Outline Construction Logistics Plan October 2021

EAS

Sidcup Library

Hadlow Road, Bexley London Borough

BexleyCo Homes



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1 Introduction

Site Context

- 1.1 This Outline Construction Logistics Plan (Outline CLP), formally also known as a Construction Traffic Management Plan (CTMP), has been prepared by EAS on behalf of BexleyCo Homes to support an application for the redevelopment of Sidcup Library, Hadlow Road, Sidcup, DA14 4 AQ, in London Borough of Bexley.
- 1.2 The CLP is considered a 'living document' and will evolve following granting of planning consent, discussions with LB Bexley (LBB) and Transport for London (TfL), plus following the appointment of a contractor for the works. This report will form the structure of the subsequent Detailed CLP to be produced upon appointment of a contractor.
- 1.3 The site covers around 0.24 ha and contains the existing Library building. There is a hardstanding area at the front (west) of the site along Hadlow Road as well as parking to the rear that is accessed from St John's Road. Both Hadlow Road and St John's Road are one way with Hadlow Road heading Southbound and St John's Road heading Northbound.
- 1.4 HGV access can be made from both sides of the library either on Hadlow Road or St John's Road. Hadlow Road can only be accessed from the north of the site from Granville Road whilst St John's Road can only be accessed from the South from the High Street.

Development Proposals

- 1.5 The proposals are for the redevelopment of the former library including the demolition of the existing structure and providing a new building containing 32 residential apartments comprising of 12 x one-bedroom (2-person)flats, 1 one-bedroom (2-person) wheelchair accessible, 3 x two-bedrooms (3-person), 2 x two-bedrooms (3-person) wheelchair accessible, 8 x two-bedrooms (4-person), 4 x three-bedrooms (4-person), and 2 x three-bedrooms (5-person) apartments, 35% of which will be allocated as affordable housing.
- 1.6 In the early phases there would be space available on the site for storage of equipment, site facilities (e.g. welfare) and some construction worker parking. However, as the new structure is built, much of this space would become occupied by the building, and space within the structure and remaining space within the curtilage of the structure (within the site) will be utilised for storage.
- 1.7 However, it is expected that some Temporary Traffic Regulation Orders will be required to facilitate the construction. These are discussed in Section 3.

A location plan is included at Appendix A.

Objectives

- 1.8 The objectives and sub-objectives of this Outline CLP are to:
 - Minimise risks to vulnerable road users;
 - Ensure that no modes of traffic are impeded by construction at the site; particularly of pedestrians, and cyclists;
 - Minimise the impact of construction traffic on the local road network and in particular:



- Promote efficient operations through use of a Construction Consolidation Centre and minimising delivery trips
- Ensure that deliveries to site occur outside of peak/sensitive periods (i.e. between 09:30-14:30 on weekdays)
- o Encourage construction workers to travel to site by non-car modes
- Inform on-going development and delivery of the CLP with construction contractors

Report Structure

- 1.9 The remainder of this Outline CLP is set out under the following structure:
 - Section 2 Context, Considerations and Challenges;
 - Section 3 Construction Programme;
 - Section 4 Vehicle Routing and Site Access;
 - Section 5 Strategies to Reduce Impacts;
 - Section 6 Estimated Vehicle Movements;
 - Section 7 Implementing, Monitoring and Updating.



2 Context, Considerations and Challenges

National Policy and Legislation

- 2.1 The National Planning Policy Framework (NPPF) (2019) promotes the use of sustainable transport, safe road design, and the efficient and sustainable delivery of goods and supplies throughout the UK. The NPPF sets out the long-term strategy for spatial sustainable development.
- 2.2 The Traffic Management Act (2004) makes 'provision in relation to the management of road networks: to make new provision for regulating the carrying out of works and other activities in the street'. It acknowledges that highways use may be impeded by construction activities and identifies appropriate charges for any extended occupation. It sets out the responsibility of local authorities to manage their transport networks through efficient use to avoid traffic congestion.
- 2.3 Designing for Deliveries (2006) by the Freight Transport Association provides specifications for delivery vehicle sizes, turning radii and clearance requirements necessary to ensure safe and efficient access to construction sites.

The London Plan

- 2.4 The London Freight Plan (2007) discusses TfL's aims to increase use of sustainable freight transport within London and identifies CLPs as a component for delivery sustainable freight movements in London.
- 2.5 'Delivering a Road Freight Legacy' (2013) explains how stakeholders can work together to improve freight transport, focusing on better planning; improving safety; re-timing deliveries and collections; kerbside access; increasing efficiency; effective communication; and journey planning.
- 2.6 The London Plan (2021) includes policies T4 'Assessing and mitigating transport impacts' and T7 'Freight and servicing' which identifies that CLPs are "required having regard to Transport for London guidance... in a way which reflects the scale and complexities of developments".
- 2.7 Policy T7 also identifies that use of rail and water for transportation should be considered; that safer HGVs, for instance with good direct vision, should be used; construction consolidation centres should be used; and that throughout the construction phase, inclusive and safe access for pedestrians and cyclists should be prioritised.
- 2.8 Paragraph 10.7.4 states that CLPs must include reasonable endeavours towards the use of non-road vehicle modes. Paragraph 10.7.6 explains that TfL's schemes including CLOCS (Construction Logistics and Community Safety) and FORS (Fleet Operator Recognition Scheme) should be utilised; also that development proposals should demonstrate 'good' on-site ground conditions ratings or the mechanisms to reach this level, enabling the se of vehicles with improved levels of driver direct vision with regard to the Mayor's Direct Vision Standard (vehicles rated 0 to 5).
- 2.9 Policy T2 regards the 'Healthy Streets' approach, stating that development plans must promote and demonstrate application of the approach in order to, among other aims,



reduce road danger and improve street safety, comfort, convenience and amenity, to promote the use of sustainable modes of travel.

Other Regional Policy

- 2.10 The 'Mayor's Transport Strategy' (2018) explains how CLPs act as a Travel Plan for construction freight movements, to improve the sustainability of developments. It reiterates that all developments are required to produce a CLP, as per the London Plan.
- 2.11 Vision Zero is the aim for there to be no deaths or serious injuries caused by road collisions, as set out in the Mayor's 'Vision Zero Action Plan' (2018) and comprising Policy 3 of the 'Mayor's Transport Strategy': the aim for no one to be killed in or by a bus by 2030, and for all deaths and serious injuries from road collisions to be eliminated from London's street by 2041. The 'Vision Zero Action Plan' follows Proposal 10 of the 'Mayor's Transport Strategy'.
- 2.12 The Action Plan notes that collisions involving HGVs (and buses) are disproportionately likely to result in fatalities. Risks associated with construction vehicles can be limited by reducing road mileage, promoting innovative traffic management, and improving surface conditions of construction sites. Action 6 of the Action Plan identifies the rollout of the current Direct Vision Standards and promotes a minimum requirement of FORS Silver accreditation for HGVs.
- 2.13 TfL's 'Construction Logistics Plan Guidance' (July 2017 v3.0) explains when and why CLPs are produced to reduce environmental impact, road risk, congestion and costs associated with developments and details the differing requirements of an Outline and Detailed CLP. At the planning approval stage, an Outline CLP is required, which this report fulfils. The document also states that it should support local borough guidance on CLPs.
- 2.14 TfL's Freight and Servicing Action Plan (2019) is the Mayor's key document for improving freight and servicing in London. This identifies the need for use of standards like CLOCS, FORS, Direct Vision and the use of Construction Consolidation Centres (CCCs).

