CANEPARO ASSOCIATES
Transport Planning & Highway Design

SLQR Trustee No.1 Ltd & SLQR Trustees No.2 Ltd as Co-Trustees of SLQR Unit Trust No.3

SPACE HOUSE, 1 KEMBLE STREET & 45-59 KINGSWAY

Outline Construction Logistics Plan

August 2019

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1 INTRODUCTION

1.1 Caneparo Associates is appointed by SLQR Trustee No.1 Ltd & SLQR Trustees No.2 Ltd as Co-Trustees of SLQR Unit Trust No.3 ('the Applicant') to prepare an Outline Construction Logistics Plan (CLP) for the planning application at Space House, 1 Kemble Street & 45-59 Kingsway ('the Site'), within the London Borough of Camden (LBC).

1.2 The Site forms two buildings ranging between seven and sixteen storeys, providing 25,363 sqm (GIA) of B1 office floorspace. The Site is currently provided with 48 car parking spaces across ground and basement levels with access from Keeley Street and Kemble Street. The Site location plans are included at **Figure 1**.

1.3 The development proposal seeks the:

R*emoval of existing roof plant equipment at 1 Kemble Street and erection of a single storey facsimile floor plus one setback floor; removal of roof plant from 43-59 Kingsway and erection of a single storey set-back extension; enclosure of the southern external stair at ground floor level on Kingsway with slimline glazing replacement windows and new glazing at ground floor level across the site; enclosing the redundant petrol filling station area with slimline glazing; façade cleaning; new landscaping and public realm works and internal alterations to both buildings in connection with their refurbishment and change of use from Class B1 offices to Class A1/A3 and flexible Class B1/B1 and events space (sui generis) at part ground and basement levels.*

1.4 The Architect's proposed layout plans are included at **Appendix A**.

Purpose of CLP

1.5 This Construction Logistics Plan (CLP) details the expected management of traffic during the construction period. It seeks to provide a robust construction strategy that will minimise the potential for disruption to 'Community Considerations' such as local residents, businesses, members of the public and visitors to the Site as well as other users of the adjacent highway network.

1.6 It also seeks to minimise the environmental impact of the construction process on the locality and will provide best endeavours to be part of a coordinated and collaborative approach with surrounding developments, including consultation with residents when necessary and appropriate.

1.7 It should be noted that a Contractor has not yet been appointed on the project, therefore elements of the construction methodology have been based on assumptions from other central London construction projects, and details regarding programme and phasing are based on current estimates and may be subject to change.

1.8 The content of this report should therefore be viewed as indicative, and further information will be provided by the appointed Contractor within a Construction Management Plan to be submitted prior to commencement of construction.

1.9 This CLP has been prepared in line with TfL's Construction Logistics Plan guidance (July 2017) alongside the Mayor's and TfL's 'Healthy Streets Approach' so as to ensure that construction will not negatively impact on pedestrians, cyclists or public transport users.

CLP Structure

1.10 The remainder of the CLP will be structured as follows:

- **Section 2** details the existing situation from the context of construction vehicles;
- **Section 3** includes the construction programme and proposed methodology;
- **Section 4** presents the vehicular routes to and from the Site access;
- **Section 5** details the strategies and measures to be adopted for construction logistics;
- **Section 6** presents the vehicular types and anticipated level of movements;
- **Section 7** includes details of the monitoring and review process for the CLP; and
- **Section 8** provides a summary.

2 SITE CONTEXT AND SURROUNDING AREA

Policy Context

National Planning Policy Framework (February 2019)

2.1 Paragraph 110 of the NPPF states that *'…applications for development should: c) all for the efficient delivery of goods, and access by service and emergency vehicles'*

2.2 The document sets out long-term strategies for sustainable development which includes the management of traffic, including those associated with construction activity.

Adopted London Plan (March 2016)

2.3 The currently adopted London Plan provides guidance on CLP documents. Policy 6.14 – Freight – states that *'to promote the uptake of the Fleet Operator Recognition Scheme, construction logistics plans, delivery and servicing Plans and more innovative freight solutions, reflecting the positive experience of the Olympics and seeking opportunities to minimise congestion impacts and improve safety. These should be secured in line with the London Freight Plan and should be co-ordinated with travel plans and the development of approaches to consolidate freight'*.

Draft New London Plan, Consolidated Suggested Changes (July 2019)

2.4 Though still in draft format, the London Plan is still regarded as a material consideration and has been applied to the CLP. Policy T7 Deliveries, servicing and construction states at Point F that:

'Development proposals should facilitate safe, clean and efficient deliveries and servicing. Provision of adequate space for servicing, storage and deliveries should be made off-street, with on-street loading bays only used where this is not possible. Construction Logistics Plans… will be required and should be developed in accordance with Transport for London guidance and in a way which reflects the scale and complexities of developments.'

2.5 Plans should *'adopt the latest standards around safety and environment performance of vehicles. The plans should be monitored and managed throughout the construction… phases of the development. TfL's freight tools including CLOCS should be utilised to plan for and monitor site conditions to enable the use of vehicles with improved levels of direct vision. This should be demonstrated through a Site Assessment within a Construction Logistics Plan.'*

2.6 Point IA of Policy T7 states that *'during the construction phase of development, inclusive and safe access for people walking or cycling should be prioritised and maintained at all times.'*

Mayor's Transport Strategy (March 2018)

2.7 The Mayor's Transport Strategy states at Proposal 15 states that *'The Mayor, through TfL, will work with the boroughs, businesses and the freight and servicing industry to reduce the adverse impacts of freight and service vehicles on the street network. The Mayor aims to reduce the number of lorries and vans entering central London in the morning peak by 10 per cent by 2026.*

2.8 The Mayor's Transport Strategy continues by stating that *'through the London Plan, the Mayor will require all new development proposals to demonstrate in their Construction Logistics Plans… that all reasonable endeavours have been taken towards the use of non-road vehicle modes'*.

In direct relation to Oxford Street, the Mayor's Transport Strategy states: *'To allow London's businesses to continue to receive the goods and services they need to flourish, while ensuring that London's streets become better places for people, all aspects of freight and servicing activity must be actively managed in an integrated way. This is particularly important in zero emission zones and in places – like Oxford Street – that will be transformed to create pedestrian areas. Strong partnership working and the involvement of the whole supply chain will be essential to help make more efficient use of London's street network'*

Healthy Streets Approach

2.9 The Healthy Streets Approach was adopted in February 2017 and sets out a framework of policies and strategies which will be implemented to achieve more active travel and public transport use in London. As part of this approach, construction traffic requires specific management to ensure that taking active modes or public transport remain attractive options throughout construction works. This aligns with Vision Zero, which aims to eliminate all deaths and serious injuries on London transport network by 2041.

Site Location

2.10 The Site is located within the Holborn and Covent Garden ward, between Kemble Street and Wild Street to the south, Keeley Street to the north and west, and Kingsway to the east. The centre of the Site is located circa 300m south (5 minutes' walk) of Holborn London Underground Station and 500m east (6 minutes' walk) of Covent Garden London Underground Station.

2.11 **Figure 1** appended to this report shows the site location alongside the community considerations.

Local Highway Network

2.12 The existing highway arrangement is detailed in **Appendix B**.

Keeley Street

2.13 Keeley Street runs along the Site's north and western frontages providing a connection between the A4200 Kingsway and Wild Street. The road is circa 5m in width and is controlled by single yellow line along its western side and a mixture of single / double yellow line, pay-by-phone bays, a disabled bay and a car club bay on its eastern side.

2.14 Keeley Street provides two vehicular crossovers for the Site. The northern crossover is controlled by single yellow line and vehicle barrier, and functions as the egress for the ground floor servicing and parking area (15 spaces). Keeley Street operates one-way westbound to the west of the northern crossover.

2.15 The southern crossover is controlled by a set of gates and double yellow line markings and offers access to the internal basement ramps.

Kemble Street

2.16 Kemble Street connects the A4200 Kingsway to the north and Drury Lane to the south. In the vicinity of the Site, Kemble Street measures circa 9m in width with a mixture of double yellow lines, resident permit holder bays and pay-at-phone bays.

2.17 A vehicular crossover offering barrier-controlled access into the Site servicing and ground floor parking area; on-street controls are provided in the form of double yellow lines, while either side of the access are residents permit holder and pay-by-phone parking bays. The southern section of Kemble Street falls within the City of Westminster (WCC) where resident permit holder bays are present.

Wild Street

2.18 Wild Street is located along the Site's south-western frontage and connects Kemble Street to the east with Great Queen Street to the west. The road is controlled by single and double yellow lines along its northern side whilst a mixture of resident permit holder bays and motorcycle bays are located along its southern side.

2.19 Wild Street has two vehicular access crossovers into the Site; the eastern crossover is located close to the junction with Kemble Street and is controlled by gates and bollards. The western crossover is controlled by a set of sliding gates. Both crossovers offer access to the Site's basement ramps.

A4200 Kingsway

2.20 The A4200 Kingsway forms an arterial route through central London connecting to the A4 to the south and the A501 and A400 to the north. In the vicinity of the site, the A4200 forms two lanes in each direction along with bus lanes, separated by a central reserve. The Strand Underpass tunnel from Waterloo Bridge emerges towards the southern end of the Site's Kingsway frontage.

2.21 The A4200 is controlled by a mixture of single yellow lines with single yellow blips (No Waiting 07:00-19:00 Monday to Saturday, and, No Loading 07:00-10:00 and 16:00-19:00 Monday to Saturday) and double yellow lines with double yellow blips (No Waiting at any time).

Controlled Parking Zones

2.22 The Site falls within Zone CA-C 'Holborn & Covent Garden Area' of Camden's Controlled Parking Zone (CPZ) which operates between Monday to Saturday 08:30-18:30 for single yellow lines / pay & display bays whilst all resident bays are controlled 24 hours a day, 7 days a week.

2.23 To the south, Kemble Street, Drury Lane and the surrounding highway network fall within WCC's boundary and form part of Zone G1 of Westminster's CPZ which operates between Monday to Saturday 08:30-18:30.

2.24 Loading is permitted on yellow lines for up to 40 minutes during the hours of control. At present, servicing vehicles have the opportunity to utilise the off-street servicing area at ground floor level as well as the kerbside on Kemble Street, Wild Street and Keeley Street.

Traffic Management Orders Required Through Construction

2.25 No changes to the Traffic Management Orders on the surrounding highway network are expected as part of the construction programme, however, should there be a need for changes to the Traffic Management Order, this will be discussed with LB Highways in advance.

Accessibility by Non-car Modes

Walking

2.26 According to latest research, about 80 per cent of journeys shorter than 1 mile (1.6km) are made entirely by foot (The Chartered Institution of Highways and Transportation (April, 2015) "Planning for Walking") with this figure changing little over the years.

2.27 The majority of Central London, including Soho, Covent Garden, Westminster, Fitzrovia, the City of London and Farringdon, is within a 2km walking distance from the Site, which includes several rail and underground stations. The roads surrounding the Site provide a wide array of retail and commercial properties including food retailers, cafes and restaurants which are likely used by the current tenants of the building.

2.28 The footways along Kemble Street, Keeley Street and Wild Street are typical for this location, with at least 2m clear footway width available, numerous dropped kerbs associated with crossovers, and dropped kerbs with tactile paving at each key intersection. Further afield, the A4200 Kingsway caters for a high footfall each day and includes pedestrian facilities such as staggered crossings and central reserves at key locations, offering pedestrians a suitable crossing location.

Cycling

2.29 **Figure 2.1** indicates the Active Travel Zone for the Site based on a 20-minute cycle distance. In addition cycling has the potential to replace driving for distances up to 5 miles (8 kilometres) which would include most of Central and North London, including Camden Town, Holloway, the City of London, Soho, Westminster, Waterloo, Southwark, Lambeth and Paddington.

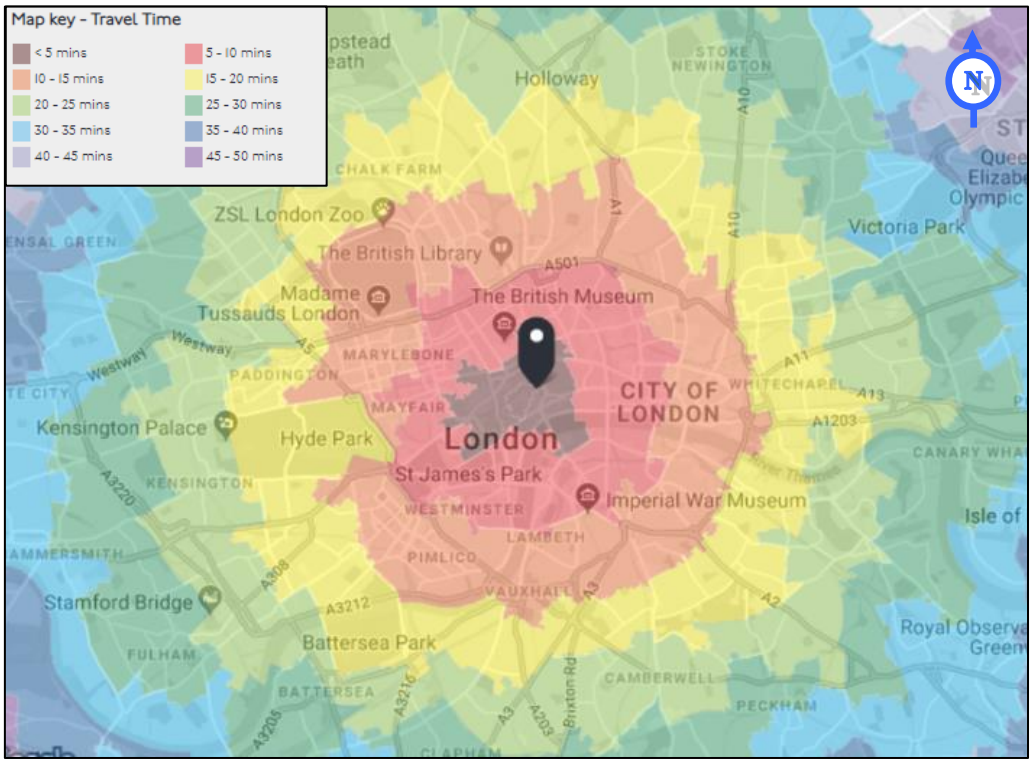


Figure 2.1: Active Travel Zone (Cycling) *Source: TfL*

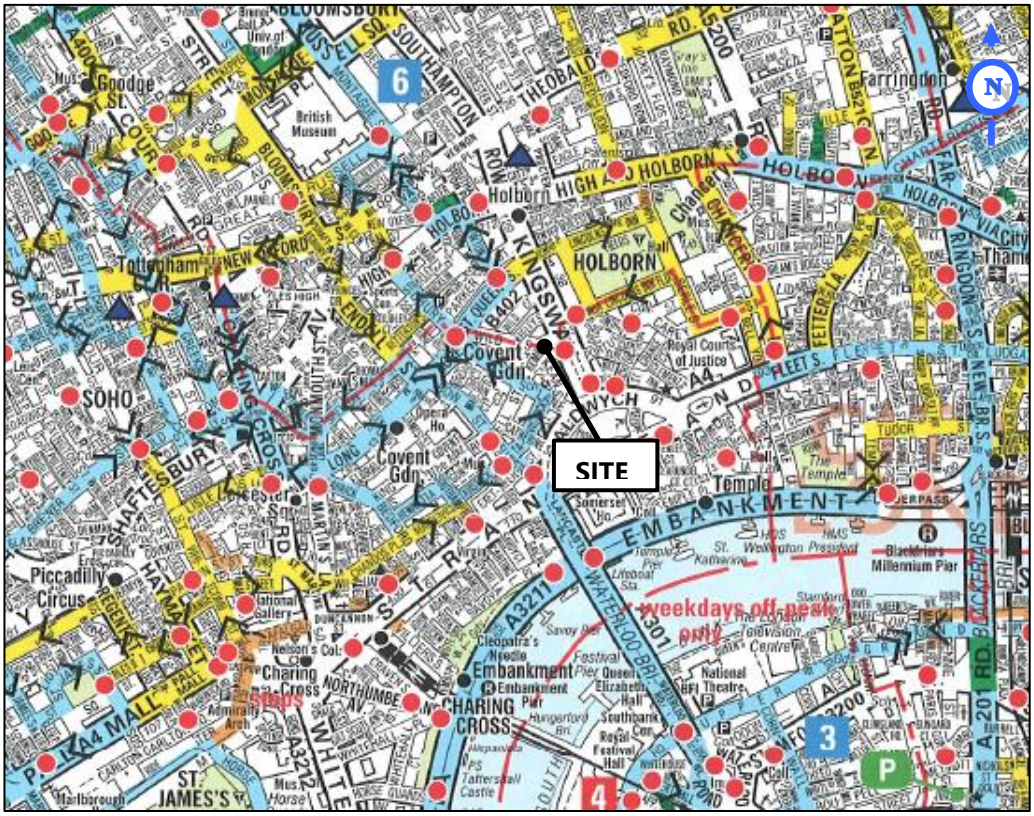


Figure 2.2: Cycle Route Map *Source: TfL Local Cycling Guide*

2.30 **Figure 2.2** highlights the available cycle routes in the vicinity of the Site, taken from TfL's Local Cycling Guide 14. For reference:

- *Blue Routes*: routes signed or marked for use by cyclists on a mixture of quiet or busier roads.
- *Yellow Routes*: Other roads that have been recommended by cyclists, may connect other routes sections.
- *Orange Routes*: Pedestrian only route which connects cycling sections.
- *Red Dots*: Cycle hire docking stations (discussed further below).

2.31 A number of 'Sheffield' style cycle stands are located on the surrounding roads including 10 stands (20 spaces) on the northern side of Wild Street; 5 stands (10 spaces) at the junction between Wild Street and Great Queen Street; and 8 stands (16 spaces) at the junction of Drury Lane and Long Acre.

2.32 Furthermore, the Site has excellent accessibility to TfL's cycle hire docking stations, those near to the Site are highlighted within **Figure 2.3**. The nearest docking stations are located on Kingsway (1 minute walking distance) offering 33 spaces.

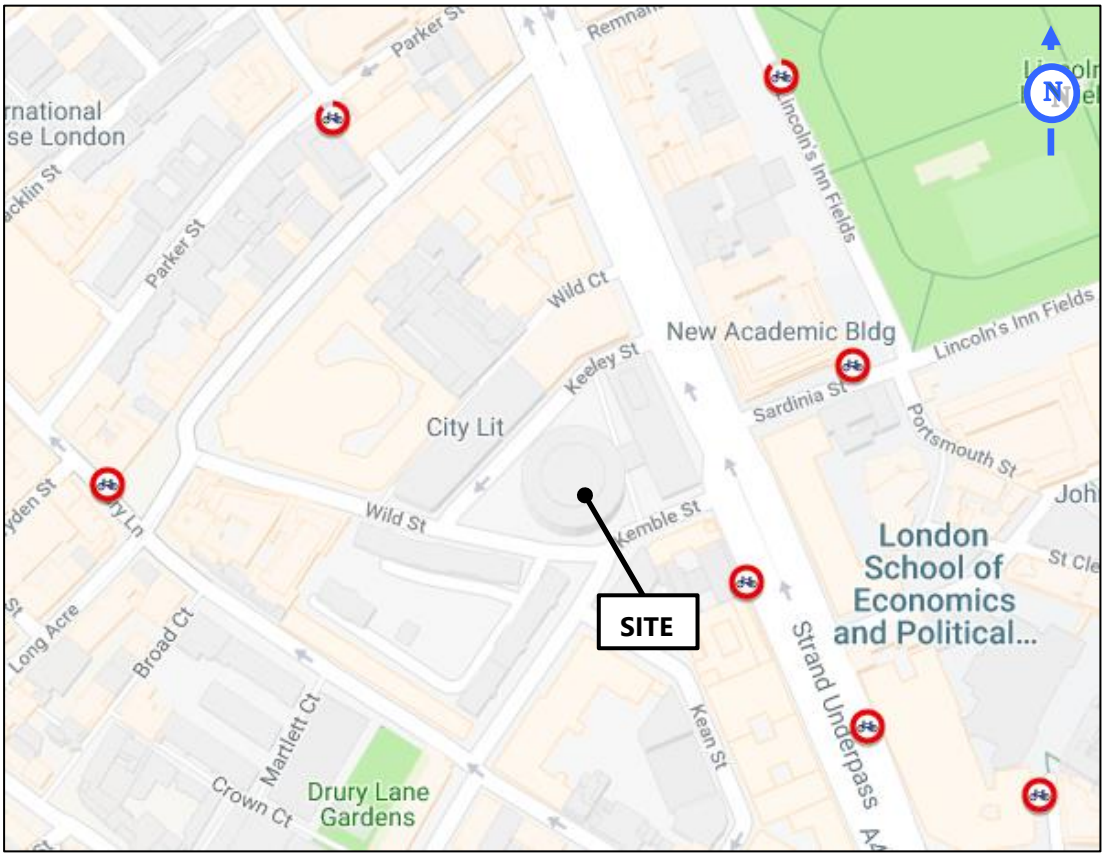


Figure 2.3: Cycle Hire Docking Stations *Source: TfL*

Public Transport

2.33 The Public Transport Accessibility Levels (PTAL) of the centre of the Site is 6a, meaning the Site achieves an 'excellent' score in terms of public transport accessibility.

