

Figure 4.10R: Proposed Basement Provision

Deliveries and Servicing

Deliveries and Servicing Management

4A.78A The majority of commercial servicing would be undertaken within the podium of Block H, with space provided for a minimum of two large vehicles and adequate turning provision within the boundary of the parcel. ~~Commercial properties in Block B would be serviced from Grant Way, with suitable on-street delivery bays provided. Similar servicing~~ Servicing bays would also be provided on MacFarlane Lane and along the boulevard and lanes within the site to accommodate large deliveries to residential properties.

Waste Management

Waste Arisings

4A.79A The total estimated waste arising for the [amended](#) proposed development has been calculated in accordance with good practice guidance and is detailed in the Outline Waste Strategy that accompanies the application.

4A.80 The strategy for disposing, storing and collecting waste would be determined at the detailed design stage and a detailed Operational Waste Strategy would accompany the RMAs. This strategy is to be secured by means of an appropriately worded planning condition.

4A.81 Waste and recycling would be collected at street level from dedicated stores beneath the buildings fronting the boulevard and the lanes.

4A.82 The internal street layout would be designed to minimise the need for collection vehicles to reverse, with turning areas provided at the eastern end of both lanes.

Plant and Ventilation

Heating

4A.83A [High temperature](#) low emission air source heat pumps (ASHP) would be used ~~with gas back-up boilers~~ to provide space heating and hot water. ~~For resilience, the gas boilers would be designed to the full peak capacity of the site. During the RMA stage, options would be explored for the provision of on-site renewable energy. The heat pumps would increase water temperature from 30°C to 60°C, enabling 100 % of the heat supply, using electricity as a fuel source. Gas backup boilers would be used only in unplanned circumstances to maintain a heat supply if faults arise. No gas connections would be made to new residential units.~~

4A.84A Figure 4.11R shows the zone where which the energy centre would be located at ground level. This located has been chosen due to the requirements and restrictions of the proposed energy centre.

4A.84N1 [The amended proposed development would provide photo-voltaic \(PV\) panels on the roofs of Blocks A-D and F.](#)

Cooling and Ventilation

4A.85 For outline applications, dynamic thermal modelling cannot be undertaken as this requires detailed internal layouts. Detailed overheating analysis would be considered as part of the RMAs and secured by means of an appropriately worded planning condition.

4A.86A An Overheating Mitigation Strategy Report has been prepared for the application, which sets out how the [amended](#) proposed development has taken all available steps at this stage of the design to address overheating.

Utilities

Electricity

4A.87A The point of connection for each block would be from the proposed substations located on the ground floor throughout the [amended](#) proposed development. The substations would be on a new 11kV high voltage ring main around the site.

4A.88 A supply of 11 MVA has been applied for, and would be confirmed through the reserved matters stage, and secured by means of an appropriately worded planning condition.

Gas

4A.89A Gas is not proposed for the [amended](#) proposed development.

Water

Potable Water

4A.90 The point of connection for the water supply would be located along Syon Lane and Grant Way, taken from the existing Thames Water owned water main.

4A.91A The water demand of the [amended](#) proposed development would be calculated through the size and number of the proposed residential units.

4A.92 Water connections would be confirmed at the RMA stage.

Foul Water

4A.93 The proposed foul network would collect and convey the foul flows in a conventional gravity system discharging to the existing foul sewer within Grant Way.

4A.94 From the Thames Water sewer records the foul sewer in Grant Way appears to serve the existing Tesco store, flowing southward toward the sewer within Syon Lane. The Thames Water infrastructure plan does not provide an invert level for the foul sewer at this location and it is assumed (without further survey information) that the sewer is approximately 1.5 m to 2 m deep at this location. In order to route a compliant gravity sewer through the site to this location, it is anticipated that a foul pumping station would be required to discharge flows to the public sewer.

