

Find out more here:



4-6 October, Nationals Park, Washington DC



Let's Digitize to Decarbonize

Alex Jones Rapid-DCS

 **Project Controls**
EXPO
Washington, DC - USA

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2022

Introducing RapidDCS & Sterling



RAPID DCS

CONSULTANTS

DIGITAL TRANSITION EXPERTS

Helping companies invest & benefit from digital progress in the built environment sector

STERLING

SOLUTION

SALES & SERVICES

The next generation web-based all-in-one sustainable estimating solution

Helping carbon conscious professionals to **PROVE & IMPROVE** their carbon footprint.

Means..

- Transparency
- Granularity
- Accountability
- Usability

German officials raid Deutsche Bank's DWS over 'greenwashing' claims

Reuters

**CONSTRUCTION
MANAGEMENT**
Brought to you by CIOB

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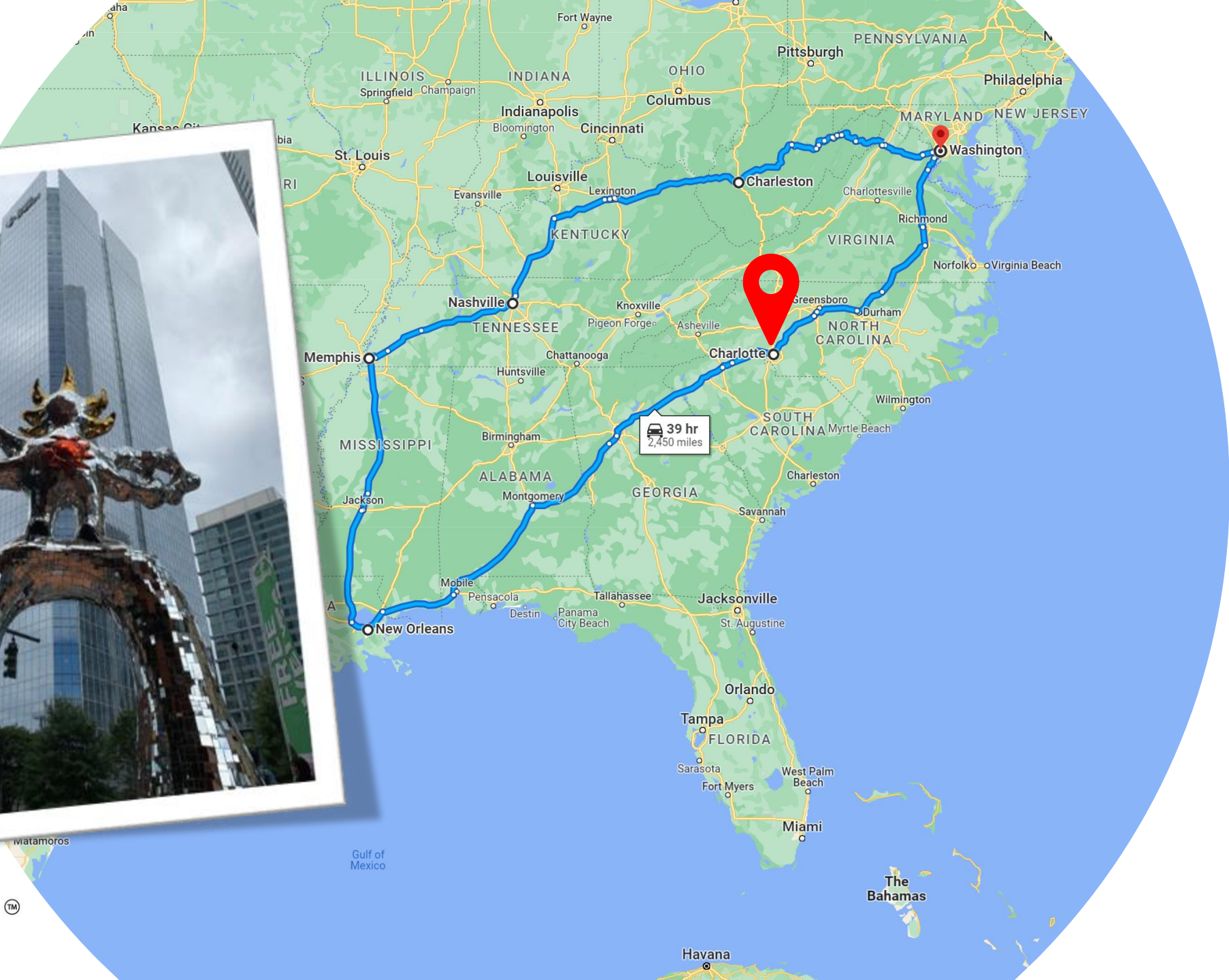
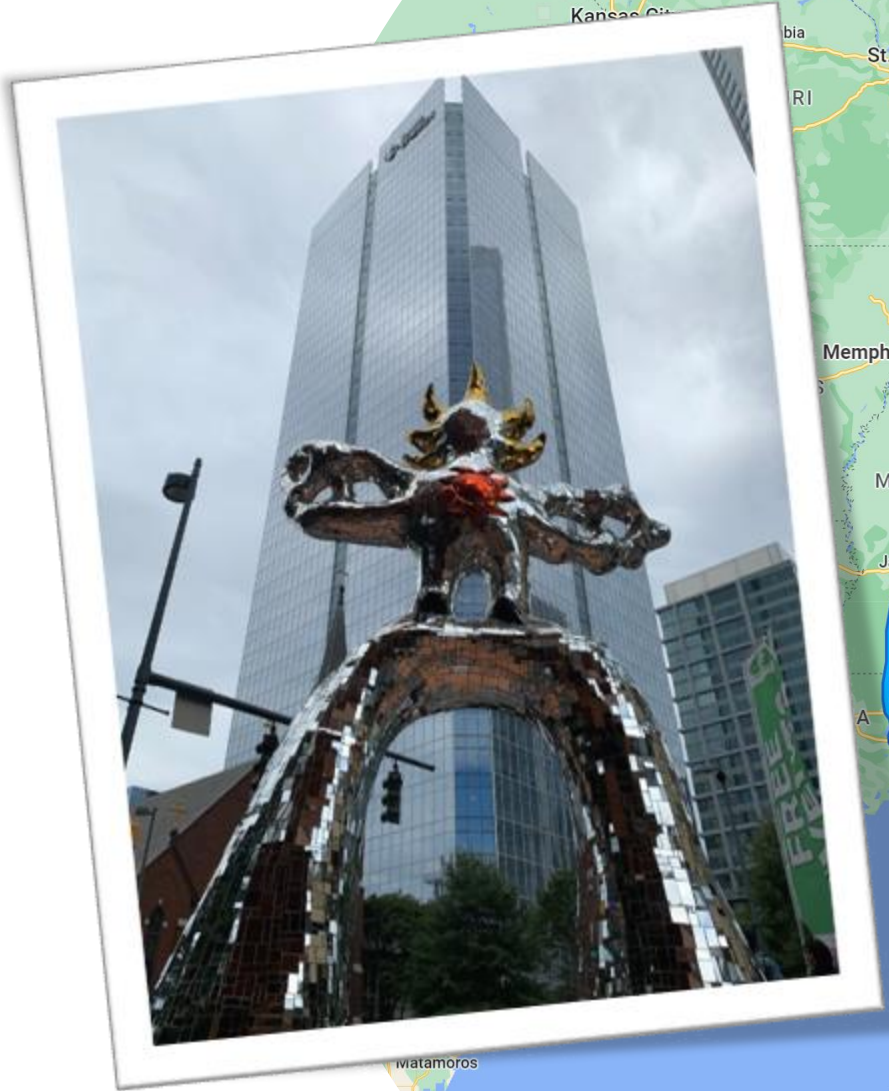
■ News

