Report
June 2021

150 Holborn - Delivery and Servicing Management Plan

Perkins + Will
Our ref: 22888503
Client ref: 150 Holborn

steer

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Prepared by:

Steer
28-32 Upper Ground
London SE1 9PD

+44 20 7910 5000
www.steergroup.com

Prepared for:

Perkins + Will
The White Chapel Building
10 Whitechapel High Street
London
E1 8QS
Client ref: 150 Holborn
Our ref: 22888503

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1 Introduction

Background

1.1 This Delivery and Servicing Management Plan (DSMP) has been prepared by Steer in support of the detailed planning application 2016/2094/P for the proposed development at 150 Holborn, London Borough of Camden.

1.2 This document is submitted to discharge obligation 4.19 of the Section 106 agreement which states:

"On or prior to the Implementation Date to submit for approval the Service Management Plan.

Not to occupy or permit occupation of any part of the Development until such time as the Council has approved the Service Management Plan as demonstrated by written notice to that effect.

1.3 The description of what information is to be included in the DSMP is stated in definition 2.57 of the Section 106 agreements and includes the following.

(a) a requirement for delivery and servicing vehicles to load/ unload from a specific suitably located area;

(b) details of the person/s responsible for directing and receiving deliveries to the Property;

(c) measures to avoid a number of delivery vehicles arriving at the same time;

(d) likely frequency and duration of servicing movements and measures to be taken to avoid any conflicts;

(e) likely nature of goods to be delivered;

(f) the likely size of the delivery vehicles entering the Property;

(g) measures taken to ensure pedestrian management and public safety during servicing including a statement setting out how highway safety will be maintained during servicing movements

(h) measures taken to address servicing movements on and around the Property with a view inter alia to combining and/or reducing servicing and minimise the demand for the same

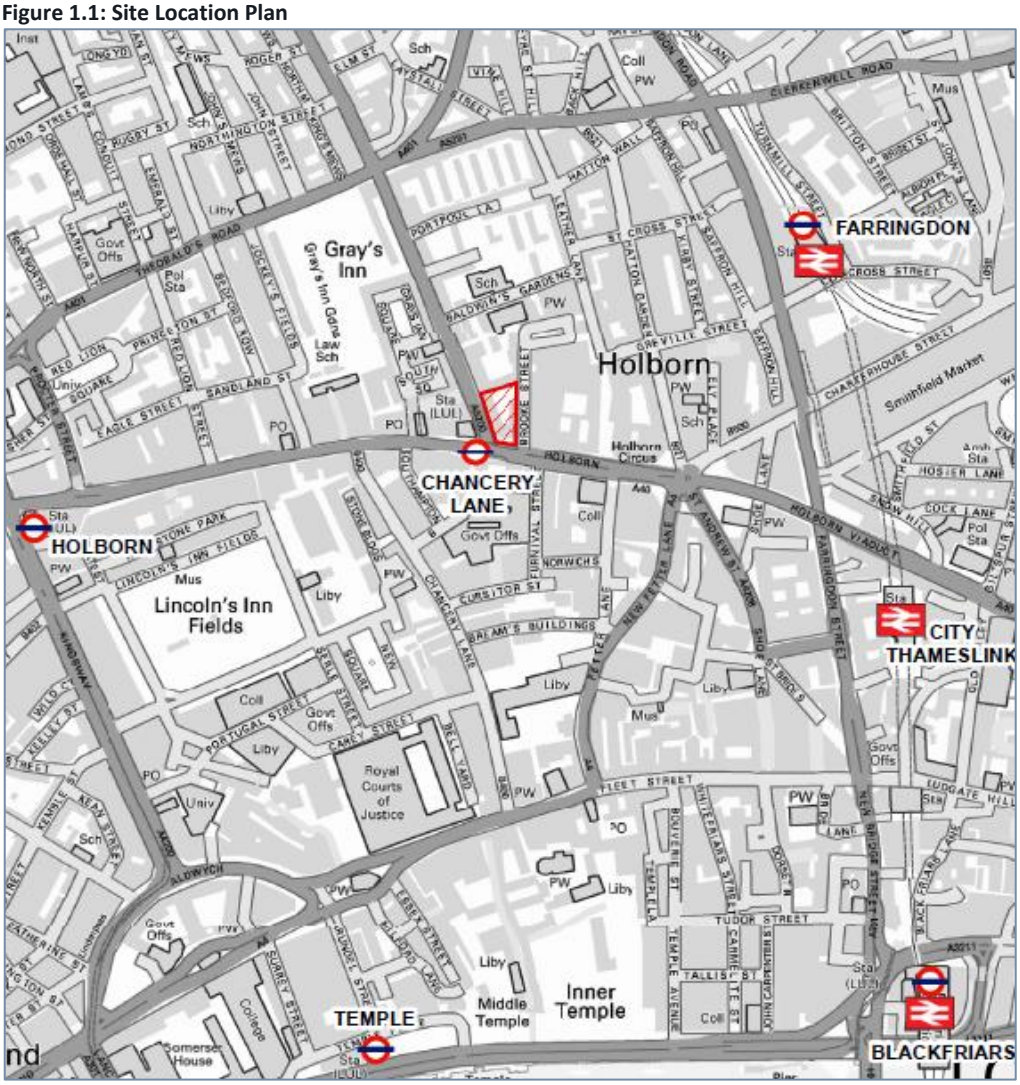
(i) provision of swept path drawings to ascertain manoeuvring when entering and exiting the Property in accordance with the drawings submitted and agreed with the Council;

(j) details of arrangements for refuse storage and servicing; and

(k) identifying means of ensuring the provision of information to the Council and provision of a mechanism for review and update as required from time to time

1.4 The site location is shown in Figure 1.1.

Figure 1.1: Site Location Plan



1.5 The site is bound by Holborn to the South, Gray's Inn Road to the West and Brooke Street to the East.

1.6 Servicing for the development by means of vehicles up to 8m in length will take place off the public highway in a dedicated ground floor service area. Delivery by larger vehicles will take place on street. Service vehicle access will be provided directly from Brooke Street.

1.7 This document includes forecasts of the number of servicing and waste trips expected, alongside the proposed servicing and waste strategies for the Development

Report Structure

1.8 This report has been divided into seven chapters, where this chapter forms the introduction. The remaining chapters are as follows:

- **Chapter 2:** Expected Trips and Requirements
- **Chapter 3:** Servicing Strategy
- **Chapter 4:** Waste Strategy
- **Chapter 5:** Encouraging Sustainable Deliveries
- **Chapter 6:** DSMP Strategy
- **Chapter 7:** Conclusions

1.9 This DSMP has been prepared in accordance with best practice guidance.

2 Expected Trips and Requirements

Trip Generation Methodology

2.1 The number and type of servicing trips made to the Development have been estimated across the day based on land use and trip purpose.

2.2 Steer holds a substantial database of servicing and delivery information from a range of office, residential and retail developments across London. The trip rates and the daily trip profile are based on the Net Internal Area (NIA).

2.3 It should be noted that this assessment is a worst-case estimate. This does not include the likely consolidation of trips associated with one tenant or the scheduling / managing of trips across the day.

Facilities Estimate Methodology

2.4 Dwell times for different vehicles are based on the previous studies of similar developments. These dwell times have been used to calculate the average number of vehicles per hour that can be accommodated by each servicing bay. These dwell times are:

- Motorcycle Couriers: 5 minutes
- Cars or vans less than 7.5 tonnes: 10-15 minutes
- Medium or Heavy Goods Vehicles (MGV / HGV): 25 minutes

Servicing and Waste Trips Generated by the Proposed Development

2.5 Table 2.1 provides the daily trip forecasts for the Proposed Development, based on the methodology explained above.

Table 2.1: 150 Holborn Service Vehicle Trips Estimates

Land-Use	Daily Trip Rate (per 100m^2 NIA)	Average Daily Trips (Proposed Use)
Office	0.21	23
Residential	0.10	1
Retail (Shops)	0.59	4
Retail (Food & Drinks)	2.00	14
TOTAL		**42**

2.6 It is therefore predicted that the Proposed Development will generate a maximum of 42 servicing trips across the whole day. All service vehicles using the bay facilities at the proposed development will be managed by the operators of the building.

