



4.5

ELGIN SOUTH STREET

Design Proposals

Services Strategy

4.5.1 | DESIGN PROPOSALS | SERVICES STRATEGY | HEATING STRATEGY

Heating Strategy

The Scottish Government has climate change targets of a 70% reduction in emissions by 2030 and net zero emissions by 2045. Heat in buildings is a major target for improvement, as this currently accounts for around half of Scotland's total energy consumption. By 2030 a significant portion of this heat demand is to be supplied by zero direct emission systems, such as heat pumps and other electric systems. The Scottish Government New Build Heat Standard which will prohibit the use of a direct emission heating system for new buildings from April 2024. The standard will cover domestic and non-domestic building heating, cooling and domestic hot water systems.

The Scottish Government National Planning Framework 4 (NPF4) Policy 19 requires developments to connect to heat networks where they already exist, or to provide cost effective future connection provision where a heat network is planned but not yet in place. Moray Council is currently developing their Local Heat and Energy Efficiency Strategy (LHEES) and we understand this will include developing a 5th generation heat network (also known as an 'ambient loop') in Elgin. This new development will likely be completed prior to the completion of the main Elgin heat network, so our proposals are based on facilitating future connection while also providing an effective solution until this time.

The new development is to be constructed with insulation levels and air tightness improving on the building regulations, and with energy saving technologies such as mechanical ventilation with heat recovery and waste water heat recovery. These approaches will reduce heating, cooling and domestic hot water energy demand.

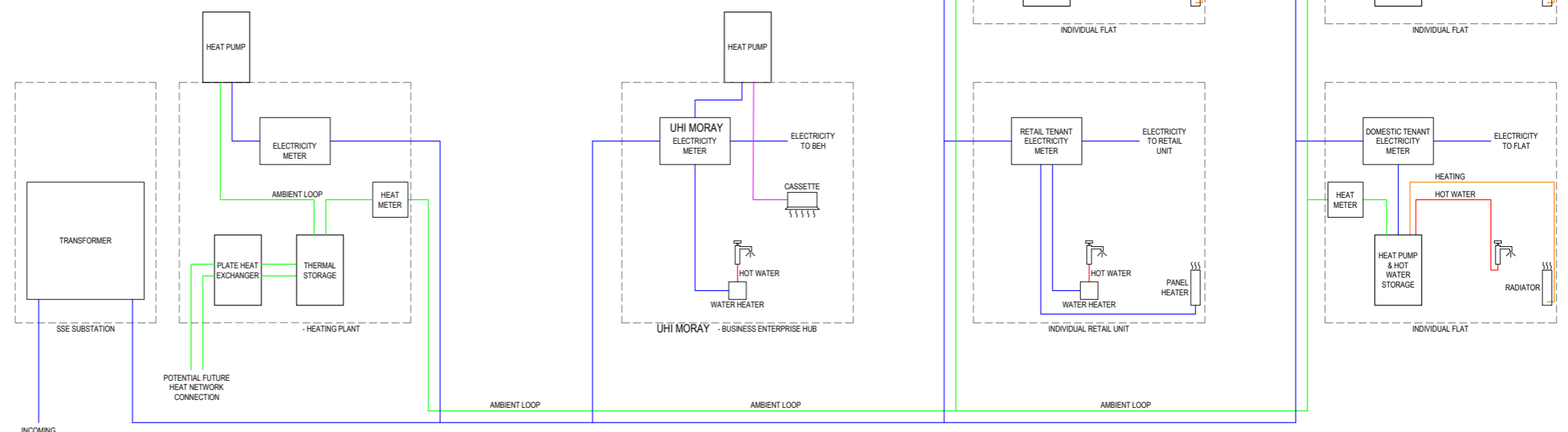
Heating and domestic hot water for the residential accommodation will be provided by a 5th generation heat network. Individual water to water heat pumps within each flat will extract heat from the network to provide heating and domestic hot water. Heat will be supplied to the network by an air to water heat pump on the central plant deck. This system is highly efficient, and hence reduces energy consumption which results in lower operational emissions and energy costs. The lower energy costs are especially important for social housing tenants to help reduce fuel poverty.

The heat network will be owned and operated by the social housing provider, with a view to connect to the main Elgin heat network once this is established. Until this time, the social housing

provider will be responsible for the central heat network plant (including air to water heat pump) energy use, maintenance, and replacement. Social housing tenants will be responsible for the energy use of their individual water to water heat pump, but the social housing provider will be responsible for the maintenance and replacement of this equipment. The heat network will be registered with the Heat Trust and comply with Ofgem regulation to ensure tenants are protected.

Heating and cooling for the non-domestic Business Enterprise Hub building will be provided by an air to air heat pump system (also known as 'air conditioning'). This system shall initially remain separate from the heat network, however this could be connected once the main Elgin heat network has been established by changing to a water to air heat pump system. The domestic hot water for this building shall be provided by point of use water heaters.