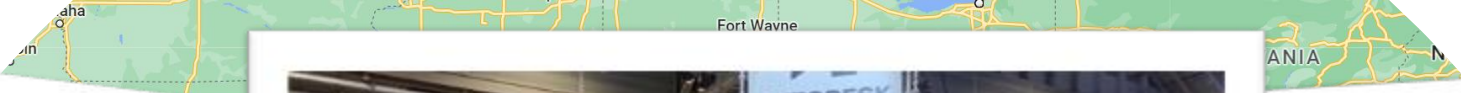
BAM speeds up carbon reduction targets

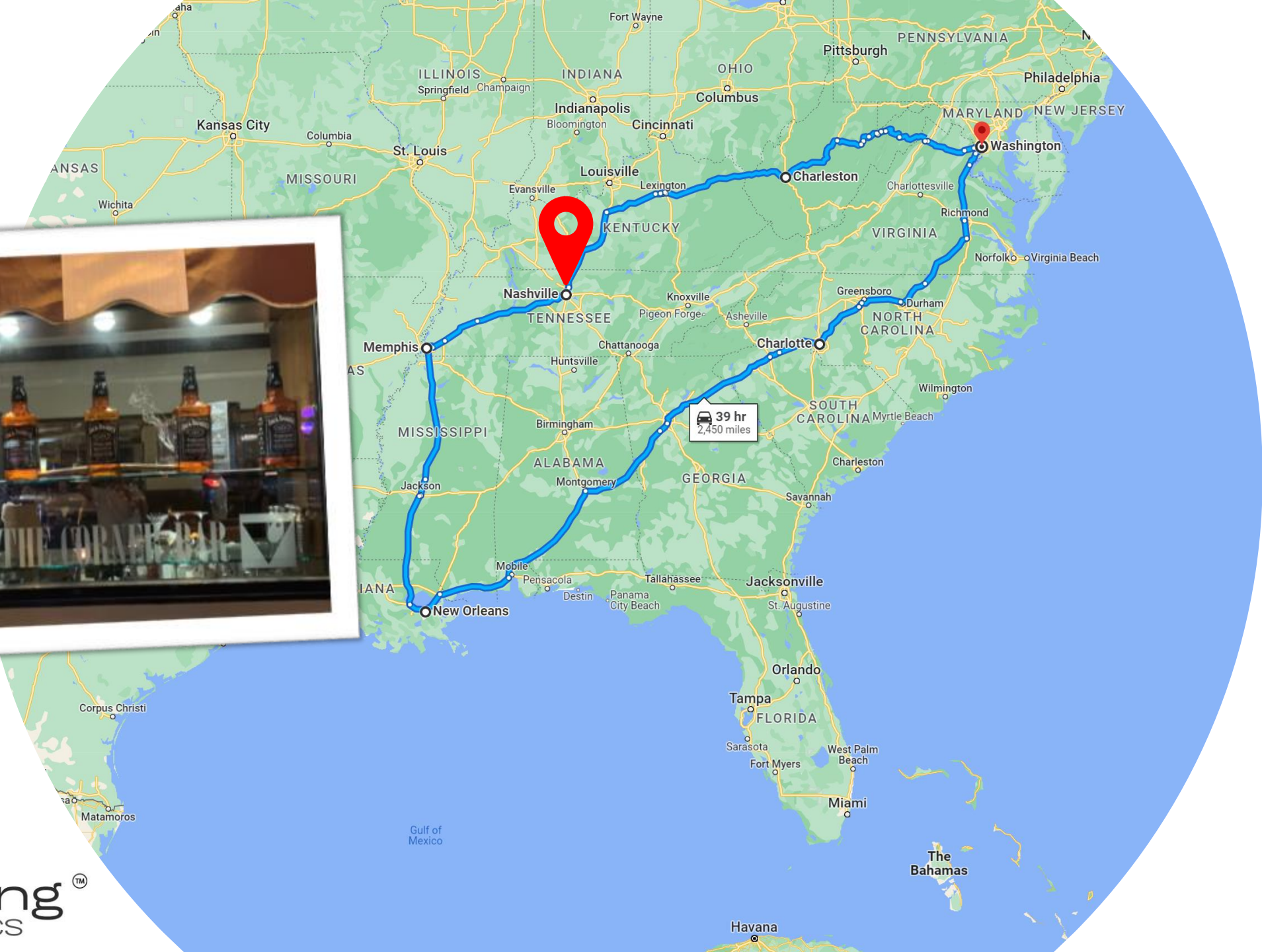
CM Staff

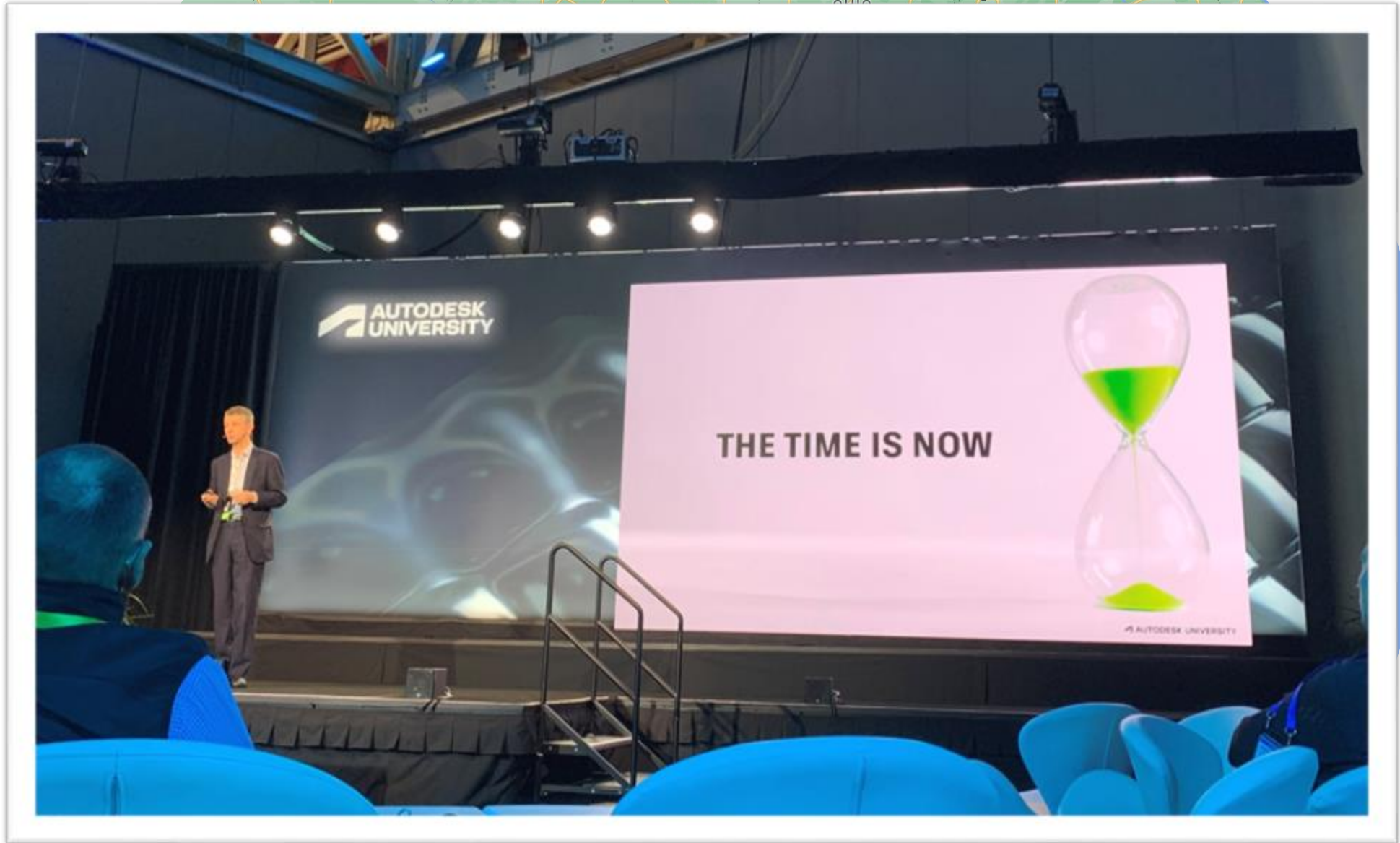
03.10.22

“There is no room for, or advantage in disguising or hiding performance. Vague data is useless, so science based, transparent information and a healthy dose of honesty are part of the medicine.









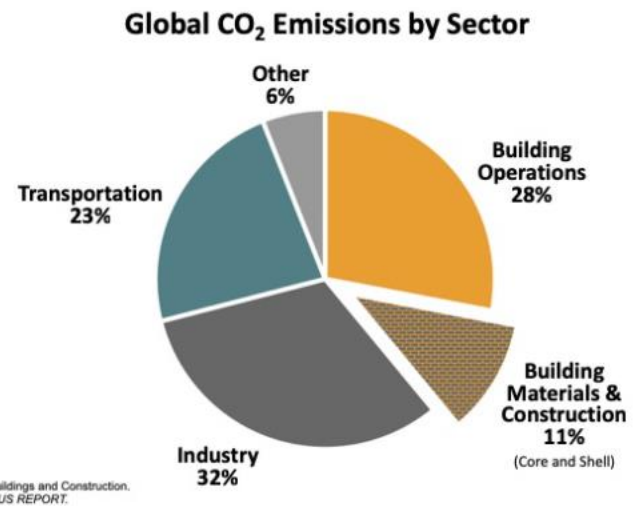
Mexico

The Bahamas

Havana



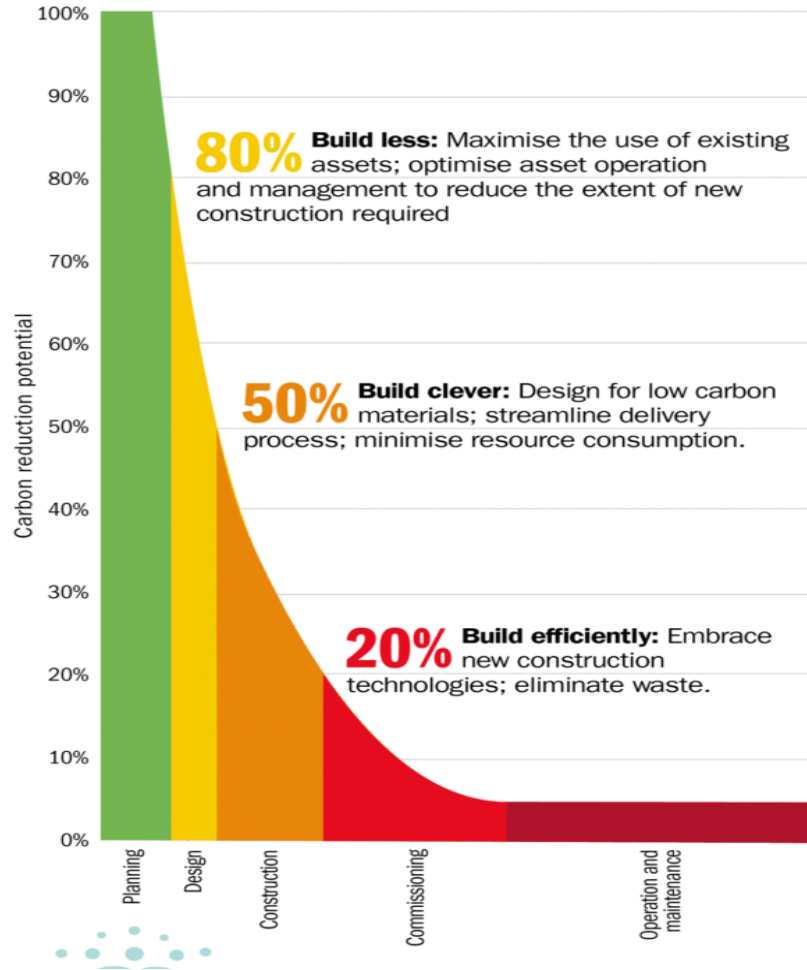
Buildings generate nearly 40% of annual global GHG emissions.



