### Step 1: About the building

Step 1: About the building	Fill out blue cells			
Building location and site data	Value	Unit	Note	Comment
Building address	21 Moore Street Clontarf NSW			
Postcode	2093		Required	Postcode of building
Town/city	BALGOWLAH + 5 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		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?	Major renovation		Required	
Brownfield or greenfield site?	Brownfield		Required	

		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	262		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 re-	sidence
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			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 garage	es ·
Class 10b: Miscellaneous structures			m²	Required for Class 10b: Miscellaneous structures, including fences, masts, antennas, retaining	ng walls and swimming pools
Class 10c: Bushfire shelters			m²	Required for Class 10c: Bushfire shelters not attached to a Class 1a building	
Total	262		m²	Required: Sum of m <sup>2</sup> inputs must be more than 0.	

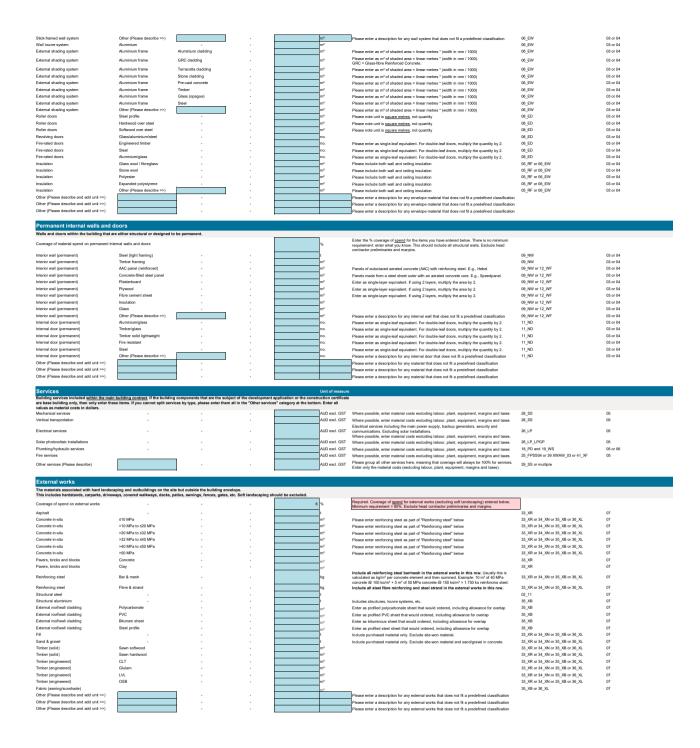
Project information	Value		Note	
Total cost of project	830,000	AUD excl. GST	Required	Include labour, materials, transport, plant, equipment and professional fees. Exclude GST, land, finance, escalation and other costs.
Building design life	50	years	Required	If uncertain, enter 50 years
Estimated envelope 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	492	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	166	m <sup>2</sup>	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	57	m	Required	
Area of external carpark (not included in GFA)	30	m <sup>2</sup>	Required. Enter 0 if not applicable.	
Area of external hardstand (not included in GFA)	0	m <sup>2</sup>	Required. Enter 0 if not applicable.	
Area of other hard landscaping (not included in GFA)	90	m <sup>2</sup>	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	3	no.	Required	
Number of floors/storeys below ground	0	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	9	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)	Light timber		Required	
	Lightweight timber		Only needed for multi-storey buildings	
Describe low carbon materials specified in your building (e.g. green concrete, low carbon bricks)	Lightweight timber framing throughout. Rockwool insulation. Minimal use of concrete, steel or aluminium. Face-brick internally to minimise covering layers and paint.		Required	
	Timber framing salvaged from demolition works to be re- used in the construction of the new alterations and additions.		Required	