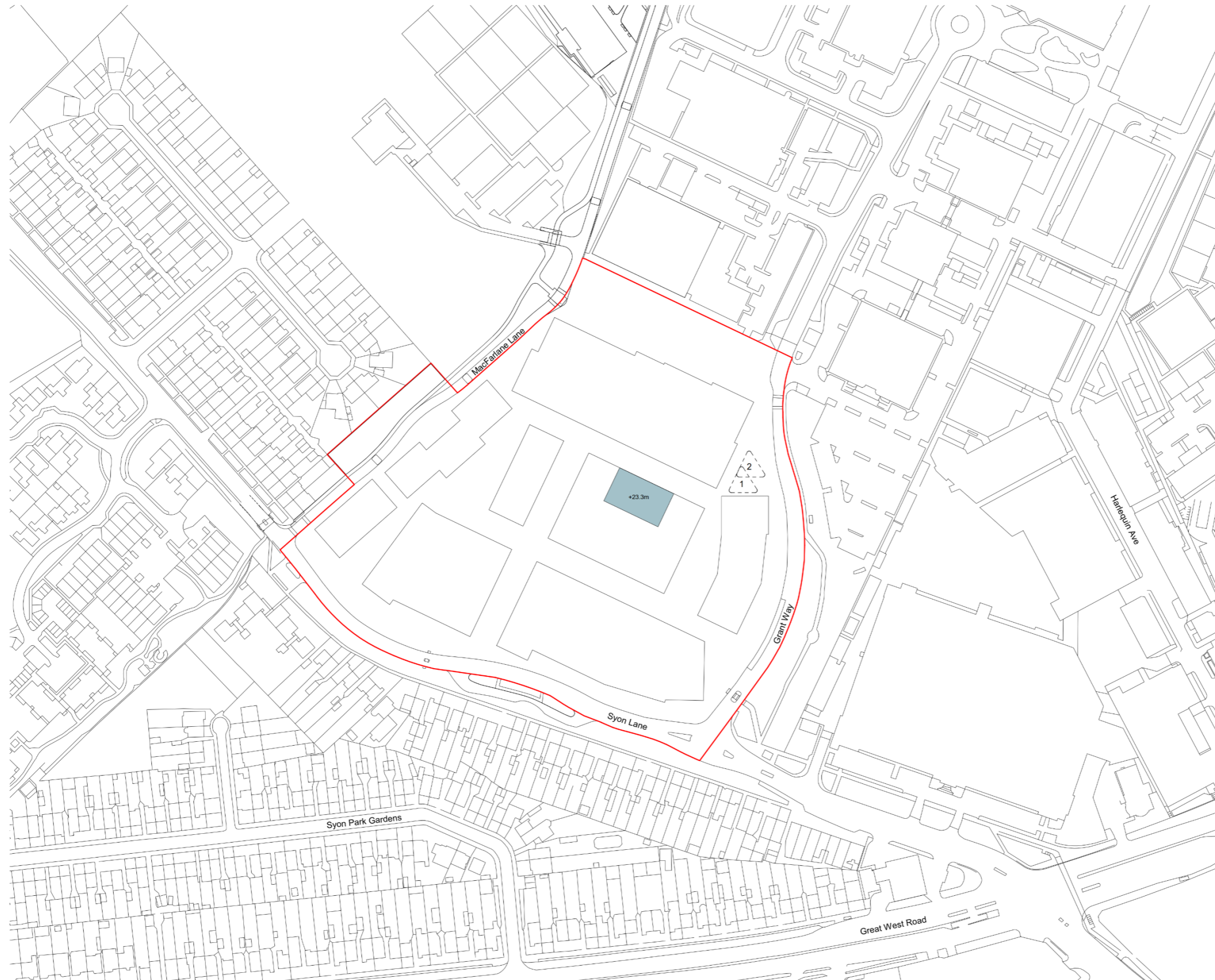
4A.95 As is standard practice, ongoing consultations would be undertaken to agree the necessary scope of works.

Surface Water

4A.96A The surface water discharged from the [amended](#) proposed development would be reduced to an estimated 1 in 30-year greenfield rate.

4A.97A A new surface water drainage network would be designed and installed to serve the [amended](#) proposed development. This would ensure that peak rainfall associated with a 1 in 100 annual probability event (including a 40 % increase in rainfall depths to account for climate change) would be accommodated within the site without causing flooding of internal or vulnerable areas of the site.

4A.98 The proposed surface water drainage strategy would collect runoff from the roofs of the proposed buildings, access road, car parking areas and other surrounding hard landscaped areas within the site. Surface water would be treated, attenuated and discharged at a controlled rate to the existing Thames Water surface water sewer.



Notes
Do not scale from this drawing.
All contractors must visit the site and be responsible for taking and checking dimensions.
All construction information should be taken from figured dimensions only. Any discrepancies between drawings, specifications and site conditions must be brought to the attention of the supervising officer.
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- KEY_PP011_Proposed Site Levels**
- Application Boundary
 - Zone for Energy Centre Located at Ground Level (F.F.L. +23.3m AOD)
 - Maximum Development Parcel
Maximum Extent of Habitable Accommodation including building articulation, balconies and awnings, associated landscaping and private amenity
 - Indicative location of single storey Mobility Hub Pavilion (for associated Bus route option)

PS	15/01/21	Planning including Amendments to Development Parcel J Removal of Development Parcel K Cycle and pedestrian routes to Syon Lane Allowance for alternative bus route options GFL & BL Foot Protection Area to Parcel F	ARB	ARB
P4	17/12/20	Planning	ARB	ARB
P1	31/07/20	Planning	IF/RT	EA

Rev	Date	Description	Drawn	Chkd
Drawing Status				

Outline Planning Application

Client
St Edward



Project
Tesco Osterley

Drawing Title
**Parameter Plan
Energy Centre Location**

Scale @A1 1 : 1000 Job Ref. 01754
Drawing No. 01754-JTP-DR-MP-PP-011 Revision PS
Scale Bar 0 10 20 30 40 50 m

Figure 4.11R: Proposed Energy Centre Location

4A.99A The FRA has shown that the SUDS measures that could be incorporated into the [amended](#) proposed development could comprise:

- Biodiverse roofs;
- Basins and ponds;
- Filter strips and swales; and
- Permeable surfaces and filter drains.

