

## APPENDIX TWELVE: SUSTAINABLE BUILDING ASSESSMENT TOOL INDICATOR ANALYSIS

SBAT reference	Criteria and indicator	The indicator is easy to understand by all stakeholders	The information required for the indicator is readily available and easy to capture	The indicator requires minimal additional modelling, calculation or investigation	The method of measuring the indicator is objective	Have a target against which it can be compared	Rating
SO1.1	Lighting The main working spaces are well day lit. Effective daylight/solar control. Glare minimised. Criteria: Daylight factor 5%.	Y	Y	N	Y	Y	4
SO1.2	Ventilation Adequate clean air supply to each inhabitant. Supply taken from unpolluted source Criteria: All working spaces have equivalent of opening window area equivalent to 10% of floor area	Y	Y	Y	Y	Y	5
SO1.3	Noise Noise levels limited in teaching and learning spaces to acceptable levels. Criteria: Office type environment background noise not over 35-45dba, Working environment not over 50dba.	Y	N	N	Y	Y	3
SO1.4	Views Design to all working areas to have access to a view out. Criteria: All working spaces to be maximum of 6m from a window	Y	Y	Y	Y	Y	5
SO1.5	Thermal comfort Thermal comfort throughout year Criteria: Indoor environment maintained within temperature range (range dependent on activities etc)	Y	N	N	Y	N	2
SO2.1	Public Transport The building is can be access by the disabled using public transport. Criteria: Entrance located 100, or less metres to disabled accessible public transport	Y	Y	Y	Y	Y	5
SO2.2	Routes, Changes in level All routes between and within buildings can be easily navigated by the disabled. Criteria: Adequate width, turning circles. No changes in level between or within buildings or, all changes in level catered for with appropriate ramps of 1:12	Y	Y	Y	Y	Y	5

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	fall, or lifts, routes surfaces have smooth and even surface						
SO2.3	Edges The visually impaired can move around and use the building easily Criteria: all edges i.e. between walls and floors and stair nosings clearly distinguished through the use of contrasting colour. Accessible signage provided.	Y	N	Y	Y	Y	4
SO2.4	Furniture and Fittings Furniture and fittings can be easily used by the disabled Criteria: Type and location of furniture and fittings specified	Y	N	Y	Y	Y	4
SO2.5	Toilets, Bathrooms and kitchens Toilets and bathrooms are or can be easily adapted for disable access Criteria: Access, and spatial configuration of spaces	Y	Y	Y	Y	N	4
SO3.1	Childcare Occupants of building can pick up / drop children easily, without having to make additional long distance car journeys. Criteria: distance between residential/work and schools/creches not more than 3km	Y	Y	Y	Y	Y	5
SO3.2	Banking Occupants have easy access to banking facilities. Criteria: Banking services (i.e. ATM) provided close by (within 3km) / internet service , mobile service provided.	Y	Y	Y	Y	Y	5
SO3.3	Retail Occupants have easy access to retail facilities for everyday items (ie groceries). Criteria: Relevant retail outlets provided within 3km / alternative internet / delivery service provided.	Y	Y	Y	Y	Y	5
SO3.4	Communication Occupants have easy access to communications facilities during their working day or on their route home. Criteria: Postal, telephone or email facilities close by	Y	Y	Y	Y	Y	5

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	(within 3km).						
SO3.5	Work Occupants do not have to undertake long vehicular journeys to get to and from work. Criteria; Distance (20km)	Y	Y	Y	Y	Y	5
SO4.1	Environmental control Occupants of building have reasonable control over their environmental conditions Criteria: Level of control over environmental conditions by individuals; access to openable windows, blinds, control of light and temperature	Y	N	Y	Y	Y	4
SO4.2	User manual and training Occupants of the building understand the building and it's systems and work with these. Criteria; building user manual, induction for new occupants	Y	N	Y	Y	Y	4
SO4.3	Social spaces Occupants have access to spaces which enable formal / informal social interaction to take place easily. Criteria: design and location of spaces provided for informal / formal social interaction	Y	Y	N	N	N	2
SO4.4	Amenity Amenities easily accessible Criteria: design and location of amenities	Y	Y	N	N	N	2
SO4.5	Community involvement Spaces equipment shared with local communities Criteria: Accessibility of facilities by local communities	Y	N	N	N	N	1
SO5.1	Education Access to / support for learning provided. Criteria: Access to learning.	Y	Y	Y	N	N	3
SO5.2	Security Occupants are safe and feel safe in the building and on regularly used routes to and from the building. Criteria: Spatial configuration, visual links, lighting, technological and physical security systems	Y	N	N	N	N	1
SO5.3	Smoking Smokers do not affect health of building users Criteria: Avoidance of cross contamination	Y	Y	Y	Y	Y	5