Fill out blue cells

Material category	Sub-category 1	Sub-category 2	Sub-category 3	Value	Unit of measur	a   C	AIQS ACMM Code	ICMS3 (Level 3 Codes Construction)
Structure	Sub-category 1	Sub-category 2	Sub-category 3	value	Unit of measur	e Comment	AIQS ACMM Code	ICMS3 (Level 3 Codes Construction)
The structural parts of the building that ar This includes fill below the substructure,	foundations, basement levels, su	nd above ground (superstrusted) spended floors, wall struct	ucture). ure, roof structure, stairs, li	ft shafts and balconies.				
It excludes external areas such as hardsta Coverage of structural material spend	nds, carparks, patios, etc.			8	1%	Required. Coverage of <u>spend</u> for structural elements entered below.	1	
Concrete in-situ	s10 MPa				m³	Minimum requirement = 80%. Exclude head contractor preliminaries and margins.  Please enter reinforcing steel as part of "Reinforcing steel" below	01_SB or 02-11	02 or 03
Concrete in-situ Concrete in-situ	>10 MPa to s20 MPa >20 MPa to s32 MPa		:		m³	Please enter reinforcing steel as part of "Reinforcing steel" below  Please enter reinforcing steel as part of "Reinforcing steel" below	01_SB or 02-11 01_SB or 02-11	02 or 03 02 or 03
Concrete in-situ Concrete in-situ	>32 MPa to s40 MPa >40 MPa to s50 MPa				m³	Please enter reinforcing steel as part of "Reinforcing steel" below Please enter reinforcing steel as part of "Reinforcing steel" below	01_SB or 02-11 01_SB or 02-11	02 or 03 02 or 03
Concrete in-situ	>50 MPa to s60 MPa	-			m³	Please enter reinforcing steel as part of "Reinforcing steel" below	01_SB or 02-11	02 or 03
Concrete in-situ Concrete in-situ	>60 MPa to s80 MPa >80 MPa to s100 MPa		:		m,	Please enter reinforcing steel as part of "Reinforcing steel" below Please enter reinforcing steel as part of "Reinforcing steel" below	01_SB or 02-11 01_SB or 02-11	02 or 03 02 or 03
Concrete in-situ	>100 MPa	-			m³	Please enter reinforcing steel as part of "Reinforcing steel" below Please enter reinforcing steel in relevant line items below. If not known at DA stage, please make	01_SB or 02-11	02 or 03
Concrete pre-cast panel  Concrete block	- Hollow core				m,	your best estimate. If not known at CC stage, please ask your supplier.	01_SB or 02-11 01_SB	02 or 03 02 or 03
Concrete block/brick	Solid Solid				m,	Enter as <u>cubic metres</u> , calculated as (area in m?) * (thickness in mm / 1000). The properties of the state	01_SB 01_SB	02 or 03
Concrete block/brick	Solid AAC				m³	Solid Aerated Autoclaved Concrete (AAC) block.  Enter as <u>cubic metres</u> , calculated as (area in m²) * (thickness in mm / 1000).	01_SB	02 or 03
Mortar		-			kg	Include all reinforcion steel barimesh in the building's structure in this row. He will this is	01_SB	02 or 03
Reinforcing steel	Bar & mesh	•			kg	calculated as kg/m² per concrete element and then summed. Example: 10 m² of 40 MPa concrete @ 100 kg/m² + 5 m² of 50 MPa concrete @ 150 kg/m² = 1,750 kg reinforcing steel.	01_SB or 02-11	02 or 03
Reinforcing steel Structural steel	Fibre & strand Hot rolled structural		:		kg t	Include all steel fibre reinforcing and steel strand in the building's structure in this row.  Examples include universal beams, universal columns and welded beams	01_SB or 02-11 01_SB	02 or 03 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 Structural steel	Other welded structural Plate		:		t	Include any allowance for connections here	01_SB 01_SB	02 or 03 02 or 03
Structural steel Stainless steel	Sheet	-	:		t	Primarily for engineered timber structure connections	01_SB 02_11	02 or 03 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 Timber poles/piles	:		:		t m³	Where concrete and reinforcing steel are also used, enter these in the rows above.  Where concrete and reinforcing steel are also used, enter these in the rows above.	01_SB 01_SB	02 or 03 02 or 03
Timber (solid)	Sawn softwood	-			m,	where concrete and removing seen are also used, enter mess in the rows above.	02_11	02 or 03
Timber (solid) Timber (engineered)	Sawn hardwood CLT	-	:		m, m,		02_11 02_11	02 or 03 02 or 03