Servicing Facilities Assessment

2.7 In Table 2.1, it was shown that the average daily servicing trips generated by the Proposed Development will be 42. Estimates of servicing vehicle dwell times have been used to forecast the number of loading bays that the Development will require. Therefore, the proposed 150 Holborn development will require two loading bay spaces to meet the peak hour demand.

2.8 The Proposed Development complies with this by providing 2 x 8m long loading bays at ground floor. All servicing vehicles using the bay facilities at the Proposed Development will be managed by the operators of the building.

2.9 Due to the size of the loading area, vehicles longer than 8m will be servicing from Brooke Street. The DSMP will encourage all deliveries to be undertaken by 7.5T box vans or smaller to minimise any disruptions caused by servicing vehicles on the highway.

3 Servicing Strategy

3.1 This chapter outlines the proposals for servicing vehicles entering and exiting the site and ensuring the safe delivery of goods, without impacting on the surrounding highway network.

Proposed Servicing Areas

Servicing Area Access

3.2 The servicing area is located at ground floor level. Vehicular access will be from Brooke Street to the north of the Proposed Development.

3.3 Appendix A shows the proposed ground floor layout and the location of the loading bays.

3.4 Swept path analysis of a 7.5t box van accessing the site shows that the vehicle would enter the site in a forward gear, reverse into the loading bay and exit the site in a forward gear.

3.5 See Appendix C for the swept path drawings.

Servicing arrangement

3.6 The delivery area is located close to the service core/building service routes to minimise the distance over which deliveries have to be transported.

3.7 The use of the delivery area will be coordinated through a centrally managed system. All tenants will be made aware of the process for managing delivery through the DSMP, to ensure that the demand for the service area and loading bays is managed efficiently.

3.8 Servicing vehicles up to 8m in length will leave Brooke Street in forward gear and drive into the area in front of the loading bay. They will then reverse into on the covered loading bays provided. Engines will be turned off to avoid unnecessary idling during the movement of goods. Vehicles will then drive forwards out of the loading bay and back on to Brooke Street.

3.9 Servicing vehicle in excess of 8m with service the site from an on-street facilities on Brooke Street. Engines will be turned off to avoid unnecessary idling.

3.10 A pedestrian passageway is provided to link Gray's Inn Road with Brooke Street. A set of bollards has been provided at either end of the proposed pedestrian passageway through the servicing / parking area. The bollard lines will provide a safe area for pedestrians to wait, with excellent visibility of the whole area. This will allow them to view whether it is safe to cross the servicing area. Signage will be provided to ensure that drivers are aware that pedestrians may be present in the loading area and therefore to take extra care during manoeuvres.

Servicing Area Facilities

3.11 An unloading area is provided behind the loading bays to allow for the safe unloading and manoeuvring of goods. This area will be at the same level of the loading area since most modern delivery vehicles are equipped with tail gates.

Clear Heights

3.12 A clear height of 3.5 metres has been provided through the servicing areas. This is sufficient to accommodate the large majority of vehicles within the 7.5t class up to 8m in length which is the proposed maximum vehicle size. All tenants at the site will be made aware of the maximum vehicle size and height in order to minimise any risks of damage to vehicles of the building.

Managing Deliveries

3.13 All new leases within the scheme shall contain clauses specifying that tenant operate in line with the principles set out in this DSMP including

- times and method of deliveries
- delivery time booking system
- waste storage and management strategy

3.14 Each tenant will also be required to appoint a DSMP manager who will be required to liaise closely with the site wide DSMP coordinator.

3.15 It is anticipated that the fully occupied development will generate a daily average of 42 servicing vehicles either delivering or collecting goods or removing waste from the site. Tenants will be required to book a time slot for all deliveries. Any deliveries that are expected to take more than 20 minutes should book a double slot.

3.16 The majority of deliveries will be scheduled between the hours of 7am and 7 pm to avoid unnecessary disturbance to adjacent residential properties. This allows for a total of 72 delivery slots to be allocated during this time period which significantly exceeds the anticipated service trip numbers.

3.17 The booking system will be used to minimise the number of deliveries that occur during the peak hours i.e. they will be scheduled to avoid 7am – 10am and 4pm – 7pm. This system will also ensure that there are no periods when more than two delivery vehicles are expected on site at any one time. This will ensure that no “ad hoc” arrivals generate congestion within the servicing area or on the surrounding areas of highway.

3.18 There is a “security room” situated on the north east corner of the loading area which will be manned during standard office hours. The staff member located in this office will be responsible for checking and managing goods deliveries into the building.

Delivery locations

3.19 This DSMP will be used to encourage all tenants to specify deliveries occurring using vehicles of the class 7.5T or smaller to allow the large majority of deliveries to happen within the designated off street servicing area. Goods will only be accepted via the main loading area to the rear of the building. The designated loading bays are a shown on the plan appended to this DSMP and routes to be used to move goods on to tenants are clearly highlighted.

3.20 In exceptional circumstances where goods to be delivered cannot utilise a 7.5T vehicle a larger delivery vehicle will be allowed to stop on Brook Street by appointment only. Goods delivered in this way will enter the site via the publicly accessible pedestrian link at the ground floor of the residential building.

3.21 Any goods will then be checked in by the security officer before being allowed to enter the commercial building.

Goods to be delivered

3.22 As a typical office led development the types of goods expected to be delivered will include:

- Regular stationary and general office supplies
- Occasional furniture and IT equipment deliveries
- Retail products for the ground floor A1 retail units
- Food and drinks deliveries for the A3 retail units

Vehicle reduction measures

3.23 The building management team will work with the new tenants to agree options to reduce the overall demand on vehicle numbers accessing the site. Measures that will be considered will include:

- An assessment of typical daily deliveries and options to use consistent suppliers for standard goods to reduce the number of separate deliveries to different tenants
- The efficient use of storage facilities within the development to reduce the frequencies of deliveries for consumables
- A review of options to utilise offsite consolidation services to minimise the number of discreet vehicles accessing the site
- An assessment of opportunities to receive deliveries for smaller packages via sustainable modes such as “cargo bikes” “e-bikes” or other small electric vehicles and “on foot” deliveries.

Vehicle Reduction Targets

3.24 The number of servicing trips presented in this document are based on standard metrics for vehicle trips associated with the various land uses proposed within the approved scheme. These metrics generate a robust estimate for the total number of vehicles expected at the site to account for the potential variety of tenants within the office and retail elements of the scheme.

3.25 Prior to occupation, all new tenants will be made aware of the contents of this DSMP and will be asked to provide an anticipate delivery schedule for a typical day / week for their business. The DSMP manager will then work with all tenants to combine deliveries where appropriate and minimise individual deliveries to specific tenants.

3.26 The initial target for vehicle reductions will be a 25% reduction on the figures estimated in this document on first occupation. The targets for future reduction will be assessed as servicing vehicle surveys are undertaken during the first 6 months of operation.

3.27 The applicant will also consider options to use off-site consolidation for deliveries to some or all tenants to further reduce the numbers of servicing vehicles visiting the site on a daily basis. A stretch target of a 50% reduction on the figures estimated in this document is considered achievable subject to further details

Pedestrian Management and Public Safety

3.28 As in the existing arrangement a single point of vehicle access is provided into the site via a vehicle crossover on Brook Street. Service vehicle are required to reverse into the loading bays to unload goods and then leave the servicing area in a forward gear. There is no reversing required within the adopted highway.

3.29 A pedestrian link is provided across the rear of the site between Grays Inn Road and Brook Street which will be carefully managed to mitigate any risks of conflicts between vehicles and vulnerable road users. This link was subject to a Vulnerable User Audit at the time of application and copy of this audit is appended to this document.