Context Maps

2.15 The following maps show the area around the development site. SK12 shows a regional plan with the location of the site in the context of Greater London and the road network. SK14 shows the location of the site in relation to the surrounding area. SK15 shows the site boundary plan showing the extent of footways, other buildings, areas designated for construction vehicle access, as well as areas designated for possible materials storage or welfare units. These drawings are also included as **Appendices B** to **D**.

Local Access and Considerations

Local Highways, Carriageways and Footways

- 2.16 Sidcup Library is a 3-storey building which fronts Hadlow Road which is landscaped for pedestrian priority. Vehicular access to the site is via St Johns Road, however Hadlow Road offers access to the site frontage.
- 2.17 Hadlow Road is a one-way road with circa 2.0metre footways on either side of the carriageway and a speed limit of 30mph. There is on-street parking available but is within a controlled parking zone Monday to Saturday 09:00 17:30, 4 hours parking, with no return



- within 1 hour, and areas of residential permit holders only. Residential properties are located on either side of Hadlow Road
- 2.18 The first 63.0metres of St Johns Road is a two-way street due to the commercial property accesses located along this section. Where the vehicular access to the library is located St Johns Road turns into a one-way residential street with circa 2.0metre wide footways on either side of the carriageway, residential frontages and on-street parking which is within a controlled parking zone for resident permit holders only Monday to Saturday 09:00 17:30.
- 2.19 There is sufficient hardstanding space within the site in which to house HGVs for loading/unloading during the 'site setup and demolition' to 'fitout and commissioning', when it is assumed final landscaping will be introduced. .
- 2.20 Any HGVs accessing the site most likely will arrive vis St. Johns Road ad reverse into the site. This will be assisted by the banksman and a need for Temporary Traffic Regulation order suspending opposite on-street parking bay will be considered. The need for the TTRO will be confirmed once contactor is appointed and the size and type of vehicle to be used on site is known.
- 2.21 The secondary, less frequent HGV movements will take place on Hadlow Road frontage, where the removed street furniture will allow for loading along the site frontage. This location will be used only for short period of time to allow absolutely necessary access to this side of the building frontage.
- 2.22 HGV movements will only occur during periods when construction noise is permitted in LB Bexley (which most likely will be 08:00 18:00 weekdays and 08:00 13:00 Saturdays). The final time limitation will be confirmed by LBB.
- 2.23 Deliveries to the site will be timed using a Construction Consolidation Centre (CCC) so that HGV movements at the site do not occur outside of these hours, and that all the deliveries will be undertaken consolidated deliveries to limit the amount of materials stored on the site, as well as the number of vehicles needing to access the site.
- 2.24 The site will operate fully managed booking system for HGVs to ensure only absolute minimum amount of vehicles are present on site at any given time. All the deliveries will also operate on fully managed booking schedule, which will allow only one delivery per window to be present on site.

Bus

2.25 The B14 bus route along Hadlow Road is a school service with around 4 services per hour in each direction throughout the day. It is envisaged that disruptions to the bus route would be avoided due to the possibility of accommodating Hadlow Road loading bay without obstructing the main traffic flow. Regardless, TfL will be made aware of the development schedule, proposals and associated requirements, and would receive further notification in the event that further changes are expected that may affect the bus route.

Cycle

2.26 There is no dedicated on or off street cycle routes in the direct vicinity of the site. Hadlow Road is however assigned as a route keenly used by cyclists and Sidcup station has cycle parking provision on site.



2.27 Where possible, HGVs will be routed on roads with the most favourable cycle infrastructure to maximise the safety of cyclists. All drivers would have the appropriate training and all vehicles will have minimum FORS Silver certification and have regard to CLOCS and the Mayor's Direct Vision standards.

Construction Staff Access

- 2.28 The receives a PTAL of 3 and is a 13-minute walk from Sidcup Overground station as well as well as 5 minute walk from regular bus routes. Therefore, it is expected that public transport can contribute to worker transport to and from the site.
- 2.29 Where car or van journeys do occur construction workers would be instructed to use the nearby publicly available car parks, located a within 15-minute walk from the site. There would be high rates of car-sharing as is common in the construction industry. Any construction workers travelling to and from the site by private car or van will do so most likely outside of the network peak hours (08:00-09:00 and 17:00-18:00) where practicable.
- 2.30 Measures to promote sustainable transport use among construction workers are discussed in Chapter 6 of this report.

Other Considerations

Sub-station

- 2.31 There is an electrical substation on site access in the south-east corner of the site.

 Transportation and vibration-generating activities will take account of this as to mitigate any possible interference.
- 2.32 Substation access requirement will be also kept in mind when palming site setup and day to day operation.

Public Relations

- 2.33 A Community Liaison Officer (CLO) will be provided on site. They will ensure that the residents are informed of the progress, and predicted timeframe. The CLO will mitigate and resolve any issues that may arise between the community and the development process. This Outline CLP acts an initial strategy for mitigating potential issues.
- 2.34 Nevertheless, contact details for the CLO will be displayed on the site hoardings to facilitate communication. Any difficulties encountered or complaints received will be logged through use of a 24-hour manned telephone line and actioned accordingly. Regular community meetings would deal with potential issues such as construction vehicle congestion.



3 Construction Programme

Construction Programme

3.1 As a contractor has not yet been appointed, an initial preliminary construction programme has been produced using the TfL Construction Logistics Planning Tool. Table 3.1 below summarises the assumed construction phases for the proposed development.

Table 3.1 – Assumed construction programme

Construction Phase	Start	End
Site setup and demolition	Mar-2023	Apr-2023
Basement excavation and piling	May-2023	Jun-2023
Sub-structure	Jul-2023	Nov-2023
Super-structure	Dec-2023	Mar-2024
Façade/Cladding	Apr-2024	May-2024
Fit-out, testing and commissioning	Jun-2024	Sep-2024

3.2 During the 'Site setup and demolition' phase materials and equipment storage can utilise the existing hardstanding area along the east and west of the site. From the 'Basement excavation and piling' through to the 'Fit-out, testing and commissioning' phase materials and equipment will be securely stored within the structure and on space at the front and back of the site such as the parking area.