How are you dealing with Carbon?

[HTTPS://ARCHITECTURE2030.ORG/BUILDINGS_PROBLEM_WHY/](https://architecture2030.org/buildings_problem_why/)

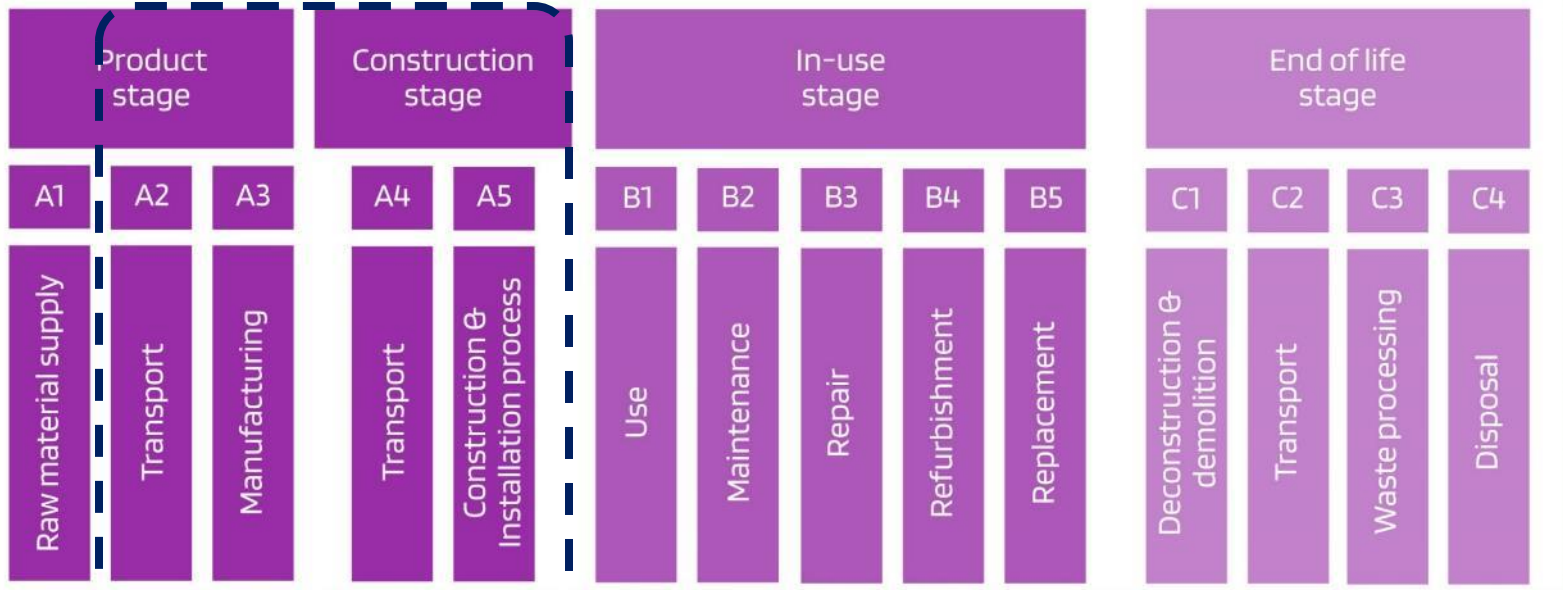
100% Build nothing: Challenge the root cause of the need; explore alternative approaches to achieve the desired outcome.



Sustainable Estimating

Whole life carbon

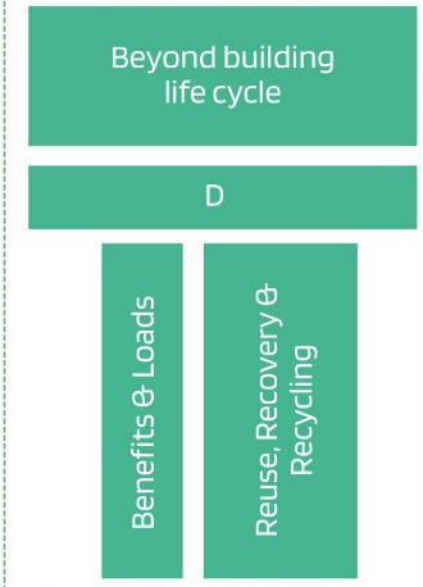
Embodied carbon



Operational carbon



Circular economy



PAS 2080
Carbon Management in Infrastructure Verification



Cradle to gate

Cradle to practical completion



Approximate distribution of A1-C4 emissions. Adapted from LETI⁹, ultra-low energy residential model

Setting Carbon Targets - Let's Peel That Onion

- Corporate
 - Scope 1,2,3
 - Lifecycle Cost & Carbon

 - Portfolio
 - Project
 - Asset
 - Sub Assets / Components
 - Line Items
 - Activities
 - Resources

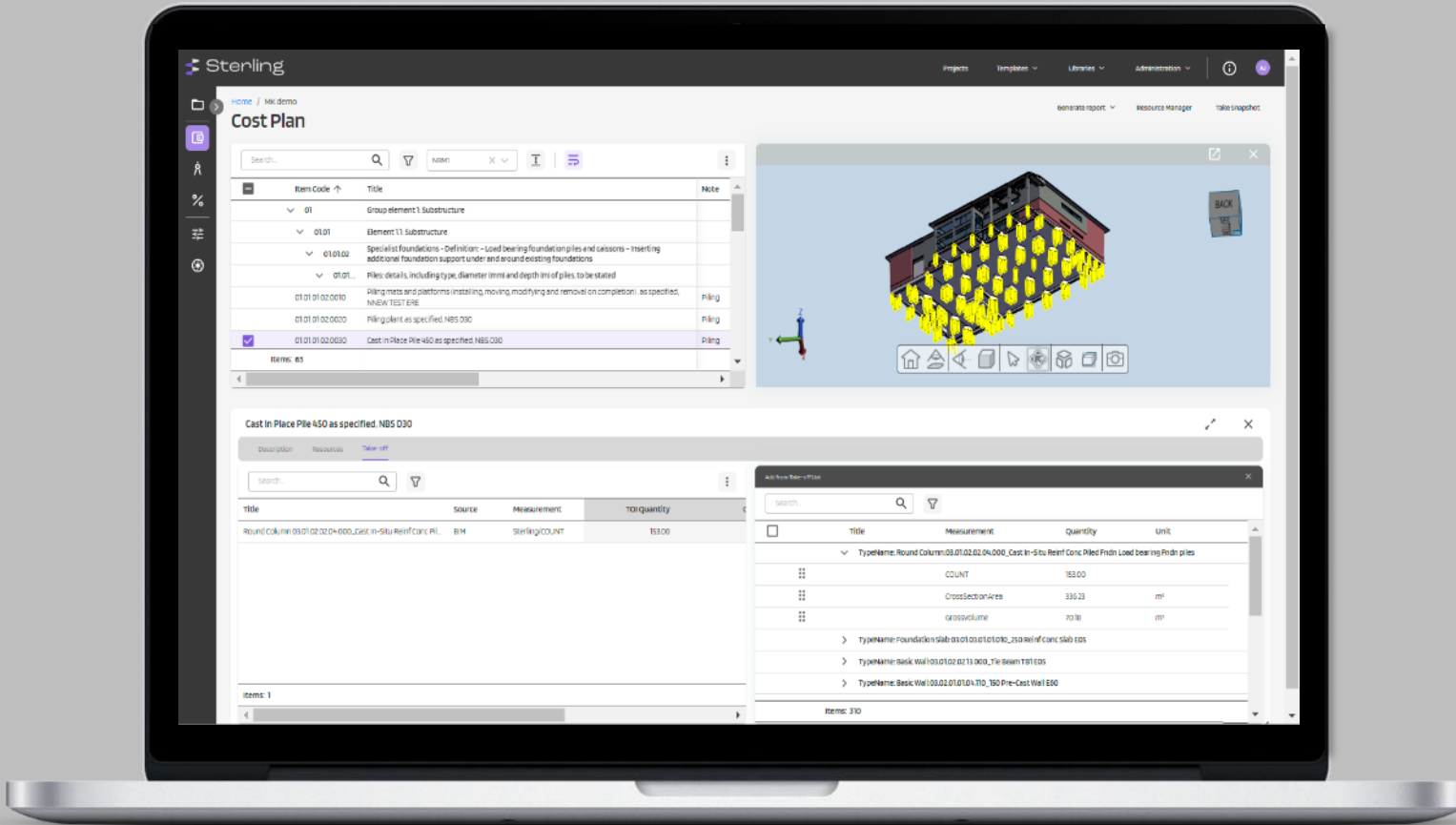
 - **Unit Rates (£\$, CO2e)**
 - **EPDs**
- **Auditing & Project Controls**
 - Applications for payment
 - Application for Carbon
 - Out turn Cost & Carbon
 - EVA & ECA
 - Lessons Learned



The Challenge...