3.30 As per the recommendation of this audit the following mitigation measures will be included to minimise any potential risks to members of the public in and around the development

- During the peak hours of operation there will be a dockmaster or equivalent security personnel in the vicinity who will be responsible for managing conflicts between modes.
- The area will be well lit at all times when the passageway is open, to ensure that any opportunities for criminal / antisocial behaviour are minimised, and to improve inter-visibility between modes.
- Signage will be provided to ensure that drivers are aware that pedestrians may be present in the loading area and therefore to take extra care during manoeuvres.
- The east-west passageway and service yard will be delineated using a change in paving patter.
- Bollards will be provided on either end of the passageway at the entrance points to the service yard/parking area to warn pedestrians that they are entering a shared use space. The bollard lines will provide a safe area for pedestrians to wait, with excellent visibility of the whole area.

4 Waste Strategy

4.1 This chapter deals with the collection and removal of waste from the Proposed Development.

Waste Management

4.2 There are separate bin stores for the residential and commercial land uses adjacent to the delivery area. Appendix B shows the proposed ground floor layout and the location of the bin stores.

4.3 The waste strategy has been designed in accordance with best practice guidance and Section 10 of the Camden Policy Guidance 1 (CPG1: Design) (2015). In addition, Steer's waste and recyclables storage model, based on various London developments and best practice guidance has been used to estimate waste volumes required.

4.4 The internal transfer routes for waste will not exceed 30m horizontal distance for manual transfers. For the movement of larger waste bins where routes exceed 10m a powered "Bin Tower" will be provided and used as required by the facilities management team.

Residential

4.5 The LB Camden Guidance states that the provision of bins should be split equally between refuse and recycling, plus provision for food waste. The Development will provide 1 x 1,100 litre bin for general waste, 1 x 1,100 litre bin for recycling, plus 1 x 360 litre bin for food waste in a dedicated waste store.

Commercial

4.6 Commercial waste will be collected by a private contractor.

4.7 The LB Camden Guidance states that approximately one cubic metre of storage space is required for every 300-500m^2 of commercial floorspace (this includes both recyclable and non-recyclable waste and assumes weekly collection).

4.8 Based on the commercial land uses, the Development would require 22 x 1,100 litre Eurobins if there is no waste compaction and collections occur 1 x per week.

4.9 In order to optimise the waste management arrangement waste and recyclables will be collected daily and compacted within eurobins. With these arrangements in place the waste generate daily could be stored using 1 x 1,100 litre Eurobin for general waste, 1 x 1,100 litre Eurobin for recycling and 1 x 240 litre Eurobin for food waste. To cater for missed collections the development will provide the following:

- 1 x Eurobin Compactor
- 2 x 1100lt eurobin for general waste
- 2 x 1100lt eurobin for dry mixed recyclables
- 2 x 240lt wheeled bin for organic food waste.

The exact waste streams to be collected may be adjusted in the future depending on the types of waste generated by the tenants. If for instance the site generates a significant volume of card or paper waste then a "baler" may be utilised to separately compact this waste stream and reduce the number of eurobins required.

Residential Waste Collection Procedure

4.10 Due to the size limitation within the main servicing area it is not feasible to allow for a standard sized refuse vehicle to enter the site and therefore waste collection will occur via Brooke Street.

4.11 Residential waste will be collected by LB Camden and any waste or recycling to be collected will be moved to an area adjacent to the footway on Brooke Street at the allotted collection time by the building management team. Residential waste, recycling and domestic food are all currently collected every Friday. The date and time of collection will be confirmed prior to occupation.

4.12 All empty bins will be returned to the residential waste stores immediately after the waste has been transferred to the waste vehicle. Bins will not be left on or adjacent to the public highway.

Commercial Waste Collection Procedure

4.13 Commercial waste will be collected either by LB Camden's Business Waste Collection Contractor or via another commercial Environment Agency Approved waste collection provider . Within the Technical Waste Guidance provided by LB Camden the size for various refuse collection vehicles is provided. Whilst it is not feasible to enter and exit the site safely with the larger 26 Ton Dennis or 26 Ton CNG, swept path analysis provided shows that the smaller 22 Ton Dennis Narrow is able to enter the site, perform a three point turn within one of the loading areas provided, and exit the site in a forward gear. Alternatively, this vehicle can reverse from Brook Street directly into the servicing area provided to the rear of the development.

4.14 It is therefore proposed that all commercial waste shall be collected from an on-site location either by LB Camden commercial collection services using this smaller vehicle, or via another waste collection provider using a vehicle of similar or smaller size.

4.15 Prior to the time of collection, the building management team will move all bins for the waste stream to be collected to the collection point within the servicing area.

4.16 The locations of waste stores and the routes for moving waste to the collection point are shown in Appendix B to this DSMP. Swept analysis for the 22 Ton Dennis Narrow refuse vehicle accessing the site is also provided.

Waste Consolidation

4.17 All commercial waste will be stored in the allocated waste storage area highlighted on the appended plans. The building managers will be responsible for managing the waste storage area and arranging the collection of all commercial waste. This will ensure that there is a consolidated approach to waste management for all tenants.

4.18 This approach will also identify if large quantities of a particular recyclable material are being generated by multiple tenants. This could lead to additional segregation of commercial waste to ensure options to recycle are maximised.

Site Management and Specialist Waste Collections

4.19 In order to ensure that the site is properly maintained there will be a management protocol in place to "litter pick" in public areas and also at entrances and exits. This will be on an agreed schedule, and with an option to call for immediate action if

4.20 A spillage kit will also be provided to cater for any accidental waste spills during the bin tip operation.

4.21 In addition to those waste streams described above the site will also allow space for the storage of other types of waste including hazardous waste, redundant electrical equipment and bulky waste. These items will be store safely within the site and booked spot collection will be organised as and when required throughout the year .

5 Encouraging Sustainable Deliveries

DSMP Measures

5.1 Table 5.1 below details the DSMP measures, the benefits they offer, the timescale for their implementation and responsibility to take them forward. The measures aim to achieve the DSMP sub-objectives and minimise the impact of the servicing and deliveries forecast for the proposed development.

5.2 The DSMP measures for the proposed development need to be reviewed once the needs of the 150 Holborn occupiers have been identified through the use of servicing/delivery surveys. At this stage it is expected that during its development the DSMP will consider a combination of the measures (but not exclusively) within Table 5.1.

Table 5.1: DSMP Measures

Measure	Description	Benefit	Timescale for Implementation	Responsibility
Management of the DSMP				
Adoption of the DSMP	'Buy in' from the tenants will be vital to ensure that the DSMP is an active, living document.	The involvement of the tenant will mean that more policies could be implemented and better results could be delivered.	Prior to occupation.	The Applicant
Assign Responsibility of DSMP Coordinator	Identify the person / persons who will be responsible for managing the ongoing development, delivery and promotion of the DSMP.	This will ensure that the DSMP is taken forward and results are delivered.	Prior to occupation.	The Applicant
Travel Surveys	Servicing and Delivery surveys.	This will inform the future development of the DSMP and inform progress reports for occupiers.	Within 6 months of occupation and 3rd and 5th years.	DSMP Coordinator
Raise awareness and promote DSMP initiatives	Site information, website, steering group and/or meetings.	To encourage sustainable freight to and from the site.	Upon to occupation and on-going.	DSMP Coordinator
Service Vehicle Access				
Access routes for servicing and deliveries	Provide sufficient space and clear and uncongested routes for servicing and waste movements through the site and for service vehicles.	Promote safe working practices, minimise localised congestion and ensure that there are no access issues.	This will be implemented when the proposed development is completed.	The operator
Reducing Servicing and Delivery Trips				
Couriers	A smart courier policy could reduce the number of motorised vehicle trips to, from and around the site.	Using cycle couriers where appropriate could reduce the number of motorised vehicle trips to, from and around the site, cut congestion and reduce pollution and carbon emissions.	Within first year of occupation.	DSMP Coordinator
Use of local sources/suppliers	Encourage tenant to source items locally, or from the same supplier.	To reduce the number of deliveries required.	Within first year of occupation.	DSMP Coordinator

