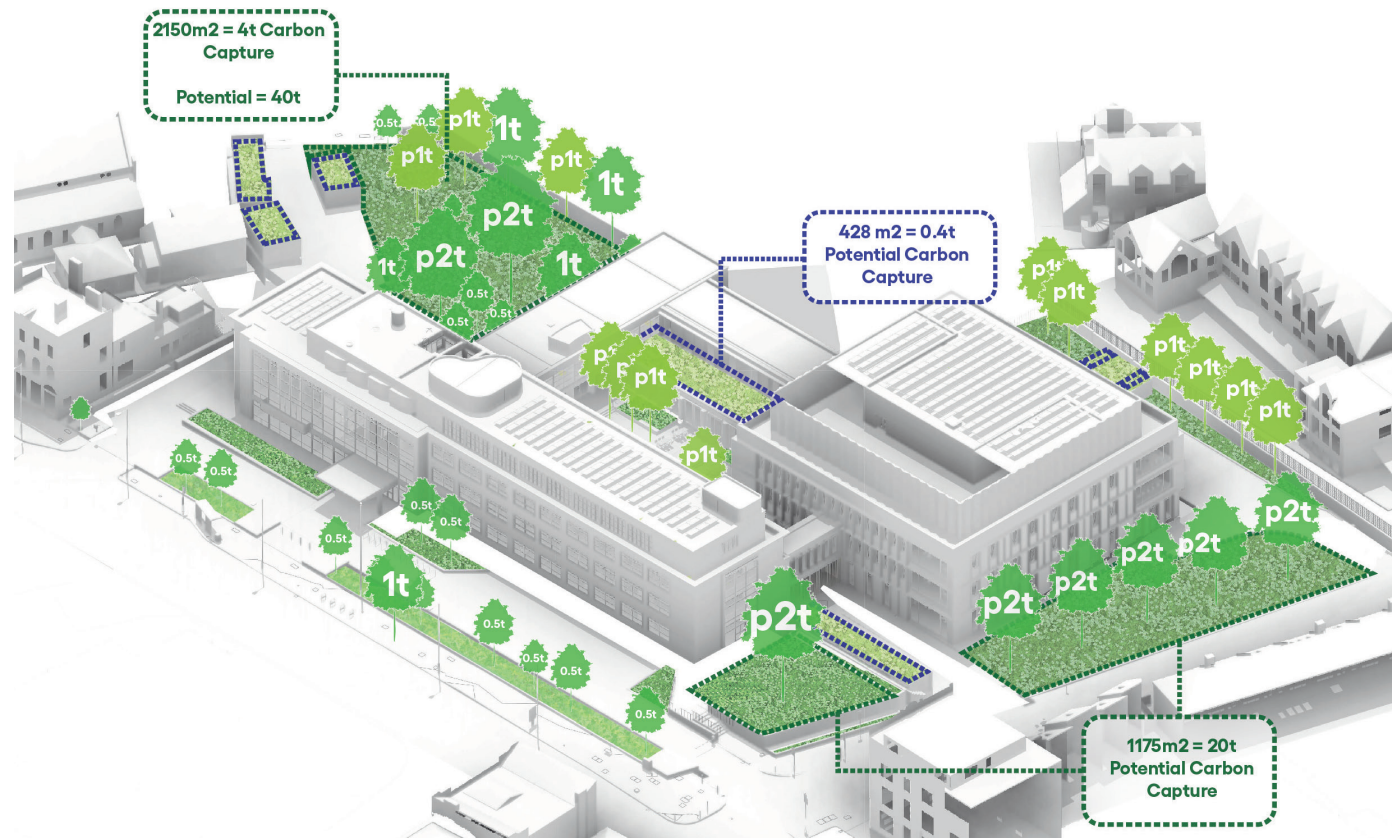
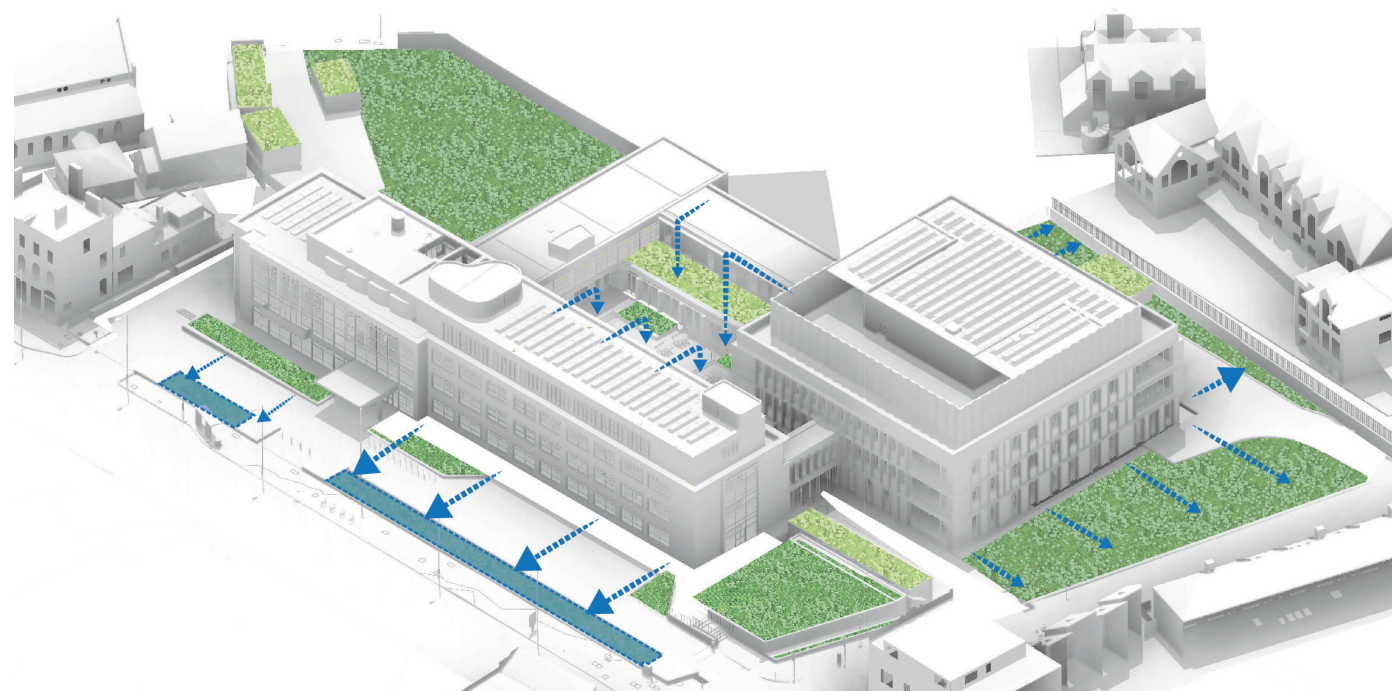