- This is placing new demands on estimators and delivery teams.
- Really testing/exposing the limits of aging toolsets.
- Leading to multiple siloed solutions to play the game..
 - ? Cost Planning
 - ? Resource Level Estimates
 - ? Portfolio Benchmarking
 - ? Multiple Libraries
 - ? Flexible Structures
 - ? Package Management
 - ? Bid Management
 - ? True Carbon Transparency
 - ? 2D Take Off
 - ? BIM & 3D Take Off
 - ? Open API
 - ? Secure Regional Hosting
 - ? Full SAAS
 - ? Data Ownership

**So we decided to
build Sterling...**



Cost | Carbon | Integrated BIM

Sterling Principles – What we set out to achieve..

- A new estimating platform that is purpose built & practical to use
- That treats cost & carbon equally
- That is future proof AND traditional proof
- Has a clean and modern UI
- Purpose built on a modern technology stack
- Offers flexible reporting
- Plays nicely with others through API
- Safe & Secure Cloud Solution
- The data is yours



Sterling
stage01.hoststerling.com

Projects Templates Libraries Administration

Projects

Active

Search

Project Name	Location	Phase	Client	Value	Start Date	End Date
New Hospital	LONDON	Tender	NHS	£50,000,000.00	16/10/2021	17/08/2023
New Office	LONDON	Construction	Client 2	£20,000,000.00	25/11/2021	01/11/2023
New residential development	BIRMINGHAM	Tender	Client 1	£7,500,000.00	10/12/2021	02/12/2023

£100,000.00	01/11/2021 - 24/12/2021
-------------	-------------------------

£5,000,000.00	25/10/2021 - 01/04/2022
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£100,000.00	01/11/2021 - 24/12/2021
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Administration

Add new

Administration

Add new

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Administration

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Administration

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Administration

Add new

Administration

Add new

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Login



The construction industry's next generation cost and carbon estimating solution which is simple to use and will allow you to quickly and robustly estimate cost and carbon values for construction projects.

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Portfolio view

Sterling Projects Templates Libraries Administration AX

Projects Add new

Active Grid List

Search

Project Name	Location	Phase	Client	Value	Start Date	End Date
A14 Upgrade	CAMBRIDGE	Construction	HE	£12,000,000.00	15/12/2021	27/05/2022
M24 Extension	WATFORD	Pre-construction	HE	£45,000,000.00	02/12/2021	01/04/2022
Bridge	LONDON	Pre-construction	NR	£12,000,000.00	03/12/2021	21/04/2022
Office	BRISTOL	Pre-construction	XYZ	£23,500,000.00	03/12/2021	29/12/2021
Demo 1	R	Construction	R	£50.00	10/12/2021	24/12/2021
Hospital	LONDON	Tender	NHS	£25,000,000,000.00	01/12/2021	24/06/2022



Cost Plan View

Sterling Projects Templates Libraries Administration

Home / Hospital Demo Generate report Resource Manager Take Snapshot

Cost Plan

Search... Filter Select structure Drag a column header here to group by that column + Add Items Edit

Item Code	Title	Note	Quantity	Unit	Unit Rate	Total Cost	Currency	CO ₂ Rate	Total CO ₂
01010102	Piling mats and platforms (installing, moving, modifying and removal on completion), as specified,...	Piling	26.08	M3	£165.81	£4,324.58	GBP	80.40	2,096.95
<input checked="" type="checkbox"/>	Piling plant as specified, NBS D30	Piling	1.00	Item	£8,157.98	£8,157.98	GBP	80.40	80.40
01010102	Cast in Place Pile 450 as specified, NBS D30	Piling	70.18	m3	£712.70	£50,074.61	GBP	0.00	0.00
01010102	Disposal of excavated material arising from piling	Piling	70.18	M3	£60.44	£4,241.45	GBP	20.10	1,410.54
01010102	Extra for breaking out obstructions as specified, NBS C20	Piling	153.00	Item	£5,035.70	£770,462.10	GBP	0.00	0.00
01010102	Cutting off tops of concrete piles	Piling	153.00	NR	£81.60	£12,484.80	GBP	0.00	0.00
01010102	Pile tests as specified, NBS D30	Piling	1.00	Item	£0.00	£0.00	GBP	0.00	0.00
01010102	Formwork Rough finish all sides, Plain formwork left to the discursion of the contractor NBS Spec E...	In-situ Concrete	144.90	M2	£76.79	£11,126.63	GBP	0.00	0.00
01010102	Reinforcement as specified, NBS E30	In-situ Concrete	724	T	£907.73	£6,576.36	GBP	3.25	23.55
01010102	In-situ concrete (PC1) as specified, NBS E05	In-situ Concrete	36.22	M3	£126.36	£4,577.29	GBP	0.00	0.00
01010102	Strip formwork to cast, in-situ concrete as specified, NBS E20	In-situ Concrete	144.90	M2	£25.69	£3,722.23	GBP	0.00	0.00
01010102	Surface finish to In-situ concrete as specified, NBS E41	In-situ Concrete	144.90	M2	£3.42	£495.55	GBP	0.00	0.00
01010102	Formwork Rough finish all sides, Plain formwork left to the discursion of the contractor NBS Spec E...	In-situ Concrete	362.25	M2	£76.79	£27,816.89	GBP	0.00	0.00
01010102	Reinforcement as specified, NBS E30	In-situ Concrete	0.00	T	£908.92	£0.00	GBP	0.00	0.00
Items: 140						Σ: £2,290,969.54			Σ: kgCO₂e 3,611.44

Piling plant as specified, NBS D30

Description Resources Take-Off

Search... Filter + Add Resources Edit

Code	Title	Type	Resource Rate	Quantity	Unit	Total Cost	Resource Type	Tons/UoM	Total Weight	Distance to Site 1 Way	Total CO ₂ A1-A3	Total CO ₂ A4	Total CO ₂ A5	Total CO ₂ A1-A5
PLA.23.15.01.010	Pile Driving Rig	Plant	£13128	1.00	hr	£13128		0.00	0.000 T	0.00	80.40	0.00	0.00	80.40
LAB.30.01.01.0...	Labour Operative	Labour	£0.00	1.00	Hr	£0.00		0.00	0.000 T	0.00	0.00	0.00	0.00	0.00
Items: 6						Σ: £8,157.98					Σ: kgCO₂e 80.40	Σ: kgCO₂e 0.00	Σ: kgCO₂e 0.00	Σ: kgCO₂e 80.40



Cost Plan - View by Multiple Structures

Sterling Home / Hospital Demo

Projects Templates Libraries Administration

Generate report Resource Manager Take Snapshot

Cost Plan

Search... Filter Select structure

Drag a column header here to group by that column

Item Code	Title	Note	Quantity	Unit	Unit Rate	Total Cost	Currency	CO ₂ Rate	Total CO ₂
01.01.01.02	Piling mats and platform	ing and removal on completion). as specified, ...	26.08	M3	£165.81	£4,324.58	GBP	80.40	2,096.95
01.01.01.02	Piling plant as specified,	Piling	1.00	Item	£8,157.98	£8,157.98	GBP	80.40	80.40
01.01.01.02	Cast in Place Pile 450 as								
01.01.01.02	Disposal of excavated m								
01.01.01.02	Extra for breaking out o								
01.01.01.02	Cutting off tops of conc								
01.01.01.02	Pile tests as specified, N								
01.01.01.02	Formwork Rough finish								
01.01.01.02	Reinforcement as specified, NBS E30								
01.01.01.02	In-situ concrete (PC1) as specified, NBS E05								
01.01.01.02	Strip formwork to cast in-situ concrete as specified, NBS E20								
01.01.01.02	Surface finish to In-situ concrete as specified, NBS E41								
01.01.01.02	Formwork Rough finish all sides, Plain formwork left to the discursion of the contract								
01.01.01.02	Reinforcement as specified, NBS E30								
01.01.01.02	In-situ concrete (TB1)as specified, NBS E05								
01.01.01.02	Strip formwork to cast in-situ concrete as specified, NBS E20								
01.01.01.02	Surface finish to In-situ concrete as specified, NBS E41								
01.01.01.02	Piling mats and platforms (installing, moving, modifying and removal on completion)								
01.01.01.02	Piling mats and platforms (installing, moving, modifying and removal on completion)								
01.01.01.02	Piling mats and platforms (installing, moving, modifying and removal on completion)								
01.01.01.02	Cutting off tops of concrete piles								
01.01.01.02	Cast in Place Pile 450 as specified, NBS D30								
01.01.01.02	Piling plant as specified, NBS D30								
01.01.01.02	Piling mats and platforms (installing, moving, modifying and removal on completion)								