Bus Service

2.34 The Site has excellent accessibility to bus services in Central London with bus stops accessible on Aldwych, Kingsway, and High Holborn. Bus stops range between 250m and 550m distance (3-7 minutes' walk) from the Site. The nearest bus stops, Holborn Station stops M, N and P), are all provided with shelters and seating with timetables. A summary of the bus routes available and their average frequency is included at **Table 2.1**.

Table 2.1 Summary of Bus Service Frequency (every 'x' minutes)			
No.	**Route**	**Monday – Friday**	**Saturday**
1	Canada Water / New Oxford Street	8 - 11	8 - 11
4	Waterloo / Archway	8 - 12	11 - 13
6	Willesden / Aldwych	6 - 10	7 - 10
8	Bow / Drury Lane	4 - 7	6 -10
9	Hammersmith / Aldwych	5 -9	7 - 10
11	Fulham Town Hall / Moorgate	8 - 12	8 - 12
15	Charing Cross Station / Blackwall Station	5 - 9	5 - 9
19	Finsbury Park / Battersea Bridge	7 - 10	7 - 10
23	Westbourne Park / Aldwych	7 - 11	7 -10
25	Ilford / Tottenham Court Road Station	5 - 9	5 - 9
26	Waterloo / Hackney Wick	8 - 12	10 - 13
38	Clapton Pond / Victoria	3 - 6	3 - 7
55	Lea Bridge Road / Oxford Circus	5 - 8	6 - 10
59	Streatham Hill / King's Cross	4 - 7	6 - 7
68	West Norwood / Euston	6 - 9	8 - 12
76	Tottenham Hale / Waterloo Station	6 - 10	7 - 10
87	Wandsworth / Aldwych	5 - 8	5 - 8
91	Crouch End / Trafalgar Square	6 - 10	8 - 12
168	Old Kent Road / Royal Free Hospital	6 - 10	8 - 12
171	Holborn / Bellingham	6 - 10	7 -10
172	Clerkenwell Green / Honor Oak	8 - 10	9 - 12
188	North Greenwich / Russel Square	5 - 9	6 - 10
243	Wood Green / Waterloo Station	5 - 8	7 -11
341	Waterloo / Northumberland Park	9 - 12	9 -12
521	Waterloo / London Bridge	7 - 9	N/A
RV1	Tower Gateway / Covent Garden	19 - 21	19 - 21
X68	West Croydon / Southampton Row	12 per day	N/A

Source: TfL

London Underground Services

2.35 Holborn Station is located 300m north of the Site on High Holborn and provides access to the London Underground via the Piccadilly and Central Lines, offering north-south and east-west routes across London, respectively.

2.36 The Site is also located 750m north of Temple Station on Temple Place. The station offers access to the Circle and District Line services. The Site is also within walking distance of Covent Garden Station (500m), Leicester Square (700m) and Chancery Lane Station (900m) which operate on the Piccadilly, Northern and Central Lines, respectively.

2.37 Tottenham Court Road Station is the nearest step-free access station and is located 1km or 13 minutes' walking distance from the Site.

2.38 It is clear that the Site has excellent accessibility to underground routes from a number of stations within walking distance.

Community Considerations

2.39 The Site is located within an area which receives a very high footfall throughout the day which increases the chance of conflict between construction vehicles and vulnerable road users. Consideration will be taken in regards to minimising this conflict along Kemble Street, Keeley Street, Wild Street and Kingsway.

2.40 Consideration will also be required in relation to the how the quantum of larger construction vehicles are managed when accessing / egressing the Site.

Public Relations

2.41 A member of the project management team will be elected as a Community Liaison Officer whose contact details will be made available on the construction Site hoarding including a 24 hour emergency number. Their role and responsibilities will be inclusive of being the primary point of contact for the local community and answering queries and questions where necessary.

2.42 A Construction Working Group will be set up before construction begins, secured via the S106 agreement.

3 CONSTRUCTION PROGRAMME AND METHODOLOGY

3.1 The programme of construction has been informed by general knowledge of construction methodology as well as detailed information provided by the project team.

3.2 Construction is expected to take circa 24 months with the building completed and ready for occupancy in December 2021. **Table 3.1** sets out the construction programme for the development based on information provided by the project team with a detailed version provided at **Appendix C**.

Table 3.1: Construction Programme

Construction Phase	Start	End
Site Set-Up and Strip-out	Jan 2020	March 2020
Demolition	April 2020	June 2020
Super-structure	June 2020	Sept 2020
Cladding	Sept 2020	Apr 2021
Fit-out, testing and Commissioning	Sept 2020	Dec 2021

Proposed Site Arrangement

3.3 The arrangements detailed within the following paragraphs will be used to assist in making the Site safe and secure for pedestrians, cyclists and road users as well as site operatives. It will be necessary for the contractor to apply to the Council in order to obtain the appropriate permissions for any necessary temporary highway licenses and traffic management measures. The proposed arrangements are shown at **Appendix B**. The Site will operate two arrangements:

- Arrangement A - General Construction Arrangement – a single bay is suspended on Kemble Street to facilitate access alongside a temporary crossover. All vehicles enter and exit the site in forward gear.

- Arrangement B: Larger Construction Vehicle Arrangement – three bays are suspended on Kemble Street to facilitate larger construction vehicle access alongside a temporary crossover. To enter the site, larger construction vehicles (12.3m articulated lorries or 12.3m mobile cranes) will reverse under strict banksmen control into the site before egressing in forward gear.

3.4 Throughout the construction period, qualified banksmen (in line with TfL's Elite Marshalling approach) will be located at the Site entrance on Keeley Street and the Site entrance / exit on Kemble Street to manage the arrival and departure movements of construction vehicles as well as any other vehicles entering/exiting the Site.

3.5 All vehicles will be accommodated on-site for the entire construction programme making use of the central courtyard. Appropriate space is provided to accommodate all vehicle sizes within a loading area segregated from the internal route throughout all periods of construction, as detailed within **Appendix B.** The link between the two buildings stands at 5.5m in height, above the maximum height of a construction vehicle (skip lorry = 4m).

3.6 The site is capable of accommodating a holding area alongside the loading area if required / necessary, therefore, no additional on or off-street holding areas will be required. It is noted that a number of smaller vehicles will remain on site for the transfer of goods from the loading areas.

3.7 The Site will be fully secured with a hoarding to all exposed boundaries. The hoarding will be provided in line with all TfL/LBC regulations with a noticeboard placed in prominent visible positions on Kingsway, Kemble Street and Keeley Street. The noticeboards will be standardised across the entire the Site. The hoarding will include decorative displays organised by the Main Contractor.

3.8 Fully equipped offices and welfare facilities for staff and operatives will be provided on Site. All plant, material and equipment will be stored on-site and not on the public highway. It is noted that an element of parking will be available for site managers or equivalent.

Construction Traffic Hours

3.9 It is proposed that the core operational hours for construction traffic will be as follows:

- Weekdays: 08:00 – 18:00
- Saturday: 08:00 – 13:00
- Sunday & bank holidays: subject to agreement between TfL, LBC and resident groups.

3.10 In other circumstances it is anticipated that there will be a requirement for vehicles to arrive and depart outside of usual construction hours to allow specialist construction activities to be undertaken; or to deliver bulky machinery / materials before busy traffic periods in London. The Council will be provided with prior notification in regards to any special dispensation for out-of-hours vehicle activity.

3.11 There will be no working on Sundays and bank holidays unless there is a requirement for emergency works, abnormal deliveries or cranes. The Council will be provided with prior notification.

3.12 The Site will be provided with 24 hour security to prevent any unauthorised access outside of the construction traffic hours.

Vehicle Types

3.13 There are no anticipated restrictions to the size of heavy goods vehicles servicing the Site. Numerous types of vehicles will be used to bring materials to and from the Site. The main vehicle types will include:

- 10m length, 2.5m width rigid Tippers;
- 8.2m length, 2.5m width Concrete Lorries;
- 10m length, 2.5m width Low-Loader / Flatbed Lorries
- 12.3m length, 2.4m width mobile crane (larger construction vehicle);
- 12.3m length, 2.5m width artic lorry; (larger construction vehicle);
- 7.25m, 2.5m width skip lorry;
- 3.5T Luton Vans / 5.5m length LGVs; and
- Transit/panel vans

4 VEHICULAR ROUTEING AND SITE ACCESS

Site Access

4.1 Vehicles as well as pedestrians will be able to access the Site via the existing access points on both Keeley Street and Kemble Street as well as the site frontage to Kingsway. The entrance / exit into the Site from Keeley Street and Kemble Street will be made appropriate for larger construction vehicles and will be monitored by banksmen throughout the day before being gated.

4.2 Specifically, it is deemed necessary to suspend parking bays on the northern side of Kemble Street as well as to apply for a temporary crossover to allow the widening of the existing vehicular access at this location (see **Appendix B**).

4.3 The amounts to 1 suspended bay for general construction traffic and 3 suspended bays during the arrival and departure of articulated lorries or mobile cranes (to provide sufficient space to enter and exit the Site).

Proposed Vehicular Route

4.4 **Figure 3** appended to this report shows the proposed vehicle access route across the wider local area. The routes follow the TfL strategic road network until the final approach to the Site where local roads are used for access.

4.5 The proposed construction vehicle route is considered to be the most appropriate and suitable for larger vehicles and seeks to reduce and minimise disruption to local road users. All construction vehicle arrivals will be managed by banksmen at the Site to ensure appropriate safety and traffic management measures are adhered to.

4.6 Traffic marshals / banksmen shall be employed throughout the contract to manage the flow of construction vehicles to ensure that public and pedestrian safety is maintained at all times. The surrounding highway will be kept open for normal traffic to ensure satisfactory access and movement for existing occupiers of neighbouring properties during construction. In particular, banksmen will be positioned to assist larger vehicles turning into / out of the Site. Coordination will also be carried out with surrounding developments when necessary, to minimise potential disruption.

Swept Path Analysis

4.7 Vehicle swept path analysis has been prepared to demonstrate that the vehicle types and sizes proposed will be able to safely access and egress from the Site at the proposed loading bay location. A copy of the drawings prepared are included at **Appendix D**.

5 STRATEGIES TO REDUCE CONSTRUCTION IMPACTS

Overview

5.1 **Table 5.1** below sets out the committed, proposed and considered checklist replicated from the TfL Construction Logistics Plan guidance (July 2017).

Table 5.1: High Impact Site Planned Measures Checklist			
	Committed	**Proposed**	**Considered**
Measures Influencing Construction Vehicles and Deliveries			
Safety and environmental standards and programmes	X		
Adherence to designated routes	X		
Delivery scheduling	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		X	
Use of logistics and consolidation centres		X	
Measures to Encourage Sustainable Freight			
Freight by Water			X
Freight by Rail			n/a
Material Procurement Measures			
DfMA and off-site manufacture		X	
Re-use of materials on Site		X	
Smart procurement		X	
Other Measures			
Collaboration amongst other Sites in the area	X		
Implement a staff travel plan	X		

Project Manager

5.2 Contact details for the Project Manager are provided below:

Name: Clive Withers

Company: Avison Young

Address: 65 Gresham Street, London, EC2V 7NQ

Telephone: 07768 861130

Email: clive.withers@avisonyoung.com

5.3 The Project Manager will assume all responsibility for implementing the measures within the CLP until such a time when the Main Contractor is appointed, at which point relevant details will be submitted to LBC and TfL. The contact details for the Project Manager will be displayed at the Site and published on any temporary licenses granted by the Council (such as for hoarding or scaffolds).

5.4 The Project Manager will liaise with local stakeholders and the project managers for other construction activity in the local area when and where it is relevant to do so. The Project Manager will also be responsible for monitoring and reviewing this CLP on an ongoing basis to reflect the changing needs of the project and/or any changes to the local road network.

5.5 The appointed Project Manager will act as a point of contact between local stakeholders / businesses so that in the event of issues / concerns arising during the construction process, action can be taken without delay. There are a number of development proposals ongoing in the surrounding area and so the Project Manager will liaise with the project managers for any other sites where work is carried out concurrently such that matters can be coordinated where required.

5.6 Information boards will be displayed at the Site highlighting the key personnel on Site including their contact details. A 24-hour emergency contact number will also be provided.

5.7 Local neighbours will be able to call the Site office to raise any concerns and the Project Manager will personally deal with any comments or complaints to ensure that they are resolved quickly. A record will be kept of any / all comments and complaints received.

Neighbourhood Consultation

5.8 As part of the construction process, neighbourhood consultation will be undertaken with local residents / communities in order to effectively manage construction impacts. This will take the form of monthly newsletters with local residents as well as neighbourhood meetings at key construction stages. The hoarding of the site will also be provided with contact details for the site manager so that the community can remain in contact through the build.

Measures Influencing Construction Vehicles and Deliveries

Safety and environmental standards and programmes

5.9 The construction project will be registered with the Considerate Constructors Scheme in order to minimise any negative impact that construction activity may have on the local area.

5.10 It will be a requirement for Contractors to be registered with the FORS scheme and to ensure all subcontractors are also registered. FORS will be a mandatory requirement where applicable (except in the rare instances of international deliveries, other non-standard deliveries, and vehicle types and sizes that are not subject to the FORS standard) and recognise that FORS:

- Creates safer drivers – with significantly reduced occurrence of accidents;
- Will encourage suppliers to improve fuel economy associated with the project;
- Provides a system to identify 'at risk' drivers, allowing the project team and suppliers to target training and incentives effectively;
- Improves certainty of deliveries and collections; and
- Promotes a reduction in journeys to and from the Site.

5.11 A collision reporting system will be mandated to ensure all collisions and accidents involving the projects' vehicle and drivers are reported to the Project Manager and any relevant parties. In order to effectively undertake this, the 'FORS Manager' reporting tool will be utilised.

5.12 It is a requirement for all contractors to be signatories of the Construction Logistics and Community Safety (CLOCS) initiative. Operating to the CLOCS standard will ensure that transport and logistics are managed to the highest industry standard during all stages of demolition and construction.

5.13 Banksmen will be located at the loading area when in use throughout the demolition and construction periods to ensure appropriate safety and traffic management measures are adhered to.

Healthy Streets: Pedestrian and Cyclist Safety

5.14 Construction traffic can pose a potential risk to pedestrian and cyclist safety when not managed effectively. Vulnerable road users' safety will be paramount throughout the construction period. The use of banksmen during all periods of operation at the Site will assist pedestrian and cyclist safety, particularly when vehicles are accessing and egressing the Site.

5.15 A hoarding will be installed around the perimeter of the Site. The hoarding will screen off any works or activities and protect passers-by as well as reduce dust and noise emissions. The hoarding will not impeded pedestrian or cyclist movements around the site.

5.16 In addition, the hoarding will be decorated to suit local authority requirements and contain lighting illumination so it is easily seen at night by traffic and pedestrians using the surrounding roads. Hoarding Gates will be locked each evening by the contractor's project team.

Adherence to Dedicated Routes

5.17 Details of routes to be used for journeys to and from Site for road operations are provided in Section 4. The routes to/from the Transport for London Road Network and Strategic Road Network are specified. These access routes have been reviewed with respect to potential impacts, conflicts and hazards. Junctions and parts of the routes of particular potential concern have been identified in terms of coming into conflict with other road users, with particular attention paid to pedestrians and cyclists around access to work sites.

5.18 A copy of the routing plan, shown at **Figure 3**, will be given to all suppliers when orders are placed to ensure drivers are fully briefed on the required route to take. The supplier will be made aware that these routes are required to be followed at all times unless agreed or alternate diversions are in place.

5.19 Vehicle arrivals / departures will be programmed and staggered to reduce the potential for unnecessary delay and congestion at the Site.

5.20 A web-based delivery management system will be used to control the volume of deliveries to site. This system will work by defining the number of 'resources' a site has and thus can service. It then limits the number of delivery bookings to manage an efficient process to the defined capacity. Sub-contractors and hauliers must be booked in a minimum of 48-hours in advance in order to allow the request to be reviewed and subsequently approved/declined. The system can be accessed by completing a new user application form and submitting it, countersigned by your supplier relationship manager or package manager to the delivery manager.

5.21 The scheduling of materials, deliveries and waste collection will be managed in order to effectively utilise the loading area on-site. Suppliers will be given instructions asking the vehicle driver to call ahead to ensure that the Site is ready to receive a vehicle. In addition, verbal briefings of the access route will be provided to all suppliers, contractors and visitors prior to them undertaking a journey.

5.22 Re-timing out of peak time will aid the operational efficiency of the construction Site and also the neighbouring area. The developer commits to attempting to re-time as many deliveries as possible out of the morning peak (07.00-10.00).

5.23 An efficient and effective logistical operation could provide material benefits to the efficiency of deliveries and, as such, a robust delivery system will be implemented. Owing to the available space on-site, the requirement for a holding area is deemed unnecessary. The deliveries can instead use the loading areas on site detailed in **Appendix B**.

5.24 In the event an unauthorised delivery arrives at Site the vehicle will be accommodated off-street, particularly owing to the available space within the existing Site. Persistent unauthorised deliveries will be dealt with via a 3-strike policy whereby their contract to deliver to the Site will be reviewed.

5.25 In the event space is not available at the Site for unauthorised deliveries the driver will be instructed to exit the area and re-schedule a delivery time with the main contractor.

Key Performance Indicators – Vehicle Deliveries / Collections

5.26 In order to effectively manage vehicle movements into and out of the site during construction the Project Manager will implement Key Performance Indicators which will be used to monitor the scheme. The KPI's to be implemented are as follows:

- Zero unplanned vehicles.
- Zero non-complaint vehicles.
- Zero instances of project-related vehicles involved in a collision.

Measures to Encourage Sustainable Freight

5.27 It is not possible to undertake deliveries by water or rail for this project owing to its separation from both. The Main Contractor will constantly monitor the CLP and in the event deliveries by rail are possible / feasible, will provide an update to the Council for approval.

Material Procurement Measures

5.28 Where possible, segregation of recyclable and non-recyclable material will be employed for all waste generated throughout the construction process.

5.29 All waste materials will be deposited into containers held on Site with each trade responsible for clearing their own waste. All Site waste will be collected by a licensed waste carrier and will be taken to a registered waste transfer station for sorting and recycling / re-use.

5.30 Waste Management will be monitored and recorded as part of the Site's 'Smart Waste' obligations.

5.31 A Site Waste Management Plan (SWMP) will be implemented if deemed necessary / appropriate to detail the disposal and management procedures relevant to the demolition and construction phases. If implemented, the SWMP will seek to minimise and reduce waste production.

5.32 An 'Outline Construction Resource Management Plan' prepared by AECOM, was submitted with the application as an Appendix to the draft CMP.

5.33 Consideration will be given to the opportunities to employ off-site manufacturing processes upon appointment of a contractor.

5.34 Consideration will be given to the employment of smart procurement measures such as last mile logistics solutions and sourcing local suppliers. This will also be explored following the appointment of a contractor.

Other Measures

5.35 The developer and appointed contractor will consult with Camden, TfL, and other contractor/developers in the area to minimise disruption and undertake joint trip generation analysis. The contractor, once appointed, will liaise with other developers and contractors in the area particularly.

Implementing Staff Travel Plan

5.36 A Construction Staff Travel Plan will be implemented for the Site and will include details of local public transport options, in particular Holborn Station, as well as a suite of measures to discourage the use of private transport. Furthermore, temporary cycle parking facilities including cycle parking, lockers and showers will be provided within the Site during construction to encourage active modes. It is noted that a number of staff members already cycle to the site.

5.37 All Site operatives and visitors will be encouraged to travel to and from the Site by public transport and no car parking will be provided, however, in the event operatives are required to bring vehicles to Site, operatives will be expected to unload any materials or equipment using the loading area proposed before finding parking opportunity on-site. This approach will not be promoted and will be prevented wherever possible throughout the construction programme.

Public Highway

5.38 At no time will material or plant be stored on the public highway.

5.39 It is confirmed that cranes and other large pieces of construction equipment will not oversail the highway at any point when on-site. The size of the site allows for issues of over-sailing to be effectively negated.

5.40 The Contractor will monitor the condition of the public highway in the immediate vicinity of the Site. This will the form a condition survey undertaken by the Contractor of the highway network surrounding the Site.

5.41 The Project Manager will make contact with the relevant utility companies in order to co-ordinate any scheduled work.

Road Closure

5.42 There is not anticipated to be the need for road closures as part of the construction, however, in the event this is required, appropriate consent and licenses will be obtained. Any road closures will be planned in advance, in accordance with the relevant authorities and in compliance with prescribed notice periods.