Heating for the retail units in the mixed use building will be provided by direct electric panel heaters. This system shall initially remain separate from the heat network, however this could be connected once the main Elgin heat network has been established by changing to a water to air heat pump system. The domestic hot water for the retail units shall be provided by point of use water heaters.



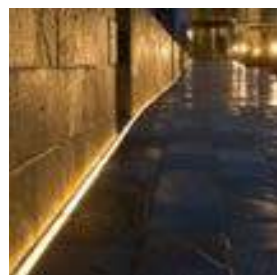


- LEGEND**
- ST - SPRINKLER TANK
 - SP - SPRINKLER PUMP
 - MCP - MECHANICAL CONTROL PANEL
 - CWST - COLD WATER STORAGE TANK
 - BS - BOOSTER SET
 - BV - BUFFER VESSEL
 - P - PUMP
 - PU - PRESSURISATION UNIT
 - EV - EXPANSION VESSEL
 - H - FIRE HYDRANT

External Lighting

The plan opposite shows the layout of the external lighting on the site; this has been carefully considered in regards to safety, orientation and enhancement of public realm.

Discussions will be formed with the Council departments in terms Council public realm lighting requirements



F1 - FLOOR RECESSED LINEAR UPLIGHT LED LUMINAIRE



G1 - GROUND RECESSED UPLIGHT LED LUMINAIRE



W1 - WALL MOUNTED LED LUMINAIRE



W2 - WALL MOUNTED LED LUMINAIRE



C1 - COLUMN MOUNTED STREET LIGHTING



D1 - SOFFIT RECESSED DOWNLIGHT



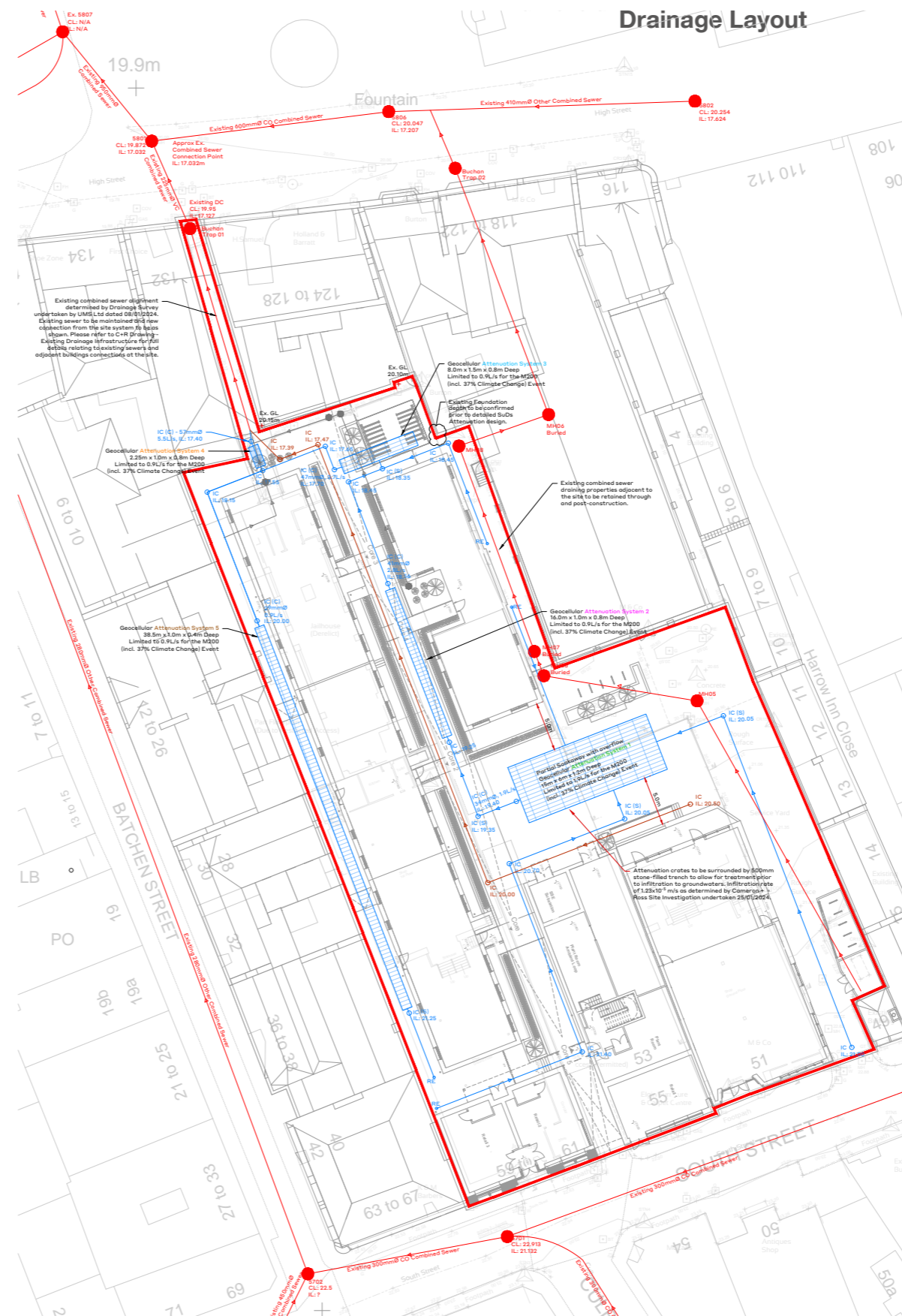
4.6

ELGIN SOUTH STREET

Design Proposals

Structures & Civils Strategy

4.6.1 | DESIGN PROPOSALS | CIVILS STRATEGY | DRAINAGE LAYOUT PLAN



General notes:

This drawing is to be read in conjunction with all relevant Engineers and Architects drawings.

Refer to Architects design drawings for internal drainage runs and details.

Drainage - all sewers to be constructed in accordance with Scottish Water's publication "Sewers for Scotland (v4.0) 2018 - A technical specification for the design and construction of sewage infrastructure"

Sewers laid within roads should have a minimum cover of 1.5m from final road surface to pipe soffit level. Where this cannot be achieved then rigid pipes shall be protected by a full concrete surround, similarly, flexible pipes shall be protected by a concrete slab at a depth less than 1.2m.

The Contractor is responsible for checking the line and level of all existing services prior to commencement of works. Any discrepancies from design information must be reported to the Site Manager and Site Engineer in writing.

Surface Drainage

New surface water drain (smooth walled uPVC pipework) unless otherwise noted on drawing. To remain private and maintained by landowner.

New 450mmØ Surface Water Control Chamber - with orifice diameter and limited discharge (L/s) for the M200 Event (incl. 30% Climate Change)

Proposed Silt Trap 450mmØ Plastic Chamber

New geocellular system to be used for attenuation. To remain private and maintained by landowner. Dimensions as identified on the plan view. Attenuation crates to provide minimum void ratio of 95%.

Proposed Rodding Eye

Foul Drainage

Proposed Foul Inspection Chamber.

Proposed Foul Water Private Drain

Existing combined water sewer to be retained.

Combined water manhole with reference number as per Scottish Water GIS Records.

Drainage tail positions to be confirmed on site to suit house type discharge points. A surface water and foul water branch should be established for each plot.

Gully positions are approximate and should be confirmed on-site by contractor to ensure they are located at the absolute low point where necessary.

Gully connections to be 150mm dia solid uPVC pipework or equal, surrounded with concrete 150mm min. thick to a depth 1.0m below formation.

All gullies to be connected to new surface water drains.

The Contractor should allow for CCTV camera survey of entire drainage system upon substantial completion of works. If any remedial works are required a repeat survey should also be carried out prior to formal submission to Engineer together with as-built drawing including manhole co-ordinates, cover and invert levels and pipe gradients.

The Contractor should also allow for lifting of manhole covers during vesting inspection by Scottish Water and any additional drainage survey requirements to ensure full adoption.

CCTV Survey:

A full CCTV Survey of existing site drainage is to be carried out to prove existing building and hard-standing routes & there connection to public sewers.

Existing combined sewers & manholes to be removed. Drainage trench/excavation to be replaced with well compacted Type 1 hardcore, to be compacted in layers not exceeding 225mm. Sewer alignment as per Drainage Survey undertaken by UMS Ltd dated 08/01/2024 and Scottish Water GIS Plan.

Drainage Impact Assessment - Overview

It is proposed to discharge all foul from the redevelopment site to the existing 600mm Scottish Water Combined Sewer located to the North of the site, underneath the High Street. The discharge will be via a combined drain which will also include the attenuated and controlled surface water run off.