Items: 140

Sterling Home / Hospital Demo

Cost Plan

Search... Filter NRM1

Item Code	Title	Note	Quantity	Unit	Unit Rate	Total Cost	Currency	CO ₂ Rate	Total CO ₂
00	Unassigned						GBP		
00.00	Group element 00: Facilitating works					£35,795.51	GBP		0.00
00.00.01	Element 00: Extraordinary site investigation works					£35,795.51	GBP		0.00
00.00.01.01	Archaeological investigation definition: site based archaeological investigation works					£35,795.51	GBP		0.00
00.00.01.01.01	Excavation works: details to be stated					£35,795.51	GBP		0.00
01.01.01.04	Excavation, commencing level stated on the drawings if not original ground level to Sills	Excavation	279.02	M3	£38.92	£10,882.84	GBP	0.00	0.00
01.01.01.04	Support to faces of excavation is at the discretion of the contractor, depth, location and method of...	Excavation	233.58	M2	£0.00	£0.00	GBP	0.00	0.00
01.01.01.04	Excavation, commencing level stated on the drawings if not original ground level to Pile Caps	Excavation	744.83	M2	£38.92	£28,636.53	GBP	0.00	0.00
01.01.01.04	Support to faces of excavation is at the discretion of the contractor, depth, location and method of...	Excavation	375.33	M3	£0.00	£0.00	GBP	0.00	0.00
01.01.01.04	Return Fill @ Ram with approved material	Excavation	1.00	Item	£2,800.00	£2,800.00	GBP	0.00	0.00
01.01.01.04	Excavation, commencing level stated on the drawings if not original ground level to Tie beams	Excavation	70.29	M2	£38.92	£2,735.77	GBP	0.00	0.00
01.01.01.04	Support to faces of excavation is at the discretion of the contractor, depth, location and method of...	Excavation	18745	M3	£0.00	£0.00	GBP	0.00	0.00
01.01.01.04	Return Fill @ Ram with approved material	Excavation	1.00	Item	£1,350.00	£1,350.00	GBP	0.00	0.00
01.01.01.04	Excavation, commencing level stated on the drawings if not original ground level to Ground beams	Excavation	65.93	M2	£38.92	£2,487.97	GBP	0.00	0.00
01.01.01.04	Support to faces of excavation is at the discretion of the contractor, depth, location and method of...	Excavation	225.14	M3	£0.00	£0.00	GBP	0.00	0.00
01.01.01.04	Return Fill @ Ram with approved material	Excavation	1.00	Item	£1,200.00	£1,200.00	GBP	0.00	0.00
01.01.01.04	Excavating in hazardous Materials details as per soil reports	Excavation	1.00	Item	£8,900.00	£8,900.00	GBP	0.00	0.00
01.01.01.04	Breaking Up reinforced Concrete	Excavation	1.00	Item	£1,200.00	£1,200.00	GBP	0.00	0.00
01	Group element 01: Substructure					£1,751,295.66	GBP		3.67144
01.01	Element 01: Substructure					£1,751,295.66	GBP		3.67144
01.01.01	standard foundations - definition: standard foundations up to and including the damp-proof cour...					£872,602.52	GBP		23.55
01.01.01.01	strip foundations: details, including depth of foundation, to be stated					£872,602.52	GBP		23.55
01.01.01.02	Formwork Rough finish all sides, Plain formwork left to the discursion of the contractor NBS Spec E...	In-situ Concrete	14430	M2	£76.79	£1,118,633	GBP	0.00	0.00
01.01.01.02	Reinforcement as specified, NBS E30	In-situ Concrete	724	T	£90.79	£65,976.36	GBP	3.28	33.55

Items: 140

Σ: £2,290,969.54 Σ: kgCO₂ 3.67144



Libraries

Sterling Home / Hospital Demo

Cost Plan

Search... Filter NRM1 X

Item Code	Title	Note	Quantity	Unit	Unit Rate	Total Cost	Currency
00	Group element 0: Facilitating works					£35,193.51	GBP
00.06	Element 06: Extraordinary site invest						0.00
00.06.01	Archaeological investigation Definit						
00.06...	Excavation works: details to be state						
01.01.01.04	Excavation, commencing level stated						
01.01.01.04	Support to faces of excavation is at t						
01.01.01.04	Excavation, commencing level stated						
01.01.01.04	Support to faces of excavation is at t						
01.01.01.04	Return Fill & Ram with approved mat						
01.01.01.04	Excavation, commencing level stated						
01.01.01.04	Support to faces of excavation is at t						
01.01.01.04	Return Fill & Ram with approved mat						
01.01.01.04	Excavation, commencing level stated						
01.01.01.04	Support to faces of excavation is at t						
01.01.01.04	Return Fill & Ram with approved mat						
01.01.01.04	Excavating in Hazardous Materials de						
01.01.01.04	Breaking Up reinforced Concrete						
01	Group element 1: Substructure						
01.01	Element 11: Substructure						
01.01.01	Standard foundations - Definition: St						
01.01...	Strip foundations: details, including c						
01.01.01.02	Formwork Rough finish all sides, Plain						
01.01.01.02	Reinforcement as specified, NBS E30						

Items: 140

Sterling Home / Libraries

Resources

Labour Plant Material Subcontract Other Costs

Search... Filter

Code	Title	Note	Unit Rate	Unit	Resource Type	Tons/LitM	Distance to Site 1Way	Embodied CO Rate	Sequestration CO Rate	Vehicle Load Size	Transport CO Rate	Fuel Consumption	Site Fuel CO Rate	Transport CO Rate
MAT	MATERIALS													
MAT.01	Groundworks													
MAT.01.01	Ground stabilisation													
MAT.01.01.01	Earthwork Support													
MAT.01.01.01.000	75mm Ply Trench Sheet 4 Uses		£0.91	m2	Timber	0.00	50.00	2.08	0.00	30.00	0.00	0.00	0.00	0.00
MAT.01.01.01.005	300 x 100mm trench timber x 4 Uses		£1.11	m	Timber	2.40	50.00	0.55	0.00	30.00	0.00	0.00	0.00	0.00
MAT.01.01.02	Grouting													
MAT.01.02.02.000	Neat cement slurry		£157.54	m3	cement	0.00	50.00	351.45	0.00	30.00	0.00	0.00	0.00	0.00
MAT.01.02.02.005	Epoxy non-shrink grout		£343	kg	cement	1.00	50.00	5.91	0.00	30.00	0.00	0.00	0.00	0.00
MAT.01.03	Filling materials													
MAT.01.03.01	Imported filling													
MAT.01.03.01.000	Crushed Stone Hardcore		£18.00	m3	Aggregates	1.750.00	50.00	11.20	0.00	30.00	0.00	0.00	0.00	0.00
MAT.01.03.01.005	Clean brick rubble hardcore		£17.00	m3	Aggregates	1.750.00	50.00	11.20	0.00	30.00	0.00	0.00	0.00	0.00
MAT.01.03.01.010	A6-Railed Hogglin		£9.12	m3	Aggregates	1.800.00	50.00	11.20	0.00	30.00	0.00	0.00	0.00	0.00
MAT.01.03.01.015	Washed sand		£19.42	m3	Aggregates	2.000.00	50.00	11.20	0.00	30.00	0.00	0.00	0.00	0.00
MAT.01.03.01.020	Pea Shingle		£24.20	m3	Aggregates	1.750.00	50.00	11.20	0.00	30.00	0.00	0.00	0.00	0.00
MAT.01.04	Piling													
MAT.01.04.01	concrete piles													
MAT.01.04.01.000	500mm dia x 2.5m Long Preformed Reinfo.		£134.80	Nr	Concrete PC	170.00	50.00	381.51	0.00	30.00	0.00	0.00	0.00	0.00
MAT.01.06	Membrane sheeting													

Items: 517





Resource build-up

Sterling Projects Templates Libraries Administration

Home / Hospital Demo Generate report Resource Manager Take Snapshot

Cost Plan

Search... Filter Select structure Drag a column header here to group by that column + Add items Edit

Item Code	Title	Note	Quantity	Unit	Unit Rate	Total Cost	Currency	CO ₂ Rate	Total CO ₂
01.01.01.02	Piling mats and platforms (installing, moving, modifying and removal on completion). as specified, ...	Piling	26.08	M3	£165.81	£4,324.58	GBP	80.40	2,096.95
01.01.01.02	Piling plant as specified, NBS D30	Piling	1.00	item	£8,157.98	£8,157.98	GBP	80.40	80.40
01.01.01.02	Cast in Place Pile 450 as specified, NBS D30	Piling	70.18	m3	£712.70	£50,074.61	GBP	0.00	0.00
01.01.01.02	Disposal of excavated material arising from piling	Piling	70.18	M3	£60.44	£4,241.45	GBP	20.10	1,410.54
01.01.01.02	Extra for breaking out obstructions as specified, NBS C20	Piling	153.00	Item	£5,035.70	£770,462.10	GBP	0.00	0.00
01.01.01.02	Cutting off tops of concrete piles	Piling	153.00	NR	£81.60	£12,484.80	GBP	0.00	0.00
01.01.01.02	Pile tests as specified, NBS D30	Piling	1.00	Item	£0.00	£0.00	GBP	0.00	0.00
01.01.01.02	Formwork Rough finish all sides, Plain formwork left to the discretion of the contractor NBS Spec E...	In-situ Concrete	144.90	M2	£76.79	£11,126.63	GBP	0.00	0.00
01.01.01.02	Reinforcement as specified, NBS E30	In-situ Concrete	7.24	T	£907.73	£6,576.36	GBP	3.25	23.55
01.01.01.02	In-situ concrete (PC) as specified, NBS E05	In-situ Concrete	36.22	M3	£126.36	£4,577.29	GBP	0.00	0.00
Items: 140						Σ: £2,290,969.54		Σ: kgCO₂e 3,611.44	