8.4.1 Biodiversity & Sustainability Strategy



Existing Carbon Capture & Potential Carbon Capture



Rain Water Management diagram

→ Rain water direction

A mature tree contains circa 1 tonne of carbon, with the potential to hold 2 tonnes at full age. Retaining all healthy existing trees saves 30 tonnes of carbon and could add up to 60 tonnes when reaching full size. The new potential of carbon capture is generated by planting 28 trees.

All of the rainwater run off generated will be attenuated on site, through rain gardens, swales or permeable paving. The adoption of best practice is a requirement of the Mayor's London Plan and is monitored by the Lead Local Flood Authority. A 7 point drainage hierarchy promotes attenuation at the source, the best outcome being a green roof, closely followed by swales and ditches. Underground tanks are now frowned on, and in some areas banned. Rain gardens are proposed to the front of the Civic Centre.

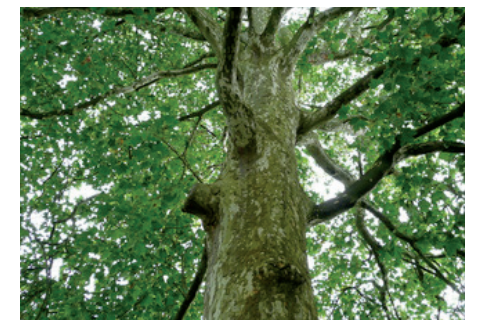
There is potential for a small attenuation basin or swale to the north of the site which would aid in the mitigation of flooding, the viability needs to be further explored in the next phase. Guidance related to open attenuation basins recommends that the side slopes should be no steeper than 1:3 and that a flat shelf is provided just below the expected maximum level of standing water.

Planting mixes will be either native and/or attractive to

wildlife. The use of species such as *Viburnum opulus* and crab apple will encourage foraging or grazing and will help to increase the quantum and diversity of small birds, bats, and small mammals such as hedgehogs, all species currently threatened. As the site is situated within an urban setting the possibility of creating links between adjacent sites should be further explored. An opportunity to do this would be with the adjacent Trinity Primary Academy, creating an opportunity for co-design and learning.

