

**PROPOSITION : SCOPE OF BUILDING COMPONENTS**

Tier 1	Tier 2	Tier 3	Tier 4 - Examples
Shell	substructure	Foundation piling and underpiling	<i>Permanent piles and caisson;</i>
		<i>Pile and caisson testing;</i>	
		<i>Underpinning.</i>	
		Foundation up to top of lowest floor slabs	<i>Excavation and disposal;</i>
		<i>Lateral supports;</i>	
		<i>Raft footings, pile caps, column bases, wall footings; strap beams, tie beams;</i>	
		<i>Substructure walls and columns;</i>	
		<i>Lowest floor slabs and beams (excluding and beyond basement bottom slabs);</i>	
		<i>Lift pits;</i>	
		<i>Composite or prefabricated work.</i>	
		Basement sides and bottom	<i>Excavation and disposal;</i>
		<i>Lateral supports;</i>	
		<i>Bottom slabs and blinding;</i>	
		<i>Sides;</i>	
	<i>Vertical waterproof tanking, drainage blanket, drains and skin wall;</i>		
	<i>Horizontal waterproof tanking, drainage blanket, drains and topping slab;</i>		
	<i>Insulation;</i>		
	<i>Lift pits, sump puts, sleeves;</i>		
	<i>Composite or prefabricated work.</i>		
	Structure	Basement suspended floors (up to top of ground floor slabs)	<i>Structural walls and columns;</i>
		<i>Beams and slabs;</i>	
<i>Staircases.</i>			
Frames and slabs (above top of ground floor slabs)		<i>Structural walls and columns;</i>	
<i>Upper floor beams and slabs;</i>			
<i>Roof beams and slabs;</i>			
<i>Staircases;</i>			

			<i>Fireproofing to steel structure.</i>	
		Tanks pools and sundries	<i>Only when located within the building envelope (otherwise included in external works).</i>	
		Composite or prefabricated work.		
	“External” architectural works / Non-structural works	External elevations		<i>Non-structural external walls and features;</i>
				<i>External wall finishes except cladding;</i>
				<i>Facade cladding and curtain walls;</i>
				<i>External windows;</i>
				<i>External doors;</i>
				<i>External shop fronts;</i>
				<i>Roller shutters and fire shutters.</i>
		Roof		<i>Roof finishes;</i>
				<i>Skylights;</i>
				<i>Waterproofing;</i>
	<i>Insulation;</i>			
	<i>Other roof features;</i>			
		<i>Roof landscaping (hard and soft).</i>		
Core	“External” architectural works / Non-structural works	Internal divisions	<i>Non-structural internal walls and partitions;</i>	
			<i>Internal shop fronts;</i>	
			<i>Toilet cubicles;</i>	
			<i>Moveable partitions;</i>	
			<i>Cold rooms;</i>	
			<i>Internal doors;</i>	
			<i>Internal windows;</i>	
			<i>Roller shutters and fire shutters;</i>	
			<i>Sundry concrete work</i>	
			Fittings and sundries	<i>Balustrades, railings and handrails;</i>
	<i>Staircases and catwalk not forming part of the structure, cat ladders;</i>			
	<i>Cabinets, cupboards, shelves, counters, benches, notice boards, blackboards;</i>			
	<i>Exit signs, directory signs;</i>			
	<i>Window and door dressings;</i>			

			<i>Decorative features;</i>
			<i>Interior landscaping;</i>
			<i>Access panels; fire service cabinets;</i>
			<i>Sundries.</i>
		Finishes under cover	<i>Floor finishes (internal and external);</i>
			<i>Internal wall finishes and cladding;</i>
			<i>Ceiling finishes and false ceilings (internal or external).</i>
	Composite or prefabricated work		
	Energy services and equipment	Heating systems	<i>Heating water system</i>
			<i>Steam and condensate system</i>
			<i>Fuel oil system</i>
			<i>Electric underfloor heating</i>
			<i>Local electrical heating units</i>
<i>Water treatment</i>			
<i>Air handling and distribution</i>			
<i>Air curtains</i>			
<i>Related electrical and control systems</i>			
Cooling systems		<i>Seawater system</i>	
		<i>Cooling water system</i>	
		<i>Chilled water system</i>	
		<i>Condensate drain system</i>	
		<i>Unitary air-conditioning system</i>	
		<i>Window and split-type air conditioners</i>	
		<i>Water treatment</i>	
		<i>Air handling and distribution</i>	
		<i>Air curtains</i>	
		<i>Related electrical and control systems</i>	
Ventilation systems		<i>Window and split-type air conditioners</i>	
		<i>Fans</i>	
		<i>Related electrical and control systems</i>	
		<i>Water treatment</i>	