5.43 Notice regarding planned closures and diversions of roads and footpaths forming part of the Site will be given to the Council, the Police, Fire Brigade, other emergency services and bus operators.

Control of Dirt and Dust

5.44 The objective in regards to the control of dirt and dust is to ensure footways and carriageways adjacent to the Site are kept clean at all times.

5.45 The following measures will be implemented where necessary:

- All HGVs removing demolition spoil and soil will be sheeted over before leaving the Site to limit dust particulates.
- The Project Manager will ensure that the perimeter of the Site is patrolled twice a day to ensure that the footway is kept clear of any construction debris.
- Road sweeping to clean the Site hard standing and any mud or debris deposited by Site vehicles on roads or footpaths in the vicinity of the Site.
- Sufficient bins and waste facilities.

- Litter picking facility for un-attributable materials.
- Facilities to minimise the formation and spread of dust by continuous fine water spray.
- A wheel wash facility will be established at the Site access / egress points (within the Site boundary) to minimise the transfer of dust and particulate matter onto surrounding highways.
- Banksmen will be charged with the responsibility of checking the cleanliness of vehicles exiting the Site.

Noise

5.46 Noise and vibration caused by Site activities will be controlled as far as is reasonably practicable so that surrounding receptors are protected from excessive levels arising from the construction process.

5.47 All hand operated tools and equipment shall be effectively silenced and will bear the manufacturer's guaranteed maximum sound level generated. The recommendations made in BS 5228-1: 2009 "Code of Practice for Noise and Vibration control on Construction and Open Sites" will be adopted by subcontractors.

5.48 The Contractor will work under the guidelines set out in the legislation below.

- Public Health Act 1961
- Health & Safety at Work act 1974
- Control of Pollution Act 1974
- Environmental Protection Act 1990
- The Noise at Work regulations 2005
- British Standard 5228

5.49 The Contractor will aim to keep noise levels to a minimum. This will be carried out by:

- Ensuring all plant is fitted with the correct and working exhaust mufflers and noise suppression kits.
- Changing where possible methods and processes to keep noise levels low.
- Position plant as far away from residential property as physically possible.
- Limit the hours worked on noisy operations.

6 ESTIMATED VEHICULAR MOVEMENTS

6.1 A breakdown of forecast vehicle movements and anticipated dwell times has been included within **Table 6.1** and **Figure 6.1**. It is worth noting that when using the TfL CLP tool, a number of phases (basement excavation, piling and sub-structure) are not relevant and have not been included. The vehicle data has been provided prior to the appointment of a Contractor, and as such, will be revisited upon their appointment.

Table 6.1: Estimated Construction Vehicles – Monthly and Daily

Phase	Period of Stage	No. of Trips (Peak Month)	Peak no. of Trips (daily)
Site set-up, Strip-out and Demolition	Q1 2020 to Q2 2020	94	4
Super-structure	Q2 2020 to Q3 2020	235	10
Cladding	Q3 2020 to QQ2 2021	188	8
Fit-out, testing and commissioning	Q3 2020 to Q4 2021	282	12
Peak period of construction*	Q3 2020	485	21
**Involves super-structure, cladding and fit-out phase vehicle movements*			

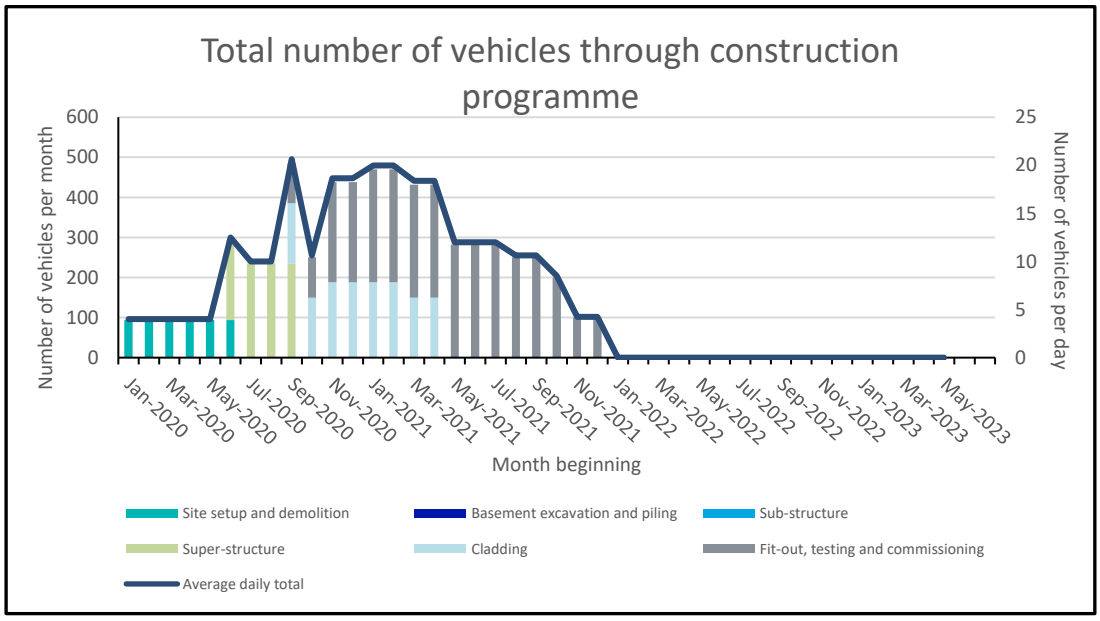


Figure 6.1: Estimated Construction Vehicles (Monthly and Daily) Taken from TfL CLP Tool

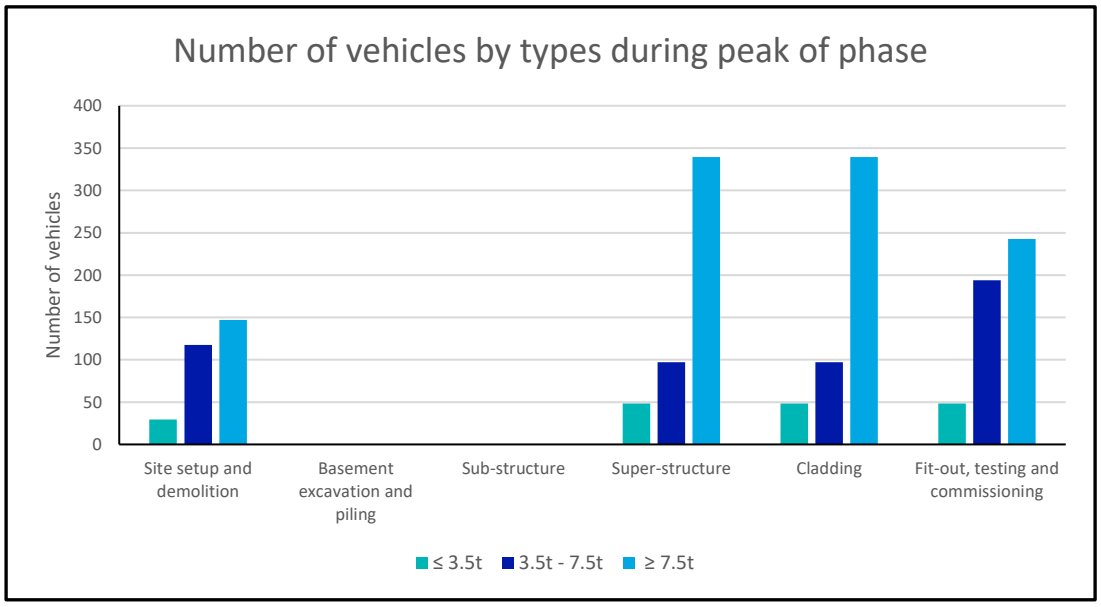


Figure 6.2: Number and vehicle type by phase of construction (taken from TfL CLP Tool)

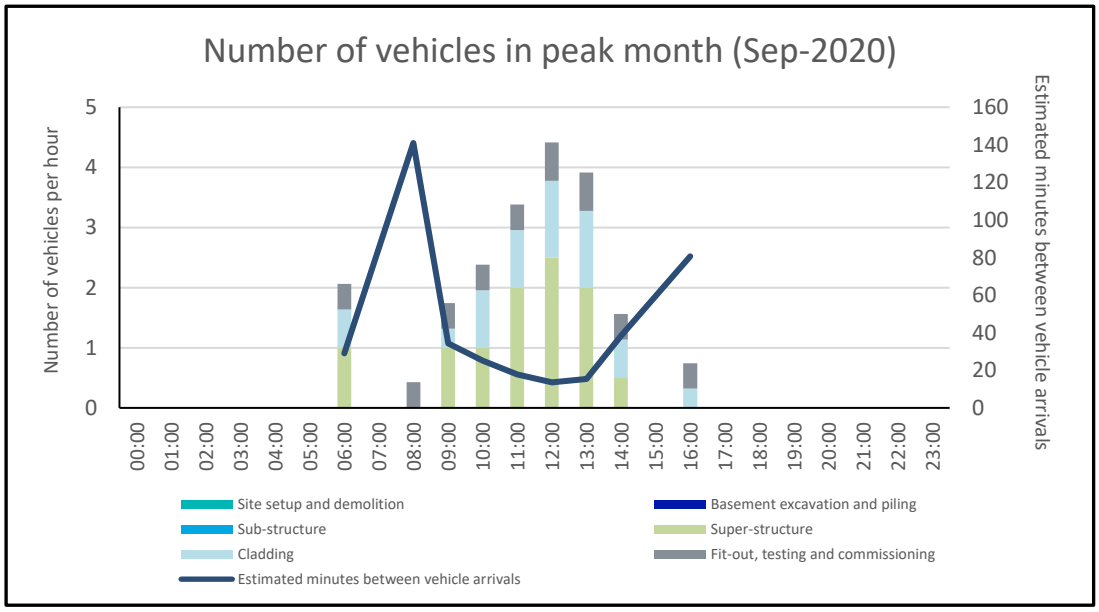


Figure 6.3: Hourly arrival profile of vehicles during peak (taken from TfL CLP Tool)

6.2 During the peak months of construction, approximately 485 construction vehicles will access the Site. This equates to 21 vehicles per day and up to 4 in the peak hour. The Site is expected to receive a variety of vehicle sizes; the anticipated number and type of vehicles accessing the Site during each stage of construction is shown in **Figure 6.2**.

6.3 Where possible, peak times will be avoided for deliveries. **Figure 6.3** provides a summary of the average daily construction trips during each construction period. This estimate will be refined, once the Main Contractor is appointed with updated information submitted to the Council. The contractor will provide specific delivery schedule information when appointed.

7 IMPLEMENTING, MONITORING AND UPDATING

7.1 An appointed Construction Logistics Manager will be in charge of implementing the CLP and may be a part-time role undertaken by the Main Contractor. It is recognised that the CLP will be superseded by the CMP (to be prepared by the Contractor), which will be a 'live' document subject to constant review and monitoring in order to react to any changes during the construction programme. The Construction Logistics Manager will monitor and record information on the following:

Number of Vehicle Movements to the Site

- Total;
- By vehicle type / size;
- Time spent on-site; and,
- Delivery/collection accuracy compared to schedule.

Breaches and Complaints

- Community concerns about construction activities;
- Vehicle routing;
- Unacceptable queuing;
- Unacceptable parking; and
- Compliance with safety and environmental standards and programmes.

Safety

- Record of associated fatalities and serious injuries;
- Ways staff are travelling to site; and
- Vehicles and operators not meeting safety requirements.

7.2 Data will be recorded at the entrance of the Site by a member of staff, as well as through the delivery booking and tracking system to be implemented.

7.3 A Contractor Handbook and Driver Handbook will be produced as part of the CLP, in conjunction with the site wide CMP, in order to distribute information relating to site operations. The information to be provided is as follows:

Contractors Handbook

- Safety procedures;
- Anti-idling procedures;
- Vehicle routing and delivery scheduling; and
- Driver training

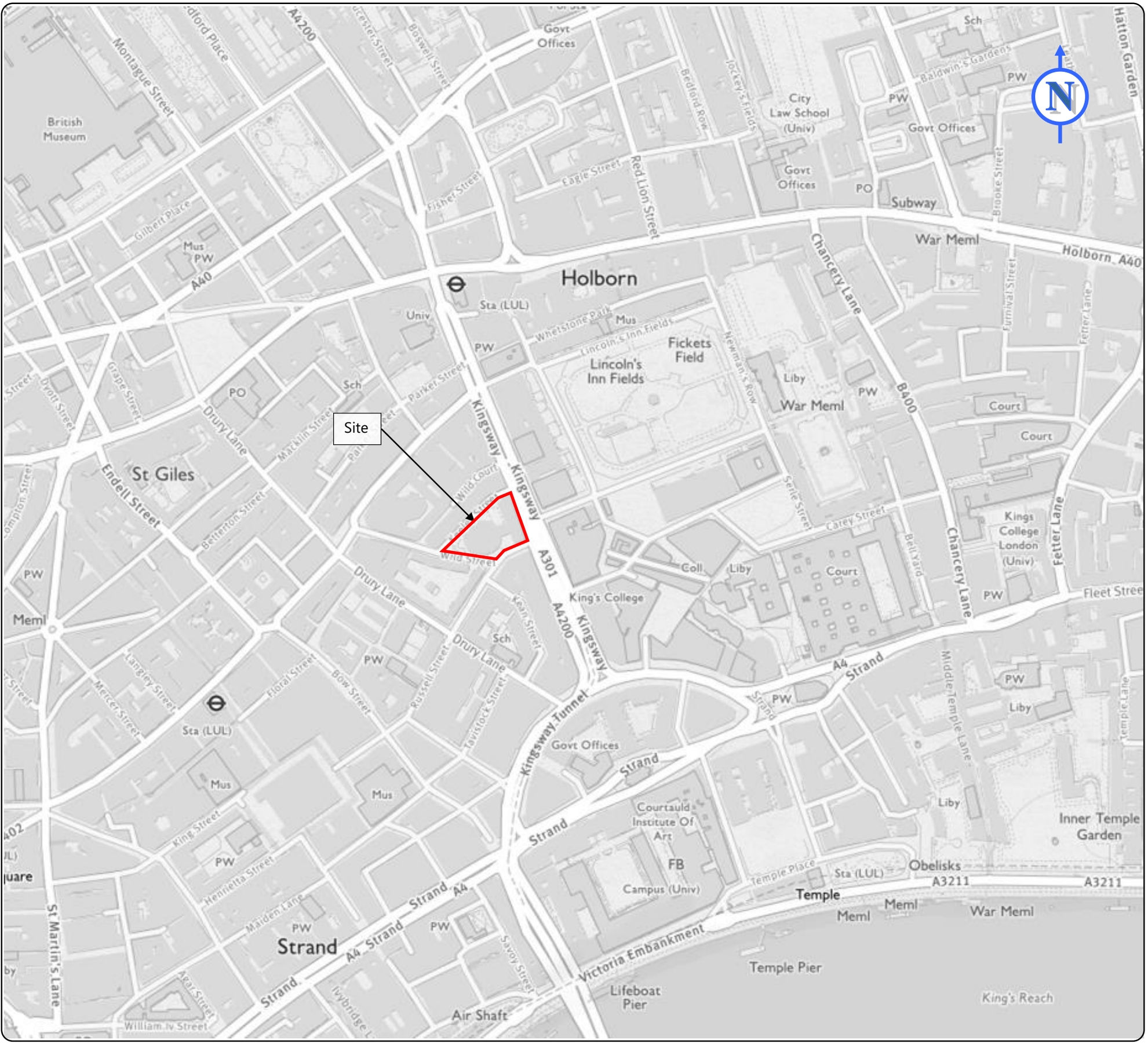
Drivers Handbook

- Authorised routes to and from the Site;
- Site opening times;
- Booking and scheduling information;
- Site entry and exit points, and other information relating to access;
- Anti-Idling; and
- Vulnerable road user safety.

8 SUMMARY

8.1 The CLP provides all details required for the successful management of construction vehicles to and from the Site. The CLP is a live document and will be updated if any changes are required throughout the construction period.

Figures



NOTES

1. Do not scale from this drawing.
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3. This drawing is for illustrative purpose only.

KEY:

Rev	Details	Drawn	Check	Date
A	XXXXX	XX	XX	

REVISION HISTORY

Client:

Seaforth Land

Project:

Space House

Drawing Title:

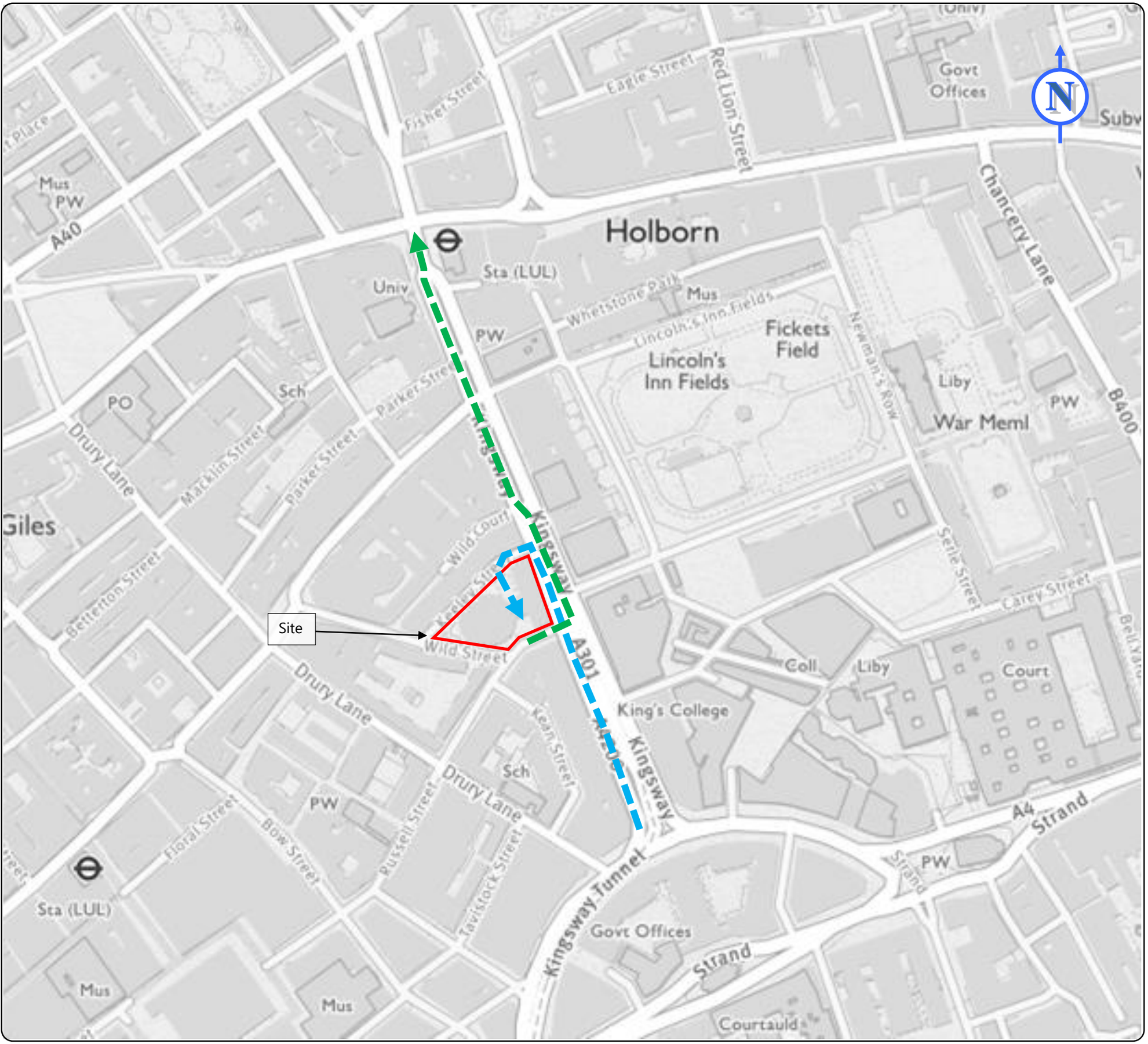
Site Location Plan

Scale:	Size:
NTS	A3

Drawn by:	Checked by:	Date:
D.P	D.P	02.08.19

CANEPARO ASSOCIATES
Transport Planning & Highway Design
21 Little Portland Street • London • W1W 8BT • Tel. 020 3617 8200

Scheme Ref:	Drawing No:	Sheet:	Rev:
CA3671	1	1	.