Measure	Description	Benefit	Timescale for Implementation	Responsibility
Servicing and Delivery Operations				
Site information	Publish details of servicing/delivery facilities and procedures to tenants and residents indicating: • best times for deliveries; • delivery locations; • vehicle size limits • best practice' supplies/couriers.	Encourage deliveries out of busy (peak) times and use 'best practice' companies. To ensure servicing activities are efficient and vehicles spend a minimal amount of time at the site to ensure minimal impact on traffic operations. Encourage all tenant to use vehicles 8m in length or less wherever possible to minimise the need for on street activity.	Upon occupation.	DSMP Coordinator
Central Area for Waste Collections and Deliveries	Use central areas for waste collections and deliveries.	To minimise service and delivery vehicle movements.	This will be implemented when the proposed development is built.	The Operator
Vehicle Booking and Management System	Produce a delivery and servicing schedule to set out how and when vehicles can best access the site for each purpose. It will encourage off-peak servicing and the consolidation of servicing and deliveries. Deliveries by vehicles larger than a 7.5T box van will also be discouraged.	Implementing a delivery and servicing schedule will ensure that access routes, delivery and waiting areas are used efficiently and congestion is minimised.	Upon occupation.	DSMP Coordinator

DSMP Targets

5.3 As the occupiers of the site are unconfirmed it is difficult to develop specific targets. Once the tenants are known and servicing and delivery surveys have been undertaken, Targets can be developed in the full DSMP, within 6 months of occupation. Examples of targets that could be developed include:

- Limitation to a specific percentage, of servicing and delivery trips to be undertaken during the AM and PM peak hours;
- A specific number of servicing and deliveries to encourage the consolidation of trips to the site;
- All, or a specific proportion, of servicing and delivery companies used to be a member of FORS; and
- Specific percentage of the proposed development servicing and delivery vehicles to be 'green' vehicles.

6 DSMP Strategy

Management of the DSMP

6.1 The DSMP will be implemented upon first occupation of the site and will be developed into a full DSMP within 7 months of occupation, after the baseline surveys (within 6 months of occupation).

6.2 A DSMP coordinator will be assigned by the main tenant or building managing agent. Management of the DSMP will then be the responsibility of the DSMP coordinator.

6.3 The operation of the DSMP will then be managed via a steering group set up to include representatives from all retail and commercial tenants. This will help ensure that the DSMP is taken forward effectively and will feed back to Senior Management of the site to ensure continued support and resources are available for the DSMP.

Raising Awareness

6.4 It will be important to inform the occupiers about this DSMP including:

- What is a DSMP?
- The importance of DSMPs and freight movements and their impacts; and
- What the tenants can do to help encourage the use of sustainable freight to and from the site.

6.5 This will help to bring the tenants on board and be supportive of the DSMP.

6.6 To increase awareness of the DSMP, relevant staff and most importantly suppliers will be given information on the DSMP and encouraged to use sustainable freight options and consolidate deliveries to and from the site.

6.7 It is essential that relevant employees working at the site and their suppliers are involved in the implementation and development of the DSMP. This will also allow staff and suppliers to have an input into the on-going development of the DSMP and the targets within it.

Review and Monitoring

6.8 It is proposed that the Review and Monitoring of the DSMP is similar to that of the Travel Plan.

6.9 The first stage of the monitoring and review programme will be to undertake comprehensive servicing/delivery surveys. The surveys are expected to be undertaken within six months of site occupation.

6.10 The DSMP will have a five-year timescale. The document will be regularly monitored and reviewed to ensure that the document reflects the changing requirements of the development and is up-to-date with servicing/delivery options available.

6.11 The DSMP development will be the responsibility of the DSMP Co-ordinator, who will be identified prior to occupation.

6.12 Funds will be made available for the development of the full DSMP and the on-going monitoring and review.

6.13 Table 6.1 below sets out programme for monitoring and review of the DSMP.

Table 6.1: Programme of Monitoring and Review

Action	Timescale
Baseline employee and visitor and delivery travel surveys	Within 6 months of occupation or at 75% occupancy
Produce a full DSMP	Within 7 months of occupancy
Future servicing and delivery surveys	3rd and 5th Year
Feedback to the tenants	Quarterly – following meetings
Undertake comprehensive strategic review of all aspects of the DSMP (including the objectives, targets, the action plan and the monitoring programme)	6 months, 3rd and 5th Year

7 Conclusions

7.1 This DSMP has presented the proposed servicing and delivery strategy for the 150 Holborn development. The future servicing demands of the site have been estimated and the report demonstrates these can be met.

7.2 A toolkit of measures is proposed to be taken forward as the DSMP evolves over time in order to encourage sustainable freight movements to 150 Holborn and to reduce unnecessary servicing and delivery trips, particularly during peak times.

7.3 Targets will be developed following occupation. The Targets will ensure future monitoring and progress of the DSMP.

7.4 The report sets out how the DSMP will be managed, reviewed and monitored, ensuring future commitment to the development of this document. This report is therefore considered to be a living document as it will evolve over time.

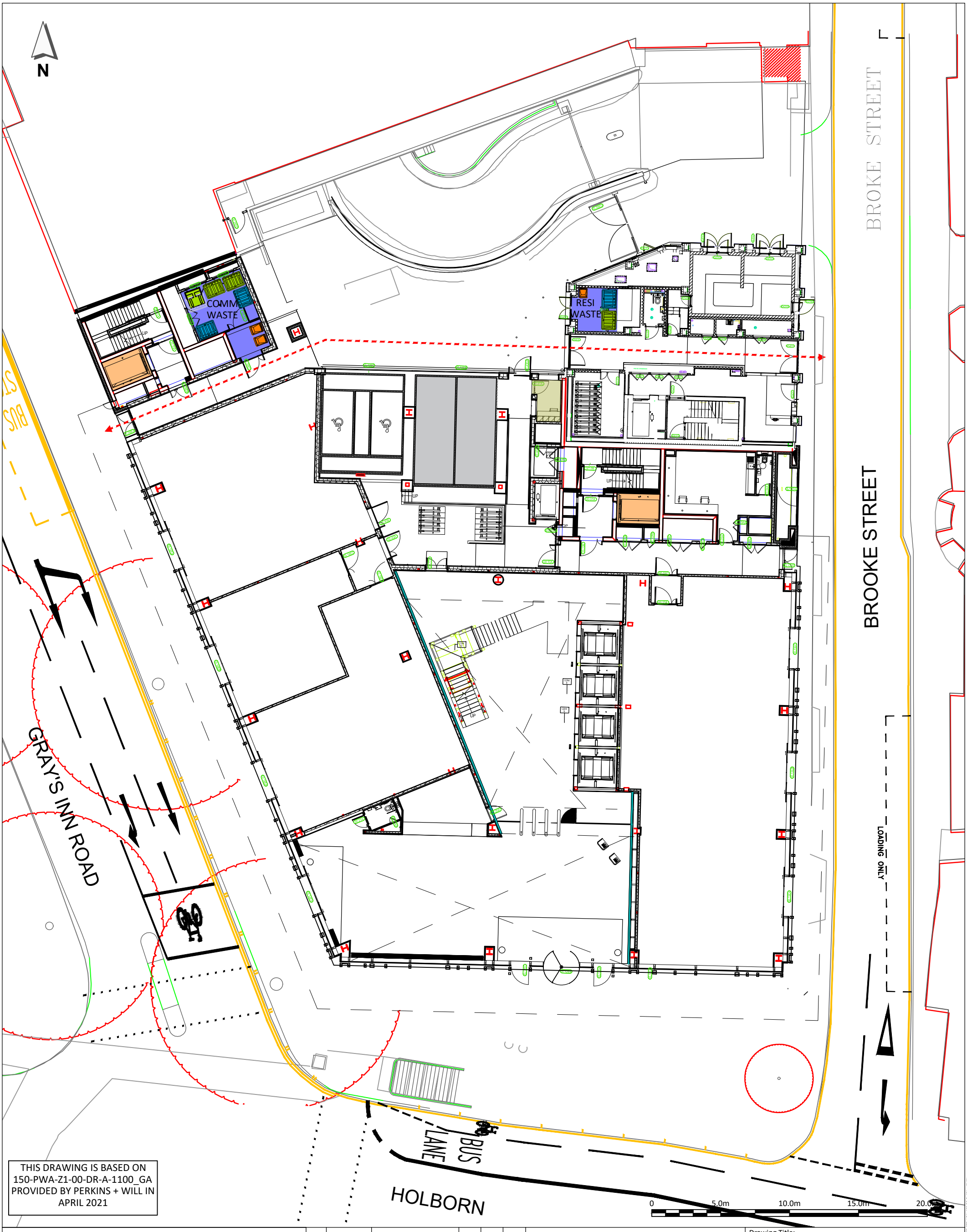
7.5 The report demonstrates the commitment by the applicant to encourage sustainable modes of freight travel to and from the proposed development in the future.