Site Setup and Demolition

- 3.3 Site setup will comprise erection of site boundary hoardings, closure of the footway along the site frontage, establishing the site office and demarcating the vehicle loading and unloading area. Following a soft strip, the structure will be demolished using mechanical plant.
- 3.4 Where possible, generated material will be reused, reducing the number of vehicles required to access the site. Unused material will be loaded into tipper lorries and removed from the site by appropriately licenced waste carriers.

Basement Excavation and Piling

3.5 It is not expected that there will be any basement excavation, however there will be foundation works and possibly piling required. Any required piling would be monitored to ensure any vibrations to do not disrupt the nearby rail line or electrical substation.

Sub-Structure

3.6 Foundations for the 4-storey building will re-using any materials where practicable.

Super-Structure

3.7 The structure, where possible will be constructed from large components which will brought to site by lorry and unloaded in the designated loading area. Use of prefabricated components reduces the need for construction vehicles to attend site.



3.8 Otherwise the raw materials will be delivered in bulk to ensure that number of trips to the site is being minimised.

Façade/Cladding

3.9 The façade contractor will be instructed to design the façade as to be delivered and installed in consolidated loads, reducing the number of deliveries required.

Fit-Out, Testing and Commissioning

3.10 This contractor will consider utilising DfMA principles with components manufactured and amalgamated off site, allowing quick installation, reduced time required on site and the number of deliveries. For instance, plumbing, mechanical and electric equipment are expected to be manufactured and assembled off site, to be installed as complete units.



4 Vehicle Routing and Site Access

Vehicle Routing

- 4.1 The following maps show the area around the development site.
- 4.2 SK16 shows a regional plan with vehicle routes highlighted. These follow the Transport for London Road Network until the final approach to the site where local roads are used for access.
- 4.3 SK17 shows vehicle routing to the site taking account of local area constraints and locations with large numbers of vulnerable road users; there are no suitable places to act as vehicle holding areas and deliveries will be scheduled to avoid issues, as is discussed in Section 5.
- 4.4 SK07 shows a site boundary plan including the extent of footways, other buildings, cycle lanes, road marking and vehicle routing.
- 4.5 Swept path analysis for a large rigid vehicle (12m length) comprises SK18 illustrating how HGVs will safely access and egress from the site. It has to be noted that the eastern site access requires usage of some verge and or footway, which will be discussed with the LBB and appropriate TTRO will be introduced. Any vehicle movements across such areas would be supervised by a banksman. The footway and/or verge would be reinstated following development.
- 4.6 As the contractor is yet not appointed it is possible that the vehicle used for site deliveries and removals, will be of smaller size and will not require such area for operation. Therefore this part of the CLP will be updated once the contractor is confirmed.
- 4.7 These drawings are also included as **Appendices** E to G.
- 4.8 There is sufficient hardstanding space within the site in which to house HGVs for loading/unloading during the 'site setup and demolition' phase to site 'fitout phase'. The final landscaping works would need to be phased to allow for site compound movements between the east and west site frontage.
- 4.9 There will be two interfaces where HGVs will cross the footway which will be managed at all times by traffic marshals during site operation.
- 4.10 Larger vehicles will be unable to follow St Johns Road and later Craybrooke Road, as the road presents potential obstructions for any HGVs. Therefore it is proposed to allow by TTRO a temporary two way movement from site access to St Johns Road with a purpose of directing the HGVs straight out onto the major road network, avoiding smaller residential roads.
- 4.11 The contractor will be chosen with their depot location and their vehicle fleet in mind. A Preferred contractor should have a choice of vehicles being able to fit the site.



5 Strategies to Reduce Impacts

Introduction

- 5.1 This section identifies mitigation strategies for potential negative highways impacts of construction traffic with respect to:
 - Enhance the safety of and protect vulnerable road users;
 - Increase the efficiency of construction traffic movements and reduce congestion, particularly during the peak periods; and
- 5.2 Table 5.1 below details mitigation measures relating to construction deliveries.

Table 5.1 – Adoption of mitigation measures to reduce impacts of the development at Sidcup Library on the local highway network

Mitigation Measures	Committed	Proposed	Considered			
Measures influencing construction vehicles and deliveries						
Safety and environmental standards and programmes	X					
Adherence to designated routes	Х					
Delivery scheduling	X					
Use of banksmen	Х					
Wheel cleaning and footway sweeping	X					
Re-timing for out of peak deliveries		X				
Re-timing for out of hours deliveries		X				
Use of holding areas and vehicle call off areas			Х			
Use of logistics and consolidation centres	X					
Measures to encourage sustainable freight						
Freight by water			Х			
Freight by rail			Х			
Material procurement measures						
DfMA and off-site manufacture		X				
Re-use of material on site		X				
Smart procurement		X				
Other measures						
Collaboration amongst other sites in the area	X					
Implement a staff travel plan	X					
Designation of a Community Engagement Officer	Х					



Measures Influencing Construction Vehicles and Deliveries

- 5.3 The developer will ensure that all contractors have FORS Silver accreditation, comply with CLOCS, and can make use of the CCC. Additionally, companies who can supply HGVs that achieve higher scores on the London Mayor's Direct Vision Standards will also be favoured. A collision reporting system will be utilised, with any incidents to reported to the site manager.
- 5.4 The developer will communicate the designated route that have been outlined in this report to potential contractors, explaining the importance of adherence to these prior to deliveries commencing. Contractors will be required to ensure their vehicles can comply with these routes. Deliveries will be booked using a web-based system
- 5.5 Depending on the final contractor, a choice of the CCC will be made, with preference towards the nearest ones, which will limit the travel time to ensure that time slot booking is maintained. This will also reduce the total number of delivery vehicles required to attend the site. Although, if HGV movements are identified as a particular problem, scheduling of deliveries can be altered.
- 5.6 Construction vehicles will not be allowed to wait on adjoining roads and there are no designated hold off areas. Instead, initial smart scheduling to avoid overlaps of deliveries will be augmented by use of a CCC, generally accessible to the site within 20-minutes. Communication between personnel at the site, at the CCC, and drivers will ensure deliveries do not overlap unfavourably and that occur 'just in time'.
- 5.7 Traffic marshals will always be stationed at the interfaces of the construction site and public highway to ensure the safety of all road users when HGVs are accessing or egressing from the site.
- 5.8 A banksman will ensure all wheels are deemed to be appropriately clean before setting off, making use of washing facilities in necessary, to prevent dirtying of the highway or footway. Banksmen will also be responsible for ensuring surface in the vicinity of the site remain clean. Roads used for construction traffic routing will be regularly inspected for any deposits of soil or other debris by construction vehicles. If required, roads will be cleaned by mechanical sweepers, or manually by banksmen.

