



City of London Corporation Carbon Options Tool

Revision:	02
Date:	December 2025

This tool contains the minimum reporting requirements expected for all carbon optioneering studies submitted to the City of London Corporation during the pre-app stage. The Carbon Options Tool should be submitted by the applicant in Excel format, accompanying a summary carbon optioneering report which should explain and clearly present the outcome of the optioneering to any interested parties scrutinising application proposals (third-party reviewer, public, councillors).

This reporting tool is to be completed based on the requirements outlined in the Planning Advice Note: Carbon Options Guidance, **December 2025, Rev 02**.



Rev 02 of the COG PAN can be downloaded here: [Sustainable development planning requirements.](#)

How to use this reporting tool

Dashboard 1 - Applicant Inputs

Table A in this section should be populated in its entirety by the applicant for each of the options included in the carbon optioneering study.

With regard to the following inputs: *Scope of works summary* (row 6), *Description of anticipated temporary works (if any)* (row 7), *Opportunities and main benefits* (row 8), *Constraints and challenges* (row 9) and *Notes and assumptions used for WLC calculations* (row 51) please provide a summary commentary for each option (a more detailed description can be provided in the accompanying optioneering report).

Any values/fields that are not applicable for the options assessed should be left as *blank*. Alternatively, enter '0' .

Multi-building sites - This tool should be completed with the cumulative information of the whole development, however the applicants should provide additional granularity and include specific information for each building within the accompanying optioneering report. More details can be found in Section 6 of the COG PAN: Carbon Options Guidance.

Cumulative carbon impacts

This section includes two tables:

Table B is partially auto populated from the data entered by the applicant in the 'Dashboard - Applicant Inputs' tab . Blue cells require manual entry from the applicant.

Table C is automatically populated and cannot be modified by the applicant.






Outputs

This entire section is auto populated based on data entered by the applicant in Table A and Table B.

All figures, tables and graphs available in this section can be exported and used within the carbon optioneering report, should the applicant wish to.

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Table A: Options information

Development option name		Option 1	Option 2	Option 3	Option 4	Option 5
Development option image						
Scope of works summary						
Description of anticipated temporary works (if any)						
Opportunities and main benefits						
Constraints and challenges						
Existing Gross Internal Area (GIA) being demolished, m ²						
Existing Gross Internal Area (GIA) being retained, m ²						
PROPOSED Gross Internal area (GIA), m ²						
Existing Net Internal area (NIA), m ²						
PROPOSED Net Internal area (NIA), m ²						
List of existing materials and building(s) elements being demolished						
Overall building(s) height AOD, m						
Number of floors above ground						
Slab-to-slab heights (from top of the lower slab to bottom of the upper slab), m						
Achievable floor to ceiling heights (from finished floor level to lowest ceiling object), m						
Substructure retention (foundations, lowest floor construction and basement retaining walls), % by mass						
Superstructure retention (frame, upper floors, roof structure, stairs and ramps, internal and external load-bearing walls), % by mass						
Façade retention (external walls, windows and external doors), % by area						
Pre-construction demolition impact (kgCO ₂ e/m ² GIA)						
Upfront embodied carbon (kgCO ₂ e/m ² GIA) Results by element category (see table 1)	Upfront Embodied Carbon (A1-A5) excl. sequestration (kgCO ₂ e/m ² GIA)					
	Temporary works (where relevant)					
	Substructure					
	Superstructure (frame, upper floors, roof, stairs and ramps)					
	Façade (external walls, windows and external doors)					
	Internal walls (internal walls and partitions)					
	Finishes (wall, floor and ceiling finishes)					
	Fittings, furnishings & equipment					
	Building services (M&P and vertical transportation)					
	Prefabricated buildings and building units					
	Works to existing building					
	External works					
	In-Use Embodied Carbon (B1-B5) (kgCO ₂ e/m ² GIA)					
End-of-Life Embodied Carbon (C1-C4) (kgCO ₂ e/m ² GIA)						
Whole Building Operational Energy (kWh/m ² GIA per year)						
Whole Building Operational Energy (kWh/m ² GIA per year)						
Operational Carbon (B6) (kgCO ₂ e/m ² GIA)						
Energy source(s) <input type="checkbox"/> Electricity (national grid) <input type="checkbox"/> Gas <input type="checkbox"/> District heating <input type="checkbox"/> District cooling <input type="checkbox"/> Other (please specify below) Other energy source:		<input type="checkbox"/> Electricity (national grid) <input type="checkbox"/> Gas <input type="checkbox"/> District heating <input type="checkbox"/> District cooling <input type="checkbox"/> Other (please specify below) Other energy source:	<input type="checkbox"/> Electricity (national grid) <input type="checkbox"/> Gas <input type="checkbox"/> District heating <input type="checkbox"/> District cooling <input type="checkbox"/> Other (please specify below) Other energy source:	<input type="checkbox"/> Electricity (national grid) <input type="checkbox"/> Gas <input type="checkbox"/> District heating <input type="checkbox"/> District cooling <input type="checkbox"/> Other (please specify below) Other energy source:	<input type="checkbox"/> Electricity (national grid) <input type="checkbox"/> Gas <input type="checkbox"/> District heating <input type="checkbox"/> District cooling <input type="checkbox"/> Other (please specify below) Other energy source:	<input type="checkbox"/> Electricity (national grid) <input type="checkbox"/> Gas <input type="checkbox"/> District heating <input type="checkbox"/> District cooling <input type="checkbox"/> Other (please specify below) Other energy source:
Percentage of electricity (national grid) on overall operational energy (%)						
Electricity carbon factor (kgCO ₂ e/kWh)						
Percentage of gas on overall operational energy (%)						
Gas carbon factor (kgCO ₂ e/kWh electric equivalent)						
Percentage of district heating on overall operational energy (%)						
District heating carbon factor (kgCO ₂ e/kWh)						
Percentage of district cooling on overall operational energy (%)						
District cooling carbon factor (kgCO ₂ e/kWh)						
EPC rating						
Notes and assumptions used for WLC calculations						