			<i>Air handling and distribution</i>
			<i>Air curtains</i>
			<i>Related electrical and control systems</i>
		Energy generation and storage	<i>Hot water tanks</i>
			<i>Onsite renewable energy generation systems</i>
			<i>Energy storage units (batteries, fuel cells etc.)</i>
			<i>Standby system</i>
			<i>Uninterruptible power supply</i>
		Electricity infrastructure and distribution	<i>High voltage transformers and switchboards</i>
			<i>Incoming mains, low voltage transformers and switchboards</i>
			<i>Mains and submains</i>
			<i>Earthing/lightning protection and bonding</i>
			<i>Electrical cables and cable ducting</i>
		Built-in interior lighting	<i>Interior lighting devices</i>
			<i>Interior lighting control systems and sensors</i>
		Built-in exterior lighting	<i>Exterior lighting devices fixed to the building envelope</i>
			<i>Exterior lighting control systems and sensors for devices fixed to the building envelope</i>
		Extra low voltage electrical systems and the like	<i>Information and communications technology system</i>
			<i>Public address system</i>
			<i>Building automation</i>
			<i>Security and alarm</i>
			<i>Close circuit television</i>
			<i>Communal aerial broadcast distribution and the like</i>
	Water supply and drainage above ground or inside basement (i.e. within building envelope)	Water supply (within the building envelope)	<i>Cold water supply</i>
			<i>Hot water supply</i>
			<i>Flushing water supply</i>
			<i>Grey water supply</i>
			<i>Cleansing water supply</i>
			<i>Irrigation water supply</i>
			<i>Related electrical and control systems</i>
		Water / wastewater disposal	<i>Rainwater disposal</i>

		(within the building envelope)	<i>Soil and waste disposal</i>	
			<i>Planter drainage disposal</i>	
			<i>Kitchen drainage disposal</i>	
			<i>Related electrical and control systems</i>	
	Sanitary fittings	Toilets		<i>Water closet cisterns and flushing mechanisms</i>
				<i>Toilet bowls</i>
				<i>Urinals</i>
		Built-in fittings for personal hygiene		<i>Bidets</i>
				<i>Bathroom sink</i>
				<i>Bathroom taps</i>
				<i>Bathtub</i>
				<i>Shower cubicle</i>
				<i>Showerheads</i>
		Other systems	Fire systems	
				<i>Wet risers</i>
				<i>Sprinkler system</i>
				<i>Deluge system</i>
				<i>Gaseous extinguishing system</i>
				<i>Foam extinguishing system</i>
				<i>Audio/visual advisory system</i>
	<i>Automatic fire alarm and detection system</i>			
	<i>Portable hand-operated appliances and sundries</i>			
	<i>Related electrical and control systems</i>			
Gas services			<i>Natural gas</i>	
Movement systems			<i>Lifts / elevators</i>	
			<i>Platform lifts</i>	
			<i>Escalators</i>	
			<i>Travellators   moving walkways</i>	
		<i>Conveyors</i>		
External works	Surface and underground drainage (beyond the building envelope and	Surface water drainage		
		Storm water drainage		
		Foul and wastewater drainage		

	only until the interface with public domain)	Drainage disconnections and connections	
		Buried process pipe	
	Access, connections and ancillary works  (Optional)	Permanent retaining structures	
		Site enclosures and divisions	
		Ancillary structures (including tanks, pools and sundries when they are external)	
		Roads and paving	
		Landscaping (hard and soft)	
		Fittings and equipment	
		External services	<i>Water supply</i>
			<i>Gas supply</i>
			<i>Power supply</i>
			<i>Communications supply</i>
			<i>External lighting</i>
			<i>Utility disconnections and connections</i>
Exterior Lighting  (Optional)	Exterior lighting for building plot area	<i>Exterior lighting devices in building plot area not fixed to building envelope</i>	
		<i>Exterior lighting control systems and sensors for devices fixed to the building envelope</i>	
Parking facilities and any other external buildings <sup>1</sup> (when structurally independent construction of the assessed building but located within the curtilage of the building and servicing	Above ground and underground (within the curtilage of the building and servicing the building occupiers)	<i>Concrete blinding</i>	
		<i>Raft footings</i>	
		<i>Column bases</i>	
		<i>Wall footings</i>	
		<i>Strap beams</i>	
		<i>Tie beams</i>	
		<i>Substructure walls</i>	

<sup>1</sup> Parking facilities and any other external buildings such as pump houses, substations or security booths should be treated as a separate building and a separate assessment when they are structurally independent of the building being assessed. Structural independence should be understood as a lack of shared foundations and other loadbearing structural elements. Parking facilities which do share structural elements and that fall within the envelope of the building structure should not be considered as external buildings but instead as a part of the whole building, thus counting their associated embodied carbon, operational carbon and floor areas in the analysis. In cases where a parking facility is part of a shared structure between more than one building, either the whole complex of buildings should constitute one single assessment, or the embodied carbon impacts and floor area of the parking facility should be allocated based on the relative shares of parking spaces that are designated to each building.

	the building occupiers)		<i>Substructure columns</i>
			<i>Lowest floor slabs (Considering ground floor slab)</i>
			<i>Lowest floor beams (Considering ground floor slab)</i>
			<i>Slab blinding</i>
			<i>Slabs</i>
			<i>Lift pit wall</i>
			<i>Lift pit slab</i>
			<i>Vertical waterproof tanking</i>
			<i>Drainage blanket</i>
			<i>Sleeves</i>
			<i>Retaining wall</i>
			<i>Retaining wall foundation</i>
			<i>Structural internal walls</i>
			<i>Columns</i>
			<i>Upper floor beams</i>
			<i>Staircases</i>
			<i>Structural external walls</i>
			<i>Roof beams</i>
			<i>Roof slabs</i>
			<i>Roof finishes</i>
			<i>Acoustic insulation</i>
			<i>Waterproofing element</i>
			<i>Skylights</i>
<i>Roof hard landscaping</i>			
<i>Roof soft landscaping</i>			