Measures to Encourage Sustainable Freight

5.9 There are no navigable waterways or rail freight centres near to the site, preventing the possibility of freight delivery by water or rail.

Material Procurement Measures

- 5.10 Contractors will be instructed to utilise Design for Manufacture and Assembly (DfMA) principles when procuring materials. This will reduce the requirement for deliveries to site and total time on site for the construction. The responses of potential contractors to these requests can be considered when selecting contractors to use, to limit potential impacts.
- 5.11 Contractors will be encouraged to consider planning for reuse of materials when procuring and scheduling construction. For instance, piles removed during basement excavation can be reused for substructure works, and soil/earth removed can be used for landscaping purposes later. This means materials can be provided at a negative cost, i.e. through



- saving on waste collection and processing costs. Any waste or hazardous waste will be stored appropriately and removed by suitably certified waste carriers.
- 5.12 Smart procurement through planning the procurement of materials as early as possible in the construction planning process will be suggested to potential contractors. The benefits of reduced HGV movements and faster construction will be communicated.

Other Measures

- 5.13 Prior to commencing works at the site the site manager will liaise with LB Bexley to ascertain nearby construction sites that will be operational during the construction process and accordingly initiate contact with the equivalent person(s) with the aim of collaborating to reduce the overall highways impact of construction at the sites.
- 5.14 The contractor will actively discourage construction personnel from travelling to and from the site via private car. Public transport maps and timetables will be shared with staff at toolbox talks, enabling them to utilise public transport. Additionally, the developer, or contractor, could seek to reimburse travel to the site by non-car means, further encouraging the avoidance of transport by car. Where travel by personal vehicle is necessary, car/van sharing will be encouraged, which is normal practice among construction workers. Further, the majority of construction personnel will arrive and depart from the site outside of traditional network peak hours. Regardless, traffic associated with the construction will be monitored by the Site Manager. Should evidence of negative transport impact arise, the Site Manager will liaise with LB Waltham Forest to agree any necessary mitigation measures.
- 5.15 A CLO (Community Liaison Officer) will be established, with experience in liaising with community institutions such as nearby schools, as well as local residents. They will be responsible for communicating with the organisations noted in Section 2 of this report, providing information on the construction schedule, in addition to possible impacts on the highway network and on the amenity of local residents. They will also absorb and act upon complaints from local residents or other stakeholders.
- 5.16 The appointed CLO will also liaise with the relevant persons at any nearby active construction sites aiming to achieve coordination of deliveries between the sites to minimise highway impacts and other nuisances.

Other Matters

- 5.17 Security hoardings will be placed along the frontage of the premises. General information regarding the development, such as the estimated duration, will be displayed on the outer face of the hoarding. Contact details for the Site Manager will also be displayed. This will aid the ability of local residents and other members of the public to communicate with and understand the development process, improving community engagement and reducing potential conflict.
- 5.18 Access gates will be included within the hoardings and will open into the site. Access gates will be securely locked at the end of each working day.
- 5.19 Access for the emergency services on Hadlow Road nor St Johns Road will not be impeded. Traffic marshals stationed at the interface of the construction site and the public highway will ensure the safety of all road users. They will also ensure that safe access routes are always maintained for the emergency services to pass the site.



- 5.20 The implementation, monitoring and any necessary review of this Outline CLP will be the responsibility of the appointed contractor,
- 5.21 Any complaints should be directed to the appointed contractor.

6 Estimated Vehicle Movements

6.1 The TfL CLP tool was used to estimate the number of HGV trips to site during the various construction stages, as summarised in Table 6.1 and Figure 6.1 below. It has to be noted that the number listed below are estimates only based on limited data and experience. The calculations will be updated to show up to date data as soon as the contractor will be appointed.

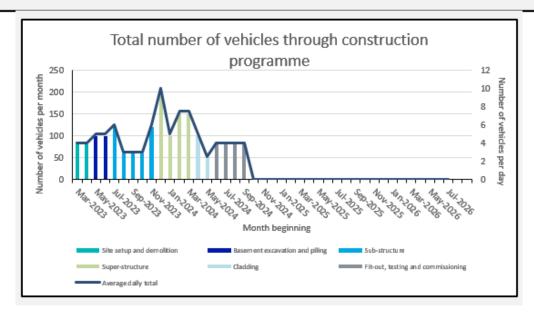
Table 6.1 – Estimated construction vehicles

NO. OF VEHICLES IN PEAK PHASE ((EX. OTHER PHASES)
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Construction phase	Period of stage	No. of trips (monthly)	Peak no. of trips (daily)
Site setup and demolition	Q1 2023 - Q2 2023	80	4
Basement excavation and piling	Q2 2023 - Q2 2023	100	5
Sub-structure	Q3 2023 - Q4 2023	120	6
Super-structure	Q4 2023 - Q1 2024	200	10
Cladding	Q2 2024 - Q2 2024	100	5
Fit-out, testing and commissioning	Q2 2024 - Q3 2024	80	4
Peak period of construction	Q4 2023 - Q4 2023	200	10

NO. OF VEHICLES IN PEAK PHASE (INC. POSSIBLE OVERLAP OF SUBSEQUENT PHASES

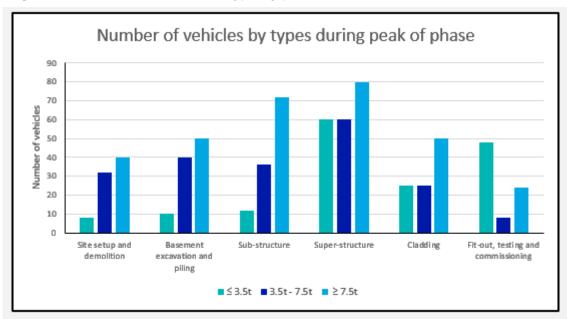
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Basement excavation and piling	Q2 2023 - Q2 2023	100	5
Sub-structure	Q3 2023 - Q4 2023	120	6
Super-structure	Q4 2023 - Q1 2024	200	10
Cladding	Q2 2024 - Q2 2024	100	5
Fit-out, testing and commissioning	Q2 2024 - Q3 2024	80	4





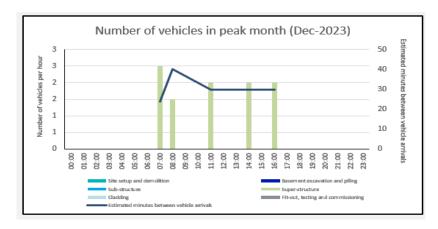
- 6.2 During the peak months of construction it was estimated that around 200 construction vehicles will access the site in a month. This equates to around 10 vehicles per day. As there is only space for one large vehicle at the site. these would be spread across the day hours period in which HGV movements at the site will occur.
- 6.3 The expected mixture of vehicle sizes is summarised in Figure 6.2 below.