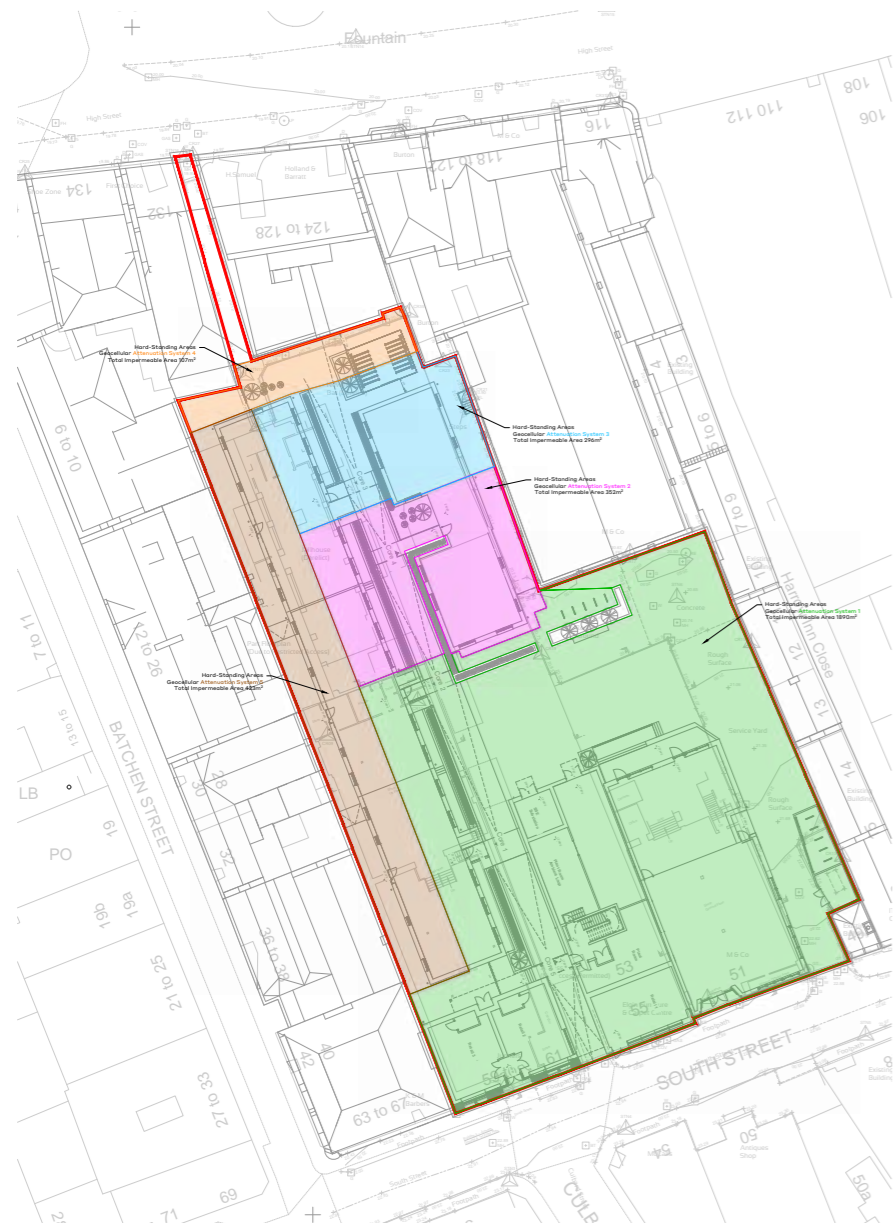
The surface water runoff from the existing buildings currently drains freely to the same combined sewer and therefore the attenuation being proposed will provide significant betterment by reducing the surface water discharge rate to the combined sewer.

Surface water attenuation and control will be provided for the redevelopment of the site. The proposed system will be designed to allow for attenuation, storage and control from the 1 in 200 year storm event, including 37% Climate Change, in line with Moray Council guidance. The climate change allowance is specific of the North-East of Scotland - in line with SEPA 'Climate Change Allowances for Flood Risk Assessment in Land Use Planning' document. The combined water sewer connection shall be made subject to Scottish Water Technical Review and Approval.

The proposals as set above demonstrate the site is suitable for the proposed development in accordance with the relevant current documents and publications.

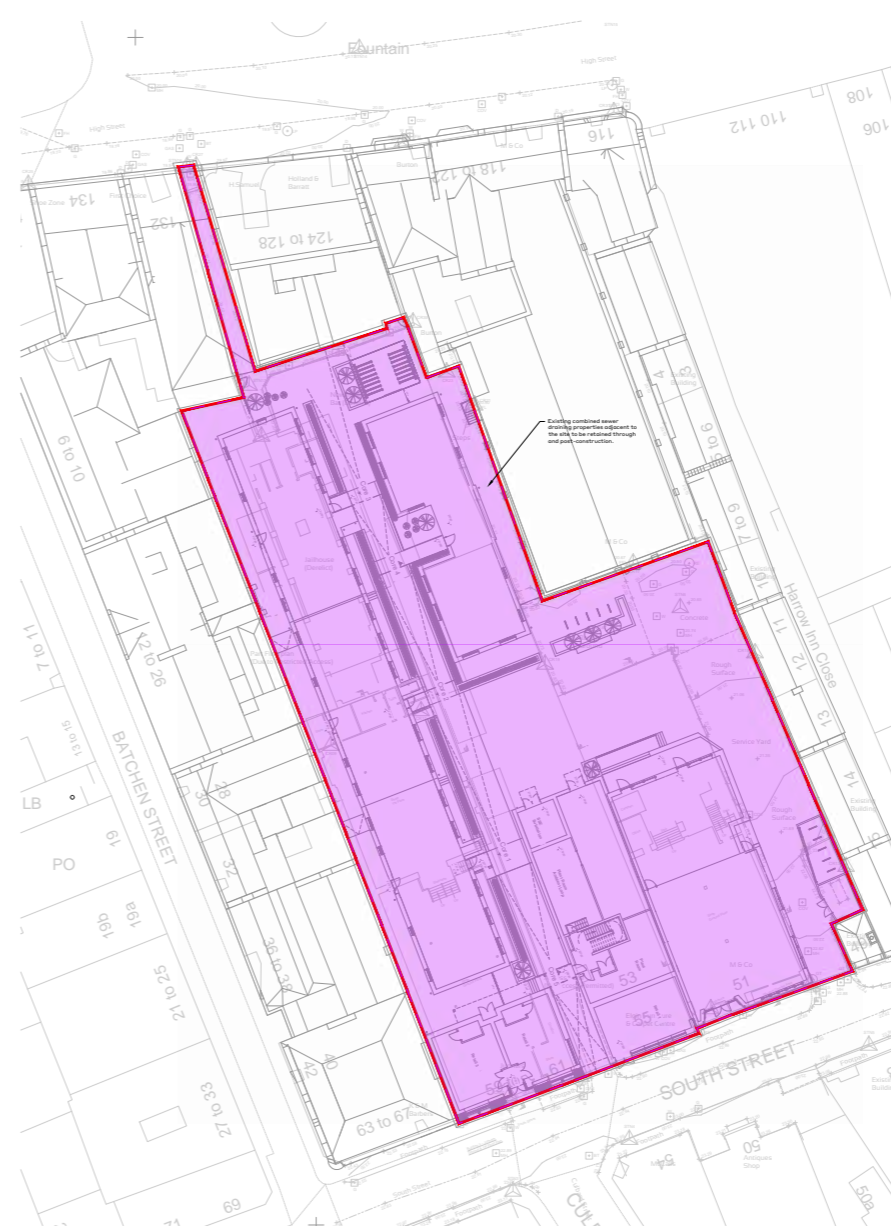
Please see full DIA.

