

Upfront Carbon (A1-A5) Summary

Project Storyhouse Theatre
Typology Culture (Performance)
Location Chester, UK
GIA 7,000 m²
NIA (Existing | New) 3,541 m² | 3,459 m²

RIBA Workstage 7
Calculation Method Other RICS Aligned (External)
Prepared by Cundall (10.2021)
Checked by HS (10.03.2025)

Project Overview

Storyhouse is a mixed use cultural centre partly housed in the redundant shell of a 1930s Odeon Cinema in the centre of Chester. Although the project includes significant amounts of refurbishment to the existing building, the main auditorium, studio theatre and performance spaces are in the new extension. The scope of this assessment was therefore originally only to cover the new build area. The assessment was undertaken by Cundall for the Net Zero Theatres Study in 2021 using Stage 5 level of information. As was appropriate at the time of the assessment, some elements are accounted for using cost-based assessment.

Simplified Approach to Reporting Carbon Data

As the project had completed prior to the assessment, key information (such as quantities) has been based upon historic information or estimated and as such, the level of confidence is lower versus more recent LCA work. As such, we have chosen to provide a more high level breakdown of the data, and the project total is provided as an upper limit rather than an absolute value.

Project Upper Limit	<1000 kgCO ₂ e/m ²
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Building Element	A1-A5 TCO ₂ e	A1-A5 kgCO ₂ e/m ²	Contingency kgCO ₂ e/m ²	Comment
Demolition and Facilitating Works	-	-	-	Excluded from Reporting
Substructure	1183	169	17	
Superstructure	3556	508	51	
Finishes	357	51	5	
FF&E	70	10	1	
Building Services	1190	170	17	
Works to Existing Building	0	0	0	
External Works	-	-	-	Excluded from Reporting
A5 Site Emissions (If Seperated)	-	-	-	Included in line items
Contingency (If Seperated)	-	-	-	Included in line items
Subtotals	6356 TCO ₂ e	908 kgCO ₂ e/m ²	+ 91 kgCO ₂ e/m ²	Shell + Core, Cat A
Total		999 kgCO ₂ e/m ²		Inclusive of Contingency

Benchmarking against the UK Net Zero Carbon Building Standard

As a practice Bennetts Associates has supported the development of the UK Net Zero Carbon Building Standard and support the role it can play in providing a single unified definition of Net Zero. As such, we have adopted the standard as a default for benchmarking our projects against. We are not claiming alignment with the standard, only aiming to reference against the limits stated. Often our LCAs are conducted for Shell + Core and Cat A (as per LETI Targets' scope) and so where required, an uplift has been applied as a benchmark rate to align with the UK NZCBS scope of assessment.

Upfront Carbon Total	6356 TCO ₂ e	908 kgCO ₂ e/m ²	+ 91 kgCO ₂ e/m ²	Shell + Core, Cat A
NZCBS Scope Uplift (if reqd.)		40 kgCO ₂ e/m ²		Uplift for Loose FFE assumed
Total		1039 kgCO ₂ e/m ²		Culture, Performance (New)