↑ Piling mats and platforms (installing, moving, modifying and removal on completion). as specified, NBS D30

Description Resources Take-Off

Code	Title	Type	Resource Rate	Quantity	Unit	Total Cost	Resource Type
PLA.23.15.01.010	Pile Driving Rig	Plant	£131.28	26.08	hr	£3,423.97	
01.01.01.02	Piling mats and platforms (installing, ...	Plant	£19.53	26.08	M3	£509.39	
01.01.01.02	Piling mats and platforms (installing, ...	Subcontractor	£15.00	26.08	M3	£391.22	
Items: 3						Σ: £4,324.58	

Add from Library

Search: pil Show all

Code	Title	Resource Rate	Unit
PLA.23.15.01.010	Pile Driving Rig	£131.28	hr
PLA.23.25.01.065	Pile cutter	£0.00	hr



Carbon A1-A5 (Cradle to Practical Completion)

Home / Test Project 2 - Conference Centre

Cost Plan

Search... Filter Select structure Drag a column header here to group by that column

Item Code	Title	Note	Quantity	Unit	Unit Rate	Total Cost	Currency	A1-A3 CO ₂ Rate	A4 CO ₂ Rate	A5 CO ₂ Rate	CO ₂ Rate	Total CO ₂
	Foundations		0.00	NR	£0.00	£0.00	GBP	0.00	0.00	0.00	0.00	0.00
A	Excavate foundation trenches n.e. 1.5m deep		601.92	M3	£65.59	£39481.66	GBP	5.03	0.00	0.81	5.84	3,513.73
	Filling		0.00	NR	£0.00	£0.00	GBP	0.00	0.00	0.00	0.00	0.00
B	200mm Mot type 2 bed		134.19	M2	£746	£1,001.04	GBP	34.06	8.36	9.49	51.91	6,965.17
	Concrete works		0.00	NR	£0.00	£0.00	GBP	0.00	0.00	0.00	0.00	0.00
C	C15 concrete in foundations		12.00	M3	£137.00	£1,644.00	GBP	304.98	25.00	53.82	383.80	4,605.60
	Brickwork		0.00	NR	£0.00	£0.00	GBP	0.00	0.00	0.00	0.00	0.00
D	Common bricks; half brick thick walls in cement mortar 1:3		129.06	M2	£62.15	£8,021.72	GBP	46.13	0.00	2.74	48.87	6,307.19
	Superstructure		0.00	NR	£0.00	£0.00	GBP	0.00	0.00	0.00	0.00	0.00
	Brickwork		0.00	NR	£0.00	£0.00	GBP	0.00	0.00	0.00	0.00	0.00
E	Facing bricks; half brick thick skins of hollow walls in gauged mortar 1:1.5		974.76	M2	£508.48	£495,652.04	GBP	1.68	0.00	0.19	1.87	1,819.56
	Blockwork		0.00	NR	£0.00	£0.00	GBP	0.00	0.00	0.00	0.00	0.00
F	140mm Thermalite blocks in skins of hollow walls in gauged mortar 1:4		200.00	M2	£46.39	£9,277.04	GBP	11.11	0.00	0.54	11.65	2,329.80
	Cavity insulation		0.00	NR	£0.00	£0.00	GBP	0.00	0.00	0.00	0.00	0.00
G	75mm Dritherm cavity wall insulation		211.00	M2	£9.74	£2,054.30	GBP	29.36	0.00	0.00	29.36	6,194.96
	Roof construction		0.00	NR	£0.00	£0.00	GBP	0.00	0.00	0.00	0.00	0.00
Items: 35						Σ: £571,768.11					Σ: kgCO ₂ e 38,127.97	

200mm Mot type 2 bed

Description Resources Take-Off

Search... Filter

Code	Title	Type	Resource Rate	Quantity	Unit	Total Cost	Res. Type	Tons/UoM	Total Weight	Distance to Site 1 Way	Total CO ₂ A1-A3	Vehicle Load Size	No of Transports	Transport CO ₂ Rate	Total CO ₂ A4	Fuel Consumption	Site Fuel CO ₂ Rate	No of Working	Transport CO ₂ Rate	Site Fuel CO ₂	Waste Processing CO ₂	Waste Processing CO ₂	Total CO ₂ A5	Total CO ₂ A1-A5
LAB30.01..	General Labour	Labour	£12.70	8.95	hr	£113.61		0.00	0.000 T	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	2	0.00	0.00	0.00	0.00	0.00	0.00
PLA23.08...	JCB 3CX	Plant	£24.85	8.95	hr	£222.30		1.00	8.946 T	25.00	0.00	11.66	1	6.84	170.00	12.00	4.90	0	0.00	526.02	0.00	0.00	526.02	696.02
PLA23.16..	Wacker Plate	Plant	£1.75	8.95	hr	£15.66		0.00	0.000 T	0.00	0.00	0.00	0	0.00	0.00	2.50	4.90	0	0.00	109.59	0.00	0.00	109.59	109.59
MAT15.01..	Dtp Type 2	Material	£22.00	29.52	m3	£649.47		2.25	66423 T	20.00	4,569.91	10.00	7	6.80	952.00	0.00	0.00	0	0.00	0.00	44.00	637.66	637.66	6,159.57



Information Models

Sterling Projects Templates Libraries Administration

Home / Hospital
Take Off

Search + Add new

3D Models (4)

Thumbnail	File Name	Category	Date	Size
	BHR-R5D-401-00-M3-X-0003-D1-09_R21_Entrance Building - Substructure.ifc	Structure	01.12.2021	890 kB
	BHR-R5D-401-00-M3-X-0004-D1-08_R21_Entrance Building - Superstructure.ifc	Structure	01.12.2021	2.22 MB
	BHR-R5D-401-00-M3-X-0005-D1-05_R21_Entrance Building - Exterior.ifc	Architecture	01.12.2021	2.31 MB
	BHR-R5D-401-00-M3-X-0006-D1-03_R21_Entrance Building - MEP.ifc	Heating & Cooling	01.12.2021	10.3 MB

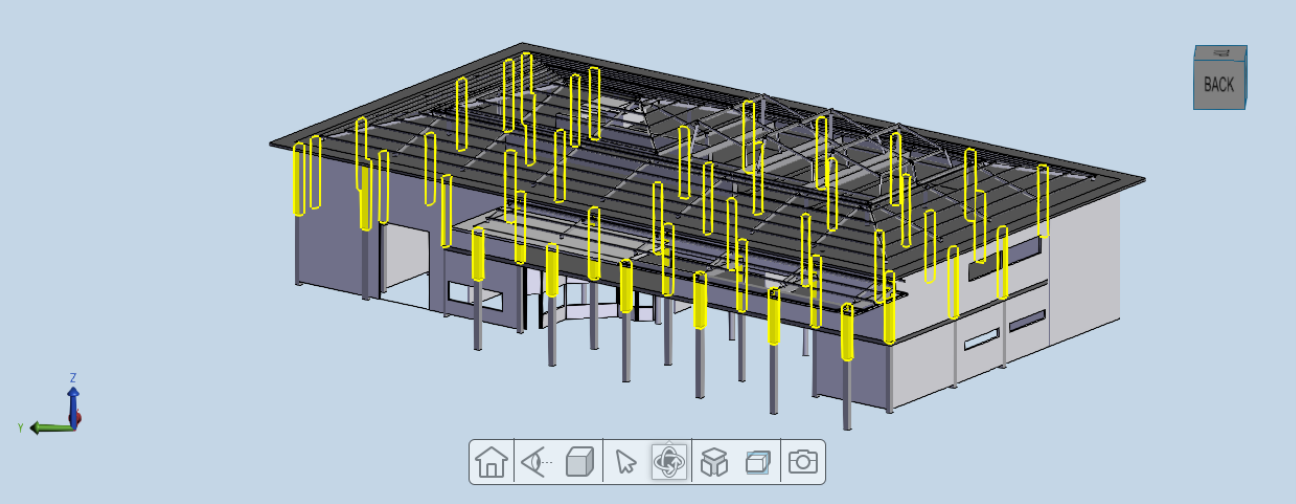
2D Models (3)

Thumbnail	File Name
	104-A-XX-005-F.pdf
	400-A-D-504-A.pdf
	400-A-D-514-A.pdf



3D/BIM Take-off

BHR-R5D-401-00-M3-X-0004-D1-08_R21_Entrance Building - Superstructure.ifc 01.12.2021 2.22 MB



Take-off items

Document All

Search... Filter

Title	Measurement	Quantity	Unit
> name: Foundation Slab:03...		100	
> name: Foundation Slab:03...		100	
> name: Foundation Slab:03...		100	
> name: Basic Wall:03.01.02...		100	
> name: Basic Wall:03.01.02...		100	
> element:		100	
> type: Area		100	
> category: IFCCOLUMN		100	
> name: Basic Wall:03.01.02...		100	
> type: Length		100	
> name: Foundation Slab:03...		100	
> name: Foundation Slab:03...		100	
> category: IFCSLAB		100	
> type: Area		100	
> category: IFCSLAB		100	
> category: IFCWALLSTAND...		100	
> category: IFCSLAB		100	