4A.100 The SUDS measures would be confirmed at the RMA stage, and secured by means of an appropriately worded planning condition.

Resources, Emissions and Residues

Resource Use

Land and Soil

4A.101A The [amended](#) proposed development would be delivered on the site defined by the redline boundary. No additional land take would be required.

Energy

4A.102A An Energy Strategy is accompanying the application and demonstrates how the [amended](#) proposed development would use passive and low energy design technologies to reduce baseline energy demand and CO₂ emissions followed by the application of low and zero carbon technologies.

4A.103 The energy strategies have been designed in accordance with the following energy efficiency hierarchy:

- Be Lean: Maximise passive design to minimise energy usage: return on investment;
- Be Clean: Ensure any technologies added into the building are efficient and well designed; and
- Be Green: Once development has been as efficient as possible through passive design, less renewables are required to achieve the energy benchmark, therefore reducing capital cost.

4A.104A It is expected that the proposed strategy ([which comprises high temperature, low-emission heat pumps and renewable technologies](#)) at the Be Lean and Be Clean stages of the Energy Hierarchy will meet the on-site Regulated CO₂ reduction target of 35 % from the London Plan using SAP 10 carbon emission factors. [The energy strategy is expected to have an on-site CO₂ reduction to 60 %.](#)

Potable Water

4A.105 The residential units would have water efficient sanitary fittings installed to meet a water consumption rate of 105 litre (l) or less per person per day.

4A.106 This would be met through fittings on WCs, showers, baths, basic taps, sink taps, dishwashers and washing machines.

Materials

4A.107A During the detailed design and RMA stages, material optimisation and opportunities to promote a circular economy would be considered as part of the [amended](#) proposed development. Where feasible, the design team would prioritise materials that:

- have a low embodied energy, including those that can be re-used intact or recycled at the end of their useful life and therefore support the circular economy in construction;
- can be sustainably sourced: 100 % of timber and timber products should be sourced from accredited Forest Stewardship Council (FSC) or Programme for the Endorsement of forestry Certification (PEFC) source; materials that are BES6001 (min very good) where possible or ISO14001 certified;

- are durable to cater for their level of use and exposure; and
- will not release toxins into the internal and external environment, including those that deplete the earth's stratospheric ozone layer.

4A.108 Material efficiencies would be integrated with the waste hierarchy principles, identifying opportunities to reuse existing materials and reducing construction waste.

4A.109 The opportunity to locally source materials would be investigated during the detailed design stage.

4A.110A Durable materials would be sought to reduce degradation and reduce the need to use additional materials over the [amended](#) proposed development's lifetime.

4A.111 These commitments would be secured by means of an appropriately worded planning condition.

Emissions

To Air

4A.112A The total carbon dioxide emissions for the [amended](#) proposed development would be 1,059 and 39 tonnes CO₂ per Annum (unregulated), for residential and non-residential space, respectively.

4A.113A The [amended](#) proposed development would target ~~a minimum 10 %~~ [an estimated 57 %](#) reduction over Part L 2013 for residential areas, and 15 % reduction from non-residential areas from fabric energy efficiency measures alone (this includes U-values for walls, floor, roofs and glazing, mechanical ventilation and low air permeability rates). Operational air emissions would primarily arise from road traffic, namely NO₂ and PM₁₀. These are summarised in Chapter 7: Air Quality.

4A.114A Based on the interpretation of the most conservative emissions benchmarks, the air quality neutral assessment has concluded that the [amended](#) proposed development would meet both the buildings and transport emissions benchmark and would be considered air quality neutral.

4A.115 The land uses to be introduced by the proposed would not give rise to excessive levels of noise and vibration emissions. No radiation sources would be introduced.

To Sewers and Water

4A.116A An FRA has been undertaken for the [amended](#) proposed development which includes an assessment of surface water runoff. The results of the FRA were used to inform and ensure measures for reduced surface water runoff were integrated into the design of the [amended](#) proposed development. The total maximum surface water discharge rate for the [amended](#) proposed development as a whole would be 16.86 litres per second (l/s).

4A.117A detailed drainage strategy would be produced at the RMA stage, and secured by means of an appropriately worded planning condition.

