading. It also includes insulation and the internal wall lining of envelope walls.

| | | | | | | | | |
|-------------------------------------|--------------------|---|---|-------|----|--|-------|----------|
| Coverage of envelope material spend | - | - | - | 84 | % | Required. Coverage of spend for the envelope items you have entered below. Minimum requirement = 80%. Exclude head contractor preliminaries and margins. | | |
| Roof cladding | Profiled steel | - | - | 2,686 | m² | Enter as m² of roof area. Exclude allowances for overlap in the roofing sheets. This row includes all metal-coated and pre-painted steel sheets where steel is the base metal. Examples include galvanised steel, zinc-aluminium (zincalume) coated steel and zinc-aluminium-magnesium (ZAM) coated steel, whether painted or unpainted. | 05_RF | 03 or 04 |
| Roof cladding | Profiled aluminium | - | - | | m² | Enter as m² of roof area. Exclude allowances for overlap in the roofing sheets. This row also includes pre-painted aluminium sheets. | 05_RF | 03 or 04 |
| Roof cladding | Profiled zinc | - | - | | m² | Enter as m² of roof area. Exclude allowances for overlap in the roofing sheets. This row also includes pre-painted zinc sheets. | 05_RF | 03 or 04 |

| | | | | | | | |
|--------------------------|----------------------------|----------------|----------------------|----------|---|----------------|----------|
| Roof cladding | Membrane | - | - | m² | Enter as m² of roof area. Exclude allowances for overlap in the membrane sheets. | 05_RF | 03 or 04 |
| Roof cladding | Tiles (traditional clay) | - | - | m² | Enter as m² of roof area. Exclude allowances for overlap between the tiles. | 05_RF | 03 or 04 |
| Roof cladding | Tiles (concrete) | - | - | m² | Enter as m² of roof area. Exclude allowances for overlap between the tiles. | 05_RF | 03 or 04 |
| Roof cladding | Other (Please describe >>) | | - | m² | Please enter a description for any roofing that does not fit a predefined classification | 05_RF | 03 or 04 |
| Wall cladding | Bricks (heat cured) | - | - | 1,433 m² | Enter as m² of wall area. Heat-cured bricks use a kiln or furnace to raise the brick temperature above ambient temperature during curing process. | 06_EW | 03 or 04 |
| Wall cladding | Bricks (air dried) | - | - | m² | Enter as m² of wall area. Air-dried bricks are cured using ambient temperature. | 06_EW | 03 or 04 |
| Wall cladding | Bricks (under fired) | - | - | m² | Enter as m² of wall area. | 06_EW | 03 or 04 |
| Wall cladding | Bricks (concrete) | - | - | m² | Enter as m² of wall area | 06_EW | 03 or 04 |
| Wall cladding | Mortar and render | - | - | kg | | 06_EW | 03 or 04 |
| Wall cladding | Profiled steel | - | - | 845 m² | Enter as m² of wall area. Exclude allowances for overlap in the cladding sheets, offcuts, etc. This row includes all metal-coated and pre-painted steel sheets where steel is the base metal. Examples include galvanised steel, zinc-aluminium (zincalume) coated steel and zinc-aluminium-magnesium (ZAM) coated steel, whether painted or unpainted. | 06_EW | 03 or 04 |
| Wall cladding | Profiled aluminium | - | - | m² | Enter as m² of wall area. Exclude allowances for overlap in the cladding sheets, offcuts, etc. This row also includes pre-painted aluminium sheets. | 06_EW | 03 or 04 |
| Wall cladding | Profiled zinc | - | - | m² | Enter as m² of wall area. Exclude allowances for overlap in the cladding sheets, offcuts, etc. This row also includes pre-painted zinc sheets. | 06_EW | 03 or 04 |
| Wall cladding | GRC cladding | - | - | m² | Enter as m² of wall area. GRC = Glass Reinforced Concrete. | 06_EW | 03 or 04 |
| Wall cladding | Timber weatherboards | - | - | m² | Enter as m² of wall area. Exclude allowances for overlap between weatherboards, offcuts, etc. | 06_EW | 03 or 04 |