 Manual entry required

Table C: Estimated cumulative carbon emissions over a 60-year period (kgCO₂e/m²GIA)

Category	1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30		31		32		33		34		35		36		37		38		39		40		41		42		43		44		45		46		47		48		49		50		51		52		53		54		55		56		57		58		59		60		61		62		63		64		65		66		67		68		69		70		71		72		73		74		75		76		77		78		79		80		81		82		83		84		85		86		87		88		89		90		91		92		93		94		95		96		97		98		99		100	
	Category 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																																			
Category 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																																				
Category 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																																				
Category 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																																				
Category 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																																				

Table D: Development options areas and retention rates


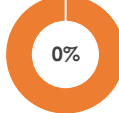
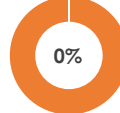
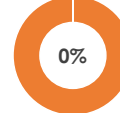

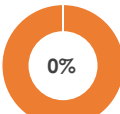
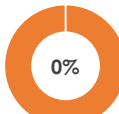
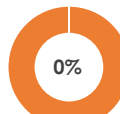
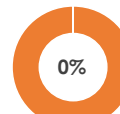
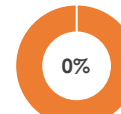





	Option 1	Option 2	Option 3	Option 4	Option 5
Option name	0	0	0	0	0
Gross Internal Area (m ²)	0	0	0	0	0
Change in GIA (compared to existing), %	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Net Internal Area (m ²)	0	0	0	0	0
Change in NIA (compared to existing), %	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Substructure retention (% by mass)					
Superstructure retention (% by mass)					
Façade retention (% by area)					

Table E: Whole life carbon emissions - Carbon intensities (kgCO₂e/m²GIA)

	Option 1	Option 2	Option 3	Option 4	Option 5
Option name	0	0	0	0	0
Pre-construction demolition impact (kgCO ₂ e/m ² GIA)	0	0	0	0	0
Upfront Embodied Carbon (A1-A5) (kgCO ₂ e/m ² GIA)	0	0	0	0	0
In-Use Embodied Carbon (B1-B5) (kgCO ₂ e/m ² GIA)	0	0	0	0	0
Operational Carbon (B6) (kgCO ₂ e/m ² GIA)	0	0	0	0	0
End-of-Life Embodied Carbon (C1-C4) (kgCO ₂ e/m ² GIA)	0	0	0	0	0
Whole Life Carbon (A1-A5, B1-B6, C1-C4) (kgCO ₂ e/m ² GIA) Including pre-construction demolition	0	0	0	0	0