Objects Parameters

Search... Filter Drag a column header here to group by that column

Type	Category	Floor	Parameter Name
Concrete-Square-Column:03.02...	IFCCOLUMN	ENTRANCE-...	> BaseQuantities
Concrete-Square-Column:03.02...	IFCCOLUMN	ENTRANCE-...	> IFCBEAM
Concrete-Square-Column:03.02...	IFCCOLUMN	ENTRANCE-...	> IFCBEAMTYPE
Concrete-Square-Column:03.02...	IFCCOLUMN	ENTRANCE-...	> IfcClassificationReference
Concrete-Square-Column:03.02...	IFCCOLUMN	ENTRANCE-...	> IFCCOLUMN
Concrete-Square-Column:03.02...	IFCCOLUMN	ENTRANCE-...	> IFCCOLUMNTYPE
Concrete-Square-Column:03.02...	IFCCOLUMN	ENTRANCE-...	> IFCSLAB

Items: 591 Items: 3022



3D/BIM Take-off view

BHR-R5D-401-00-M3-X-0004-D1-08_R21_Entrance Building - Superstructure.ifc 01.12.2021 2.22 MB

BACK

Take-off items

Document All

Search... Filter

Title	Measurement	Quantity	Unit
> name: Foundation Slab:03...		100	
> name: Foundation Slab:03...		100	
> name: Foundation Slab:03...		100	
> name: Basic Wall:03.01.02...		100	
> name: Basic Wall:03.01.02...		100	
> element:		100	
> type: Area		100	
> category: IFCCOLUMN		100	
> name: Basic Wall:03.01.02...		100	
> type: Length		100	
> name: Foundation Slab:03...		100	
> name: Foundation Slab:03...		100	
> category: IFCSLAB		100	
> type: Area		100	
> category: IFCSLAB		100	
> category: IFCWALLSTAND...		100	
> category: IFCSLAB		100	

Objects

Search... Filter Drag a column header here to group by that column

Type	Category	Floor
Basic Wall:03.02.01.01.04.110_150...	IFCWALLSTANDARDCAS...	ENTRANCE-
Basic Wall:03.02.01.01.04.110_150...	IFCWALLSTANDARDCAS...	ENTRANCE-
Basic Wall:03.02.01.01.04.110_150...	IFCWALLSTANDARDCAS...	ENTRANCE-
Basic Wall:03.02.01.01.04.110_150...	IFCWALLSTANDARDCAS...	ENTRANCE-
Basic Wall:03.02.01.01.04.110_150...	IFCWALLSTANDARDCAS...	ENTRANCE-
Basic Wall:03.02.01.01.04.110_150...	IFCWALLSTANDARDCAS...	ENTRANCE-
Basic Wall:03.02.01.01.04.110_150...	IFCWALLSTANDARDCAS...	ENTRANCE-

Items: 591

Parameters

Search...

Parameter Name
> IFCSLABTYPE
> IFCSTAIR
> IFCWALL
> IFCWALLSTANDARDCASE
> IFCWALLTYPE
> MATERIAL
> MATERIALLAYER
> MATERIALLAYERSET

Items: 3022



Take-off linked to Cost Plan

Sterling | Projects | Templates | Libraries | Administration | **AX**

Home / Hospital Demo | Generate report | Resource Manager | Take Snapshot

Cost Plan

Search... | Select structure | [Tools]

Item Code	Title	Note	
01.01.01.02	Piling mats and platforms (installing, moving, modifying and removal on completion), as specified...	Piling	
01.01.01.02	Piling plant as specified, NBS D30	Piling	
<input checked="" type="checkbox"/>	01.01.01.02	Cast In Place Pile 450 as specified, NBS D30	Piling
01.01.01.02	Disposal of excavated material arising from piling	Piling	
01.01.01.02	Extra for breaking out obstructions as specified, NBS C20	Piling	
01.01.01.02	Cutting off tops of concrete piles	Piling	
01.01.01.02	Pile tests as specified, NBS D30	Piling	
01.01.01.02	Formwork Rough finish all sides, Plain formwork left to the discursion of the contractor NBS Spec E...	In-situ Concrete	
01.01.01.02	Reinforcement as specified, NBS E30	In-situ Concrete	
01.01.01.02	In-situ concrete (PC1) as specified, NBS E05	In-situ Concrete	
01.01.01.02	Strip formwork to cast In-situ concrete as specified, NBS E20	In-situ Concrete	
01.01.01.02	Surface finish to In-situ concrete as specified, NBS E41	In-situ Concrete	

Items: 140

Cast In Place Pile 450 as specified, NBS D30

Description | Resources | **Take-Off**

Search... | [Tools]

Title	Source	Measurement
Round Column 03.01.02.02.04.000_Cast In-Situ Reinf Conc PIL...	BIM	Sterling/GrossVolume

Add from Take-off list

Search... | [Tools]

Title	Measurement	Quantity	Unit
<input type="checkbox"/>	NetSideArea	54.15	m ²
<input checked="" type="checkbox"/>	NetVolume	13.54	m ³
<input type="checkbox"/>	Width	0.25	m

> type: Basic Wall 03.02.05.01.01.030_Facing Brick with 183mm air barrier Spec NBS F10/T10:32043



Cost & Carbon Work Packages

Sterling

Projects Templates Libraries Administration

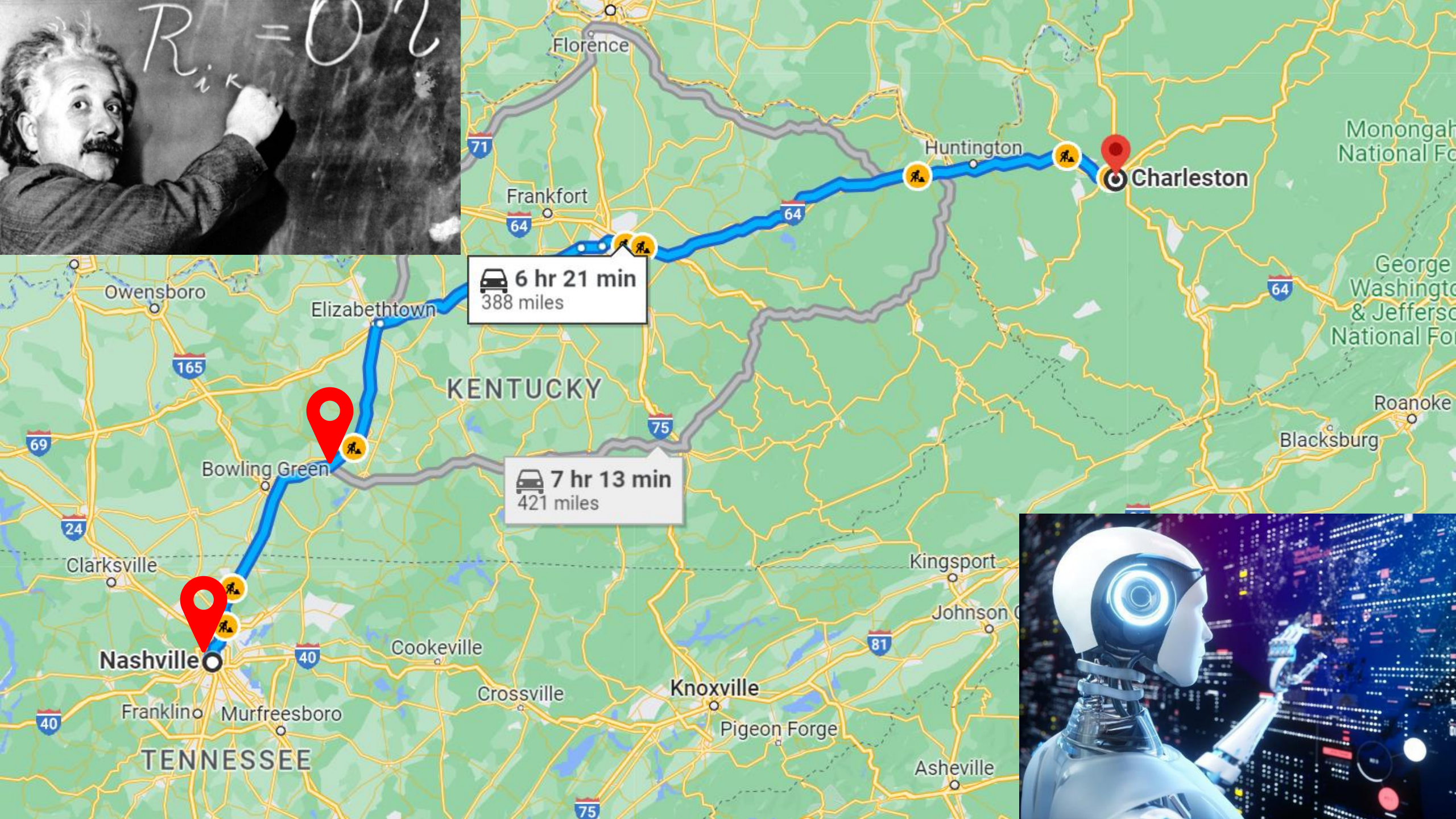
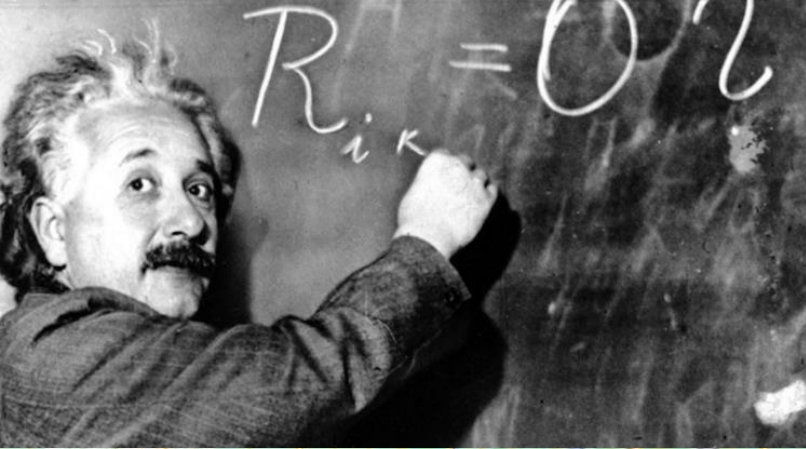
Home / Broadmore Hospital Louvers