| Wall cladding | Fibre cement board | - | - | m² | Enter as m² of wall area. Exclude allowances for offcuts, etc. | 06_EW | 03 or 04 |
| Wall cladding | Terracotta | - | - | m² | Enter as m² of wall area. Exclude allowances for offcuts, etc. | 06_EW | 03 or 04 |
| Wall cladding | Brick tiles / veneers | - | - | m² | Enter as m² of wall area. Exclude allowances for offcuts, etc. | 06_EW | 03 or 04 |
| Wall cladding | Plasterboard | - | - | m² | Enter as m² of wall area. Exclude allowances for offcuts, etc. Include both external wall linings and internal wall linings for envelope walls. | 12_WF or 06_EW | 03 or 04 |
| Wall cladding | Plywood | - | - | m² | Enter as m² of wall area. Exclude allowances for offcuts, etc. Include both external wall linings and internal wall linings for envelope walls. | 12_WF or 06_EW | 03 or 04 |
| Wall cladding | Other (Please describe >>) | | - | m² | Please enter a description for any wall cladding that does not fit a predefined classification | 06_EW or 12_WF | 03 or 04 |
| Windows & doors | Aluminium frame | Single glazed | - | 448 m² | Include all single glazing, including standard, toughened, laminated and low-E | 07_WW or 08_ED | 03 or 04 |
| Windows & doors | Aluminium frame | Double glazed | - | m² | Include all double glazing, including standard, toughened, laminated and low-E | 07_WW or 08_ED | 03 or 04 |
| Windows & doors | Aluminium frame | Triple glazed | - | m² | Include all triple glazing, including standard, toughened, laminated and low-E | 07_WW or 08_ED | 03 or 04 |
| Windows & doors | Timber frame | Single glazed | - | m² | Include all single glazing, including standard, toughened, laminated and low-E | 07_WW or 08_ED | 03 or 04 |
| Windows & doors | Timber frame | Double glazed | - | m² | Include all double glazing, including standard, toughened, laminated and low-E | 07_WW or 08_ED | 03 or 04 |
| Windows & doors | Timber frame | Triple glazed | - | m² | Include all triple glazing, including standard, toughened, laminated and low-E | 07_WW or 08_ED | 03 or 04 |
| Windows & doors | uPVC frame | Single glazed | - | m² | Include all single glazing, including standard, toughened, laminated and low-E | 07_WW or 08_ED | 03 or 04 |
| Windows & doors | uPVC frame | Double glazed | - | m² | Include all double glazing, including standard, toughened, laminated and low-E | 07_WW or 08_ED | 03 or 04 |
| Windows & doors | uPVC frame | Triple glazed | - | m² | Include all triple glazing, including standard, toughened, laminated and low-E | 07_WW or 08_ED | 03 or 04 |
| Windows & doors | Frameless | Single glazed | - | m² | Include all single glazing, including standard, toughened, laminated and low-E | 07_WW or 08_ED | 03 or 04 |
| Windows & doors | Frameless | Double glazed | - | m² | Include all double glazing, including standard, toughened, laminated and low-E | 07_WW or 08_ED | 03 or 04 |
| Windows & doors | Frameless | Triple glazed | - | m² | Include all triple glazing, including standard, toughened, laminated and low-E | 07_WW or 08_ED | 03 or 04 |
| Windows & doors | Other (Please describe >>) | | - | m² | Please enter a description for any windows or doors that do not fit a predefined classification | 07_WW or 08_ED | 03 or 04 |
| Curtain wall | Single skin façade | Glazed panel | Single glazed | m² | Please declare all single-skin façade area in this section. All double-skin façade area should be entered in the next section. Include all single glazing, including standard, toughened, laminated and low-E | 06_EW | 03 or 04 |
| Curtain wall | Single skin façade | Glazed panel | Double glazed | m² | Include all double glazing, including standard, toughened, laminated and low-E | 06_EW | 03 or 04 |