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SO5.4	Health Internal environmental conditions do not affect health of occupants Criteria: Materials, components and finishes screened for health hazards	Y	N	N	Y	N	2
SO5.5	Exercise and recreation Occupants have easy access to sport/recreational facilities Criteria: facilities within 3km	Y	N	N	Y	Y	3
EC1.1	Local contractors Building makes use of local contractors Criteria : Type and location of contractors used, percentage of total contractor cost spent on local contractors	Y	N	N	Y	N	2
EC1.2	Local building material supply Building uses local materials Criteria: Percentage of total construction materials such as cement, sand, bricks etc that are sourced locally	Y	N	N	Y	N	2
EC1.3	Local component, fittings and furniture manufacture Building uses component, fittings and furniture sourced locally Criteria: Percentage of building components i.e. windows and doors that are produced locally	Y	N	N	Y	N	2
EC1.4	Outsource opportunities Building creates opportunities small emerging businesses. This includes outsourcing catering, cleaning services and security as well as making space and equipment available for businesses to use for retail, education etc. Criteria: Design, location of spaces, management plan	Y	N	N	Y	N	
EC1.5	Repairs and maintenance Building maintenance and repairs can be carried out by users / local contractors. Criteria: Percentage of building and furniture and fittings that can be serviced locally	Y	N	N	Y	N	2
EC2.1	Space Use Buildings / layout should make good use of space Criteria: M2 / person	Y	Y	N	Y	N	3

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EC2.2	Space Management Space should be managed efficiently Criteria: Effective space management systems	Y	N	N	N	N	1
EC2.3	Shared Use Facility shared between a number of users Criteria: Spatial, technological and managerial arrangements for shared use	Y	N	N	N	N	1
EC2.4	Use of technology Access to technology (ie email, internet, video conferencing) to reduce requirement for travel and space. Criteria: Access to technology, reduction in travel and space requirements	Y	N	N	N	N	1
EC2.5	Occupancy schedule Systems to ensure efficient use of space and services Criteria: Hours of the week that the building is occupied	Y	N	Y	Y	N	3
EC3.1	Spaces Spaces should be available should be readily adapted for different uses. For instance spaces may be required for work during the day, social activities in the evening and quiet study during weekends and at night. Criteria: Spatial configuration	Y	Y	N	N	N	2
EC3.2	Furniture Internal spaces can be easily reconfigured to suite different organisation requirements / users Criteria: Configuration and shape of spaces, construction of partitions.	Y	Y	N	N	N	2
EC3.3	Services Services can configured to allow different internal arrangements and can be accessed easily to be extended / altered Criteria: Location and access to services	Y	Y	N	N	N	2
EC3.4	Structure Structure / load bearing elements configured to enable variety of different internal arrangements Criteria: Location and size of structural elements	Y	Y	N	N	N	2
EC3.5	Vertical Circulation and	Y	Y	N	N	N	2

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	Service Cores Vertical circulation and service cores configured to enable range of different spatial arrangements Criteria: Location and size of vertical circulation and service cores.						
EC4.1	Maintenance Level of requirement for ongoing maintenance of the building considered and understood. Costs for this limited through design, and planned for. Criteria: Lifecycle costs considered in specification of materials, components, and equipment. Design items such as light bulbs can be easily reached and replaced without use of expensive equipment).	Y	N	N	N	N	1
EC4.2	Cleaning Building can be kept clean easily and safely Criteria: Window location and access, floor materials and access	Y	N	N	N	N	1
EC4.3	Security / care taking Building is reasonable secure without requiring large ongoing costs. Criteria: Spatial layout and visual supervision by neighbouring occupied buildings	Y	N	N	N	N	1
EC4.4	Insurance / water / energy / sewerage Ongoing costs of water, energy and insurance minimised. Criteria: Meters can be easily accessed. Building manual provides detail on when these should be read, to enable ongoing monitoring and improvement.	Y	N	N	N	N	1
EC4.5	User awareness Criteria: Highly visual information (sign boards or intranet) displaying current, previous and targeted consumption and waste performance	Y	N	Y	Y	Y	4
EC5.1	Consultant fees Consultant fees not just calculated on total project cost basis. Incentives provided to consultants to reduce capital cost and ongoing costs. Criteria: Professional fee	Y	N	Y	Y	N	3