To Land

4A.118A No routine emissions to land are anticipated with the operational stage of the [amended](#) proposed development.

Residues

Waste

Demolition, Excavation and Construction Waste

4A.119A As indicated in ES Chapter 5: Demolition and Construction in this ES Volume, the [amended](#) proposed development's estimated waste arisings for the development works would be approximately 93,500 m³.

- 4A.120 The Applicant is committed to re-use on-site or recycle off-site as much as 90 % of waste materials arising from the development works. As a result, the totally waste to landfill would be approximately 4,000 m².
- 4A.121 The other remaining demolition materials would be removed from site. A SWMP would be detailed within the CEMP to be prepared prior to demolition and construction works commencing on-site.

Operational Waste

- 4A.122A The weekly waste arisings for the [amended](#) proposed development is estimated to be, in total:
- 234,634 litres per week for the residential elements; and
 - 44,290 litres per week for the non-residential elements.
- 4A.123A Appropriate and sufficient dedicated storage space for refuse and recyclable waste generated by the residents and tenants of the [amended](#) proposed development would be provided for each building. This would enable appropriate management of waste disposal during the [amended](#) proposed development's operation.

Sustainability Proposals

Sustainability Appraisal

- 4A.124A The following energy efficiency measures would be incorporated into the [amended](#) proposed development:
- Water efficiency: flow control devices and water efficient fixtures and fittings will be installed in all dwellings to target a maximum internal daily water consumption of 105 litres/ person/ day;
 - [Renewable Energy: provision of PV panels on Blocks A-D and F;](#)
 - Electric vehicle charging: active and passive charging points to be provided in accordance with London Plan requirements;
 - Net biodiversity gain: commitment to achieve more nature after a development than before. Ecology requirements of BREEAM Excellent to be met, including detailed ecology surveys and appropriate ecological enhancements;
 - Climate change adaptation: features to address the risks from climate change to be incorporated, including SUDS, overheating and water shortages;
 - Healthy homes: incorporating features to ensure residents can lead healthy lives, including walking and cycling routes, minimum space standards, enhanced biodiversity and mitigated overheating risk; and
 - Community creation: using the Berkeley toolkit 'Creating Successful Places' to ensure sustainable place-making and delivering social sustainability.
- 4A.125 These measures would be secured by means of an appropriate worded planning condition.

Operational Provisions and Controls

Operational Management

- 4A.126 As is standard practice, open space and public amenity areas would be maintained by a management agent
- 4A.127 Aspects of operational management incorporated into the residential and non-residential uses would include technological and Integrated Electronic Security Systems, such as closed-circuit television (CCTV) cameras.

Emergency and Disaster Management

- 4A.128A During the detailed design and reserved matters stages, consideration would be given to the following:
- Fire: All internal roads within the [amended](#) proposed development would be accessible by emergency vehicles and all buildings would be designed to be compliant with relevant Fire Safety Regulations; and
 - Flooding:
 - All finished floor levels would be at least 0.15 m above adjacent external ground levels;
 - The external ground profile around buildings would, where possible, be designed such that surface water would be directed away from buildings;
 - Extensive landscaping would be introduced at the detailed design stage which would reduce run-off rates; and
 - A combination of SUDS features would be used throughout the [amended](#) proposed development in order to minimise the rate of discharge and volume of runoff.

Travel Plan

- 4A.129A As part of the [amended](#) proposed development, the Applicant has developed a Residential and Commercial Travel Plan to encourage the use of non-car modes of travel and ensure the sustainability of the [amended](#) proposed development. It would provide a package of measures to encourage commercial users, staff and residents to use alternatives to single-occupancy car-use. The measures are as follows:
- Provision of secure cycle parking for residents, staff and visitors;
 - Regular monitoring of cycle parking use; and
 - Up to 10 car club vehicles (with all homes to receive three years' free membership, £50 of driving credit per home and 1 year's free business account for any commercial entity operating from or in conjunction with the site).
- 4A.130 A Framework Workplace Travel Plan and a Residential Travel Plan would be submitted alongside the application. The final Travel Plan would be secured by means of an appropriately worded planning condition.

Delivery and Servicing Management Plan

- 4A.131A A Delivery and Servicing Management Plan (DSMP) would be developed at the reserved matters stage. The objective of the DSMP would be to manage deliveries and servicing to the site in order to ensure efficient and successful operations (including refuse storage and collection). Effective management would ensure that the potential for vehicle conflicts is avoided and that the [amended](#) proposed development would have the minimum impact on both the surrounding highway network and pedestrian network.
- 4A.132 The DSMP would include details such as where deliveries and servicing would be undertaken from, who would be responsible for ensuring operations run effectively, what size vehicles are anticipated to require access and what frequency of vehicle movements are expected and would be secured by an appropriately worded planning condition.