Timber (engineered) Timber (engineered)	Glulam LVL		:		m³		02_11 02_11	02 or 03 02 or 03
Timber (engineered)	OSB Heat cured				m,	Enter as <u>cubic metres</u> , calculated as (area of wall in m²) * (thickness in mm / 1000)	02_11	02 or 03 02 or 03
Brick Structural Insulated Panel (SIP)	Heat oured Steel outer		:		m, m,	Enter as <u>cubic metres</u> , calculated as (area of wall in m²) * (thickness in mm / 1000)	02_11 01_SB	02 or 03 02 or 03
Structural Insulated Panel (SIP) Structural Insulated Panel (SIP)	Aluminium outer Engineered timber outer		:		m²		01_SB 01_SB	02 or 03 02 or 03
Fill Sand & gravel		•			t .	Include purchased material only, Exclude site-won material.  Include purchased material only, Exclude site-won material and sand/gravel in concrete.	01_SB 01_SB	01
Waterproofing membrane	Bituminous		:		m²	Include purchased material only. Exclude site-won material and sand/gravel in concrete.	01_SB	01 or 02 or 03
Waterproofing membrane Other structural (Describe and add unit >>)	Polyethylene	i :			m²	Please enter a description for any structural material that does not fit a predefined classification	01_SB	01 or 02 or 03
Other structural (Describe and add unit >>) Other structural (Describe and add unit >>)		-				Please enter a description for any structural material that does not fit a predefined classification  Please enter a description for any structural material that does not fit a predefined classification		
One statema (ocsenic and add drie)						Prease enter a description for any sauctural material trial does not not a predefined dissincation		
Envelope The skin of the building that separates the	internal building from the order							
This includes the roof cladding, wall clade	ding, windows, doors and intern	al/external shading. It also i	ncludes insulation and the		velope walls.		1	
Coverage of envelope material spend		-		14	%	Required. Coverage of <u>seend</u> for the envelope items you have entered below. Minimum requirement = 80%. Exclude head contractor preliminaries and margins. Enter as m <sup>2</sup> of roof area. Exclude allowances for overlap in the roofing sheets. This row includes		
Roof cladding	Profiled steel				m²	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	06_RF	03 or 04
Roof cladding	Profiled aluminium				m²	coated steel, whether painted or unpainted.  Enter as m <sup>2</sup> of roof area. Exclude allowances for overlap in the roofing sheets. This row also	05 RF	03 or 04
Roof cladding	Profiled zinc				m²	includes pre-painted aluminium sheets.  Enter as m³ of roof area. Exclude allowances for overlap in the roofing sheets. This row also	06 RF	03 or 04
Roof cladding	Membrane				m²	includes pre-painted zinc sheets.  Enter as m³ of roof area. Exclude allowances for overlap in the membrane sheets.	05_RF	03 or 04
Roof cladding Roof cladding	Tiles (traditional clay) Tiles (concrete)		:		m, m,	Enter as m <sup>3</sup> of roof area. Exclude allowances for overlap between the tiles.  Enter as m <sup>3</sup> of roof area. Exclude allowances for overlap between the tiles.	05_RF 05_RF	03 or 04 03 or 04
Roof cladding	Other (Please describe >>)				m²	Please enter a description for any roofing that does not fit a predefined classification	06_RF	03 or 04
Wall cladding	Bricks (heat cured)	•			m²	Enter as m <sup>2</sup> 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 Wall cladding	Bricks (air dried) Bricks (under fired)		:		m²	Enter as m <sup>2</sup> of wall area. Air-dried bricks are cured using ambient temperature.  Enter as m <sup>2</sup> of wall area.	06_EW 06_EW	03 or 04 03 or 04
Wall cladding Wall cladding	Bricks (concrete) Mortar and render				m²	Enter as m³ of wall area	06_EW 06_EW	03 or 04 03 or 04
-		•			Ng .	Enter as m <sup>2</sup> of wall area. Exclude allowances for overlap in the cladding sheets, offcuts, etc. This row includes all metal-coated and ore-painted steel sheets where steel is the base metal.	i	
Wall cladding	Profiled steel	•			m²	Examples include: galvanised steel, zinc-aluminium (zincalume) coated steel and zinc-aluminium magnesium (ZAM) coated steel, whether painted or unpainted.		03 or 04