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KEY:

Arrival Route

Departure Route

Rev	Details	Drawn	Check	Date
A	XXXXX	XX	XX	

REVISION HISTORY

Client:

Seaforth Land

Project:

Space House

Drawing Title:

Vehicle Routing Plan
General Access

Scale:	Size:
NTS	A3

Drawn by:	Checked by:	Date:
D.P	D.P	02.08.19

CANEPARO ASSOCIATES
Transport Planning & Highway Design
21 Little Portland Street • London • W1W 8BT • Tel. 020 3617 8200

Scheme Ref:	Drawing No:	Sheet:	Rev:
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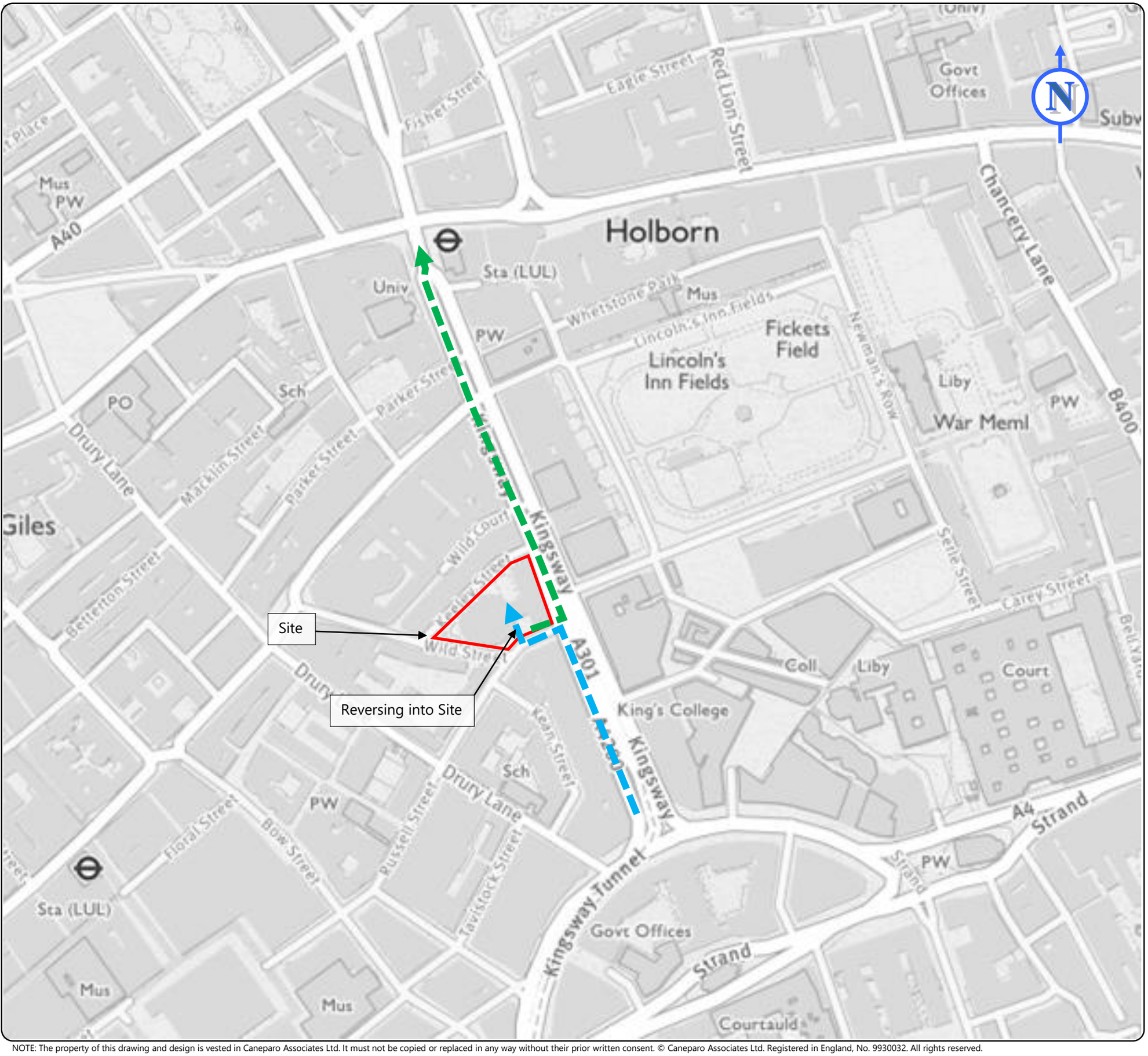

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KEY:

Arrival Route

Departure Route

Rev	Details	Drawn	Check	Date
A	XXXXX	XX	XX	

REVISION HISTORY

Client:

Seaforth Land

Project:

Space House

Drawing Title:

Vehicle Routing Plan
Larger Construction Vehicle Access

Scale:	Size:
NTS	A3

Drawn by:	Checked by:	Date:
D.P	D.P	02.08.19

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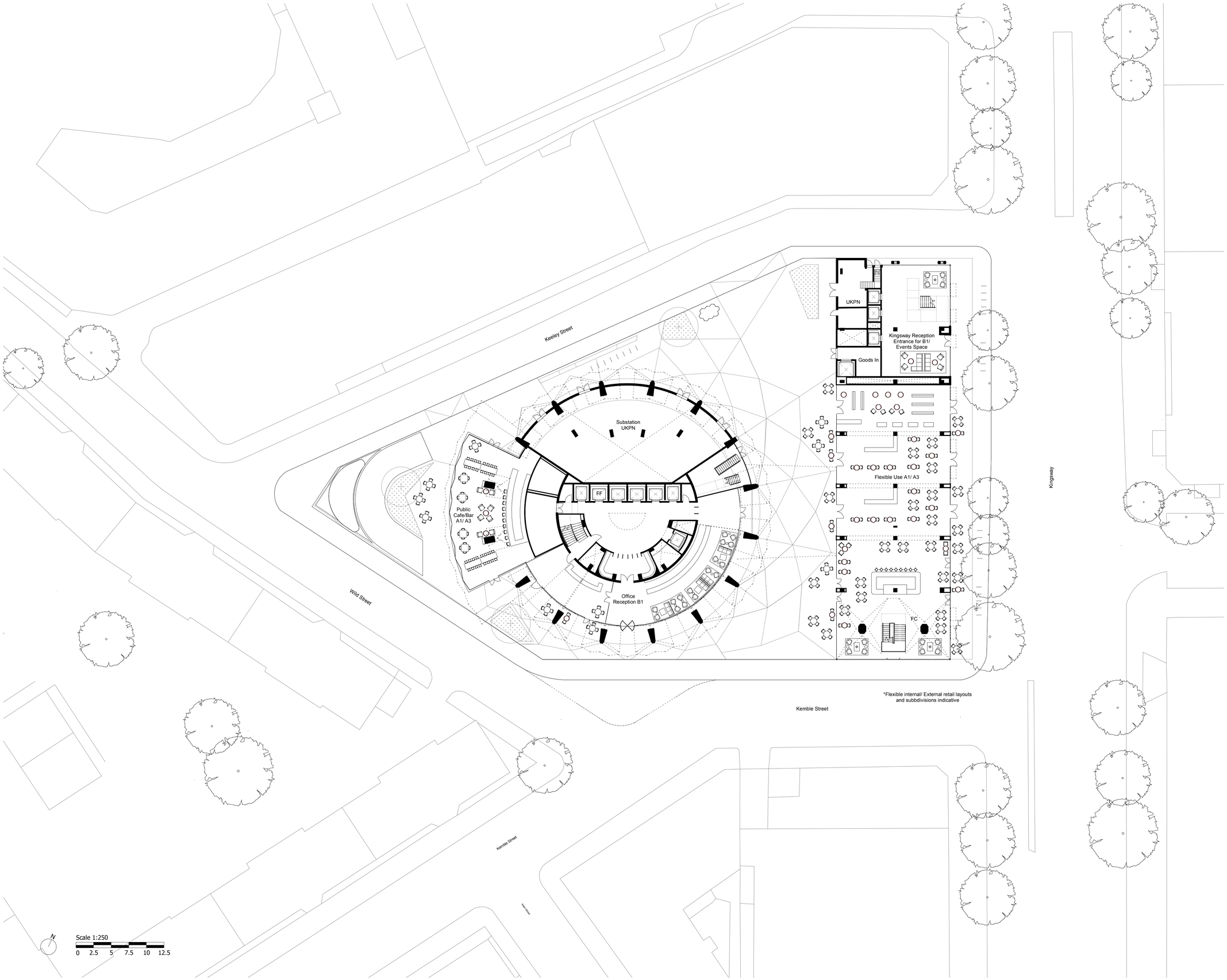
Scheme Ref:	Drawing No:	Sheet:	Rev:
CA3671	1	3	.

Appendix CLP A



Description	Date	Drn/Chk	Rev
Planning Submission	24/05/19	SQP	Rev-A

SQUIRE & PARTNERS

Squire and Partners LLP
The Department Store
248 Ferndale Road, London SW9 8FR
T: 020 7278 5555

info@squireandpartners.com
www.squireandpartners.com

Project

Space House
London
WC2

Title

Ground Floor
GA Plan
Proposed

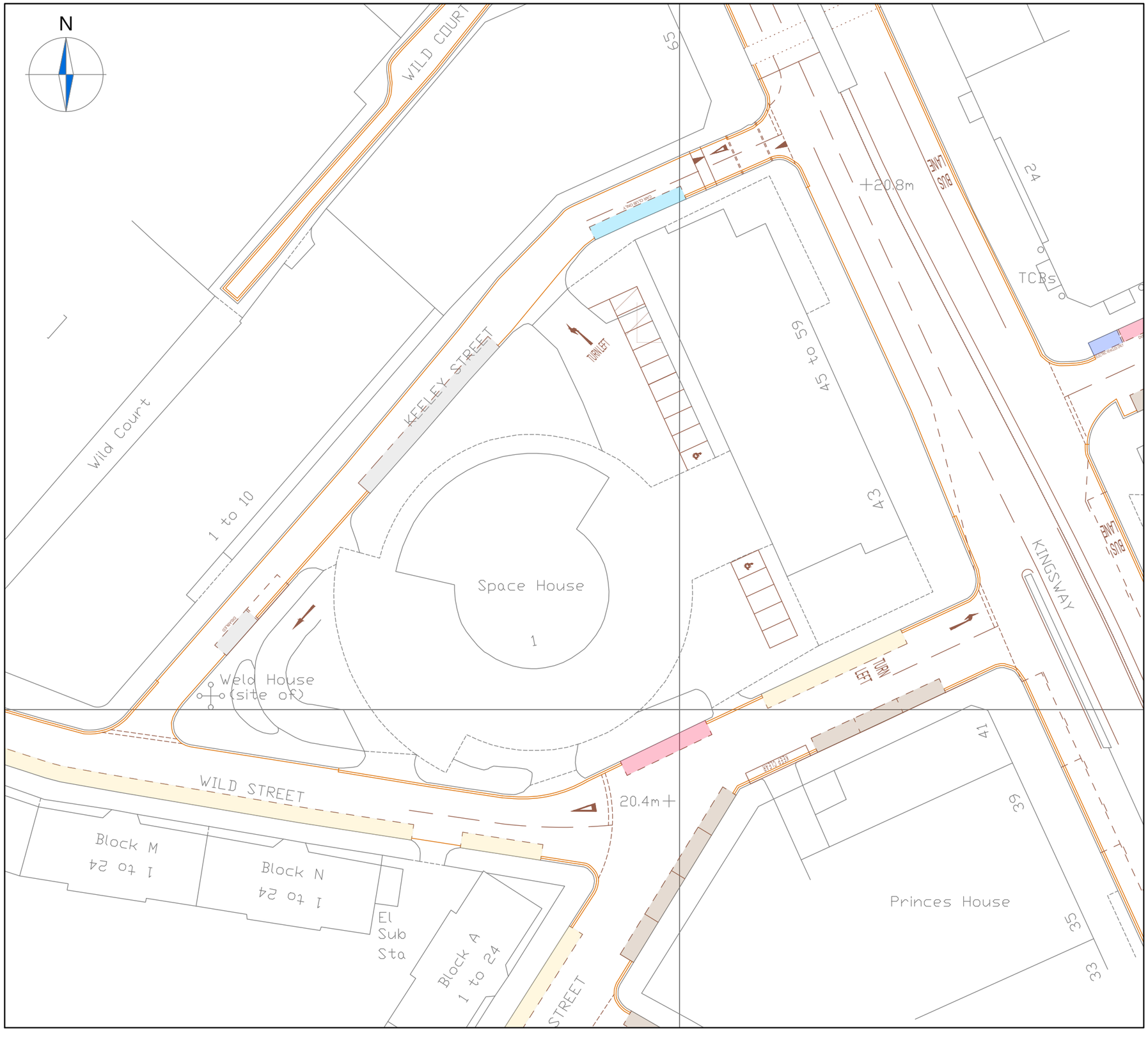
Status

Planning Submission

Date	Scale @ ISO A1	Job Number
24/05/19	1 : 250	18077

Drawing Number	Revision
18077-SQP-ZZ-00-DP-A-PL20004	Rev-A

Appendix CLP B



NOTES

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KEY:

	SINGLE YELLOW LINING
	DOUBLE YELLOW LINING
	Residential Permit Holders Only
	Permit Holders Only
	Solo Motorcycles Only
	Disabled Badge Holders Only
	Pay by Phone quoting location, Max stay 2 hours Mon - Sat 8.30am to 6.30pm
	Pay by Phone quoting location, 4 hours No return within 1 hour
	Car Club Only
	Electric Vehicles Only

Rev	Details	Drawn	Checked	Date
.	.	..	..	.. ..

REVISION HISTORY

Status:
- ☐ Preliminary
- ☐ For Approval
- ☐ For Construction
- ☑ For Information
- ☐ For Tender
- ☐ As Built

Client:
Seaforth Land

Project:
Space House

Drawing Title:
Existing Highway Layout

Scale:	Size:
1:500	A3

Drawn by:	Checked by:	Date:
HE	DP	30.07.2019

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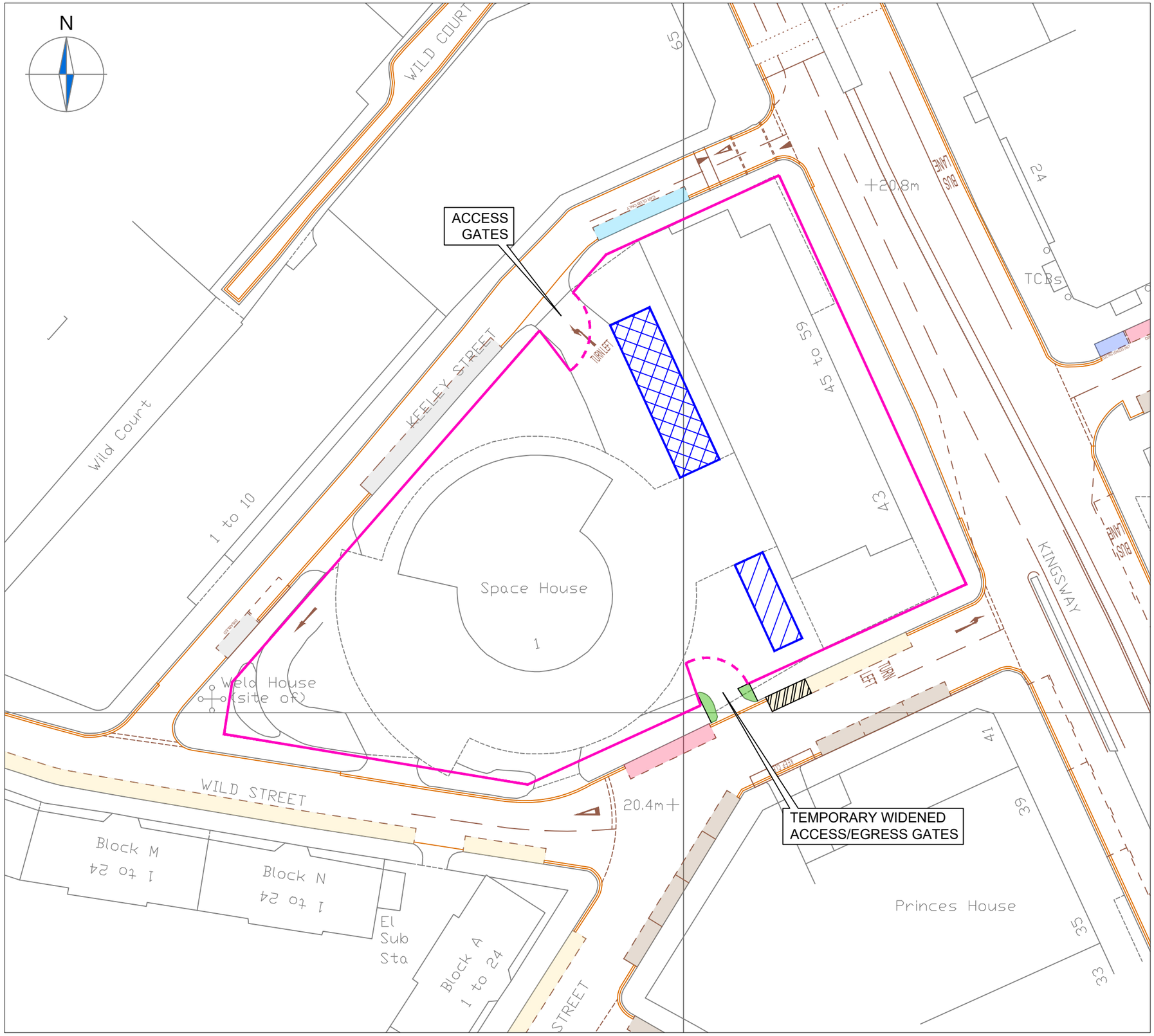
Transport Planning & Highway Design
21 Little Portland Street • London • W1W 8BT • Tel. 020 3617 8200

Scheme Ref:	Drawing No:	Sheet :	Rev:
CA3758	CT001	1 of 1	.

CA3758-CT001 - EXISTING HIGHWAY LAYOUT.DWG



NOTES

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KEY:

	HOARDING
	LOADING & STORAGE AREA
	LOADING AREA
	TEMPORARY SUSPENSION ON 1 No. PARKING BAY
	TEMPORARY WIDENING TO EXISTING CROSS OVER

Rev	Details	Drawn	Checked	Date
.	.	..	..	.. ..

REVISION HISTORY

Status:
- [ ] Preliminary
- [ ] For Approval
- [ ] For Construction
- [x] For Information
- [ ] For Tender
- [ ] As Built

Client:

Seaforth Land

Project:

Space House

Drawing Title:

Proposed Construction Arrangement A

Scale:	Size:
1:500	A3

Drawn by:	Checked by:	Date:
RB	DP	06.08.2019

CANEPARO ASSOCIATES
Transport Planning & Highway Design
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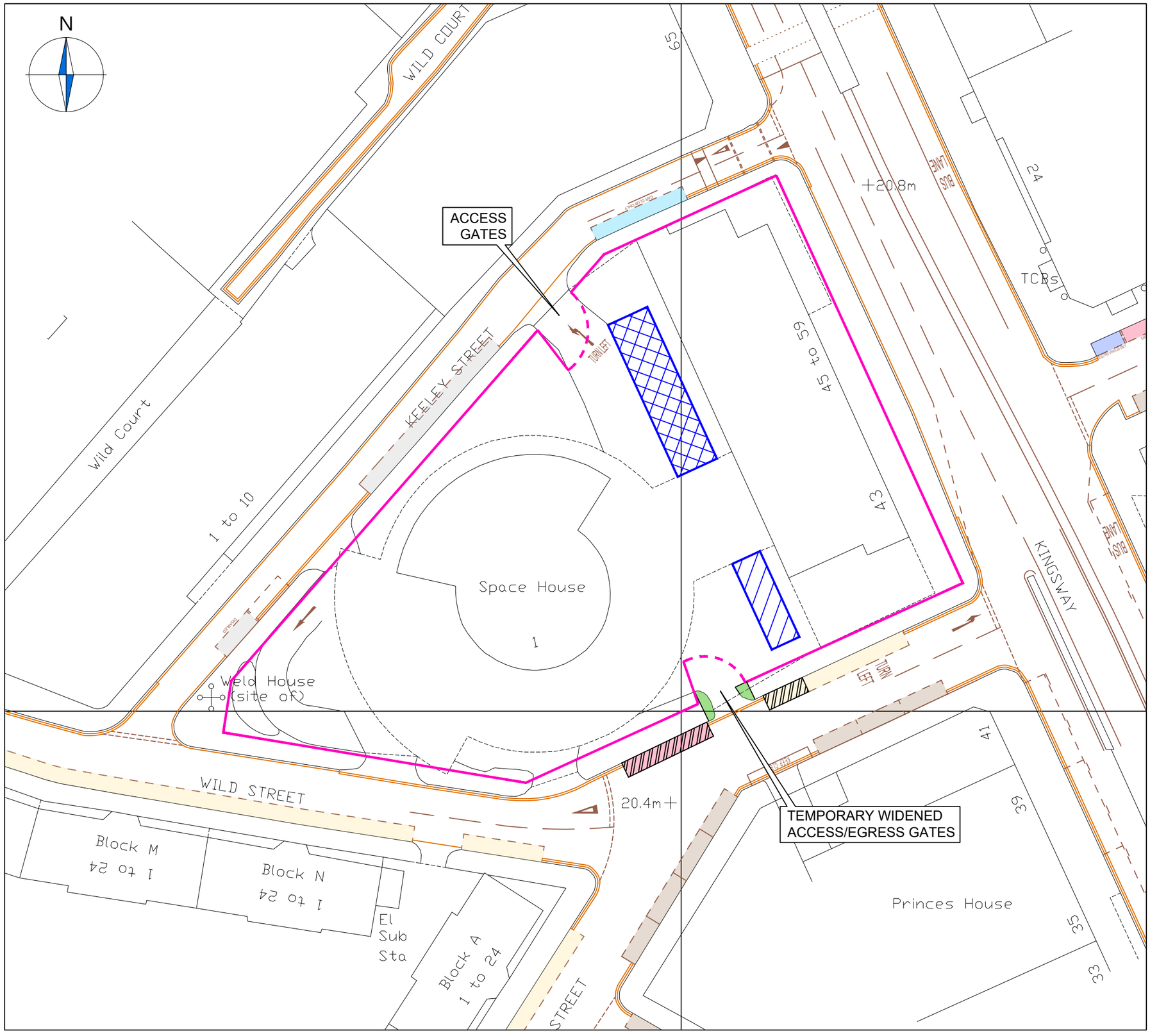
Scheme Ref:	Drawing No:	Sheet :	Rev:
CA3758	CT002	1 of 2	

CA3758-CT002 - PROPOSED CONSTRUCTION ARRANGEMENT.DWG



NOTES

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KEY:

	HOARDING
	LOADING & STORAGE AREA
	LOADING AREA
	TEMPORARY SUSPENSION ON 3 No. PARKING BAYS
	TEMPORARY WIDENING TO EXISTING CROSS OVER

Rev	Details	Drawn	Checked	Date
.	.	..	..	.. ..