Figure 6.2 – Number and vehicle type by phase of construction



- 6.4 Deliveries will not occur during peak times, and as explained above there is sufficient time to accommodate the expected volume of delivery trips to site outside of the network peak and sensitive hours with.
- 6.5 Figure 6.3 summarises the average daily construction trips during each construction period. This estimate will be refined once the contractor is appointed and the construction programme is finalised. The contractor will provide specific delivery schedule information when appointed.

Figure 6.3 – Hourly arrival profile of vehicles during peak





7 Implementing, Monitoring and Updating

- 7.1 A programme of monitoring and review will be implemented to assess the success of the CLP in reducing the impact of the proposed demolition and construction works on the local area. This will review the impact of HGV movements and other construction traffic on both local residents and on the local highway network.
- 7.2 The CLP is expected to be a 'living document' and so is expected to be updated during construction, should any significant changes to the scope or programme of works occur. This Outline CLP is expected to be upgraded into a Detailed CLP once a contractor has been appointed prior to the construction commencing. The CLP can be reviewed at any time, such as reviewed prior to the start of a new phase of construction.
- 7.3 The monitoring process will provide the facility for construction operations and procedures to be reviewed and new management measures implemented, if necessary, with monitoring records made available to London Borough of Bexley upon their request. Monitoring and review of the construction activity will be the responsibility of the Site Manager.
- 7.4 Data that could be collected as part of the monitoring and review include but are not limited to:

Vehicles movements to site, collected through a delivery booking-in system:

- Total
- Vehicle type/size/age
- Time spent on site
- Consolidation centre utilisation
- Delivery/collection accuracy compared to schedule

Breaches and complaints

- Vehicle routing
- Unacceptable queuing
- Unacceptable parking
- Supplier FORS accreditation
- Low Emissions Zone (LEZ) compliance

Safety

- Logistics-related incidents
- Record of associated fatalities and serious injuries
- Vehicles and operations that do not meet safety requirements



- 7.5 To pursue these aims, a contractor's handbook and a driver's handbook will be produced and distributed, informing personnel of measures they can, should and must take to implement and maximise the effectiveness of the CLP.
- 7.6 The contractor's handbook will provide requirements for each contractor with regard to the implementation of the CLP, such as the frequency and nature of reporting; toolbox talks; driver and other safety training; safety and environmental standards; and vehicle routing and delivery scheduling.
- 7.7 The driver's handbook will be similar, with focus on authorised routes; booking and scheduling information; site entry, loading/unloading and exit; and vulnerable road user safety.

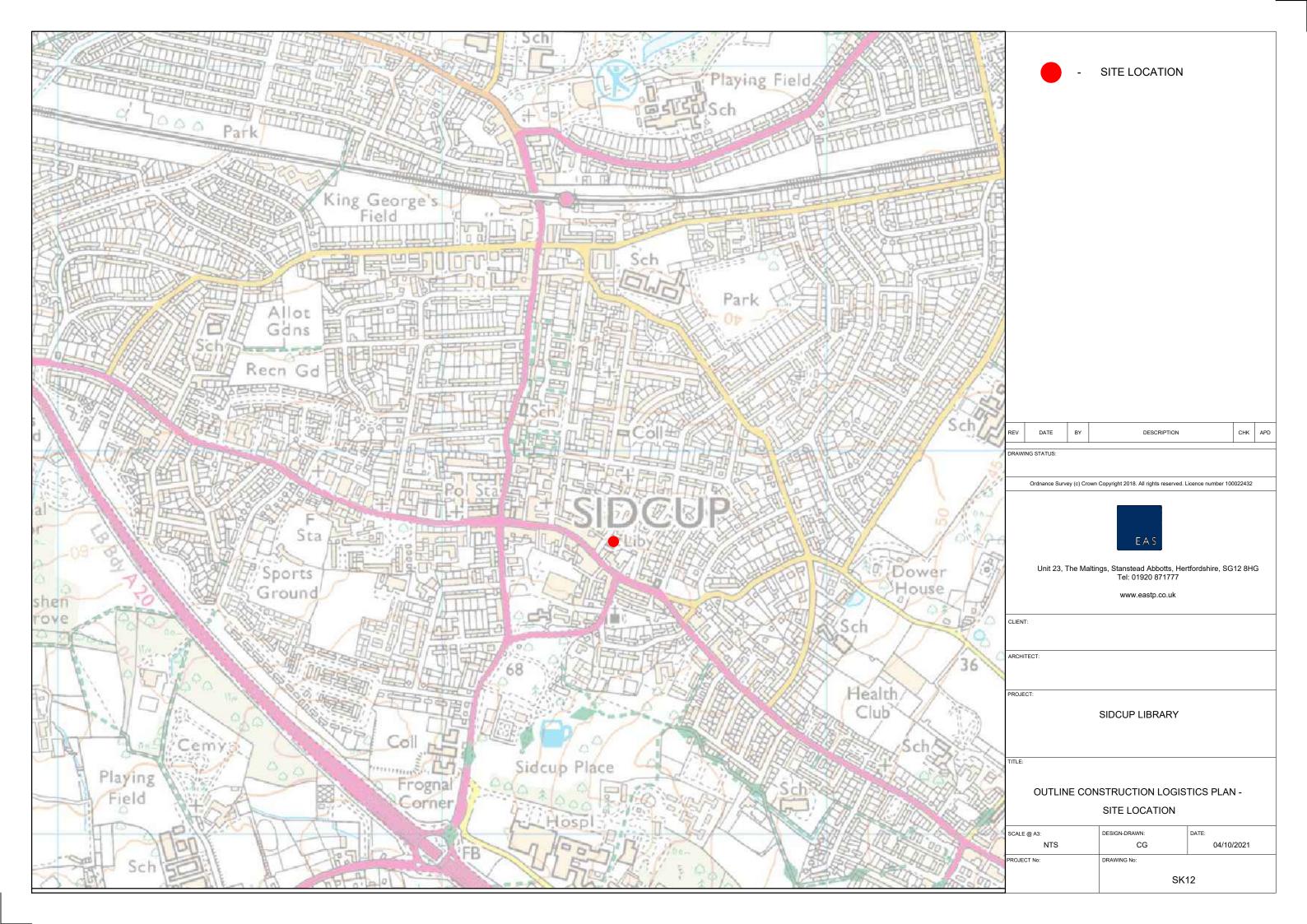


8 Appendices

Appendix: A – Location Plan Appendix: B – Regional Plan Appendix: C – Local Context Plan Appendix: D – Site Boundary Plan Appendix: E – Strtaegic Routing Plan Appendix: F – Local Routing Plan Appendix: G – Swept Path Analysis