Cost Plan

Generate report Resource Manager Take Snapshot

Search... Filter NRM1

Item Code	Title	Note	Quantity	Unit	Net Rate	Gross Rate	Net Total	Gross Total	Currency
01.02.01.04.0420	Reinforcement as specified, NBS E30	In-situ Concrete Walls	0.00	t	£90736	£0.00	£0.00	£0.00	GBP
01.02.01.04.0430	In-situ reinforced concrete (200mm) as specified, NBS E05	In-situ Concrete Walls	0.00	m3	£84.60	£0.00	£0.00	£0.00	GBP
01.02.01.04.0440	Strip formwork to cast in-situ concrete as specified, NBS E20	In-situ Concrete Walls	0.00	m2	£76.79	£0.00	£0.00	£0.00	GBP
01.02.01.04.0450	Surface finish to in-situ concrete as specified, NBS E41	In-situ Concrete Walls	0.00	m2	£342	£0.00	£0.00	£0.00	GBP
01.02.01.04.0560	Precast Retaining Wall System as specified, NBS E60/183 as specified, NBS E05	Precast	0.00	m2	£76.80	£0.00	£0.00	£0.00	GBP
02.03	Element 2.3: Roof		1,224.00	GIFA	£0.00		£0.00		GBP
02.03.01	Roof structure - definition: All components of the roof structure		1,224.00	GIFA	£0.00		£0.00		GBP
02.03...	Roof structure - pitched roofs: details, including design loads (kN/m²), spans (m) and angle of pitch (°), to be stated		1,224.00	GIFA	£0.00		£0.00		GBP
01.02.02.01.0570	Install 105mm Insulation as specified, NBS P10A	Insulation	0.00	m2	£87.50	£0.00	£0.00	£0.00	GBP
01.02.02.01.0580	Install 125mm Insulation as specified, NBS P10A	Insulation	0.00	m2	£92.50	£0.00	£0.00	£0.00	GBP
01.02.02.01.0590	Install 100mm heavy duty floor screed as specified, NBS P10A	Insulation	0.00	m2	£32.60	£0.00	£0.00	£0.00	GBP
01.02.02.01.0600	Install raised access floor as specified, NBS K41A	Insulation	0.00	m2	£138.92	£0.00	£0.00	£0.00	GBP
02.08	Element 2.8: Internal doors		1,224.00	GIFA	£2.04		£2,500.00		GBP
02.08.01	Internal doors - Definition: Doors, hatches, shutters and grilles and other openings in internal walls and partitions		1,224.00	GIFA	£2.04		£2,500.00		GBP
02.08...	Internal doors: details, including type, number of door leaves (nr), size of each door leaf (mm), and overall size of opening (mm), to be stated		1,224.00	GIFA	£2.04		£2,500.00		GBP
01.02.08.01.0610	Internal doorset DW01 2100x810	Doors	1.00	Nr	£400.00	£400.00	£400.00	£400.00	GBP
01.02.08.01.0620	Internal doorset DW02 2100x810	Doors	1.00	Nr	£100.00	£100.00	£100.00	£100.00	GBP
01.02.08.01.0630	Internal doorset DW03 2100x900	Doors	2.00	Nr	£300.00	£300.00	£600.00	£600.00	GBP
01.02.08.01.0640	Internal doorset DW05 2100x1640	Doors	3.00	Nr	£200.00	£200.00	£600.00	£600.00	GBP
01.02.08.01.0650	Internal doorset DS01 2100x810	Doors	1.00	Nr	£200.00	£200.00	£200.00	£200.00	GBP
01.02.08.01.0660	Internal doorset DW06 2100x900	Doors	2.00	Nr	£200.00	£200.00	£400.00	£400.00	GBP
01.02.08.01.0670	Internal doorset DW07 2100x900	Doors	1.00	Nr	£200.00	£200.00	£200.00	£200.00	GBP
	Unassigned								GBP
Items: 67							Σ: £328,519.26	Σ: £328,519.26	



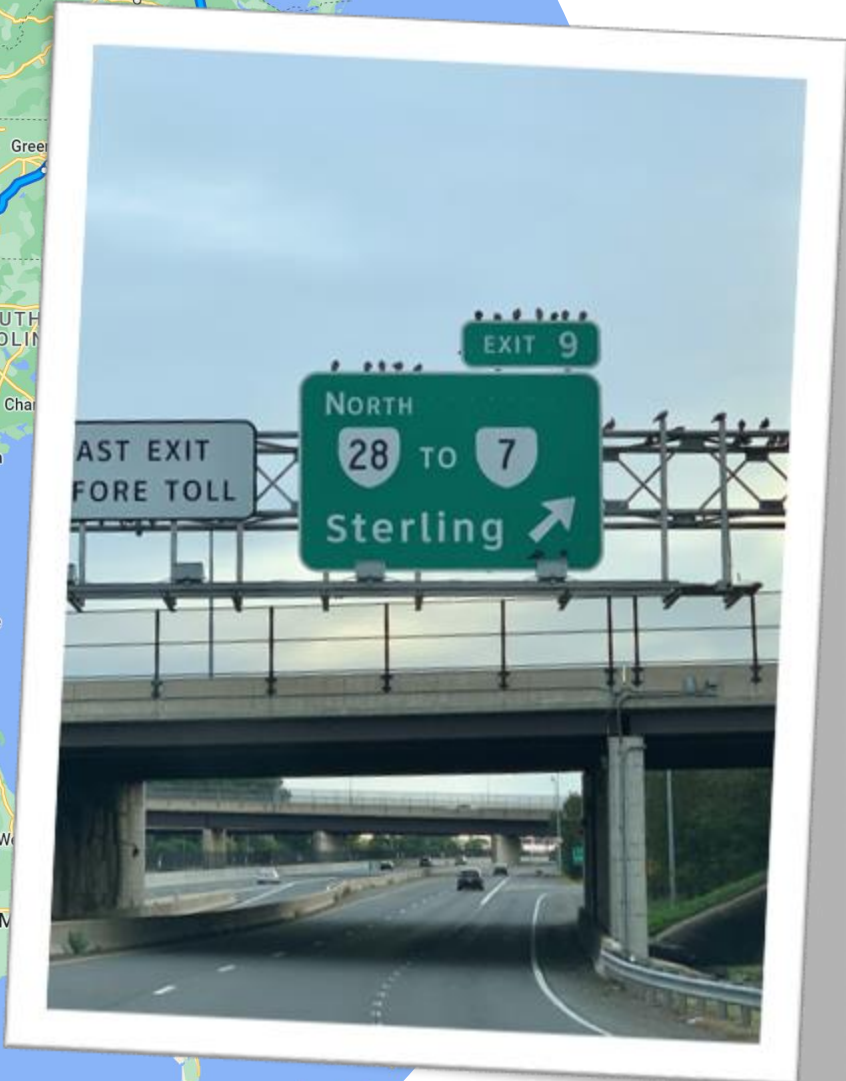
Roadmap - What to expect in 2023



- **Lifecycle Cost & Carbon**
- **Timeline**
 - Dynamic Estimating
 - Forecasting
 - EVA / ECA
- **Benchmarking** - Leverage your data
- **Assemblies / Components Plus wizard**
- **Machine Learning 3D Take-Off**
 - Blind → Visual → Assisted
 - Empowering Users
- **Integrations**
 - Autodesk Docs
 - Autodesk Cost
 - Widest set of Carbon Databases (EC3, ICE, 1Click)
 - Programme - Primavera and MSP



CO₂e





[Email - Alex.jones@rapid-dcs.com](mailto:Alex.jones@rapid-dcs.com)



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Find out more here:



Thank You

Our Next Generation Cost & Carbon Solution is..

User Centric

- ✓ Enjoy a fresh modern & intuitive experience
- ✓ Designed & tested by industry practitioners
- ✓ Work anywhere on our online platform
- ✓ Multi-user capability
- ✓ Drag & Drop Friendly
- ✓ We are determined to make your life easier!

Carbon Ready

- ✓ Carbon and Cost estimates co-exist and truly aligned at resource level
- ✓ Data to prove & improve your true carbon footprint
- ✓ Build, manage and link to rich data sources
- ✓ PAS2080 Compliant
- ✓ Hosted sustainably

Cost Ready

- ✓ Build Top-Down or Bottom-Up Robust Estimates
- ✓ Manage multiple resource libraries
- ✓ Easily pivot your data from one structure to another
- ✓ Measure, audit & track quantities
- ✓ Adjust Valuations
- ✓ Manage work packages

Digital Ready

- ✓ Smart BIM viewer
- ✓ 2D & 3D Take Off
- ✓ Search, filter & manage by attributes
- ✓ Modern, scalable & secure technology
- ✓ API = Integration ready
- ✓ Powerful reporting
- ✓ Fit for Industry 4.0

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