| Curtain wall | Single skin façade | Glazed panel | Triple glazed | m² | Include all triple glazing, including standard, toughened, laminated and low-E | 06_EW | 03 or 04 |
| Curtain wall | Single skin façade | Opaque panel | Aluminium cladding | m² | | 06_EW | 03 or 04 |
| Curtain wall | Single skin façade | Opaque panel | GRC cladding | m² | GRC = Glass-fibre Reinforced Concrete | 06_EW | 03 or 04 |
| Curtain wall | Single skin façade | Opaque panel | Insulated shadow box | m² | | 06_EW | 03 or 04 |
| Curtain wall | Single skin façade | Opaque panel | Brick cladding | m² | | 06_EW | 03 or 04 |
| Curtain wall | Single skin façade | Opaque panel | Stone cladding | m² | | 06_EW | 03 or 04 |
| Curtain wall | Double skin façade | Glazed panel | Single glazed | m² | Please declare all double-skin façade area in this section. Please declare as the area of the curtain wall and do not enter the inner and outer skins twice. | 06_EW | 03 or 04 |
| Curtain wall | Double skin façade | Glazed panel | Double glazed | m² | The type of glazing refers to the building's envelope wall, not including the outer skin | 06_EW | 03 or 04 |
| Curtain wall | Double skin façade | Glazed panel | Triple glazed | m² | The type of glazing refers to the building's envelope wall, not including the outer skin | 06_EW | 03 or 04 |
| Curtain wall | Double skin façade | Opaque panel | Aluminium cladding | m² | | 06_EW | 03 or 04 |
| Curtain wall | Double skin façade | Opaque panel | GRC cladding | m² | GRC = Glass-fibre Reinforced Concrete | 06_EW | 03 or 04 |
| Curtain wall | Double skin façade | Opaque panel | Insulated shadow box | m² | | 06_EW | 03 or 04 |
| Curtain wall | Double skin façade | Opaque panel | Brick cladding | m² | | 06_EW | 03 or 04 |
| Curtain wall | Double skin façade | Opaque panel | Stone cladding | m² | | 06_EW | 03 or 04 |
| Curtain wall | Other (Please describe >>) | | - | m² | Please enter a description for any curtain wall that does not fit a predefined classification | 06_EW | 03 or 04 |
| Stick-framed wall system | Aluminium frame | Glazed section | Single glazed | m² | Include all single glazing, including standard, toughened, laminated and low-E | 06_EW | 03 or 04 |
| Stick-framed wall system | Aluminium frame | Glazed section | Double glazed | m² | Include all double glazing, including standard, toughened, laminated and low-E | 06_EW | 03 or 04 |
| Stick-framed wall system | Aluminium frame | Glazed section | Triple glazed | m² | Include all triple glazing, including standard, toughened, laminated and low-E | 06_EW | 03 or 04 |
| Stick-framed wall system | Aluminium frame | Opaque section | Aluminium cladding | m² | | 06_EW | 03 or 04 |
| Stick-framed wall system | Aluminium frame | Opaque section | GRC cladding | m² | GRC = Glass-fibre Reinforced Concrete | 06_EW | 03 or 04 |
| Stick-framed wall system | Aluminium frame | Opaque section | Insulated shadow box | m² | | 06_EW | 03 or 04 |
| Stick-framed wall system | Aluminium frame | Opaque section | Brick cladding | m² | | 06_EW | 03 or 04 |
| Stick-framed wall system | Aluminium frame | Opaque section | Stone cladding | m² | | 06_EW | 03 or 04 |
| Stick-framed wall system | Steel frame | Glazed section | Single glazed | m² | Include all single glazing, including standard, toughened, laminated and low-E | 06_EW | 03 or 04 |
| Stick-framed wall system | Steel frame | Glazed section | Double glazed | m² | Include all double glazing, including standard, toughened, laminated and low-E | 06_EW | 03 or 04 |
| Stick-framed wall system | Steel frame | Glazed section | Triple glazed | m² | Include all triple glazing, including standard, toughened, laminated and low-E | 06_EW | 03 or 04 |
| Stick-framed wall system | Steel frame | Opaque section | Aluminium cladding | m² | | 06_EW | 03 or 04 |