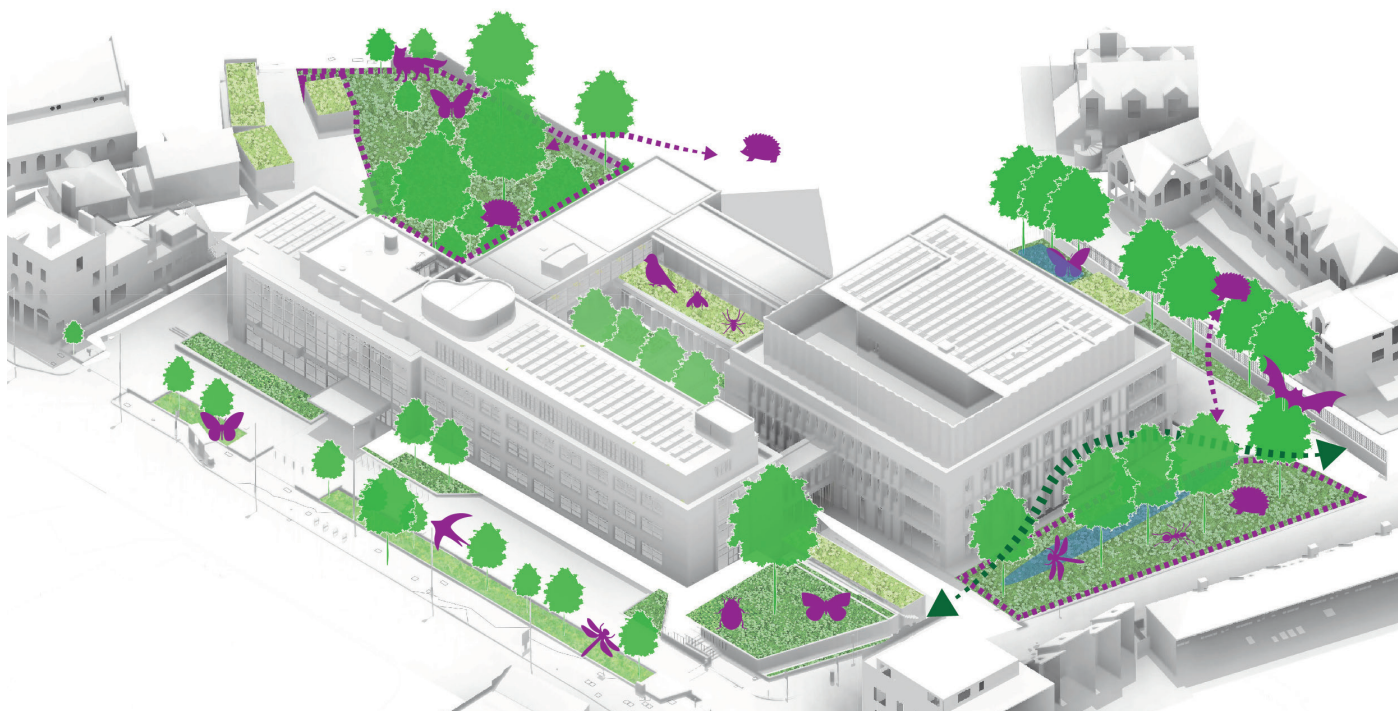
The planting selection will also be designed to respond to Secure By Design concerns with shrubs occupying the visual horizon between 1 metre and 2 metres being kept to low numbers, although some will be kept to maintain the food source of berries for small birds. More vulnerable boundaries will be supplemented with thorny shrubs

The site will retain a sense of maturity through the retention of the avenue of trees which define the occupy the boundary with Trinity Road and the mature trees located within the Woodland Garden. The new on plot areas will then be generously planted, the overall effect will be being of a well-vegetated site.