7.6 This DSMP includes information to cover all of the requirements defined within the Section 106 agreement.

7.7 Any measures and operation set out in this DSMP do not conflict with the fire egress or exit plans for the development. This document will be checked periodically against the Fire Strategy to ensure that this remains the case and to react to any changes in either document .

Appendices

A Servicing Arrangements



NOTES:

1. ALL DIMENSIONS SHOWN IN METRES UNLESS OTHERWISE SPECIFIED.
2. DO NOT SCALE FROM THIS DRAWING.

KEY:

- LOADING BAY
- GOODS LIFT
- WASTE STORE
- PEDESTRIAN ROUTE
- SECURITY OFFICE

REV	DATE	DESCRIPTION	DES	CHK	APP
P0	04 MAY 21	ORIGINAL ISSUE	CGF	MSB	

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Client: DAH REAL ESTATES SARL

Project Title: 150 HOLBORN

Drawing Title: PROPOSED LAYOUT GROUND FLOOR

Status: FIT FOR INFORMATION

Size:	Scale:	Suitability	Rev.
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Drawing No. 22888503-STR-HGN-100-DR-40101

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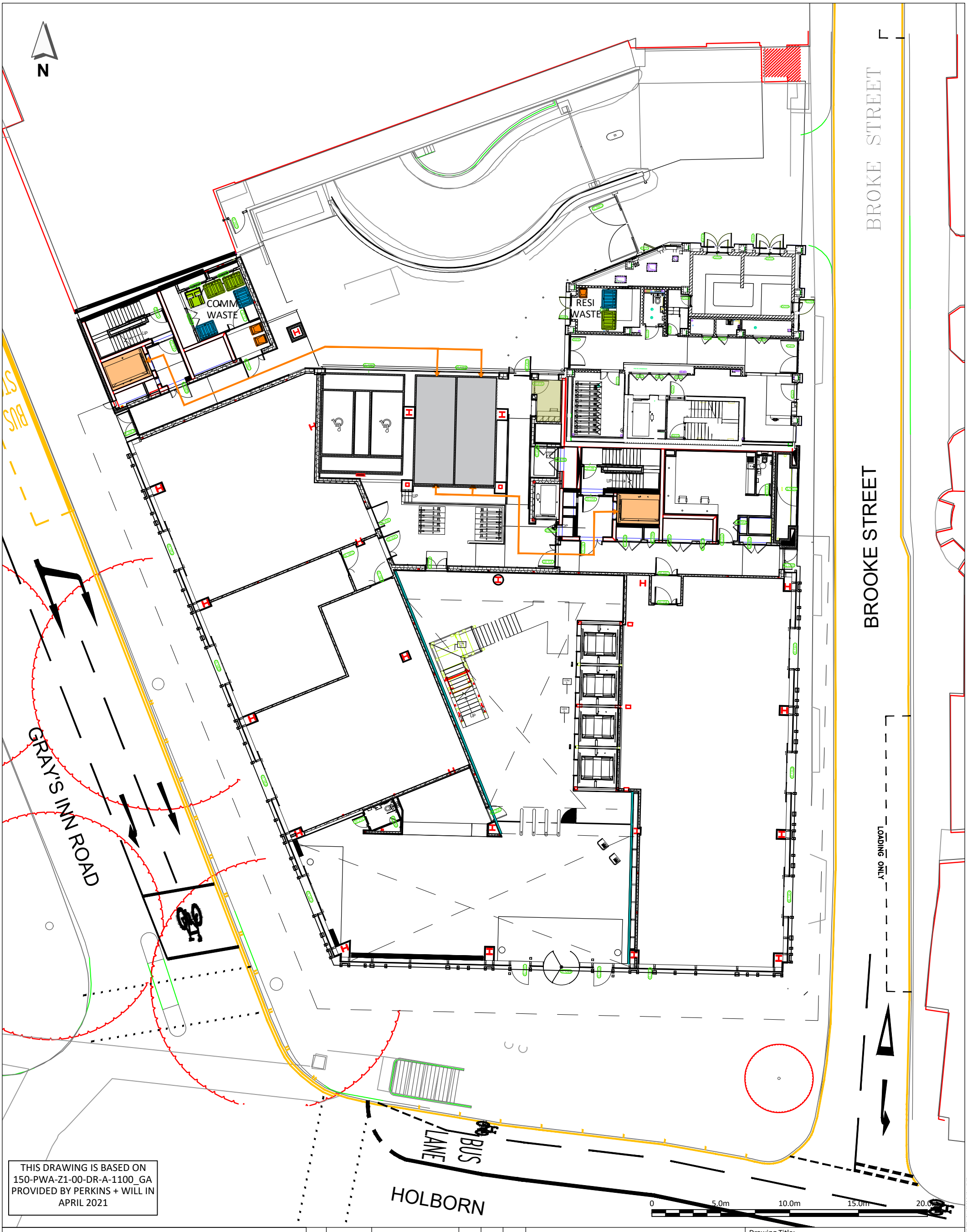

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1. ALL DIMENSIONS SHOWN IN METRES UNLESS OTHERWISE SPECIFIED.
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KEY:

- SERVICING ROUTE
- LOADING BAY
- GOODS LIFT

REV	DATE	DESCRIPTION	DES	CHK	APP
P0	04 MAY 21	ORIGINAL ISSUE	CGF	MSB	

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Client: DAH REAL ESTATES SARL