| | | | | | | | | |
|---|----------------------------|---------------------|----------------------|-----|-----|---|----------------|----------|
| Stick-framed wall system | Steel frame | Opaque section | GRC cladding | | m² | GRC = Glass-fibre Reinforced Concrete | 06_EW | 03 or 04 |
| Stick-framed wall system | Steel frame | Opaque section | Insulated shadow box | | m² | | 06_EW | 03 or 04 |
| Stick-framed wall system | Steel frame | Opaque section | Brick cladding | | m² | | 06_EW | 03 or 04 |
| Stick-framed wall system | Steel frame | Opaque section | Stone cladding | | m² | | 06_EW | 03 or 04 |
| Stick-framed wall system | Other (Please describe >>) | | - | | m² | Please enter a description for any wall system that does not fit a predefined classification | 06_EW | 03 or 04 |
| Wall louvre system | Aluminium | - | - | | m² | | 06_EW | 03 or 04 |
| External shading system | Aluminium frame | Aluminium cladding | - | 418 | m² | Please enter as m² of shaded area = linear metres * (width in mm / 1000) | 06_EW | 03 or 04 |
| External shading system | Aluminium frame | GRC cladding | - | | m² | Please enter as m² of shaded area = linear metres * (width in mm / 1000). GRC = Glass-fibre Reinforced Concrete. | 06_EW | 03 or 04 |
| External shading system | Aluminium frame | Terracotta cladding | - | | m² | Please enter as m² of shaded area = linear metres * (width in mm / 1000) | 06_EW | 03 or 04 |
| External shading system | Aluminium frame | Stone cladding | - | | m² | Please enter as m² of shaded area = linear metres * (width in mm / 1000) | 06_EW | 03 or 04 |
| External shading system | Aluminium frame | Pre-cast concrete | - | | m² | Please enter as m² of shaded area = linear metres * (width in mm / 1000) | 06_EW | 03 or 04 |
| External shading system | Aluminium frame | Timber | - | | m² | Please enter as m² of shaded area = linear metres * (width in mm / 1000) | 06_EW | 03 or 04 |
| External shading system | Aluminium frame | Glass (opaque) | - | | m² | Please enter as m² of shaded area = linear metres * (width in mm / 1000) | 06_EW | 03 or 04 |
| External shading system | Aluminium frame | Steel | - | | m² | Please enter as m² of shaded area = linear metres * (width in mm / 1000) | 06_EW | 03 or 04 |
| External shading system | Other (Please describe >>) | | - | | m² | Please enter as m² of shaded area = linear metres * (width in mm / 1000) | 06_EW | 03 or 04 |
| Roller doors | Steel profile | - | - | | m² | Please note unit is <u>square metres</u> , not quantity | 08_ED | 03 or 04 |
| Roller doors | Hardwood over steel | - | - | | m² | Please note unit is <u>square metres</u> , not quantity | 08_ED | 03 or 04 |
| Roller doors | Softwood over steel | - | - | | m² | Please note unit is <u>square metres</u> , not quantity | 08_ED | 03 or 04 |
| Revolving doors | Glass/aluminium/steel | - | - | | no. | | 08_ED | 03 or 04 |
| Fire-rated doors | Engineered timber | - | - | 2 | no. | Please enter as single-leaf equivalent. For double-leaf doors, multiply the quantity by 2. | 08_ED | 03 or 04 |
| Fire-rated doors | Steel | - | - | | no. | Please enter as single-leaf equivalent. For double-leaf doors, multiply the quantity by 2. | 08_ED | 03 or 04 |
| Fire-rated doors | Aluminium/glass | - | - | | no. | Please enter as single-leaf equivalent. For double-leaf doors, multiply the quantity by 2. | 08_ED | 03 or 04 |
| Insulation | Glass wool / fibreglass | - | - | | m² | Please include both wall and ceiling insulation | 05_RF or 06_EW | 03 or 04 |
| Insulation | Stone wool | - | - | | m² | Please include both wall and ceiling insulation | 05_RF or 06_EW | 03 or 04 |
| Insulation | Polyester | - | - | | m² | Please include both wall and ceiling insulation | 05_RF or 06_EW | 03 or 04 |
| Insulation | Expanded polystyrene | - | - | | m² | Please include both wall and ceiling insulation | 05_RF or 06_EW | 03 or 04 |
| Insulation | Other (Please describe >>) | | - | | m² | Please include both wall and ceiling insulation | 05_RF or 06_EW | 03 or 04 |
| Other (Please describe and add unit >>) | | - | - | | | Please enter a description for any envelope material that does not fit a predefined classification | | |
| Other (Please describe and add unit >>) | | - | - | | | Please enter a description for any envelope material that does not fit a predefined classification | | |
| Other (Please describe and add unit >>) | | - | - | | | Please enter a description for any envelope material that does not fit a predefined classification | | |