Post-Development Drainage - Hard-standing Areas



- New hard-standing areas draining to the Geocellular Attenuation System 1. Total Area 1890m². Post-development discharge run-off rate 1.9L/s (in the M200 + 37% Storm Event)
- New hard-standing areas draining to the Geocellular Attenuation System 2. Total Area 352m². Post-development discharge run-off rate 0.9L/s (in the M200 + 37% Storm Event)
- New hard-standing areas draining to the Geocellular Attenuation System 3. Total Area 296m². Post-development discharge run-off rate 0.9L/s (in the M200 + 37% Storm Event)
- New hard-standing areas draining to the Geocellular Attenuation System 4. Total Area 107m². Post-development discharge run-off rate 0.9L/s (in the M200 + 37% Storm Event)
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- Total Post-development discharge run-off rate 5.5L/s (in the M200 + 37% Storm Event).

Pre-Development Drainage - Hard-standing Areas



- Pre-Development hard-standing areas from buildings that will be demolished.
- Pre-attenuated run-off rate 43.59L/s (in the M30 +30% Storm Event)

4.6.3 | DESIGN PROPOSALS | CIVILS STRATEGY | VEHICLE ACCESS

Transport Statement

Vehicle access is restricted to the site given the urban setting and the tight constraints.

There is no provision for on-site parking. Residents will be offered the opportunity to participate in a car club scheme which will be operated from the nearby car park.

Vehicle access will be restricted as follows;

- Refuse collection
- Emergency services
- Delivery vehicles

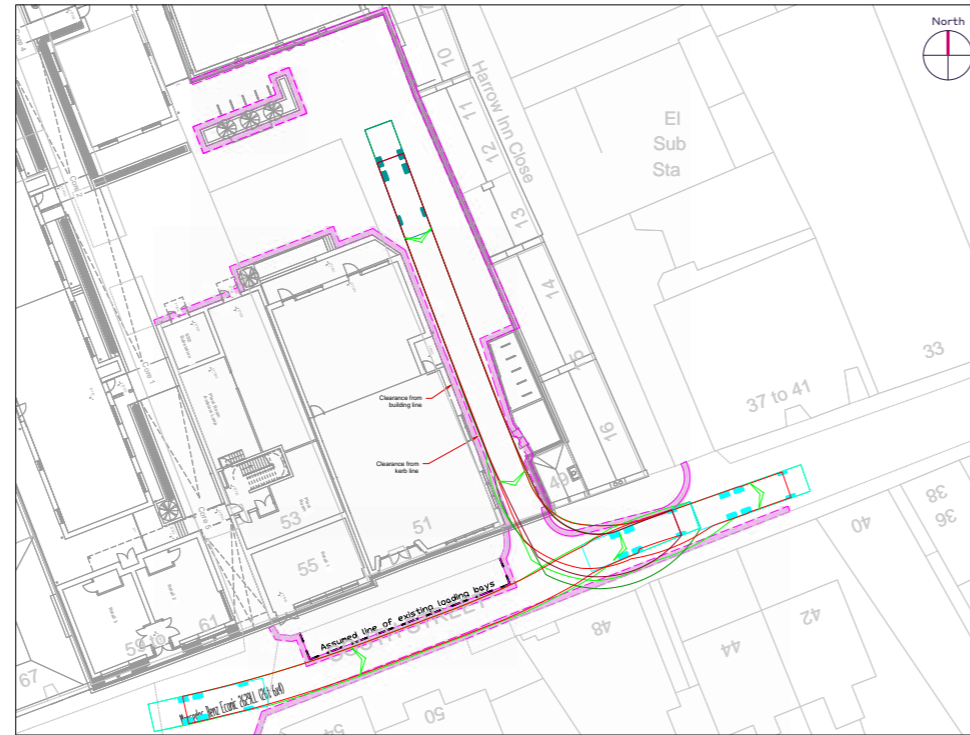
Consultation has been undertaken with Moray Council Roads Department regarding the requirement for access control measures. A controllable bollard will be located at the entrance to the lane to prevent unauthorised access.