REVISION HISTORY

Status: ☐ Preliminary ☐ For Approval ☐ For Construction ☑ For Information ☐ For Tender ☐ As Built

Client: Seaforth Land

Project: Space House

Drawing Title: Proposed Construction Arrangement B (Large Construction Vehicle Access)

Scale:	Size:
1:500	A3

Drawn by:	Checked by:	Date:
RB	DP	06.08.2019

CANEPARO ASSOCIATES
Transport Planning & Highway Design
21 Little Portland Street • London • W1W 8BT • Tel. 020 3617 8200

Scheme Ref:	Drawing No:	Sheet :	Rev:
CA3758	CT002	2 of 2	.

CA3758-CT002 - PROPOSED CONSTRUCTION ARRANGEMENT.DWG

Appendix CLP C

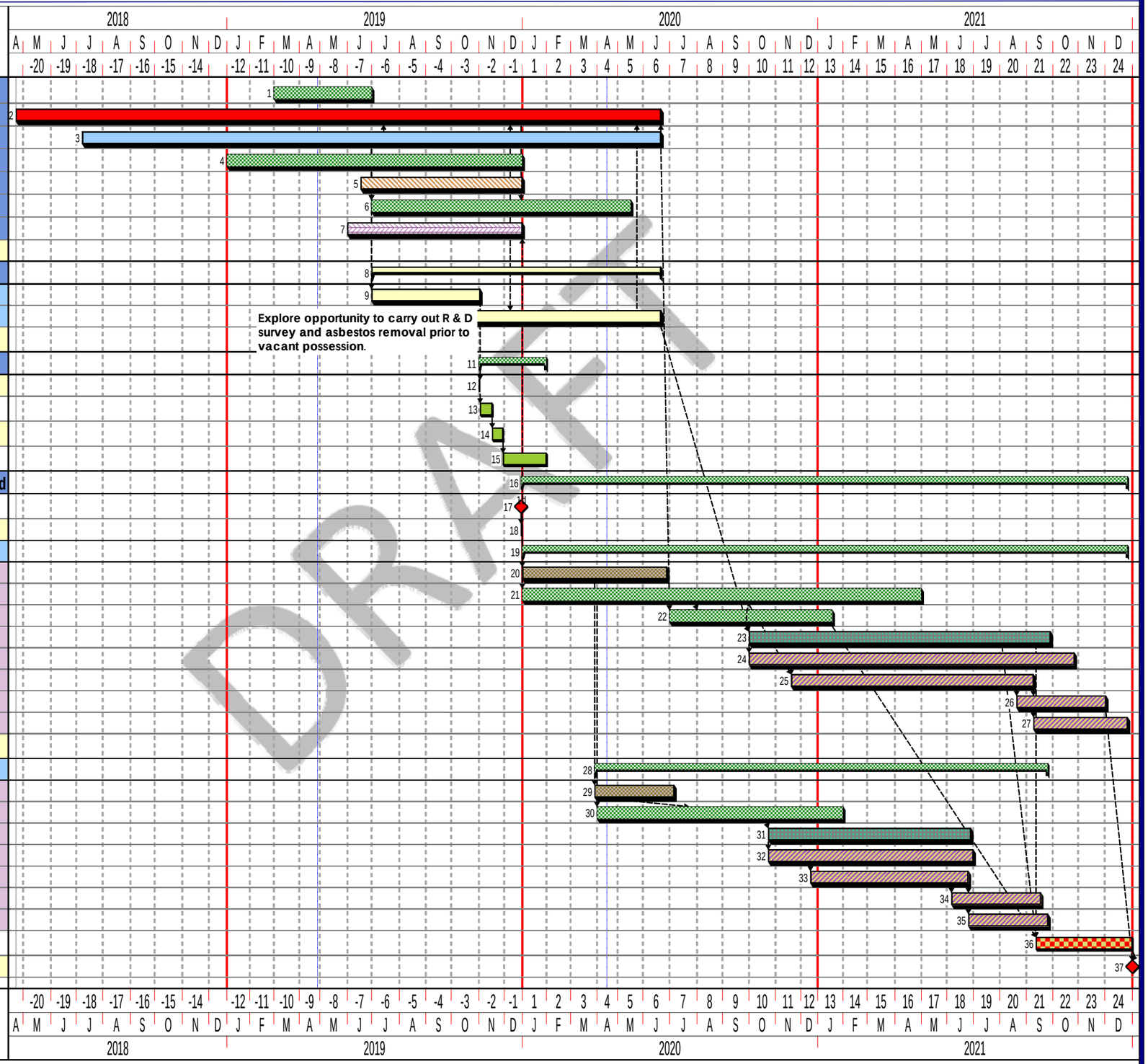
AVISON YOUNG

Prog No.: MS-OMP-04 **Rev.:** **Rev. date :** 17/05/2019 **Issue date :** 17/05/2019

Space House

(Draft) Outline Master Programme_ Summary

Line	Name	Start	Finish	Duration
1	Key Client Decisions	01/03/2019	01/07/2019	16w 1d
2	Client Milestones	23/04/2018	22/06/2020	107w
3	Design	09/07/2018	19/06/2020	96w
4	Planning	07/01/2019	20/12/2019	49w
5	Neighbourly Issues	18/06/2019	20/12/2019	26w 4d
6	Surveys & Reports	01/07/2019	15/05/2020	43w
7	Scaffold licences & approvals	03/06/2019	20/12/2019	29w
8	Procurement	01/07/2019	19/06/2020	48w
9	Early Works Package	01/07/2019	01/11/2019	18w
10	Main Contractor (Assume Single Stage D&B) - From RIBA Stage 4	14/10/2019	19/06/2020	33w
11	Early Works (Asbestos & Stripout)	01/11/2019	31/01/2020	11w 1d
12	Start on Site - Main Works	01/11/2019	01/11/2019	1d
13	Refurbishment and Demolition survey (R & D Survey)	04/11/2019	15/11/2019	2w
14	Notify HSE	18/11/2019	28/11/2019	1w 4d
15	Remove asbestos (Provisional allowance)	29/11/2019	31/01/2020	7w 1d
16	Construction period (indicative only)	20/12/2019	27/12/2021	100w 3d
17	Vacant possession	20/12/2019	20/12/2019	
18	Start on Site - Main Works	20/12/2019	20/12/2019	1d
19	Tower - 1 Kemble - Construction period (indicative only)	06/01/2020	27/12/2021	100w 2d
20	Strip out floors back to shell	06/01/2020	26/06/2020	24w
21	Scaffolding, Roof & Facade Works	06/01/2020	30/04/2021	66w 1d
22	Basement Works	01/07/2020	18/01/2021	27w
23	Cat A Fit Out	01 Oct 20	28 Sep 21	50w
24	WC Fit Out	01/10/2020	27/10/2021	54w
25	Lobby Fit Out	19/11/2020	09/09/2021	40w 1d
26	Lobby work Post Passenger Lift Beneficial use	20/08/2021	01/12/2021	14w 4d
27	Staircores	09/09/2021	27/12/2021	15w 3d
28	Podium - 45-59 Kingsway - Construction period (indicative only)	30/03/2020	24/09/2021	75w 1d
29	Strip out floors back to shell	30/03/2020	06/07/2020	13w 1d
30	Scaffolding, Roof & Facade Works	01/04/2020	29/01/2021	40w 4d
31	Cat A Fit Out	23 Oct 20	28 Jun 21	33w 3d
32	WC Fit Out	23/10/2020	01/07/2021	34w
33	Lobby Fit Out	11/12/2020	25/06/2021	26w 1d
34	Lobby work Post Passenger Lift Beneficial use	07/06/2021	16/09/2021	14w 4d
35	Staircores	25/06/2021	24/09/2021	13w 1d
36	Testing and commissioning	13 Sep 21	31 Dec 21	16w
37	*Practical Completion*	*31 Dec 21*	*31 Dec 21*	

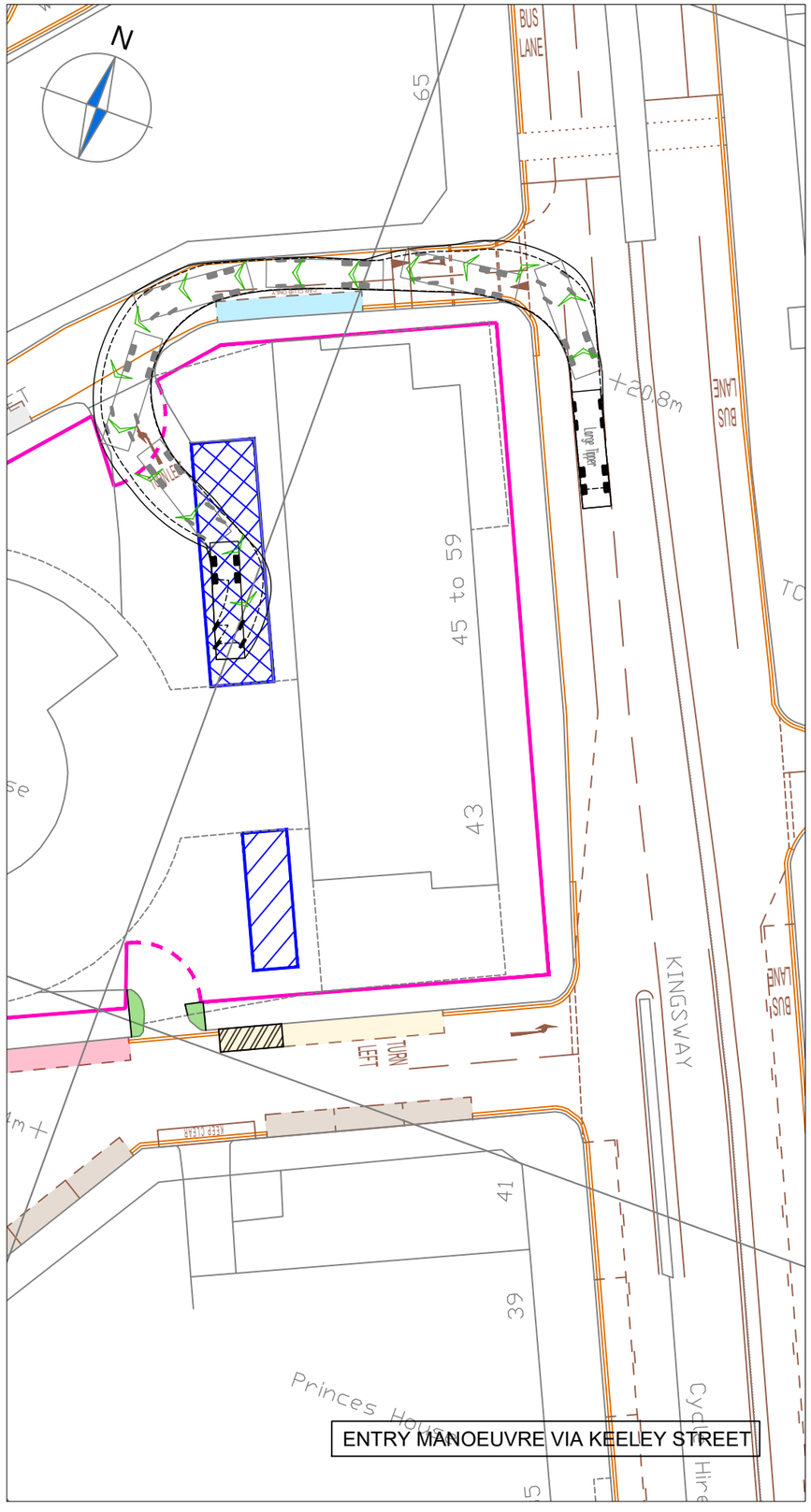


Legend

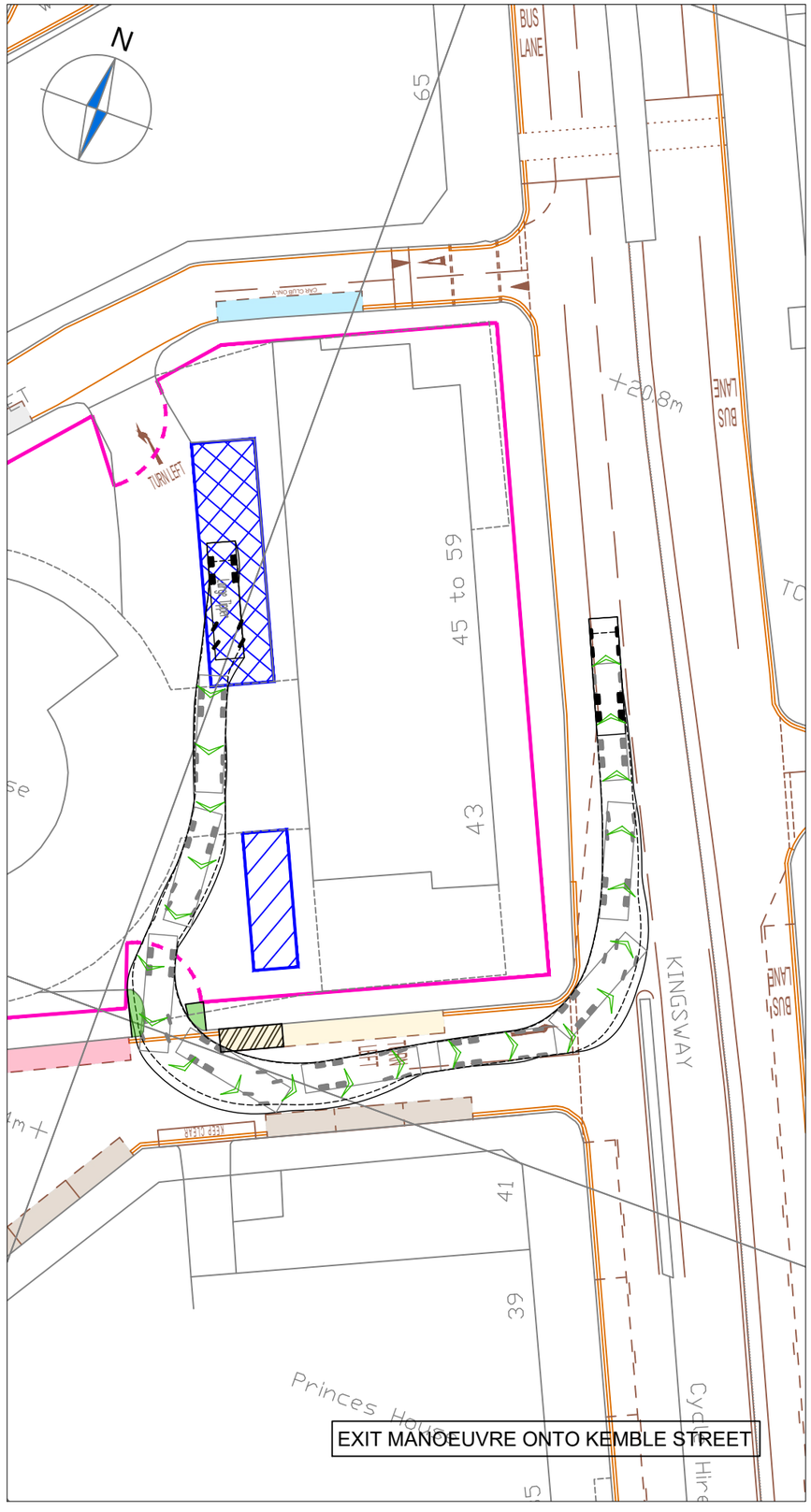
Milestone | Design | Neighbours/Party Wall | Approvals | Procurement | Enabling | Demolitions | Cat A/B | Refurbishment | Commission

Prepared by: CF **Manager :** PB **Rev comment:**

Appendix CLP D



ENTRY MANOEUVRE VIA KEELEY STREET



EXIT MANOEUVRE ONTO KEMBLE STREET

NOTES

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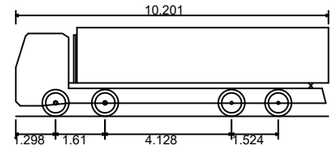
LARGE TIPPER



Overall Length	10.201m
Overall Width	2.495m
Overall Body Height	2.890m
Min Body Ground Clearance	0.341m
Track Width	2.471m
Lock to Lock Time	6.00s
Kerb to Kerb Turning Radius	11.550m

FORWARD MOVEMENTS ARE SHOWN IN BLACK *(design speed - 5kph)*

REVERSE MOVEMENTS ARE SHOWN IN BLUE *(design speed - 2.5kph)*

Rev | Details | Drawn | Checked | Date

REVISION HISTORY

Status:
- ☐ Preliminary
- ☐ For Approval
- ☐ For Construction
- ☑ For Information
- ☐ For Tender
- ☐ As Built