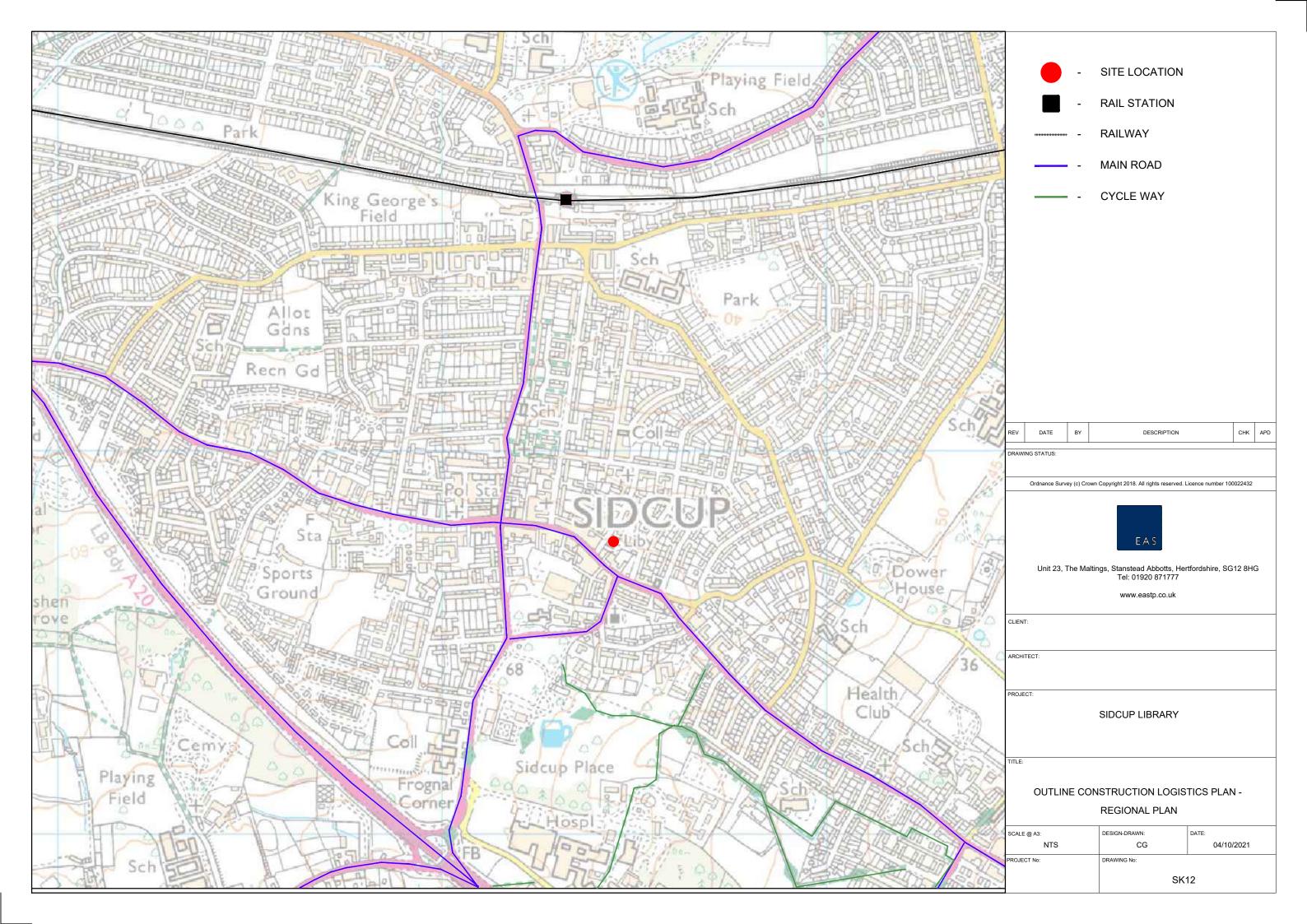


Appendix: A – Location Plan



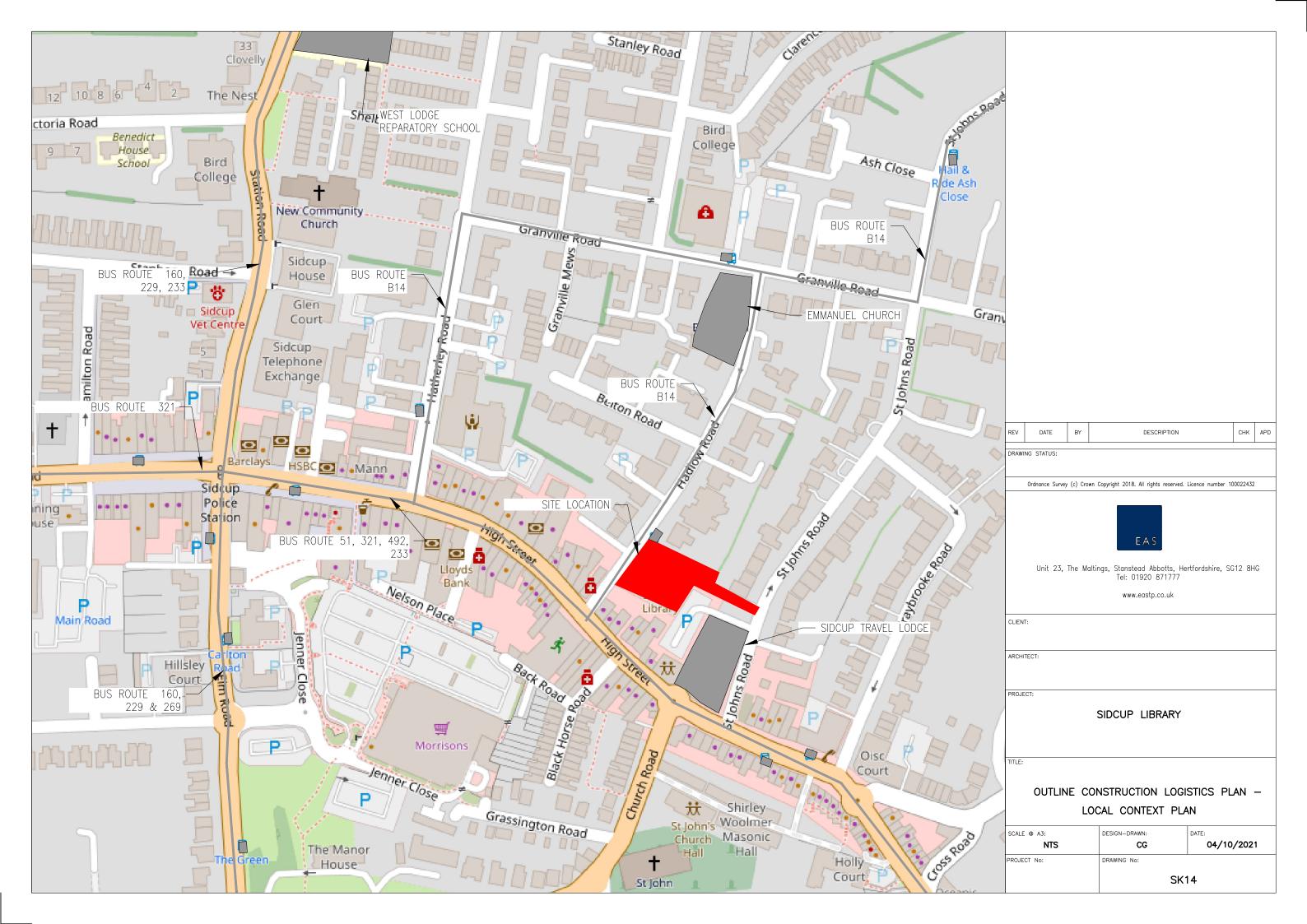


Appendix: B – Regional Plan



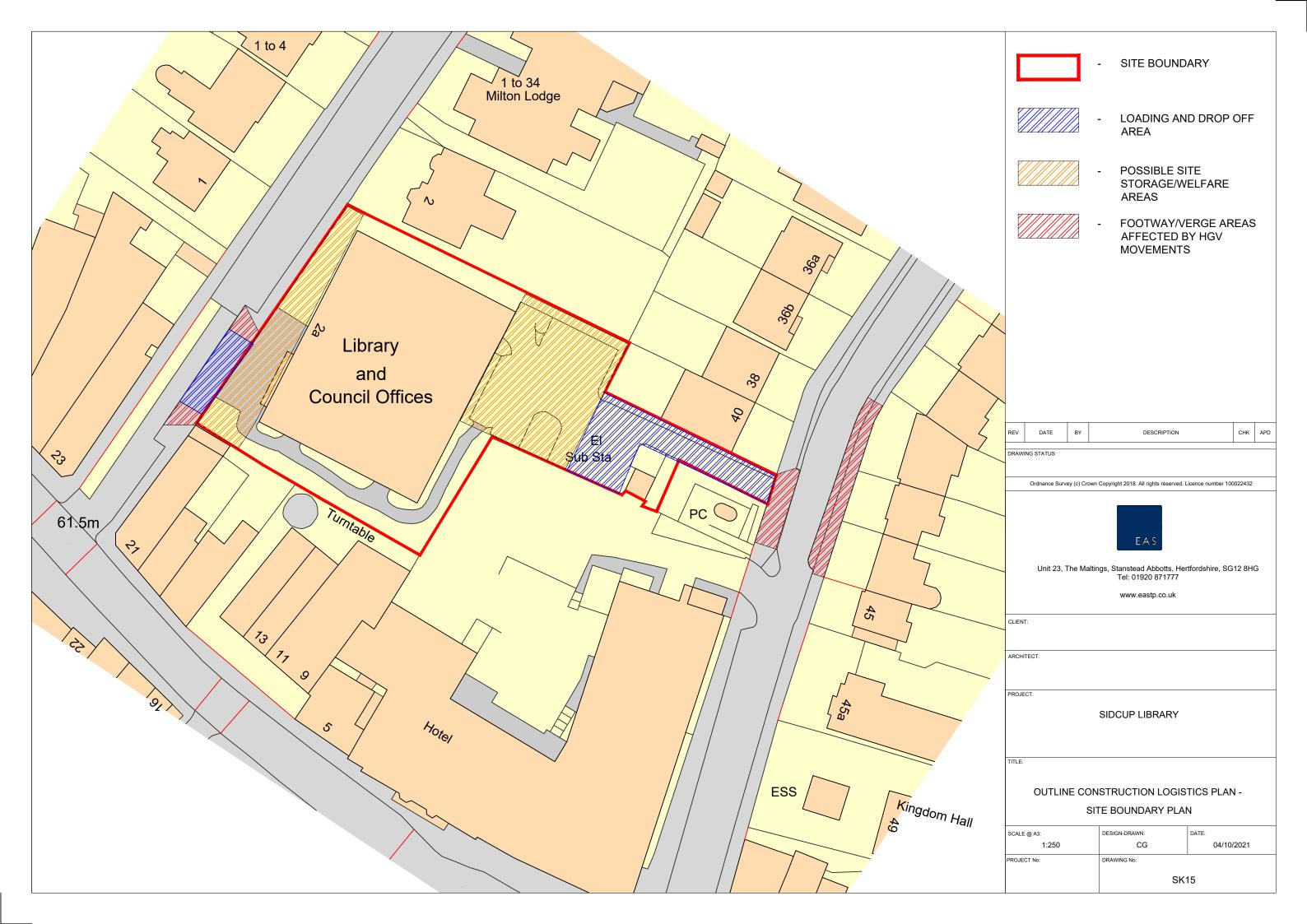