Wall cladding	Profiled aluminium	-			m²	Enter as m <sup>2</sup> 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 m <sup>3</sup> of wall area. GRC = Glass Reinforced Concrete.	06_EW	03 or 04
Wall cladding Wall cladding	Timber weatherboards Fibre cement board	-	:		m²	Enter as m³ of wall area. Exclude allowances for overlap between weatherboards, offcuts, etc.  Enter as m³ of wall area. Exclude allowances for offcuts, etc.	06_EW 06_EW	03 or 04 03 or 04
Wall cladding	Terracotta				m²	Enter as m³ of wall area. Exclude allowances for offcuts, etc.	06_EW	03 or 04
Wall cladding	Plasterboard				m²	Enter as m <sup>2</sup> of wall area. Exclude allowances for offcuts, etc.  Enter as m <sup>3</sup> 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	and internal wall inlings for envelope walls.  Enter as m <sup>3</sup> 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 Windows & doors	Aluminium frame Aluminium frame	Single glazed Double glazed	:		m, m,	Include all single glazing, including standard, toughened, laminated and low-E Include all double glazing, including standard, toughened, laminated and low-E	07_WW or 08_ED 07_WW or 08_ED	03 or 04 03 or 04
Windows & doors Windows & doors	Aluminium frame Timber frame	Triple glazed Single glazed	:		m²	Include all triple glazing, including standard, toughened, laminated and low-E Include all single glazing, including standard, toughened, laminated and low-E	07_WW or 08_ED 07_WW or 08_ED	03 or 04 03 or 04
Windows & doors Windows & doors	Timber frame	Double glazed			m²	Include all double glazing, including standard, toughened, laminated and low-E	07_WW or 08_ED 07_WW or 08_ED	03 or 04 03 or 04
Windows & doors	uPVC frame	Triple glazed Single glazed			m²	Include all triple glazing, including standard, toughened, laminated and low-E Include all single glazing, including standard, toughened, laminated and low-E	07_WW or 08_ED	03 or 04
Windows & doors Windows & doors	uPVC frame uPVC frame	Double glazed Triple glazed	:		m,	Include all double glazing, including standard, toughened, laminated and low-E Include all triple glazing, including standard, toughened, laminated and low-E	07_WW or 08_ED 07_WW or 08_ED	03 or 04 03 or 04
Windows & doors Windows & doors	Frameless Frameless	Single glazed Double glazed			m²	Include all single glazing, including standard, toughened, laminated and low-E Include all double glazing, including standard, toughened, laminated and low-E	07_WW or 08_ED 07_WW or 08_ED	03 or 04 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 >>)	01-1-1			m²	Please enter a description for any windows or doors that do not fit a predefined classification  Please declare all single-skin façade area in this section. All double-skin façade area should be	07_WW or 08_ED	03 or 04
Curtain wall	Single skin façade	Glazed panel	Single glazed		m*.	entered in the next section. Include all single glazing, including standard, toughened, laminated and low-E		03 or 04
Curtain wall Curtain wall	Single skin façade Single skin façade	Glazed panel Glazed panel	Double glazed Triple glazed		m, m,	Include all double glazing, including standard, toughened, laminated and low-E Include all triple glazing, including standard, toughened, laminated and low-E	06_EW 06_EW	03 or 04 03 or 04
Curtain wall Curtain wall	Single skin façade Single skin façade	Opaque panel Opaque panel	Aluminium cladding GRC cladding		m²	GRC = Glass-fibre Reinforced Concrete	06_EW 06_EW	03 or 04 03 or 04
Curtain wall	Single skin façade	Opaque panel	Insulated shadow box		m²	Ord - Glass-like Helmood Gordon	06_EW	03 or 04
Curtain wall Curtain wall	Single skin façade Single skin façade	Opaque panel Opaque panel	Brick cladding Stone cladding		m, m,		06_EW 06_EW	03 or 04 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	Include all single glazing, including standard, toughened, laminated and low-E.  The type of glazing refers to the building's envelope wall, not including the outer skin	06_EW	03 or 04