Client: Seaforth Land

Project: Space House

Drawing Title: Swept Path Analysis using a 10.2m Large Tipper

Scale: 1:500 | Size: A3

Drawn by: RB | Checked by: DP | Date: 06.08.2019

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Transport Planning & Highway Design
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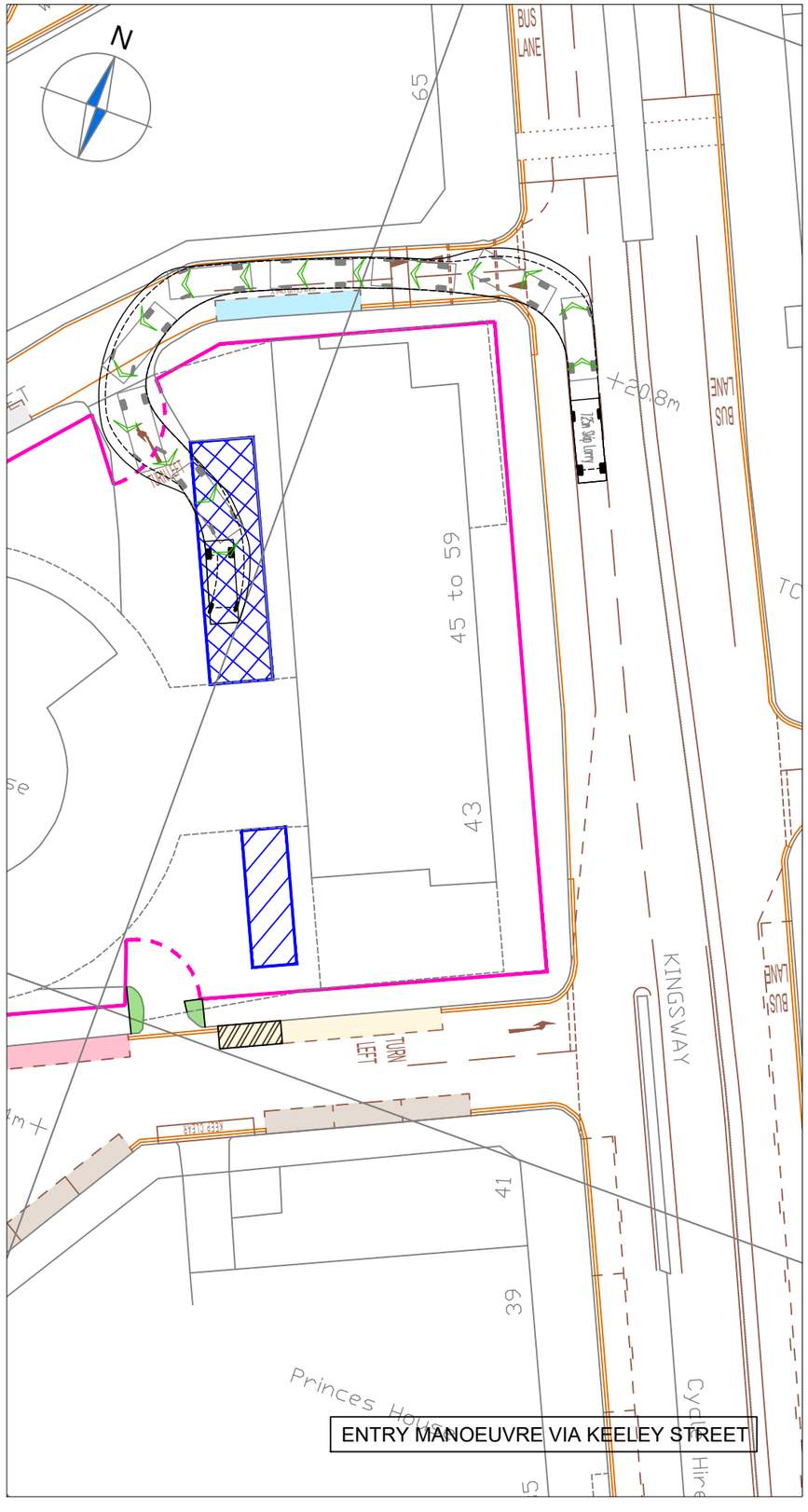
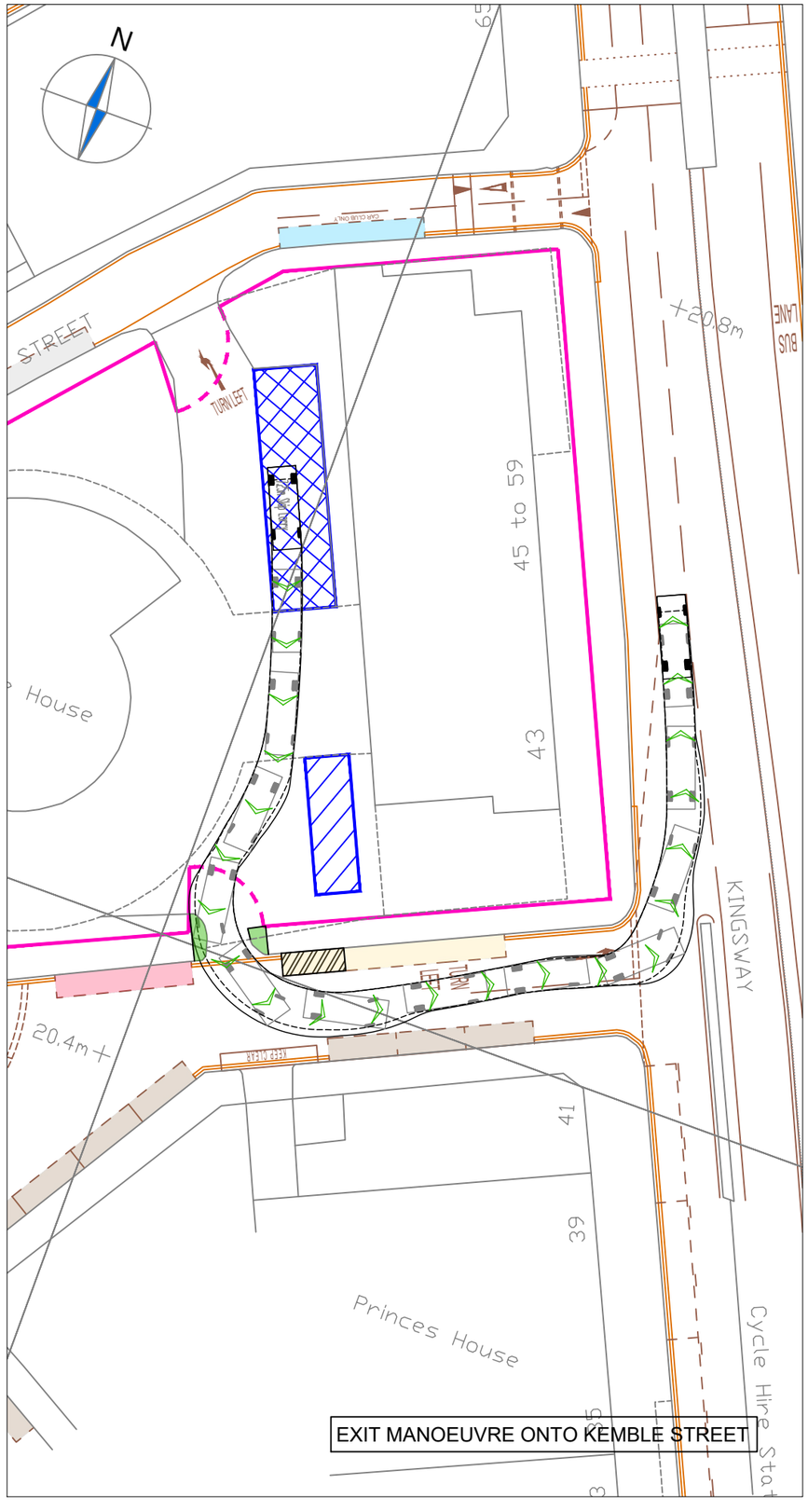
Scheme Ref: CA3758 | Drawing No: CT006 | Sheet : 1 of 8 | Rev:

CA3758-CT006 - SWEPT PATH ANALYSIS.DWG

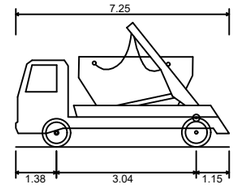




NOTES

1. Do not scale from this drawing.
2. This drawing to be read & printed in colour.
3. This drawing is for illustrative purposes only.

7.25m SKIP LORRY



Overall Length	7.25m
Overall Width	2.48m
Overall Body Height	3.65m
Min Body Ground Clearance	0.396m
Max Track Width	2.48m
Lock to Lock Time	6.00s
Kerb to Kerb Turning Radius	7.905m

FORWARD MOVEMENTS ARE SHOWN IN BLACK *(design speed - 5kph)*

REVERSE MOVEMENTS ARE SHOWN IN BLUE *(design speed - 2.5kph)*

Rev	Details	REVISION HISTORY	Drawn	Checked	Date

Status: ☐ Preliminary ☐ For Approval ☐ For Construction ☑ For Information ☐ For Tender ☐ As Built

Client: Seaforth Land

Project: Space House

Drawing Title: Swept Path Analysis using a 7.25m Skip Lorry

Scale:	Size:	Drawn by:	Checked by:	Date:
1:500	A3	RB	DP	06.08.2019

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Scheme Ref:	Drawing No:	Sheet :	Rev:
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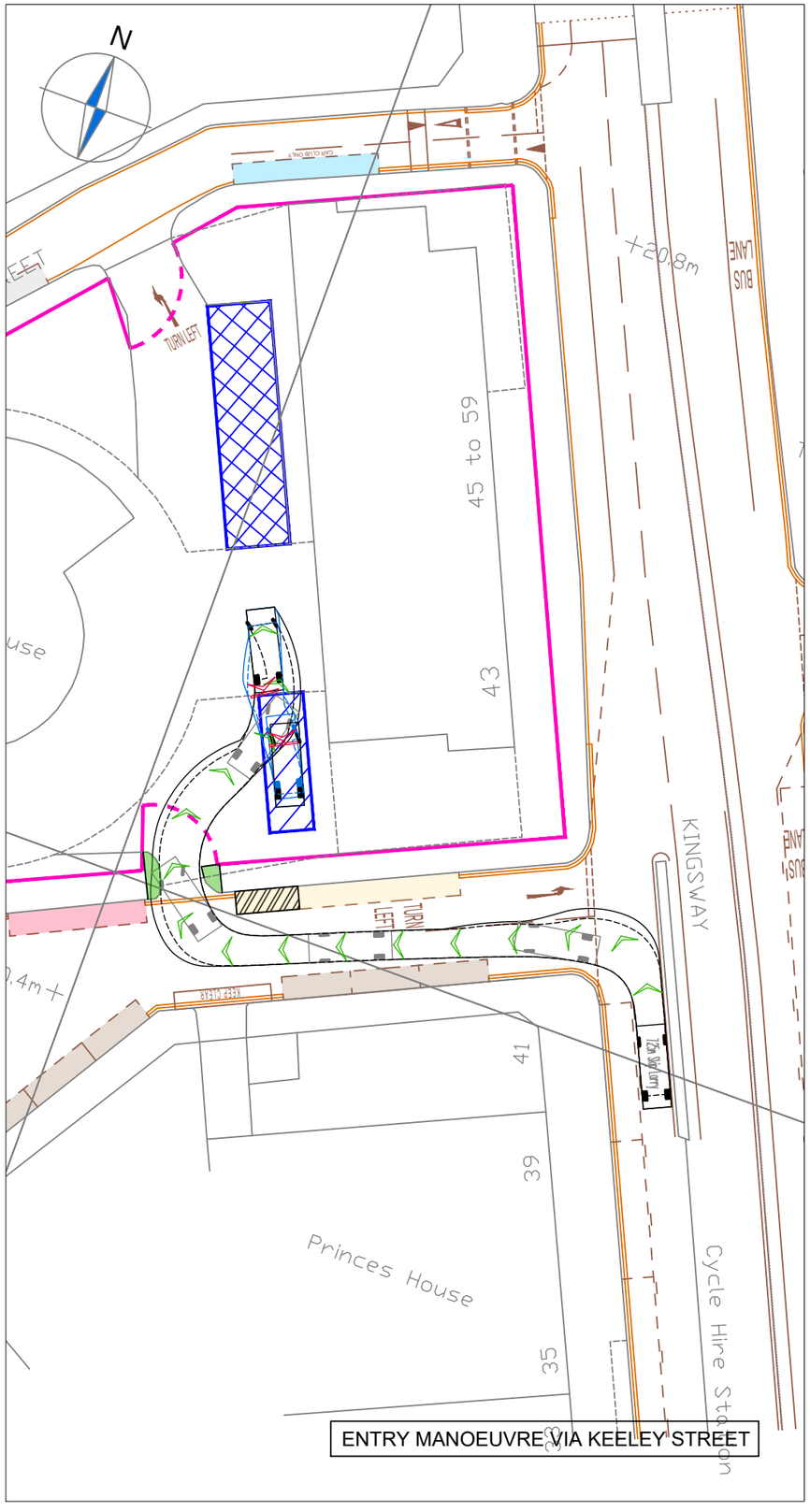
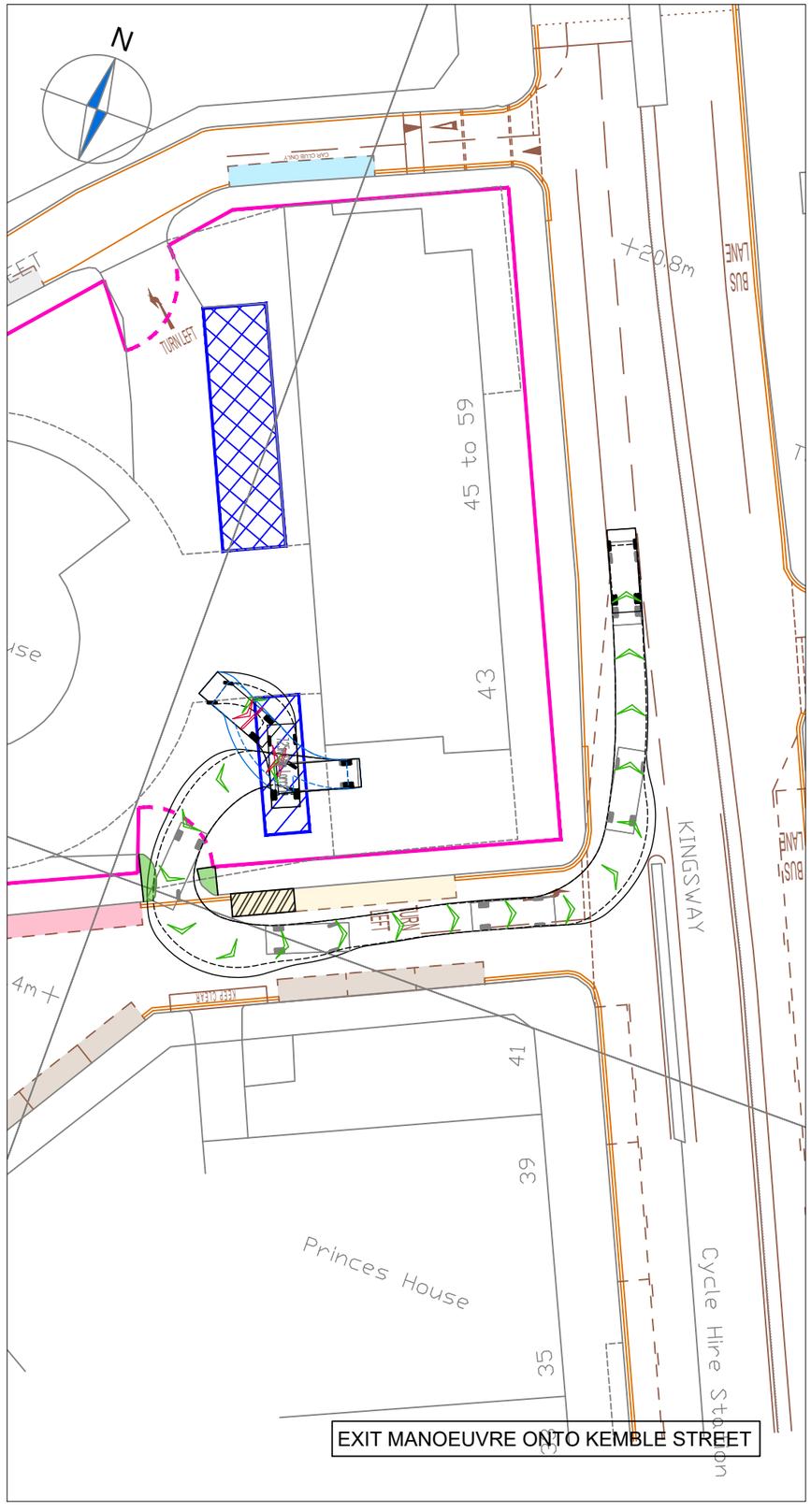
CA3758-CT006 - SWEPT PATH ANALYSIS.DWG



ENTRY MANOEUVRE VIA KEELEY STREET



EXIT MANOEUVRE ONTO KEMBLE STREET

NOTES

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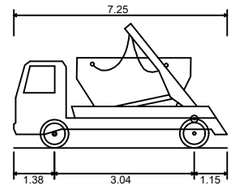
3. This drawing is for illustrative purposes only.

7.25m SKIP LORRY



Overall Length	7.25m
Overall Width	2.48m
Overall Body Height	3.65m
Min Body Ground Clearance	0.396m
Max Track Width	2.48m
Lock to Lock Time	6.00s
Kerb to Kerb Turning Radius	7.905m

FORWARD MOVEMENTS ARE SHOWN IN BLACK *(design speed - 5kph)*

REVERSE MOVEMENTS ARE SHOWN IN BLUE *(design speed - 2.5kph)*

Rev	Details	Drawn	Checked	Date

REVISION HISTORY

Status:
- [ ] Preliminary
- [ ] For Approval
- [ ] For Construction
- [x] For Information
- [ ] For Tender
- [ ] As Built

Client: Seaforth Land

Project: Space House

Drawing Title: Swept Path Analysis using a 7.25m Skip Lorry

Scale:	Size:
1:500	A3

Drawn by:	Checked by:	Date:
RB	DP	06.08.2019

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Scheme Ref:	Drawing No:	Sheet :	Rev:
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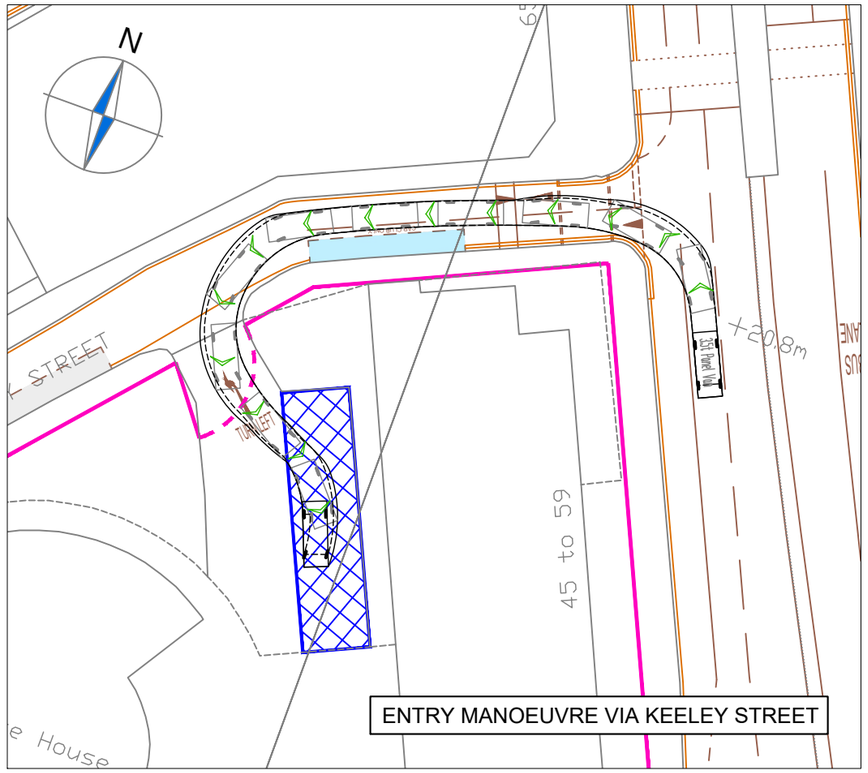
CA3758-CT006 - SWEPT PATH ANALYSIS.DWG