Permanent internal walls and doors

Walls and doors within the building that are either structural or designed to be permanent.

| | | | | | | | | |
|--|-----------------------------|---|---|-------|-----|---|----------------|----------|
| Coverage of material spend on permanent internal walls and doors | | | | 92 | % | Enter the % coverage of <u>spend</u> for the items you have entered below. There is no minimum requirement: enter what you know. This should include all structural walls. Exclude head contractor preliminaries and margins. | | |
| Interior wall (permanent) | Steel (light framing) | - | - | 12 | t | | 09_NW | 03 or 04 |
| Interior wall (permanent) | Timber framing | - | - | | m³ | | 09_NW | 03 or 04 |
| Interior wall (permanent) | AAC panel (reinforced) | - | - | | m² | Panels of autoclaved aerated concrete (AAC) with reinforcing steel. E.g., Hebel. | 09_NW or 12_WF | 03 or 04 |
| Interior wall (permanent) | Concrete-filled steel panel | - | - | | m² | Panels made from a steel sheet outer with an aerated concrete core. E.g., Speedpanel. | 09_NW or 12_WF | 03 or 04 |
| Interior wall (permanent) | Plasterboard | - | - | 3,434 | m² | Enter as single-layer equivalent. If using 2 layers, multiply the area by 2. | 09_NW or 12_WF | 03 or 04 |
| Interior wall (permanent) | Plywood | - | - | | m² | Enter as single-layer equivalent. If using 2 layers, multiply the area by 2. | 09_NW or 12_WF | 03 or 04 |
| Interior wall (permanent) | Fibre cement sheet | - | - | | m² | Enter as single-layer equivalent. If using 2 layers, multiply the area by 2. | 09_NW or 12_WF | 03 or 04 |
| Interior wall (permanent) | Insulation | - | - | | m² | | 09_NW or 12_WF | 03 or 04 |
| Interior wall (permanent) | Glass | - | - | | m² | | 09_NW or 12_WF | 03 or 04 |
| Interior wall (permanent) | Other (Please describe >>) | | - | | m² | Please enter a description for any internal wall that does not fit a predefined classification | 09_NW or 12_WF | 03 or 04 |
| Internal door (permanent) | Aluminium/glass | - | - | | no. | Please enter as single-leaf equivalent. For double-leaf doors, multiply the quantity by 2. | 11_ND | 03 or 04 |
| Internal door (permanent) | Timber/glass | - | - | | no. | Please enter as single-leaf equivalent. For double-leaf doors, multiply the quantity by 2. | 11_ND | 03 or 04 |
| Internal door (permanent) | Timber solid lightweight | - | - | 44 | no. | Please enter as single-leaf equivalent. For double-leaf doors, multiply the quantity by 2. | 11_ND | 03 or 04 |
| Internal door (permanent) | Fire resistant | - | - | | no. | Please enter as single-leaf equivalent. For double-leaf doors, multiply the quantity by 2. | 11_ND | 03 or 04 |
| Internal door (permanent) | Steel | - | - | | no. | Please enter as single-leaf equivalent. For double-leaf doors, multiply the quantity by 2. | 11_ND | 03 or 04 |
| Internal door (permanent) | Other (Please describe >>) | | - | | no. | Please enter a description for any internal door that does not fit a predefined classification | 11_ND | 03 or 04 |
| Other (Please describe and add unit >>) | | - | - | | | Please enter a description for any material that does not fit a predefined classification | | |
| Other (Please describe and add unit >>) | | - | - | | | Please enter a description for any material that does not fit a predefined classification | | |
| Other (Please describe and add unit >>) | | - | - | | | Please enter a description for any material that does not fit a predefined classification | | |

Services

Unit of measure

Building services included within the main building contract. If the building components that are the subject of the development application or the construction certificate are **base building only**, then only enter these items. If you cannot split services by type, please enter them all in the "Other services" category at the bottom. Enter all values as **material costs in dollars**.