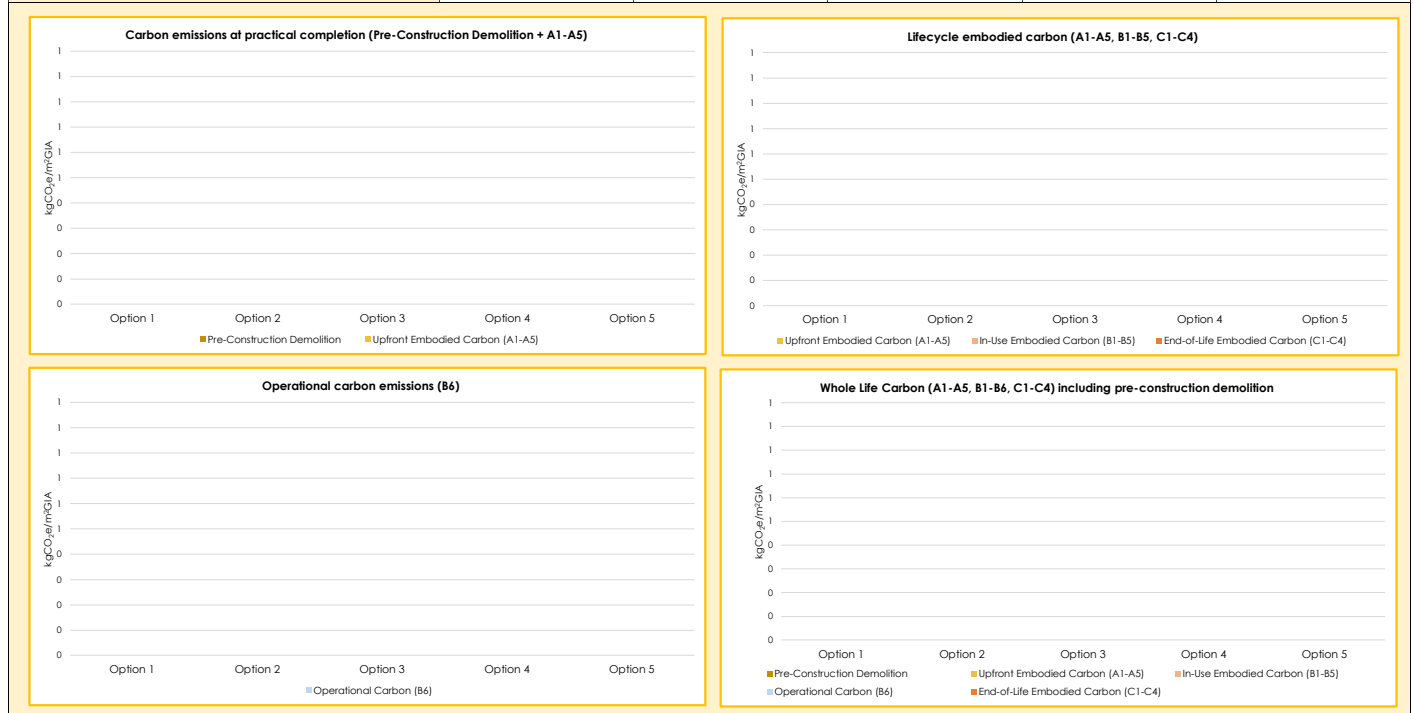


Table E: Whole life carbon emissions - Total emissions (tonnesCO₂e)