Appendix: C – Local Context Plan



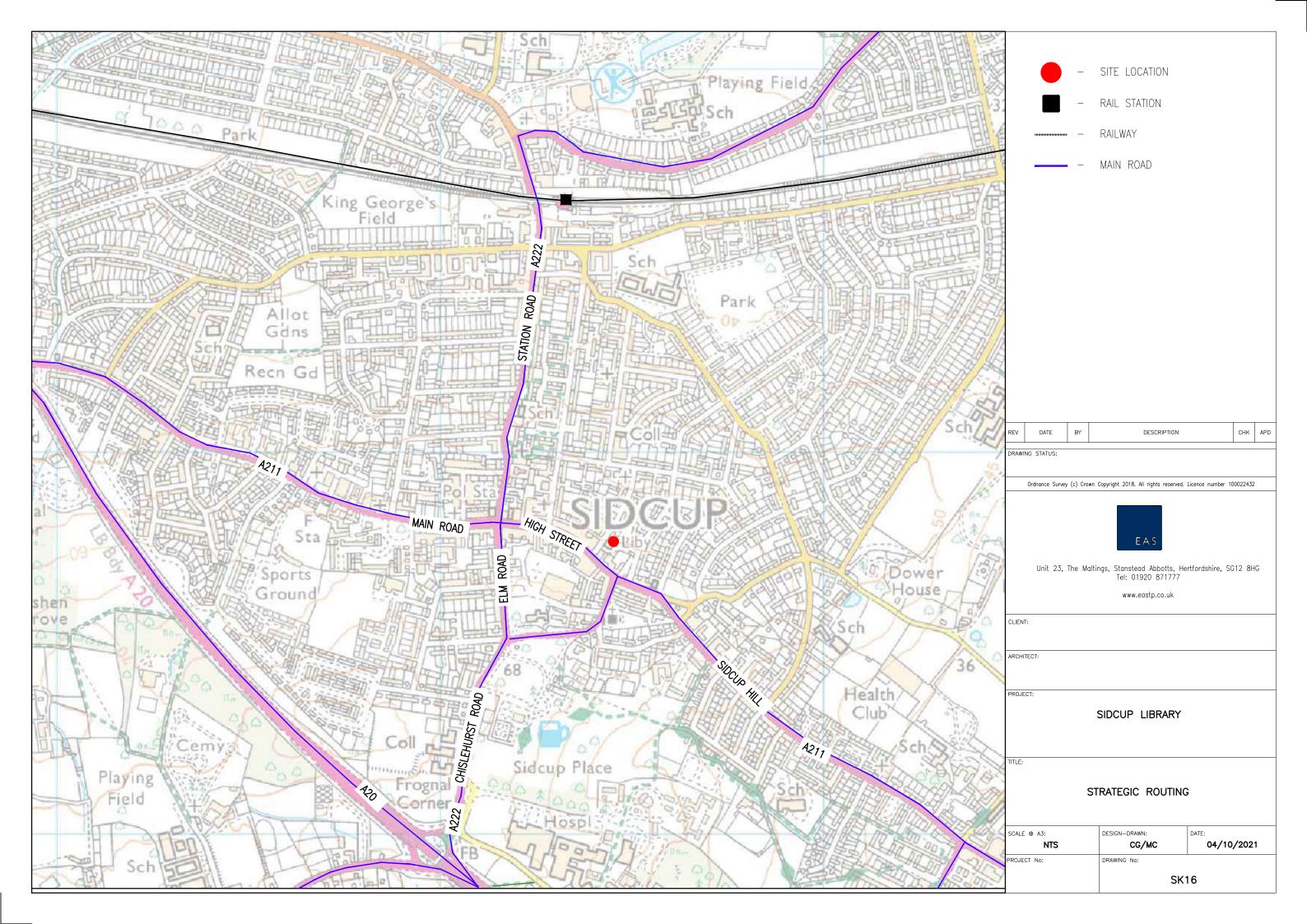


Appendix: D – Site Boundary Plan





Appendix: E – Strtaegic Routing Plan