| | | | | | | | | |
|----------------------------------|---|---|---|---------|---------------|--|----------------------------------|----------|
| Mechanical services | - | - | - | 700,730 | AUD excl. GST | Where possible, enter material costs excluding labour, plant, equipment, margins and taxes | 28_SS | 05 |
| Vertical transportation | - | - | - | 140,000 | AUD excl. GST | Where possible, enter material costs excluding labour, plant, equipment, margins and taxes | 28_SS | 05 |
| Electrical services | - | - | - | 650,858 | AUD excl. GST | Electrical services including the main power supply, backup generators, security and communications. Excluding solar installations. Where possible, enter material costs excluding labour, plant, equipment, margins and taxes. | 26_LP | 05 |
| Solar photovoltaic installations | - | - | - | 75,000 | AUD excl. GST | Where possible, enter material costs excluding labour, plant, equipment, margins and taxes | 26_LP_LPGP | 05 |
| Plumbing/hydraulic services | - | - | - | 783,695 | AUD excl. GST | Where possible, enter material costs excluding labour, plant, equipment, margins and taxes | 18_PD and 19_WS | 05 or 06 |
| Fire services | | | | 439,959 | AUD excl. GST | Where possible, enter material costs excluding labour, plant, equipment, margins and taxes | 25_FPSS04 or 39_XWAW_03 or 41_XF | 05 |
| Other services (Please describe) | | - | - | | AUD excl. GST | Please group all other services here, meaning that coverage will always be 100% for services. Enter only the material costs (excluding labour, plant, equipment, margins and taxes). | 29_SS or multiple | |

External works

The materials associated with hard landscaping and outbuildings on the site but outside the building envelope.

This includes hardstands, carparks, driveways, covered walkways, decks, patios, awnings, fences, gates, etc. Soft landscaping should be excluded.