Swept Path Analysis

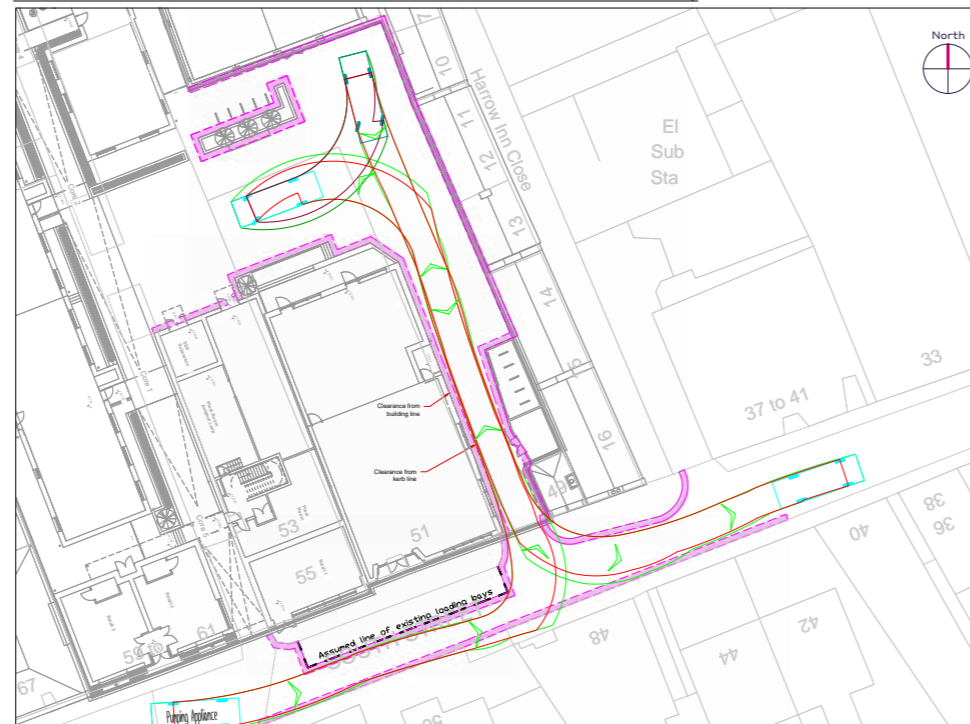
The only vehicle access on the site is for fire tenders, refuse vehicles and for maintenance. There is no resident parking.

The drawing opposite demonstrates a Swept Path Analysis undertaken, reviewing the manoeuvring of refuse vehicles and fire tender vehicles on site.

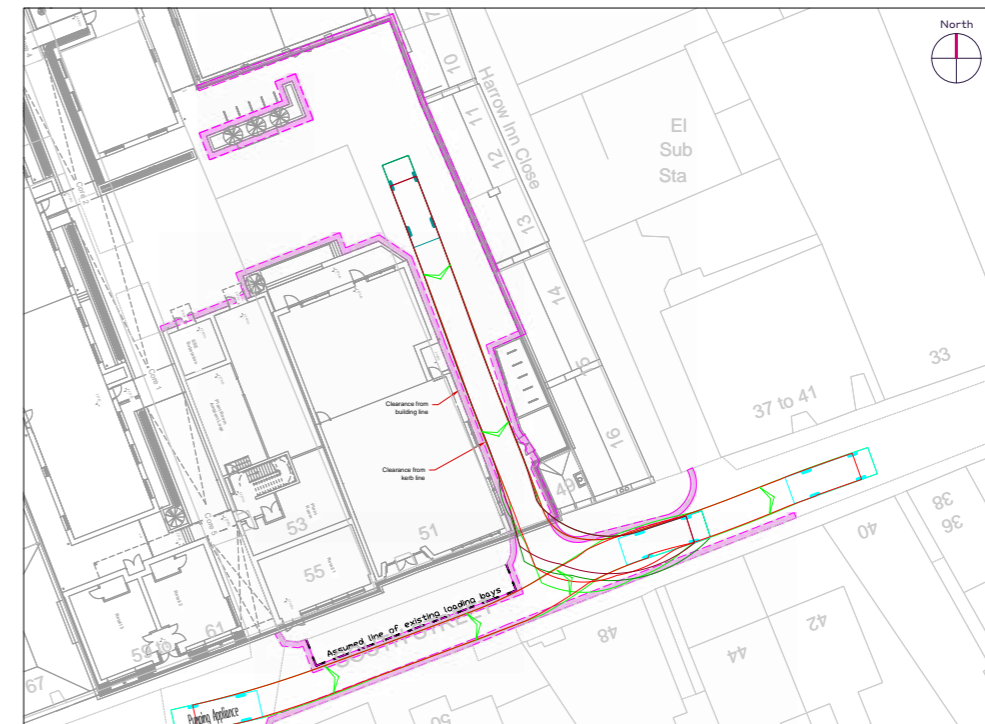
All vehicles enter the site from South Street via The Lane.