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	structure						
EC5.2	Build-ability Building design cost efficient to build and minimise waste Criteria: Building form simple. Replication of elements and components. Design / planning grid that relates to materials / component module sizes	N	Y	N	N	N	1
EC5.3	Initial costs Initial cost of building limited. Criteria: Building design which enables building to be built a minimal initial cost, allowing building to be developed and grow, over time, as additional funding becomes available – buildings designed as a set of independent, interrelated components, building built as shell first with finishes etc to be added later.	N	N	N	N	N	0
EC5.5	Sharing arrangements Capital costs of the building minimised: Criteria: Quantity of new space reduced through arrangements to use existing spaces and buildings	Y	N	N	N	N	1
EN1.1	Rainwater Water consumption reduced through use of rainwater Criteria: Systems for capturing, storing and using rainwater	Y	Y	Y	Y	Y	5
EN1.2	Water use Water consumption reduced through efficient delivery devices: Criteria: Specification of water efficient delivery devices.	Y	Y	Y	Y	Y	5
EN1.3	Grey water Water consumption reduced through reuse Criteria: Use of grey water systems	Y	Y	Y	Y	Y	5
EN1.4	Runoff Runoff and Storm water runoff minimised Criteria: Design and specification to minimised runoff. Specification of pervious or absorbent materials for hard external surfaces. Design and management of runoff	Y	Y	N	Y	N	3
EN1.5	Planting	Y	N	Y	Y	Y	4

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	Water consumption and existing ground water (water table etc) maintained. Criteria: Low water requirement landscaping/planting scheme.						
EN2.1	Location Building located to minimise transport energy requirements of users Criteria: Building located within 400m of public transport	Y	Y	Y	Y	Y	5
EN2.2	Ventilation System Ventilation design and management to minimised energy requirements Criteria : All ventilation requirements met through passive systems.	Y	N	N	Y	Y	3
EN2.3	Heating and Cooling System Environmental control system design to minimise requirement for non-renewable energy Criteria: Heating and cooling requirements met through passive environmental control design	Y	N	N	Y	Y	3
EN2.4	Appliances and Fittings Energy requirements of appliances, plant and fittings minimised Criteria: Specification of energy efficient fittings, appliances, plant and lighting	Y	Y	Y	Y	Y	5
EN2.5	Renewable Energy Energy consumption of building supplemented / sourced from renewable sources Criteria: Ten per cent of energy required for building obtained from renewable source	Y	N	N	Y	Y	3
EN3.1	Toxic waste Toxic waste processed safely and with minimal environmental impact Criteria: Design and management for the safe disposal / recycling of toxic/harmful substances such as batteries, printer toners and vehicle oil.	Y	N	N	Y	Y	3
EN3.3	Organic waste Organic waste recycled locally Criteria: Design and	Y	N	N	Y	Y	3



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	management that ensures 100% of organic waste produced to be recycled and reused on site / arrangements made for local provider to carry this out.						
EN3.3	Inorganic waste Inorganic waste recycled locally Criteria: Design and management that ensures a minimum of 30% of inorganic waste produced is recycled – arrangements made to sort, store and transport waste	Y	N	N	Y	Y	3
EN3.4	Sewerage Contribution to mains sewerage minimised Criteria: Use of compost toilets, and other 'local' systems.	Y	Y	Y	Y	Y	5
EN3.5	Construction waste: Construction waste minimised Criteria: Design which minimises waste production ie prefabrication/using components planning grid. Requirement for construction waste minimisation detailed in tender documentation.	Y	N	N	N	N	1
EN4.1	Brownfield site Building occupies already disturbed site Criteria: Site has been previously built on / developed	Y	Y	Y	Y	Y	5
EN4.2	Neighbouring buildings Building does not have harmful affect on neighbouring buildings Criteria: No / minimal reduction to neighbouring buildings access to sunlight and natural ventilation	Y	Y	N	N	Y	3
EN4.3	Vegetation Building and site supports vegetation Criteria: Area of vegetation provided and maintained equivalent or greater than that of the footprint of the building and hard surfaces	Y	Y	Y	Y	Y	5
EN4.4	Habitat Building supports diversity of plant and animal life Criteria: Number and range of different species supported.	Y	N	N	N	N	1
EN4.5	Landscape inputs Landscapes designed to	Y	N	N	N	N	1

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	function naturally Criteria: No or minimum artificial inputs (fertilizer, pesticides etc) required to maintain landscape.						
EN5.1	Embodied energy Majority of building materials and components used have low embodied energy. Criteria: Embodied energy of materials	Y	N	N	Y	N	2
EN5.2	Material / component sources Majority of building components used are from 'grown' or renewable (ie timber, thatch) sources. Criteria: Proportion of materials	Y	N	N	Y	N	2
EN5.3	Manufacturing processes Processes for processing / manufacturing materials has minimal negative impact on the environment. Criteria: No materials used whose production involves large-scale <b>direct</b> pollution of the environment, and <b>direct release</b> of greenhouse gas emissions.	Y	N	N	N	Y	2
EN5.4	Recycled / reused materials and components Materials and components used in the building are from recycled sources Indicator: 10% of 1 of the 5 main building materials (by volume) are from recycled sources.	Y	N	N	Y	Y	3
EN5.5	Construction processes Building design and construction developed to minimally affect the environment Criteria: Building and construction process designed to minimally impact the environment. Requirement for large-scale vegetation clearing and earth movement minimised.	Y	N	N	N	Y	2