Curtain wall Curtain wall	Double skin façade Double skin façade	Glazed panel Opaque panel	Triple glazed Aluminium cladding		m <sub>s</sub>	The type of glazing refers to the building's envelope wall, not including the outer skin	06_EW 06_EW	03 or 04 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 Curtain wall	Double skin façade Double skin façade	Opaque panel Opaque panel	Insulated shadow box Brick cladding		m²		06_EW 06_EW	03 or 04 03 or 04
Curtain wall Curtain wall	Double skin façade Other (Please describe >>)	Opaque panel	Stone cladding		m <sup>2</sup>	Please enter a description for any curtain wall that does not fit a predefined classification	06_EW 06_EW	03 or 04 03 or 04
Stick-framed wall system Stick-framed wall system	Aluminium frame Aluminium frame	Glazed section Glazed section	Single glazed Double glazed		m²	Include all single glazing, including standard, toughened, laminated and low-E Include all double glazing, including standard, toughened, laminated and low-E	06_EW 06_EW	03 or 04 03 or 04
Stick-framed wall system	Aluminium frame	Glazed section	Triple glazed		m²	Include all double glazing, including standard, toughened, laminated and low-E Include all triple glazing, including standard, toughened, laminated and low-E	06_EW	03 or 04
Stick-framed wall system Stick-framed wall system	Aluminium frame Aluminium frame	Opaque section Opaque section	Aluminium cladding GRC cladding		m²	GRC = Glass-fibre Reinforced Concrete	06_EW 06_EW	03 or 04 03 or 04
Stick-framed wall system Stick-framed wall system	Auminium frame Auminium frame	Opaque section Opaque section	Insulated shadow box Brick cladding		m²		06_EW 06_EW	03 or 04 03 or 04
Stick-framed wall system	Aluminium frame	Opaque section	Stone cladding		m²		06_EW	03 or 04
Stick-framed wall system Stick-framed wall system	Steel frame Steel frame	Glazed section Glazed section	Single glazed Double glazed		m <sub>s</sub>	Include all single glazing, including standard, toughened, laminated and low-E Include all double glazing, including standard, toughened, laminated and low-E	06_EW 06_EW	03 or 04 03 or 04
Stick-framed wall system Stick-framed wall system	Steel frame Steel frame	Glazed section Opaque section	Triple glazed Aluminium cladding		m <sup>2</sup>	Include all triple glazing, including standard, toughened, laminated and low-E	06_EW 06_EW	03 or 04 03 or 04
Stick-framed wall system Stick-framed wall system	Steel frame Steel frame	Opaque section Opaque section	GRC cladding Insulated shadow box		m²	GRC = Glass-fibre Reinforced Concrete	06_EW	03 or 04 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		lm,		06_EW	03 or 04



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	Rod Pindar	Required
Company	Fitzpatrick+Partners Architects	Required
ABN	19 081 636 900	
Profession	Architecture	Required
Qualification or registration	Reg No 9019	Required

Person that certified the details in this form	Value	Note
Name	Rod Pindar	Required
Company	Fitzpatrick+Partners Architects	Required
ABN	19 081 636 900	
Profession	Architecture	Required
Qualification or registration	Reg No 9019	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

Fitzpatrick+Partners Architects are signatories to Architects Declare and widely regarded as one of the leading authorities on sustainable design. Notably, this includes the understanding, design and advocacy of reduced embodied carbon in the built environment. We have invested over two years of research and deployed our own Embodied Carbon Tool, shared openly and freely with industry in 2022. This can be found at:

https://www.embodied-carbons.com/pages/dashboard

This Embodied Carbon Tool has been used during the preparation of this DA.

Rod Pindar is a Partner at Fitzpatrick+Partners Architects and co-designer for these alterations and additions at 21 Moore Street with Natalie Sciberras Architecture & Interior Design.

# Additional comments of certifier

See above.

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.

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

1.20 24-October-2023



# **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: <a href="mailto:nabers@environment.nsw.gov.au">nabers@environment.nsw.gov.au</a>

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