Project Title: 150 HOLBORN

Drawing Title: SERVICING STRATEGY

Status: FIT FOR INFORMATION

Size:	Scale:	Suitability	Rev.
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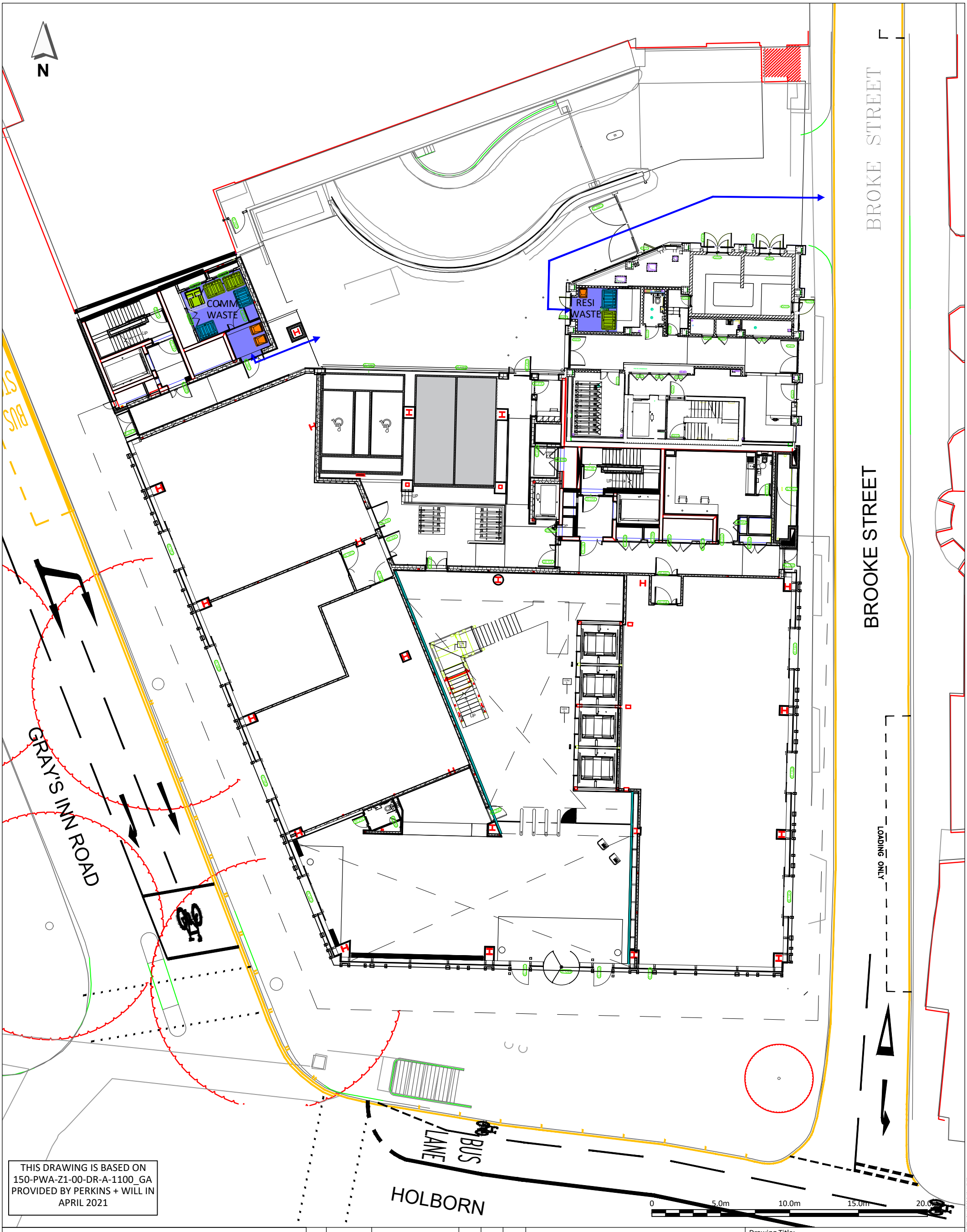
B Waste Management Arrangements



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- WASTE STORE

REV	DATE	DESCRIPTION	DES	CHK	APP
P1	25 MAY 21	COMMERCIAL WASTE COLLECTION UPDATED	CGF	MSB	
P0	04 MAY 21	ORIGINAL ISSUE	CGF	MSB	

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Client: DAH REAL ESTATES SARL

Project Title: 150 HOLBORN

Drawing Title: WASTE STRATEGY

Status: FIT FOR INFORMATION

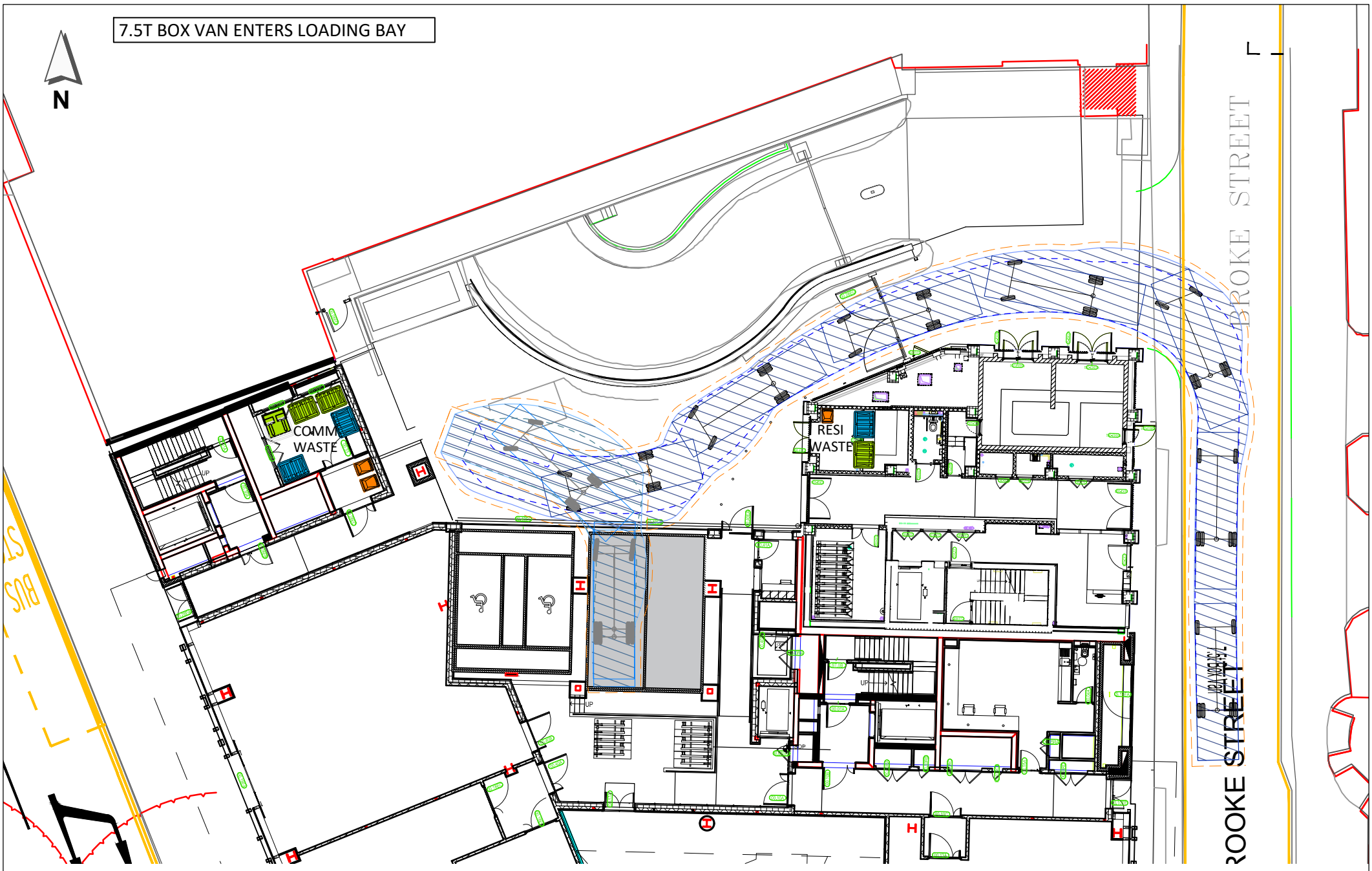
Size:	Scale:	Suitability	Rev.
A3	1:250	S2	P1