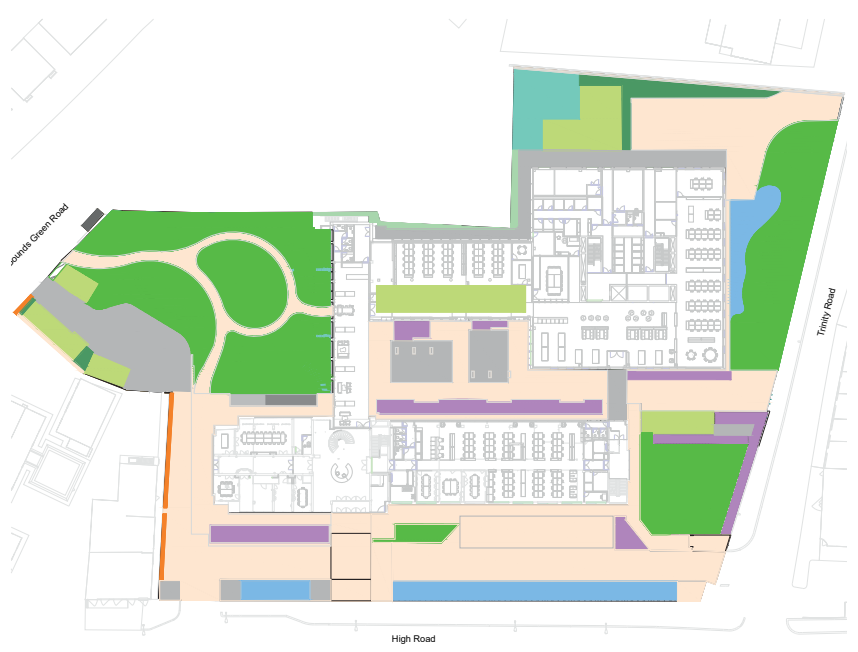
8.4.2 Biodiversity & Sustainability

Urban Greening Factor



Biodiversity diagram

Link to Trinity Garden



Urban Greening Factor

Urban Greening Factor Calculator				
Surface Cover Type	Factor	Area (m²)	Contribution	Notes
Semi-natural vegetation (e.g. trees, woodland, species-rich grassland) maintained or established on site.	1	1856	1856	
Wetland or open water (semi-natural; not chlorinated) maintained or established on site.	1		0	
Intensive green roof or vegetation over structure. Substrate minimum settled depth of 150mm.	0.8		0	
Standard trees planted in connected tree pits with a minimum soil volume equivalent to at least two thirds of the projected canopy area of the mature tree.	0.8	143	114.4	
Extensive green roof with substrate of minimum settled depth of 80mm (or 50mm beneath vegetation blanket) – meets the requirements of GRO Code 2014.	0.7	458	320.6	
Flower-rich perennial planting.	0.7	349	244.3	
Rain gardens and other vegetated sustainable drainage elements.	0.7	338	236.6	
Hedges (line of mature shrubs one or two shrubs wide).	0.6	24	14.4	
Standard trees planted in pits with soil volumes less than two thirds of the projected canopy area of the mature tree.	0.6	118	70.8	
Green wall – modular system or climbers rooted in soil.	0.6	0	0	
Groundcover planting.	0.5	43	21.5	
Amenity grassland (species-poor, regularly mown lawn).	0.4	0	0	
Extensive green roof of sedum mat or other lightweight systems that do not meet GRO Code 2014.	0.3	0	0	
Water features (chlorinated) or unplanted detention basins.	0.2	0	0	
Permeable paving.	0.1	2823	282.3	
Sealed surfaces (e.g. concrete, asphalt, waterproofing, stone).	0	0	0	
Total contribution			3160.9	
Total site area (m²)			10395	
Urban Greening Factor			0.304078884	

The Urban Greening Factor exceeds the threshold of 0.3, the level now required for new commercial projects under the Mayors London Plan.

The project will in addition achieve the 10% Biodiversity Nett Gain.

A landscape management plan would be secured by a planning condition to ensure the development's landscaping is maintained to a high standard and remains useable for the council and the wider community. In the following phase existing community groups will be engaged

BREEAM

LE03 MITIGATING IMPACTS ON SITE
Ecological Risks and Opportunities – Planning and measures on site -1 Credit- Achievable if appropriate measures followed.
Managing negative impacts -1 Credit-Achievable if appropriate measures to protect existing features are followed. Will require ecological status of the site to be at least maintained

LE04 ECOLOGICAL CHANGE AND ENHANCEMENT

Seeks to improve ecological status

Ecological enhancement - 1 Credit- Assessment requires input of an ecologist to verify enhancement, achievable
Change and Enhancement – Up

to 3 Credits based on level of enhancement. Biodiversity value is a factor of area and species diversity. Achieving 3 credits will achieve the same or increased area of greening and significantly increased species diversity. 3 Credits is achievable but requires full commitment to the achievement of maximum diversity. Must be verified by an ecologist.

LE05 LONG TERM ECOLOGICAL MANNAGEMENT AND MAINTENANCE
Management and maintenance throughout the project: 1 Credit achievable. Correct measures must be followed through the project delivery phase
Landscape and ecology management plan: 1 Credit achievable if plan prepared by an ecologist