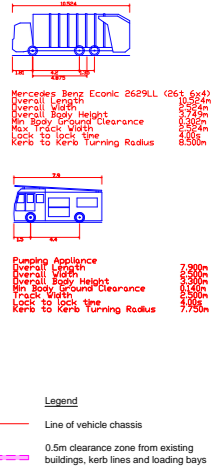
Refuse Vehicle - Turning Manoeuvre Exit (Forward Drive Past Site Entrance, Reverse Into Site, Forward Drive Back Out Onto South Street to Continue East)



Fire Tender Vehicle - Turning Manoeuvre Entry Turning Manoeuvre Entry (Forward Drive Into Site, 3 Point Turn, Forward Drive Back Out Onto South Street to Continue East)



Fire Tender Vehicle - Turning Manoeuvre Exit (Forward Drive Past Site Entrance, Reverse Into Site, Forward Drive Back Out Onto South Street to Continue East)



Legend
 Line of vehicle chassis
 0.5m clearance zone from existing buildings, kerb lines and loading bays



5.0

ELGIN SOUTH STREET

Accessibility Statement

5.1 | DESIGN PROPOSALS | ACCESSIBILITY | SITE LAYOUT

Site Location

The site being located in the centre of Elgin provides housing which is accessible to central amenities. The BEH being positioned in this location, also assists with local businesses gaining access to valuable resources,

Pedestrian Routes

The site level drops approximately 3m from South street down to High Street (ramp gradients are approximately 1 in 21 obviating the need for hand rails).

Site Layout

The site has been designed around the pedestrian route, which is an extension of Newmarket Close; this opens up the visual sight-lines through the site, helping with site navigation. Accessibility is much improved between South Street and High Street, where currently the infill buildings provide a barrier to access.

The main site access will be through the entrance to the close, both from the High Street and South Street. The use of signage and ironmongery assists with wayfinding and accessibility.

The provision of cycle storage provides residents with means of secure storage, promoting sustainable travel and improved site access to wider Elgin.

Building Access

The site has been designed so that all entrances to buildings are level access for wheelchairs.

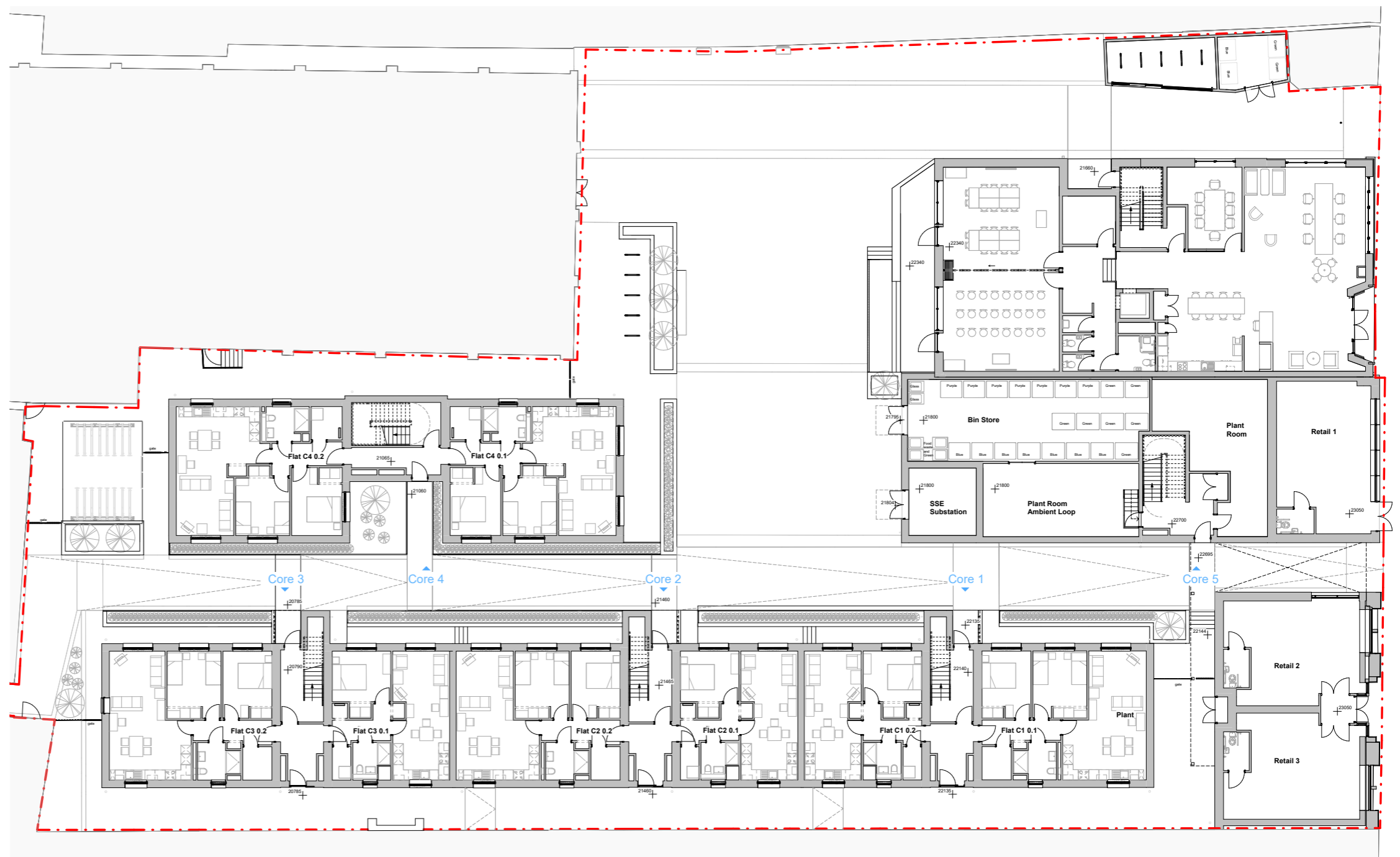
Access to the Business Enterprise Hub is direct from the South Street; the large windows help provide a welcoming entrance to the facility.