Drawing No. 22888503-STR-HGN-100-DR-40103

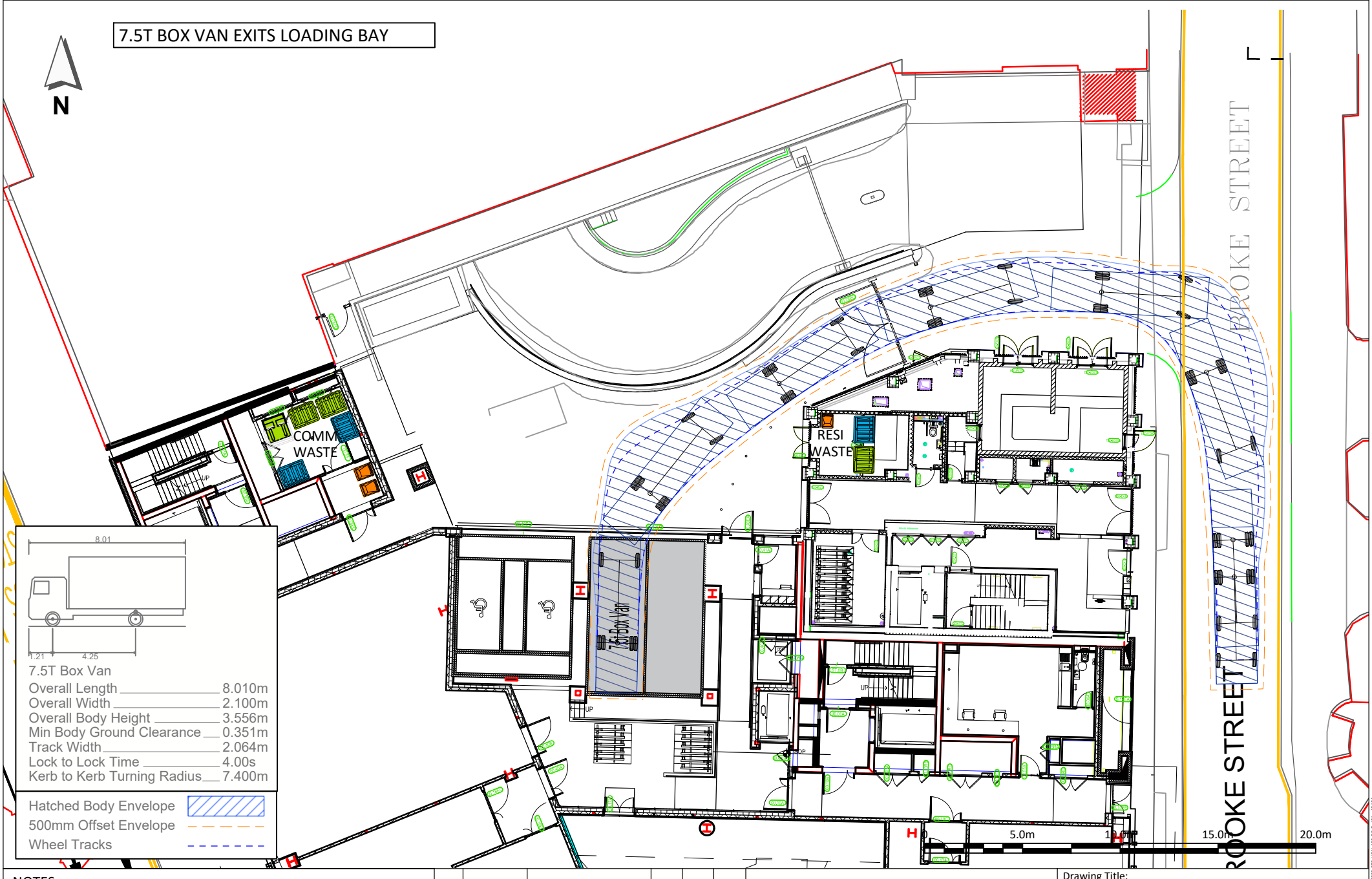
DATE: 24/05/2021 CAD REFERENCE: U:\london\Projects\228885503 STR-HGN-100-DR-0-401 - 40103

C Swept Path Analysis

7.5T BOX VAN ENTERS LOADING BAY



7.5T BOX VAN EXITS LOADING BAY



NOTES:

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THIS DRAWING IS BASED ON 150-PWA-Z1-00-DR-A-1100_GA PROVIDED BY PERKINS + WILL IN APRIL 2021

REV	DATE	DESCRIPTION	DES	CHK	APP
P0	04 MAY 21	ORIGINAL ISSUE	CGF	MSB	

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Client: DAH REAL ESTATES SARL