| | | | | | | | | |
|---|--------------------|---|---|-------|----|---|----------------------------------|----|
| Coverage of spend on external works | - | - | - | 85 | % | Required. Coverage of spend for external works (excluding soft landscaping) entered below. Minimum requirement = 80%. Exclude head contractor preliminaries and margins. | | |
| Asphalt | - | - | - | 95 | t | | 33_XR | 07 |
| Concrete in-situ | ≤10 MPa | - | - | | m³ | Please enter reinforcing steel as part of "Reinforcing steel" below | 33_XR or 34_XN or 35_XB or 36_XL | 07 |
| Concrete in-situ | >10 MPa to ≤20 MPa | - | - | 26.0 | m³ | Please enter reinforcing steel as part of "Reinforcing steel" below | 33_XR or 34_XN or 35_XB or 36_XL | 07 |
| Concrete in-situ | >20 MPa to ≤32 MPa | - | - | | m³ | Please enter reinforcing steel as part of "Reinforcing steel" below | 33_XR or 34_XN or 35_XB or 36_XL | 07 |
| Concrete in-situ | >32 MPa to ≤40 MPa | - | - | | m³ | Please enter reinforcing steel as part of "Reinforcing steel" below | 33_XR or 34_XN or 35_XB or 36_XL | 07 |
| Concrete in-situ | >40 MPa to ≤50 MPa | - | - | | m³ | Please enter reinforcing steel as part of "Reinforcing steel" below | 33_XR or 34_XN or 35_XB or 36_XL | 07 |
| Concrete in-situ | >50 MPa | - | - | | m³ | Please enter reinforcing steel as part of "Reinforcing steel" below | 33_XR or 34_XN or 35_XB or 36_XL | 07 |
| Pavers, bricks and blocks | Concrete | - | - | | m² | | 33_XR | 07 |
| Pavers, bricks and blocks | Clay | - | - | | m² | | 33_XR | 07 |
| Reinforcing steel | Bar & mesh | - | - | 1,944 | kg | Include all reinforcing steel bar/mesh in the external works in this row. Usually this is calculated as kg/m³ per concrete element and then summed. Example: 10 m³ of 40 MPa concrete @ 100 kg/m³ + 5 m³ of 50 MPa concrete @ 150 kg/m³ = 1,750 kg reinforcing steel. | 33_XR or 34_XN or 35_XB or 36_XL | 07 |
| Reinforcing steel | Fibre & strand | - | - | | kg | Include all steel fibre reinforcing and steel strand in the external works in this row. | 33_XR or 34_XN or 35_XB or 36_XL | 07 |
| Structural steel | - | - | - | | t | | 02_11 | 07 |
| Structural aluminium | - | - | - | | t | Includes structures, louvre systems, etc. | 35_XB | 07 |
| External roof/wall cladding | Polycarbonate | - | - | | m² | Enter as profiled polycarbonate sheet that would ordered, including allowance for overlap | 35_XB | 07 |
| External roof/wall cladding | PVC | - | - | | m² | Enter as profiled PVC sheet that would ordered, including allowance for overlap | 35_XB | 07 |
| External roof/wall cladding | Bitumen sheet | - | - | | m² | Enter as bituminous sheet that would ordered, including allowance for overlap | 35_XB | 07 |
| External roof/wall cladding | Steel profile | - | - | | m² | Enter as profiled steel sheet that would ordered, including allowance for overlap | 35_XB | 07 |
| Fill | - | - | - | | t | Include purchased material only. Exclude site-won material. | 33_XR or 34_XN or 35_XB or 36_XL | 07 |
| Sand & gravel | - | - | - | | t | Include purchased material only. Exclude site-won material and sand/gravel in concrete. | 33_XR or 34_XN or 35_XB or 36_XL | 07 |
| Timber (solid) | Sawn softwood | - | - | | m³ | | 33_XR or 34_XN or 35_XB or 36_XL | 07 |
| Timber (solid) | Sawn hardwood | - | - | | m³ | | 33_XR or 34_XN or 35_XB or 36_XL | 07 |
| Timber (engineered) | CLT | - | - | | m³ | | 33_XR or 34_XN or 35_XB or 36_XL | 07 |
| Timber (engineered) | Glulam | - | - | | m³ | | 33_XR or 34_XN or 35_XB or 36_XL | 07 |
| Timber (engineered) | LVL | - | - | | m³ | | 33_XR or 34_XN or 35_XB or 36_XL | 07 |
| Timber (engineered) | OSB | - | - | | m³ | | 33_XR or 34_XN or 35_XB or 36_XL | 07 |
| Fabric (awning/sunshade) | | - | - | | m² | | 35_XB or 36_XL | 07 |
| Other (Please describe and add unit >>) | | - | - | | | Please enter a description for any external works that does not fit a predefined classification | | |
| Other (Please describe and add unit >>) | | - | - | | | Please enter a description for any external works that does not fit a predefined classification | | |
| Other (Please describe and add unit >>) | | - | - | | | Please enter a description for any external works that does not fit a predefined classification | | |

Step 3: Certifier details

Fill out blue cells

The material quantities must be determined through an itemised list of building materials (such as a bill of quantities) and certified by a quantity surveyor, designer, engineer or NABERS Assessor.

| Person that completed this form | Value | Note |
|---------------------------------|--------------------|----------|
| Name | James Brandtman | Required |
| Company | Mitchell Brandtman | Required |
| ABN | 38 372 658 067 | |
| Profession | Quantity Surveyor | Required |
| Qualification or registration | MAIQS CQS #9246 | Required |

| Person that certified the details in this form | Value | Note |
|--|--------------------|----------|
| Name | James Brandtman | Required |
| Company | Mitchell Brandtman | Required |
| ABN | 38 372 658 067 | |
| Profession | Quantity Surveyor | Required |
| Qualification or registration | MAIQS CQS #9246 | Required |

| Confirmation of certification | Value | Note |
|---|-------|----------|
| Are 80% of material costs captured for the building's structure, envelope and external works? | Yes | Required |
| If no - why not? | | |

| Additional comments from data provider |
|--|
| N/A |

| Additional comments of certifier |
|----------------------------------|
| N/A |

Attach this Excel spreadsheet to your development application or construction certificate application.

This version:

1.20

Version history:

| | | |
|------|-----------------|---|
| 1.00 | 01-October-2023 | Initial version. |
| 1.10 | 12-October-2023 | Error on 'Instructions' tab - changed 'cost of materials' for (1)-(4) to 'quantity of materials'. |
| 1.20 | 24-October-2023 | Manual check for updates using button (instead of each time the sheet is opened). |