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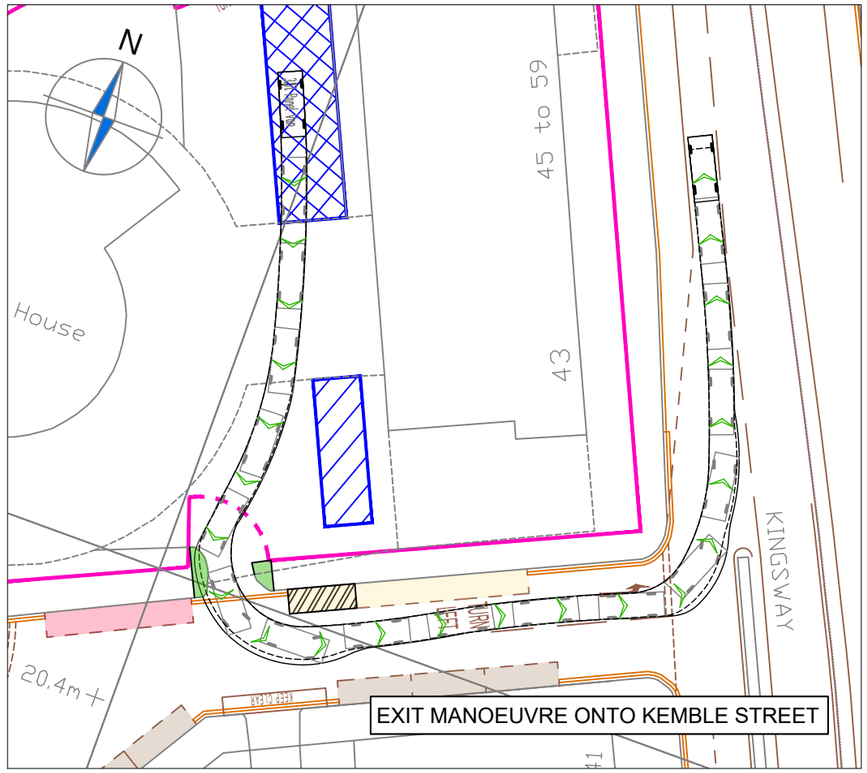
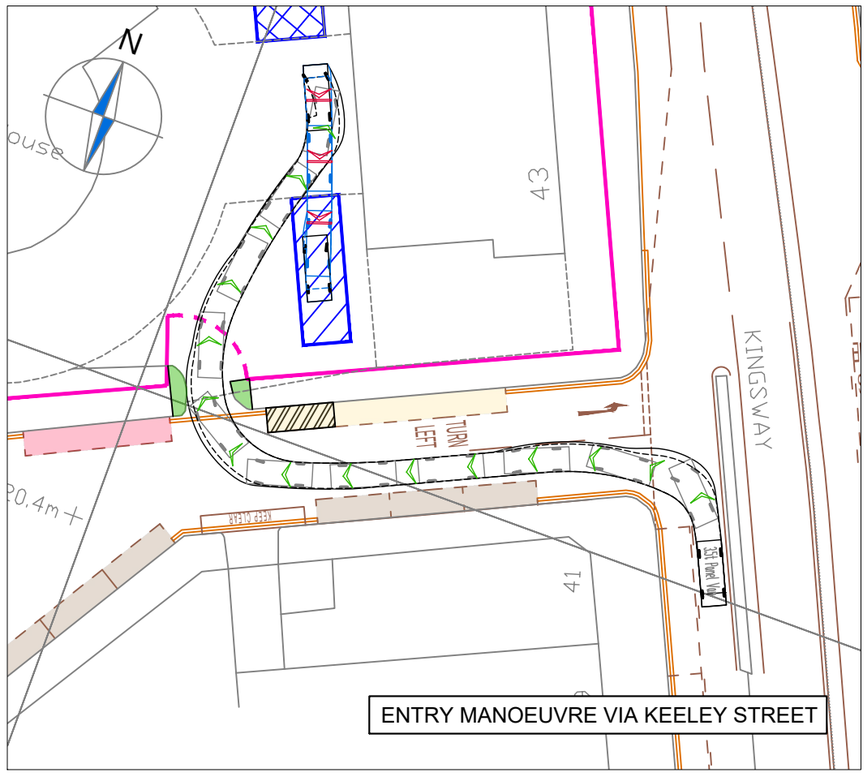
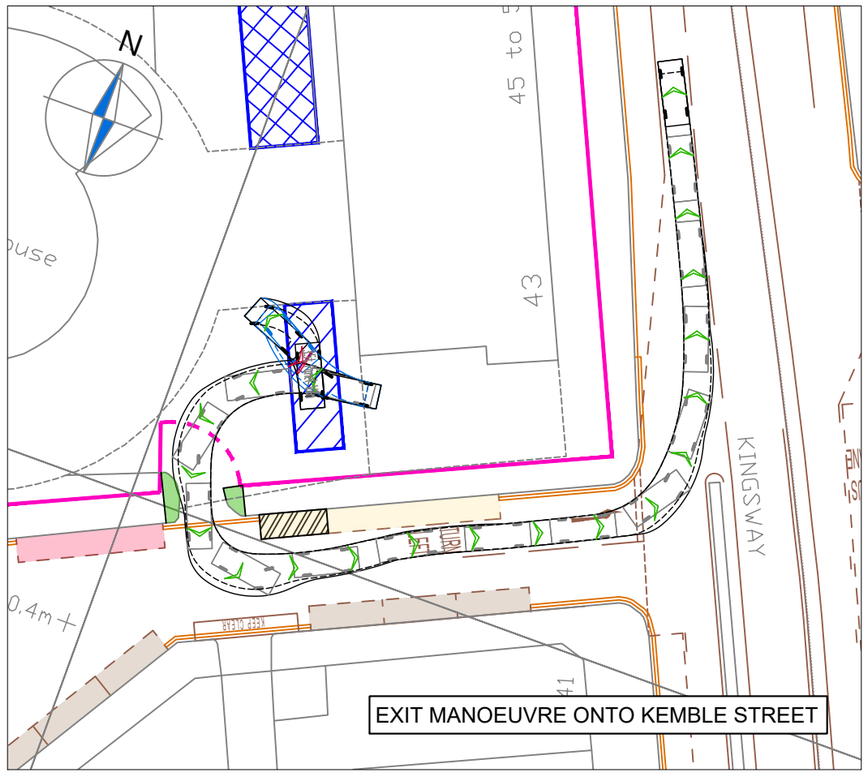


EXIT MANOEUVRE ONTO KEMBLE STREET



ENTRY MANOEUVRE VIA KEELEY STREET



EXIT MANOEUVRE ONTO KEMBLE STREET

NOTES

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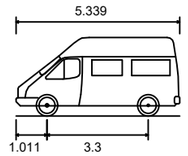
3.5T PANEL VAN



Overall Length	5.339m
Overall Width	1.986m
Overall Body Height	2.565m
Min Body Ground Clearance	0.338m
Track Width	1.986m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	6.400m

FORWARD MOVEMENTS ARE SHOWN IN BLACK *(design speed - 5kph)*

REVERSE MOVEMENTS ARE SHOWN IN BLUE *(design speed - 2.5kph)*

Rev	Details	Drawn	Checked	Date

REVISION HISTORY

Status:
- ☐ Preliminary
- ☐ For Approval
- ☐ For Construction
- ☑ For Information
- ☐ For Tender
- ☐ As Built

Client: Seaforth Land

Project: Space House

Drawing Title: Swept Path Analysis using a 5.34m 3.5t Panel Van (LWB Transit)

Scale:	Size:	Drawn by:	Checked by:	Date:
1:500	A3	RB	DP	06.08.2019

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Scheme Ref:	Drawing No:	Sheet :	Rev:
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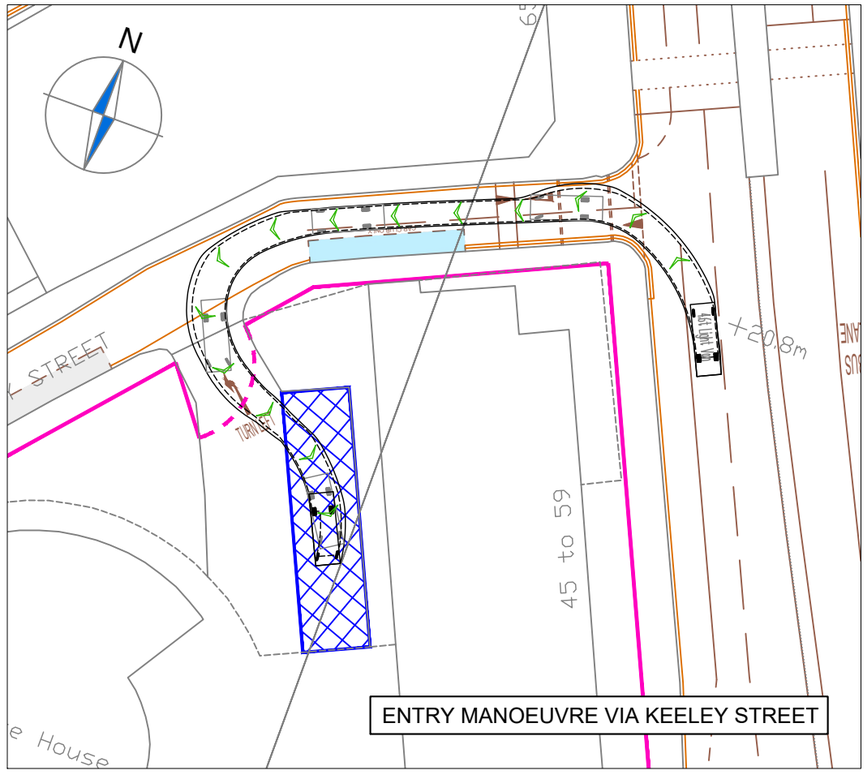
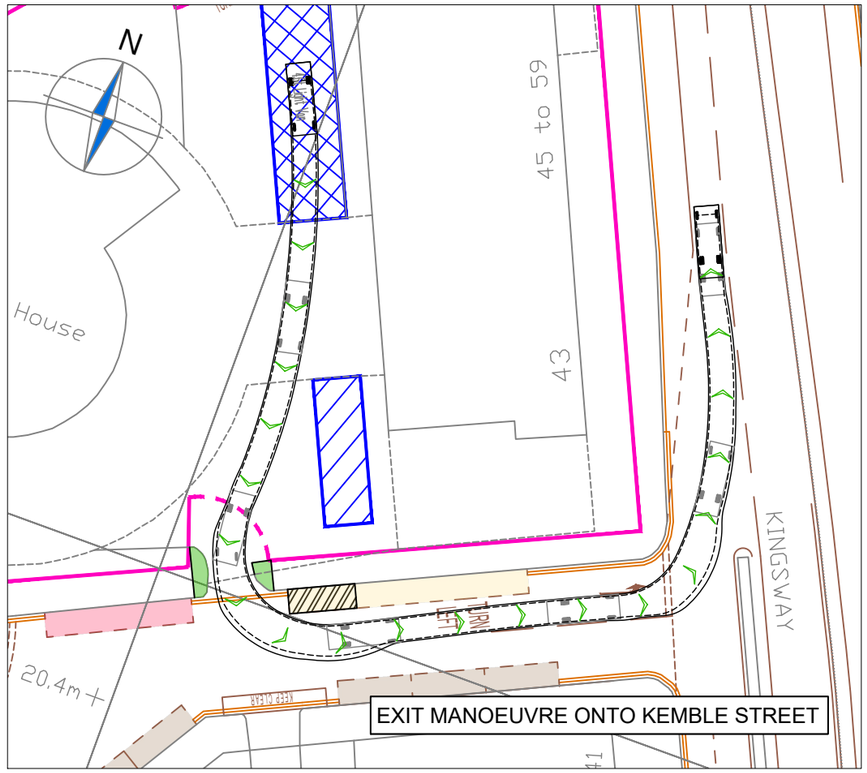
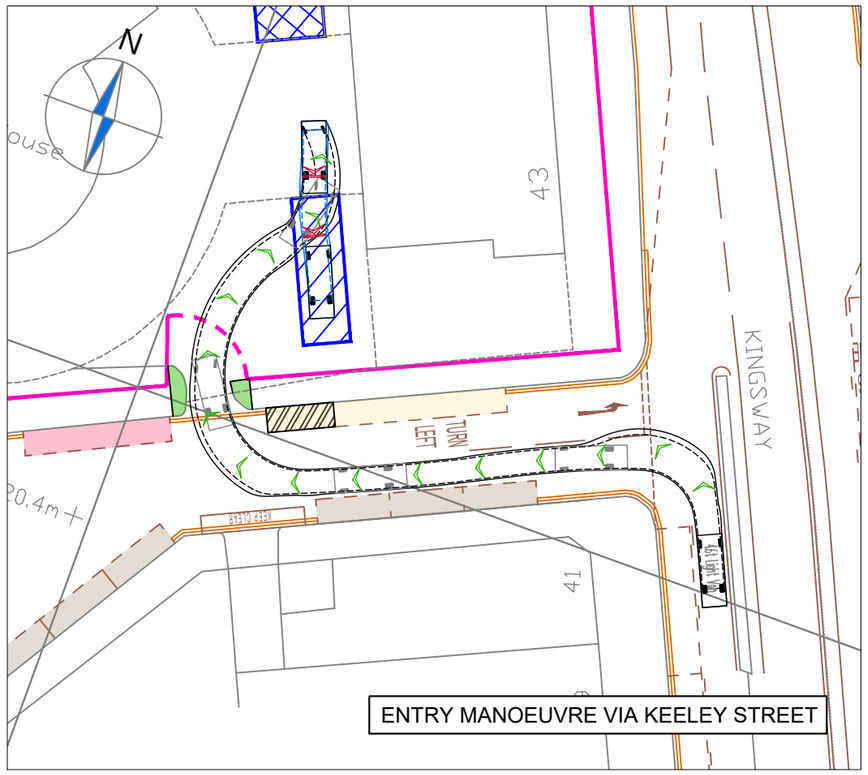
CA3758-CT006 - SWEPT PATH ANALYSIS.DWG



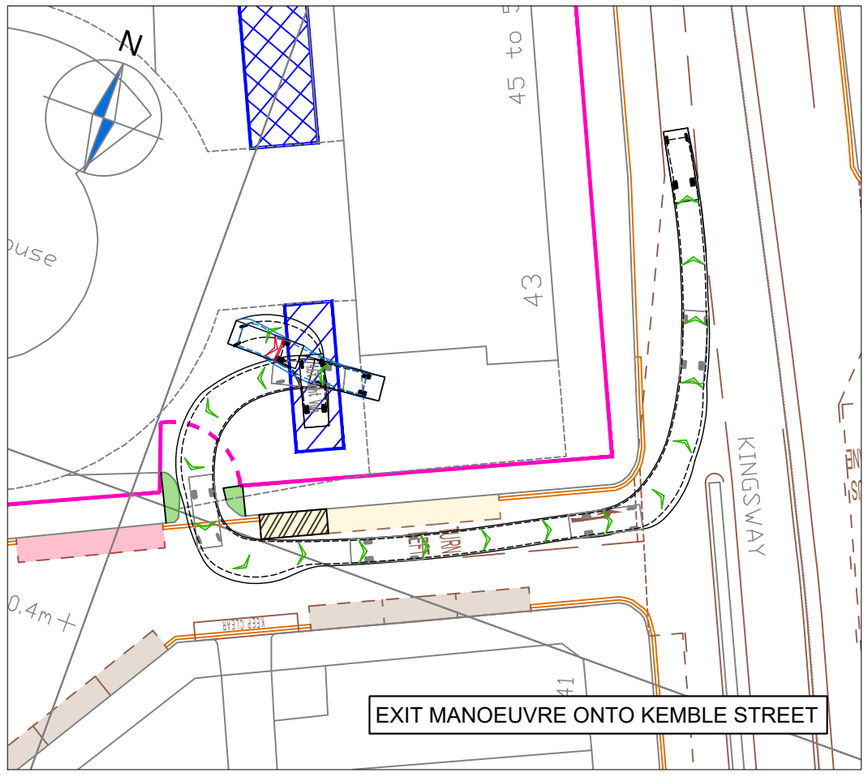
ENTRY MANOEUVRE VIA KEELEY STREET



EXIT MANOEUVRE ONTO KEMBLE STREET



ENTRY MANOEUVRE VIA KEELEY STREET



EXIT MANOEUVRE ONTO KEMBLE STREET

NOTES

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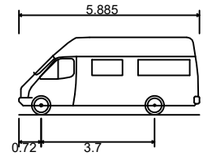
4.6T LIGHT VAN



Overall Length	5.885m
Overall Width	2.000m
Overall Body Height	2.526m
Min Body Ground Clearance	0.299m
Track Width	1.765m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	6.000m

FORWARD MOVEMENTS ARE SHOWN IN BLACK *(design speed - 5kph)*

REVERSE MOVEMENTS ARE SHOWN IN BLUE *(design speed - 2.5kph)*

Rev	Details	Drawn	Checked	Date

REVISION HISTORY

Status:
- ☐ Preliminary
- ☐ For Approval
- ☐ For Construction
- ☑ For Information
- ☐ For Tender
- ☐ As Built

Client: Seaforth Land

Project: Space House

Drawing Title: Swept Path Analysis using a 5.88m 4.6t Light Van

Scale:	Size:	Drawn by:	Checked by:	Date:
1:500	A3	RB	DP	06.08.2019

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Scheme Ref:	Drawing No:	Sheet :	Rev:
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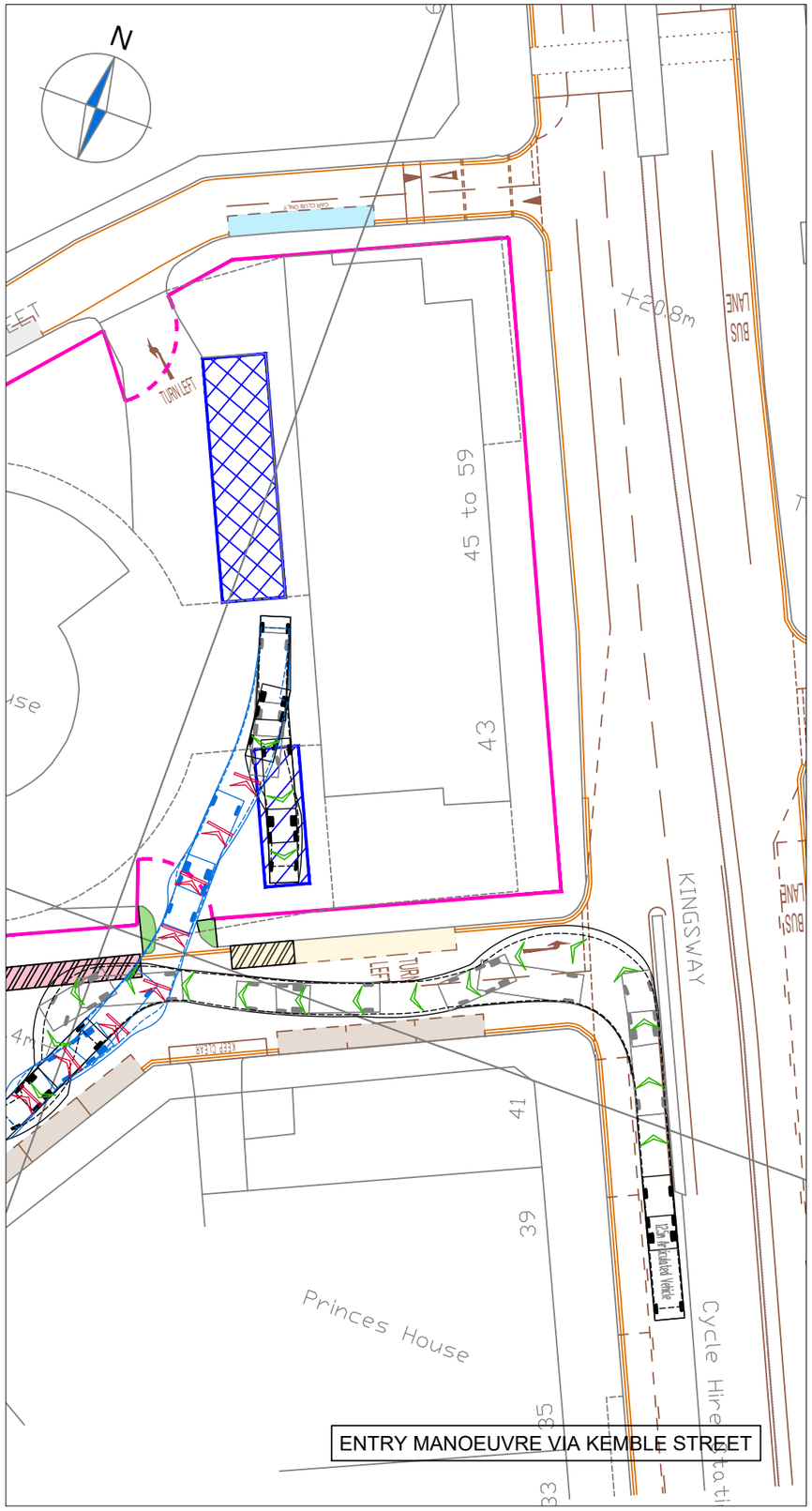
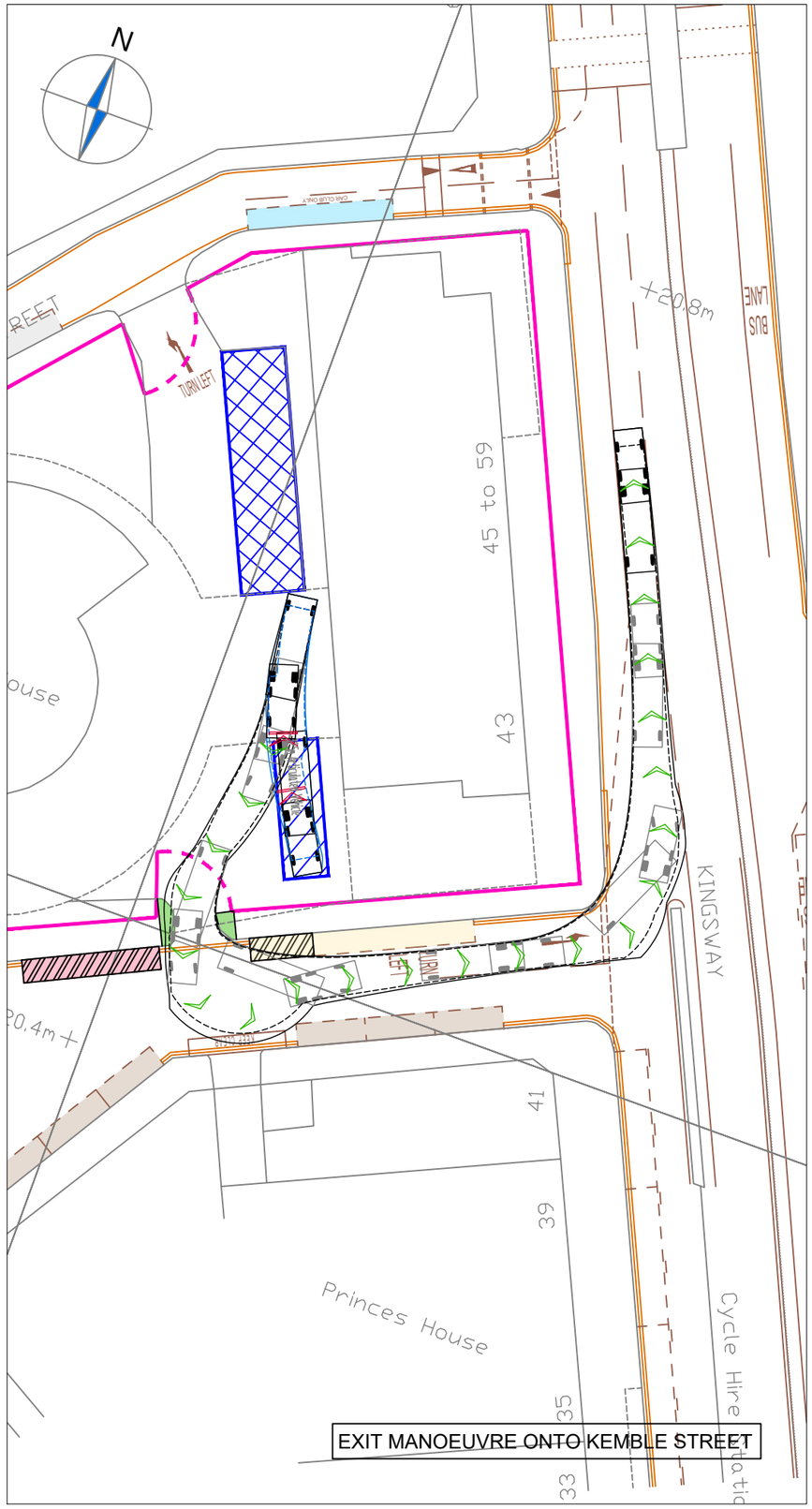
CA3758-CT006 - SWEPT PATH ANALYSIS.DWG





NOTES

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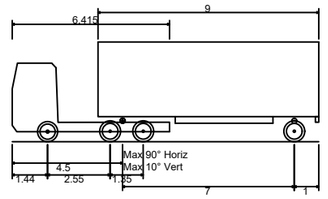
3. This drawing is for illustrative purposes only.