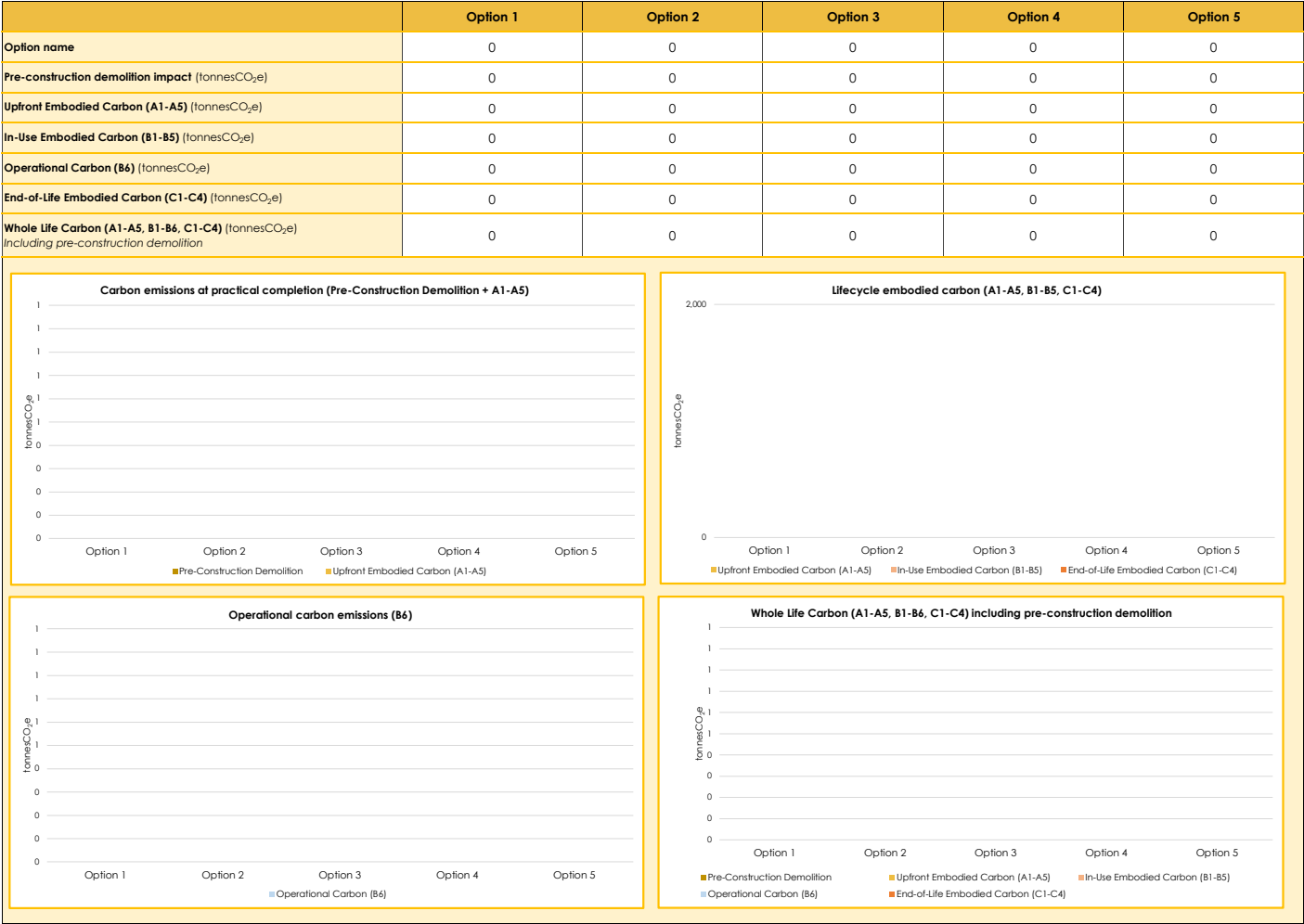
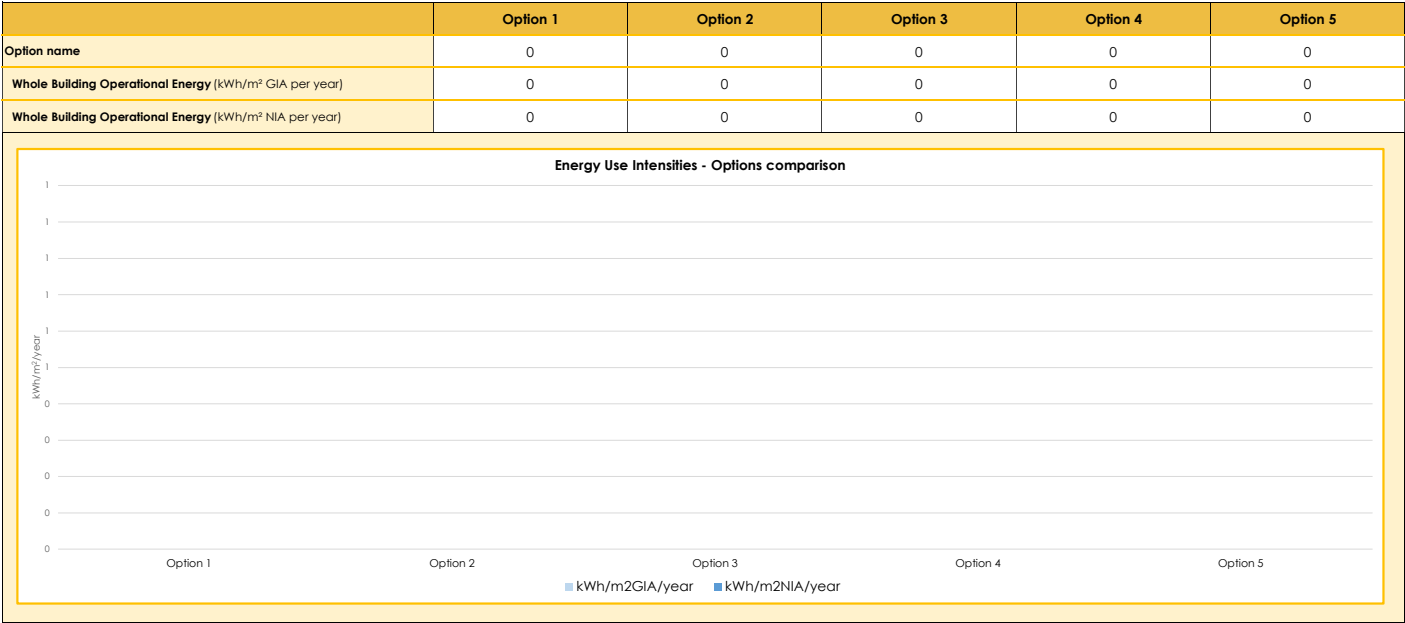


Table F: Whole Building Operational energy - Energy Use Intensities



Cumulative carbon emissions (kgCO₂e/m² GIA)