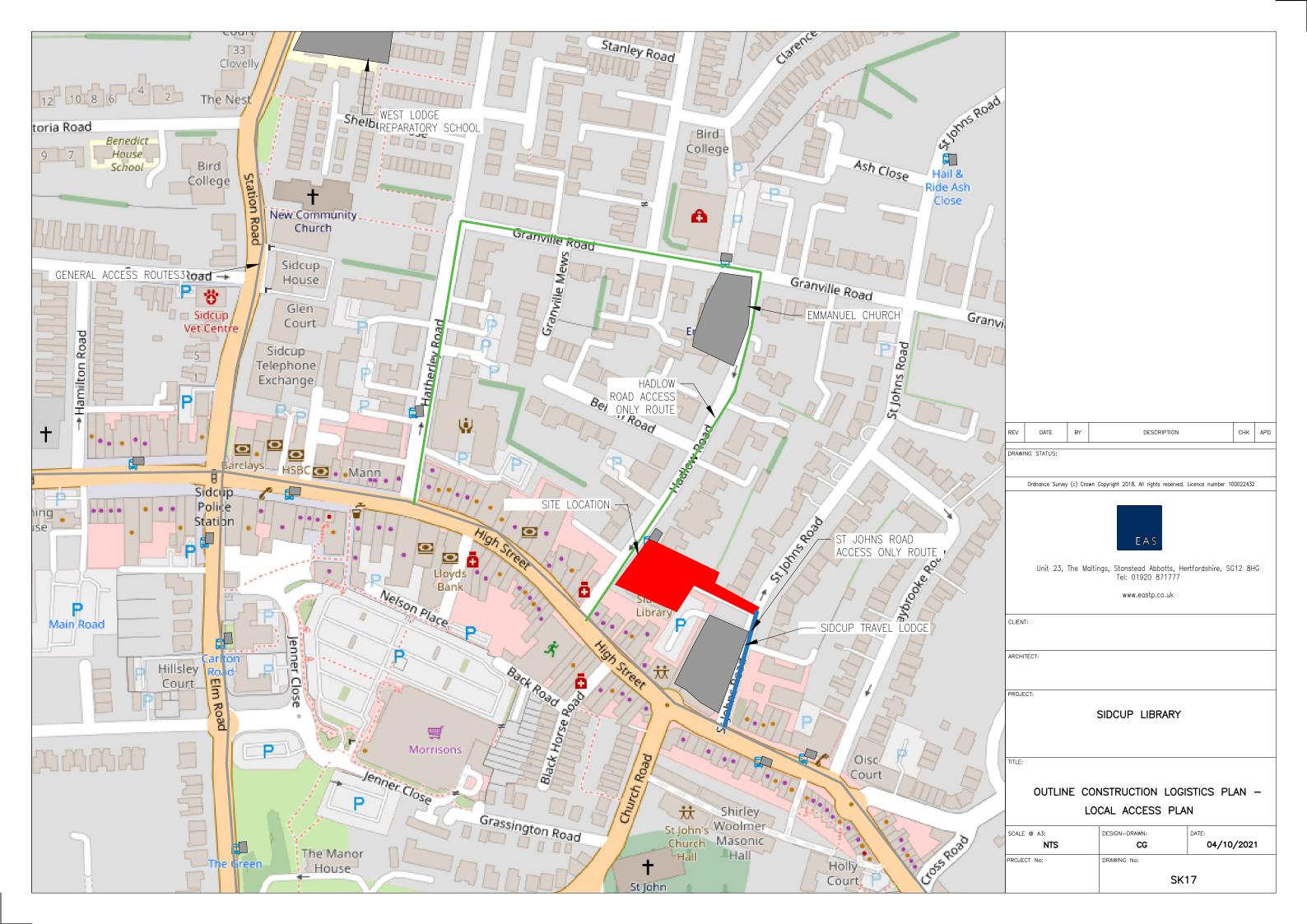




Appendix: F – Local Routing Plan



Appendix: G – Site Boundary Plan With Routing





Appendix: H – Swept Path Analysis for a Large Tipper