12.5m Articulated Vehicle



Overall Length	12.500m
Overall Width	2.600m
Overall Body Height	4.068m
Min Body Ground Clearance	0.412m
Max Track Width	2.437m
Lock to lock time	6.00s
Wall to Wall Turning Radius	7.750m

FORWARD MOVEMENTS ARE SHOWN IN BLACK *(design speed - 5kph)*

REVERSE MOVEMENTS ARE SHOWN IN BLUE *(design speed - 2.5kph)*

REVISION HISTORY

Rev	Details	Drawn	Checked	Date

Status:
- ☐ Preliminary
- ☐ For Approval
- ☐ For Construction
- ☑ For Information
- ☐ For Tender
- ☐ As Built

Client: Seaforth Land

Project: Space House

Drawing Title: Swept Path Analysis using a 12.5m Articulated Vehicle

Scale: 1:500 | Size: A3

Drawn by: RB | Checked by: DP | Date: 06.08.2019

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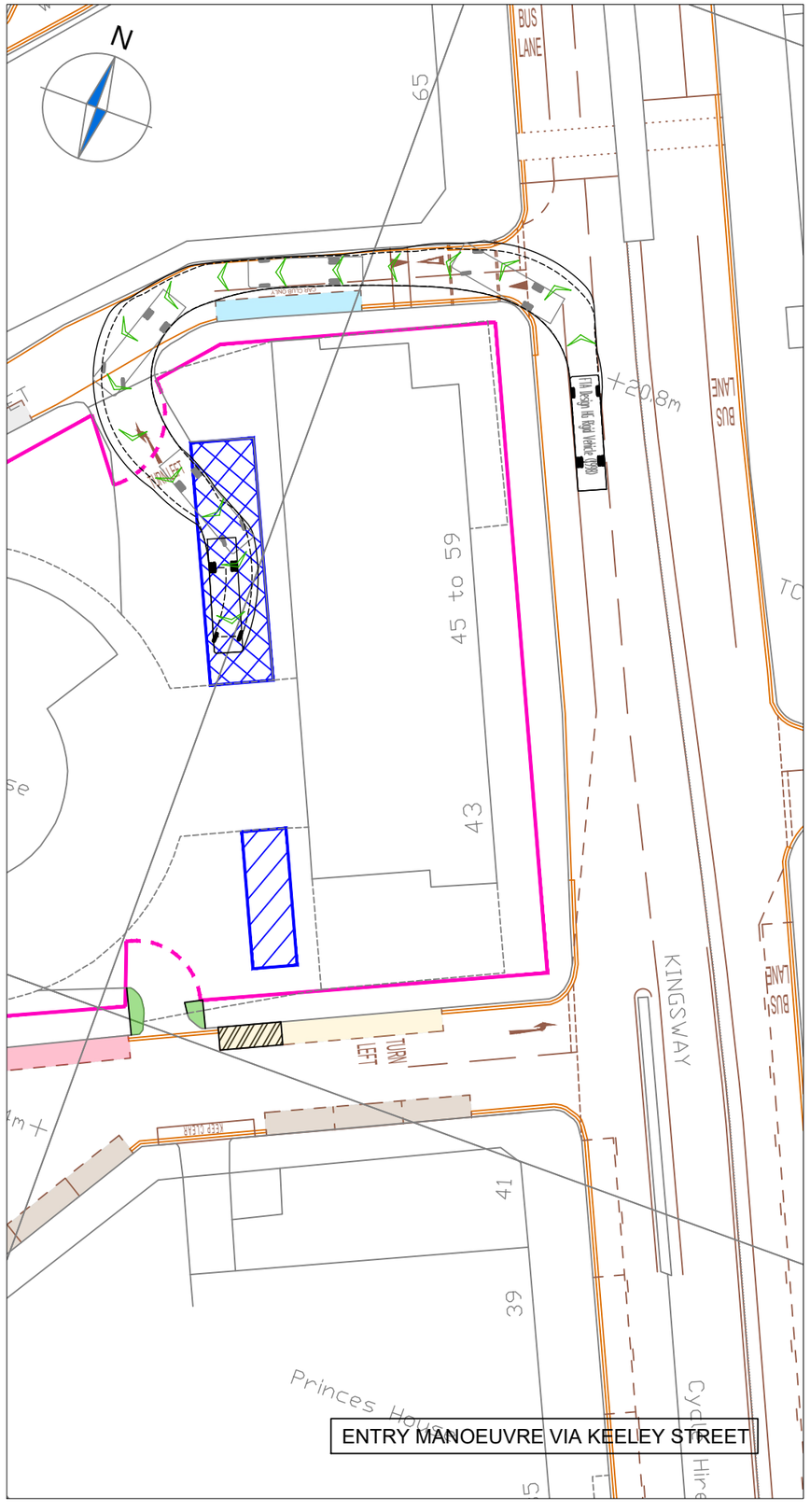
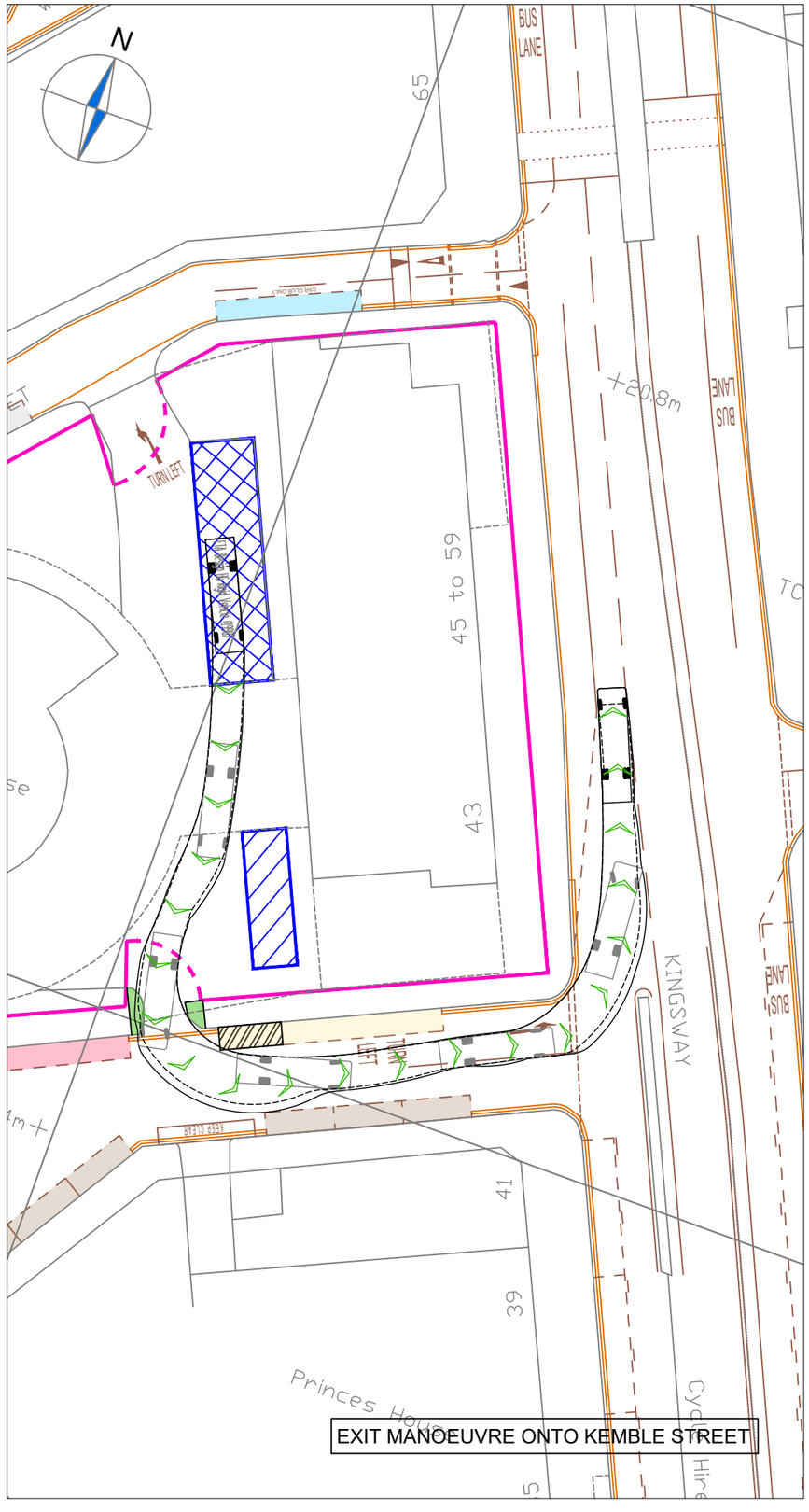
Scheme Ref: CA3758 | Drawing No: CT006 | Sheet : 6 of 8 | Rev:

CA3758-CT006 - SWEPT PATH ANALYSIS.DWG



ENTRY MANOEUVRE VIA KEELEY STREET

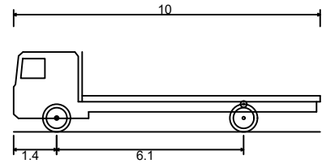


EXIT MANOEUVRE ONTO KEMBLE STREET

NOTES

1. Do not scale from this drawing.
2. This drawing to be read & printed in colour.
3. This drawing is for illustrative purposes only.

10m Flatbed Lorry (based on FTA Rigid Vehicle)



Overall Length	10.000m
Overall Width	2.500m
Min Body Ground Clearance	0.440m
Track Width	2.470m
Lock to Lock Time	3.00s
Kerb to Kerb Turning Radius	11.000m

FORWARD MOVEMENTS ARE SHOWN IN BLACK *(design speed - 5kph)*

REVERSE MOVEMENTS ARE SHOWN IN BLUE *(design speed - 2.5kph)*

REVISION HISTORY

Rev	Details	Drawn	Checked	Date

Status: ☐ Preliminary ☐ For Approval ☐ For Construction ☑ For Information ☐ For Tender ☐ As Built

Client: Seaforth Land

Project: Space House

Drawing Title: Swept Path Analysis using a 10m Flatbed Lorry

Scale:	Size:	Drawn by:	Checked by:	Date:
1:500	A3	RB	DP	06.08.2019

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Scheme Ref:	Drawing No:	Sheet :	Rev:
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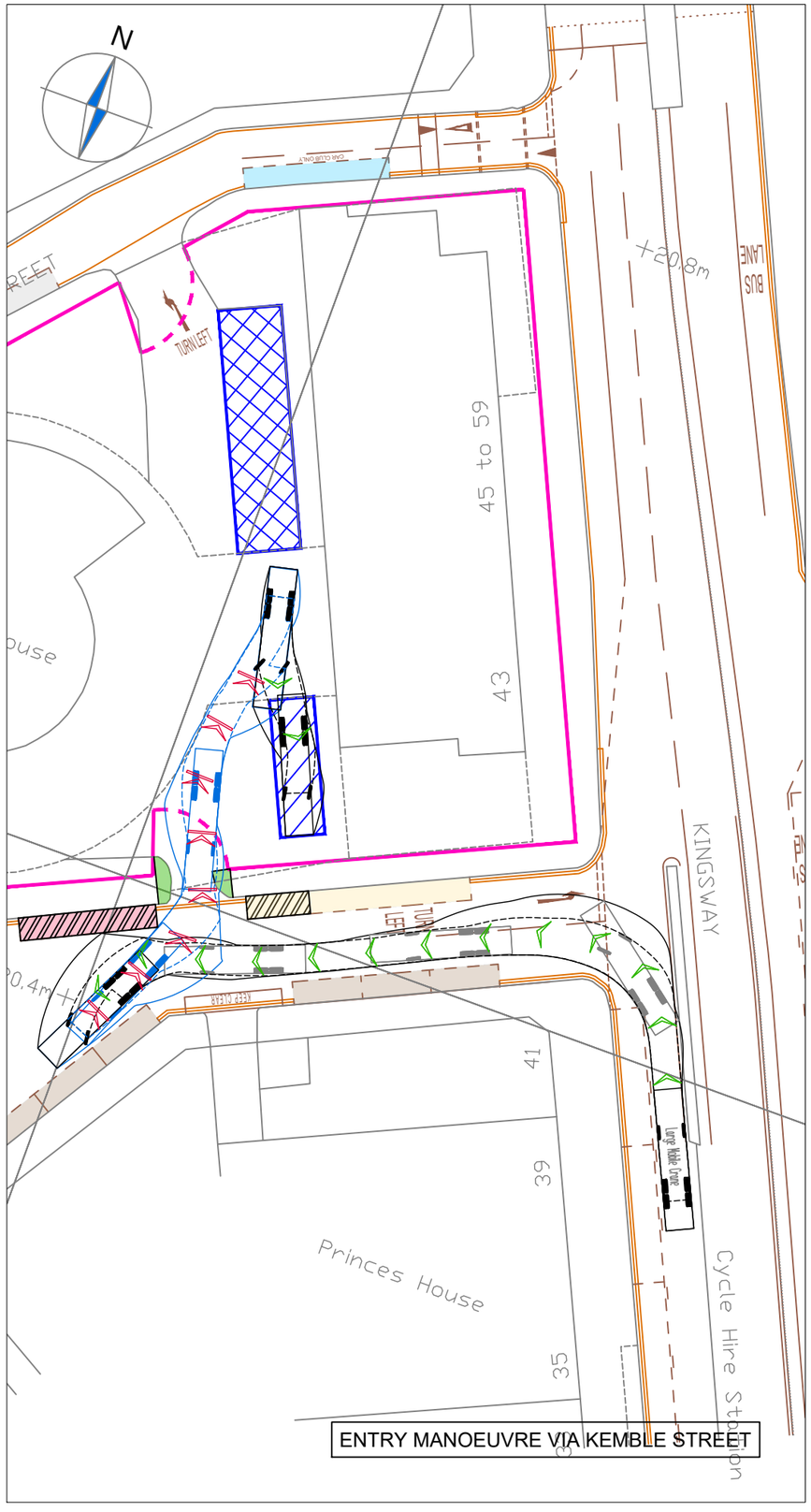
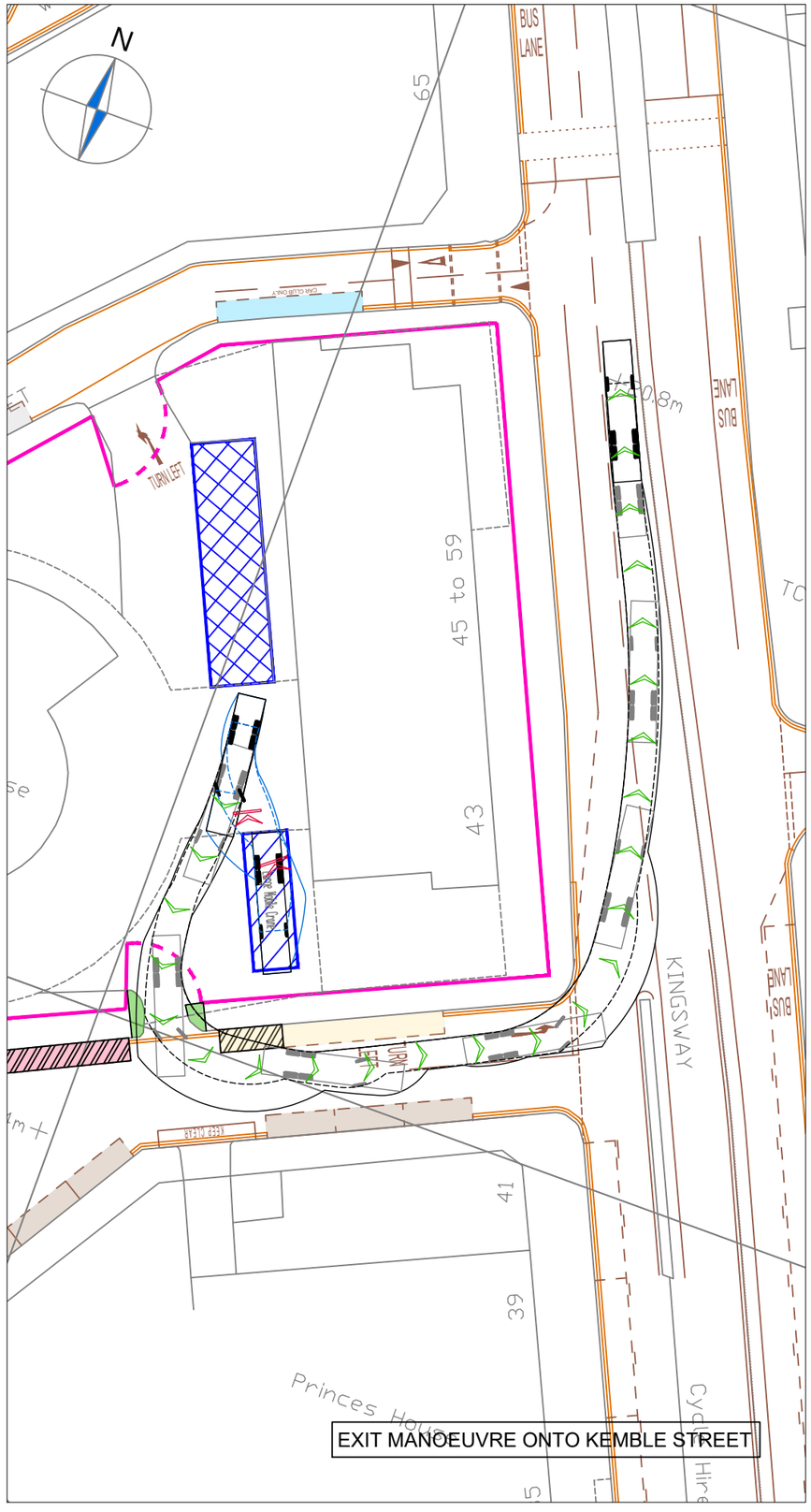
CA3758-CT006 - SWEPT PATH ANALYSIS.DWG



ENTRY MANOEUVRE VIA KEMBLE STREET



EXIT MANOEUVRE ONTO KEMBLE STREET

NOTES

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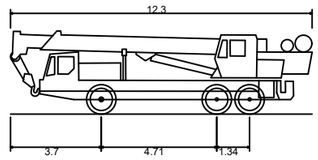
Large Mobile Crane



Overall Length	12.300m
Overall Width	2.430m
Overall Body Height	3.386m
Min Body Ground Clearance	0.590m
Track Width	2.430m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	10.000m

FORWARD MOVEMENTS ARE SHOWN IN BLACK *(design speed - 5kph)*

REVERSE MOVEMENTS ARE SHOWN IN BLUE *(design speed - 2.5kph)*

REVISION HISTORY

Rev	Details	Drawn	Checked	Date

Status:

- [ ] Preliminary
- [ ] For Approval
- [ ] For Construction
- [x] For Information
- [ ] For Tender
- [ ] As Built

Client: Seaforth Land

Project: Space House

Drawing Title: Swept Path Analysis using a 12.3m Large Mobile Crane

Scale:	Size:	Drawn by:	Checked by:	Date:
1:500	A3	RB	DP	06.08.2019

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Scheme Ref:	Drawing No:	Sheet :	Rev:
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