Site Materials

The use of brick at the cores helps improve site accessibility; it creates visual indicators for entrances, to help with site navigation. The brick cores also contribute towards the character of the new development, further assisting those with dementia to recognise a place.

The use of coloured render also assists with creating identity for the residential units in block 4 and block 5.

Bin and cycle store access will be clearly signposted.



ELGIN SOUTH STREET

Appendices

2893 South Street Elgin
Robertson Property Ltd
Planning and Listed Building Consent - Submission Summary

	Achitect	Planning Documents	Document Reference
		Architectural Drawings (29no.) Design & Access Statement	310SSE-OBE-ZZ-00-DR-A-97-xxxx 310SSE-OBE-ZZ-XX-RP-A-XX-0001
	Structural & Civil Engineer	Planning Documents	
		Existing Building Survey Report Transport Statement Swept Path Analysis Fire & Refuse Drainage Impact Assessment Report (including Flood Risk) Drainage Layout & SUDS Proposal Pre-Development Impermeable Area Post-Development Impermeable Area Proposed Site Levels Existing Utilities Layout Ground Investigation Report	310SSE-CAM-ZZ-XX-RP-S-XX-0001 310SSE-CAM-XX-XX-RP-C-66-0001 310SSE-CAM-XX-XX-DR-C-90-0250 310SSE-CAM-XX-XX-RP-C-90-0001 310SSE-CAM-XX-XX-DR-C-90-0400 310SSE-CAM-XX-XX-DR-C-90-0460 310SSE-CAM-XX-XX-DR-C-90-0461 310SSE-CAM-XX-XX-DR-C-90-0600 310SSE-CAM-XX-XX-DR-C-96-0700 310SSE-CAM-XX-XX-RP-C-91-0001
	Building Services Engineer	Planning Documents	
		Sustainability Statement External Lighting & Security Layout	310SSE-RYB-XX-XX-RP-Y-000001 310SSE-RYB-ZZ-XX-DR-N-960002
	Landscape Architect	Planning Documents	
		Placemaking Statement Landscape Plan - General Arrangement Hardworks Plan, incl. paving, edges, kerbs, gravel Softworks Plan, incl. planting schedule for trees, shrubs Landscape Sections Landscape Maintenance Schedule	310SSE-LUC-XX-XX-RP-L-90-0001 310SSE-LUC-XX-XX-DR-L-90-0001 310SSE-LUC-XX-XX-DR-L-90-0200 310SSE-LUC-XX-XX-DR-L-90-0400 310SSE-LUC-XX-XX-DR-L-90-0002 310SSE-LUC-XX-XX-RP-L-90-0002
	Planning Consultant	Planning Documents	
		Planning Statement	N/A
	Conservation Consultant	Planning Documents	
		Heritage Impact Assessment	N/A
	Archaeology Consultant	Planning Documents	
		AOC 7078 Written Scheme of Investigation AOC70787_South_Street_Elgin_HBR_Plates AOC70787_South_Street_Elgin_HBR_Report	N/A
	Ecology Consultant	Planning Documents	
		Countrywise Bat Report 060922	N/A
	Developer	Planning Documents	
		Community Wealth Building Statement Carbon Capture & Measuring Statement Environmental Management Plan Site Traffic Managemet Plan	N/A N/A N/A N/A



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