

Upfront Carbon (A1-A5) Summary

Project King's Theatre
Typology Culture (Performance)
Location Edinburgh, UK
GIA 4,739 m²

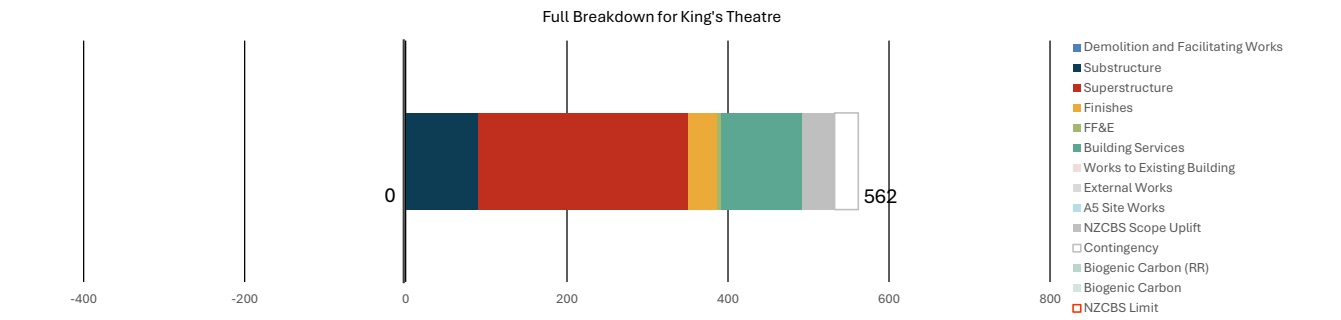
RIBA Workstage RIBA Stage 5
Calculation Method Other RICS Aligned (External)
Prepared by Cundall (10.2021)
Checked by HS (10.03.2025)

NIA (Existing | New) 4,319 m² | 420 m²

Project Overview
The King's Theatre is one Scotland's most important cultural venues. Having opened in 1906, it had undergone two major refurbishments prior to Bennetts Associates most recent work (1950, 1985). The scope includes an extension and upgrade to the fly tower, refurbishment of back of house areas and upgrades to the auditorium. The assessment was undertaken by Cundall for the Net Zero Theatres Study in 2021 using Stage 4 level of information. The A1-A5 results were aligned to LETI reporting originally, but have been adapted to meet the scope requirements for the UK NZCBS.

		Upfront Carbon per Module per Building Element (kgCO ₂ e/m ² GIA)							Notes / Comments
		Building Element	A1-A3	A1-A3 (Seq.)	A4	A5.3	A1-A5	% Cont.	
Demolition and Facilitating Works	Toxic Material Treatment		0.0	0.0	0.0	0.0	0	6	0
	Major Demolition Works		0.0	0.0	0.0	0.0	0	6	0
	Facilitating Works		0.0	0.0	0.0	0.0	0	6	0
Substructure	Foundations and piling		-	-	-	-	90	6	5
	Retaining walls / lowest slab								Substructure reported in aggregated total.
Superstructure	Frame		-	-	-	-	113	6	7
	Upper Floors		-	-	-	-	29	6	2
	Roof		-	-	-	-	12	6	1
	Stairs and Ramp		-	-	-	-	54	6	3
	External Walls and Roof Finish		-	-	-	-	22	6	1
	Windows and External Doors		-	-	-	-	2	6	0
	Internal Walls and Partitions		-	-	-	-	28	6	2
	Internal Doors		-	-	-	-	2	6	0
Finishes	Wall Finishes		-	-	-	-	5	6	0
	Floor Finishes		-	-	-	-	24	6	1
	Ceiling Finishes		-	-	-	-	7	6	0
FF&E	FF&E (Fixed)		-	-	-	-	5	6	0
	FF&E (non-fixed)		-	-	-	-	0	-	-
Building Services	Building Services		-	-	-	-	101	6	6
	Renewable Energy Generation		0.0	0.0	0.0	0.0	0	6	0
Works to Existing Building	Pre-fab Building Units		0.0	0.0	0.0	0.0	0	6	0
	Minor Demolition and Alterations		0.0	0.0	0.0	0.0	0	6	0
External Works	External Works		-	-	-	-	15	-	-
A5 Site Works	A5.1 Demolition		-	-	-	-	-	-	-
	A5.2 Site Activities		-	-	-	-	-	-	-
	A5.4 Workers and Transport		-	-	-	-	-	-	-
SUBTOTAL			N/A	0	N/A	N/A	492	+	30
NZCBS Scope Uplift (if reqd.)							40		Uplift for loose FFE.
TOTAL A1-A5							532	+	30

Summary and Comparison to UK NZCBS Limit			
Upfront Carbon	562 kgCO ₂ e/m ²	(A1-A5) Excludes Sequestration, includes Contingency	
Sequestered Carbon	0 kgCO ₂ e/m ²	(A1-A3)	
UK NZCBS Limit	TBC kgCO ₂ e/m ²	Year: 2025 Sector: Culture	



Additional Notes
The data breakdown is provided in the most granular form available, based upon the original reporting document.