Project Title: 150 HOLBORN

Drawing Title: SERVICING STRATEGY SWEPT PATH ANALYSIS

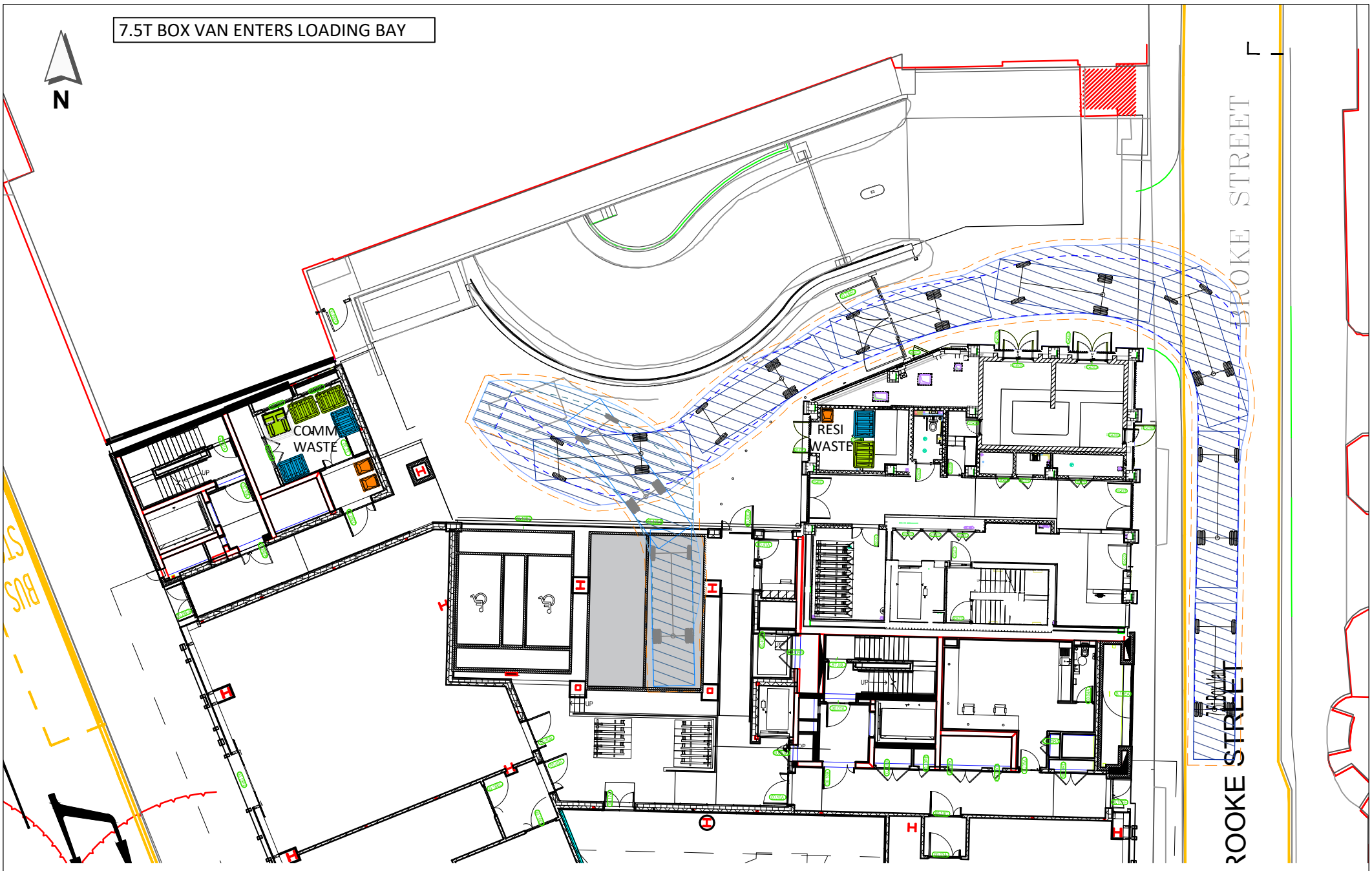
Status: FIT FOR INFORMATION

Size:	Scale:	Suitability	Rev.
A3	1:250	S2	P0

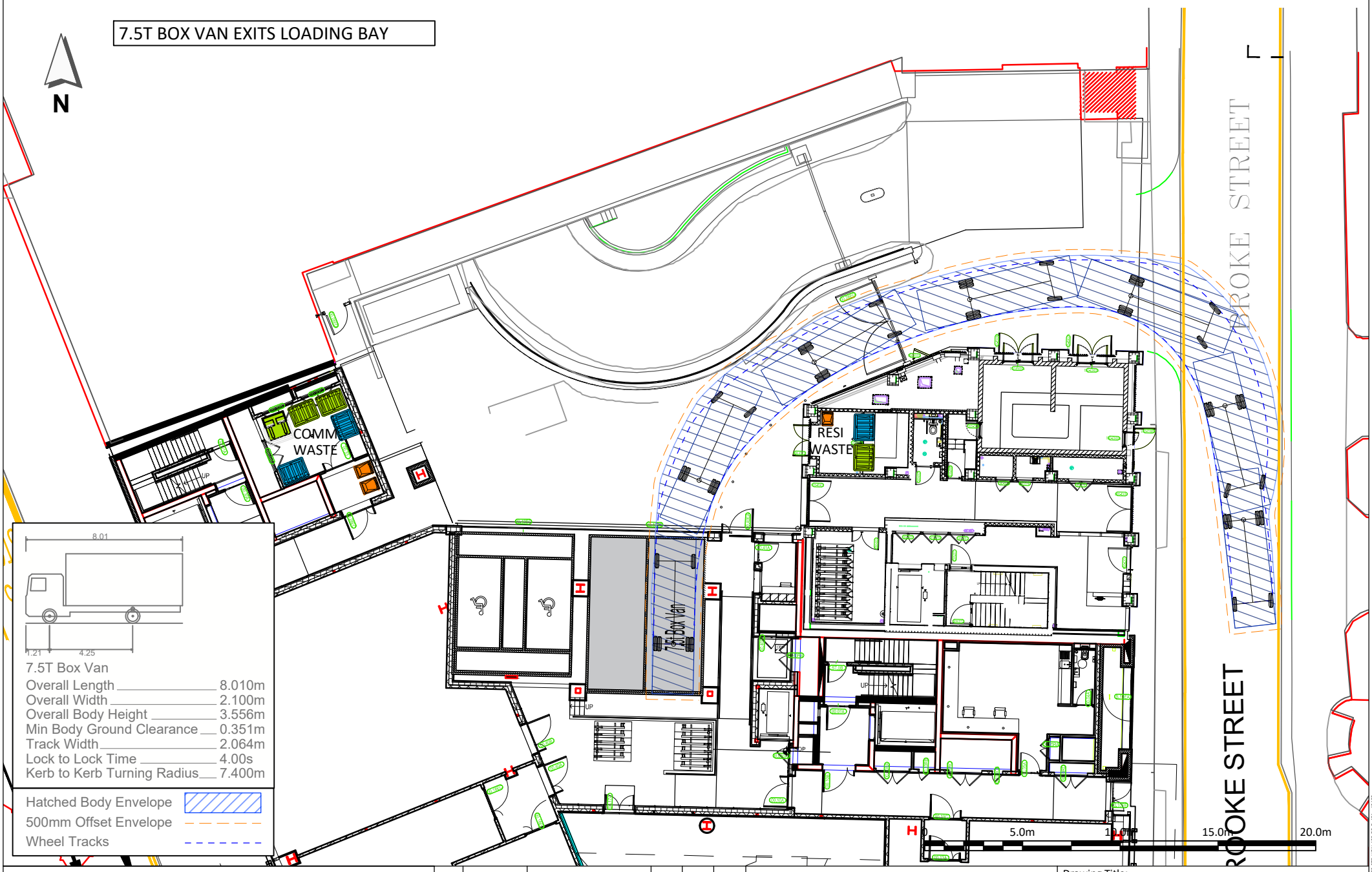
Drawing No. 22888503-STR-HGN-100-DR-40104

DATE: 04/05/2021 CAD REFERENCE: U:\London\Projects\228885\03\CAD\Drawings\22888503-STR-HGN-100-DR-D-401 - 40104

7.5T BOX VAN ENTERS LOADING BAY



7.5T BOX VAN EXITS LOADING BAY



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REV	DATE	DESCRIPTION	DES	CHK	APP
P0	04 MAY 21	ORIGINAL ISSUE	CGF	MSB	

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Client: DAH REAL ESTATES SARL

Project Title: 150 HOLBORN

Drawing Title: SERVICING STRATEGY SWEPT PATH ANALYSIS

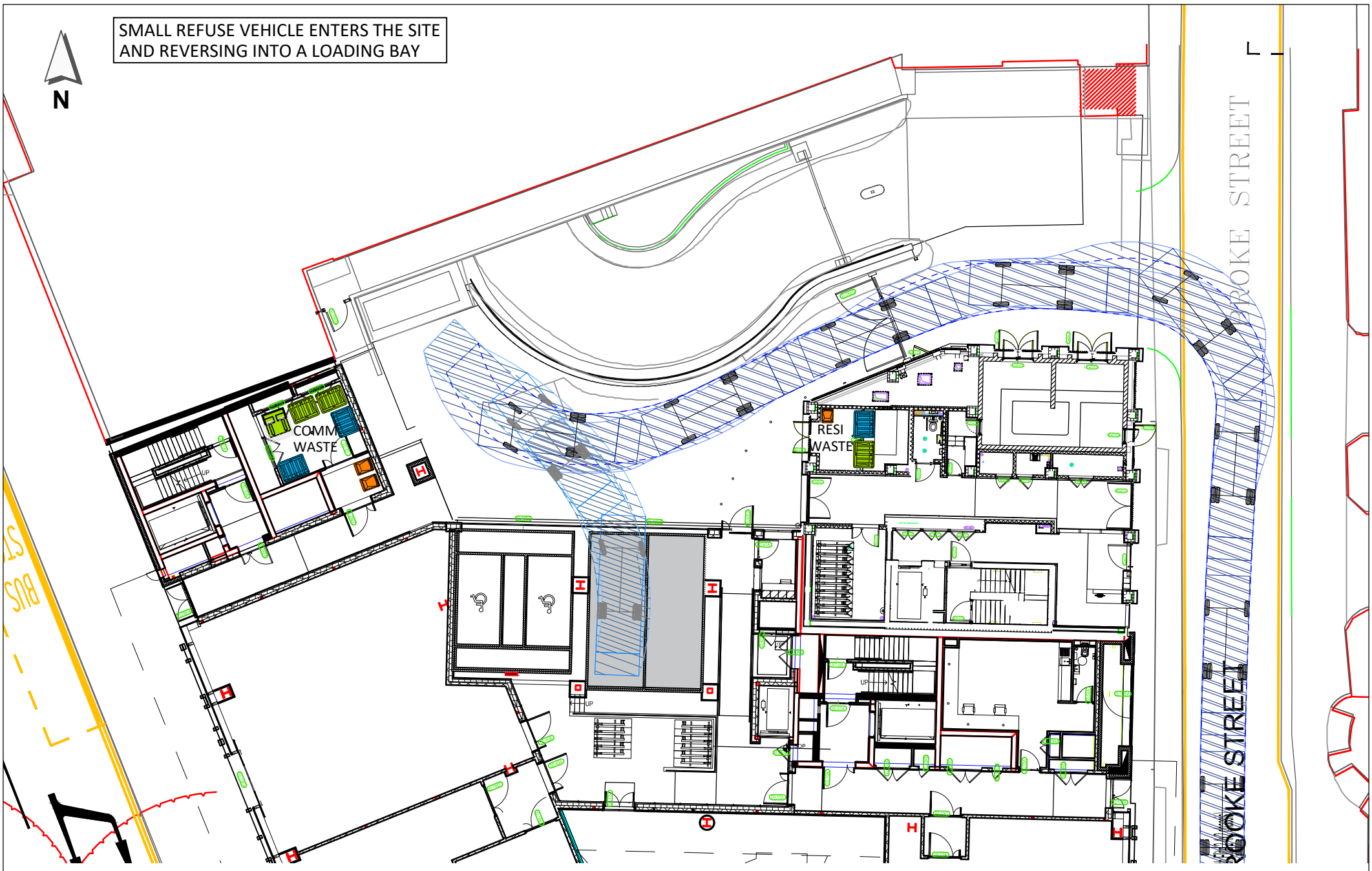
Status: FIT FOR INFORMATION

Size:	Scale:	Suitability	Rev.
A3	1:250	S2	P0

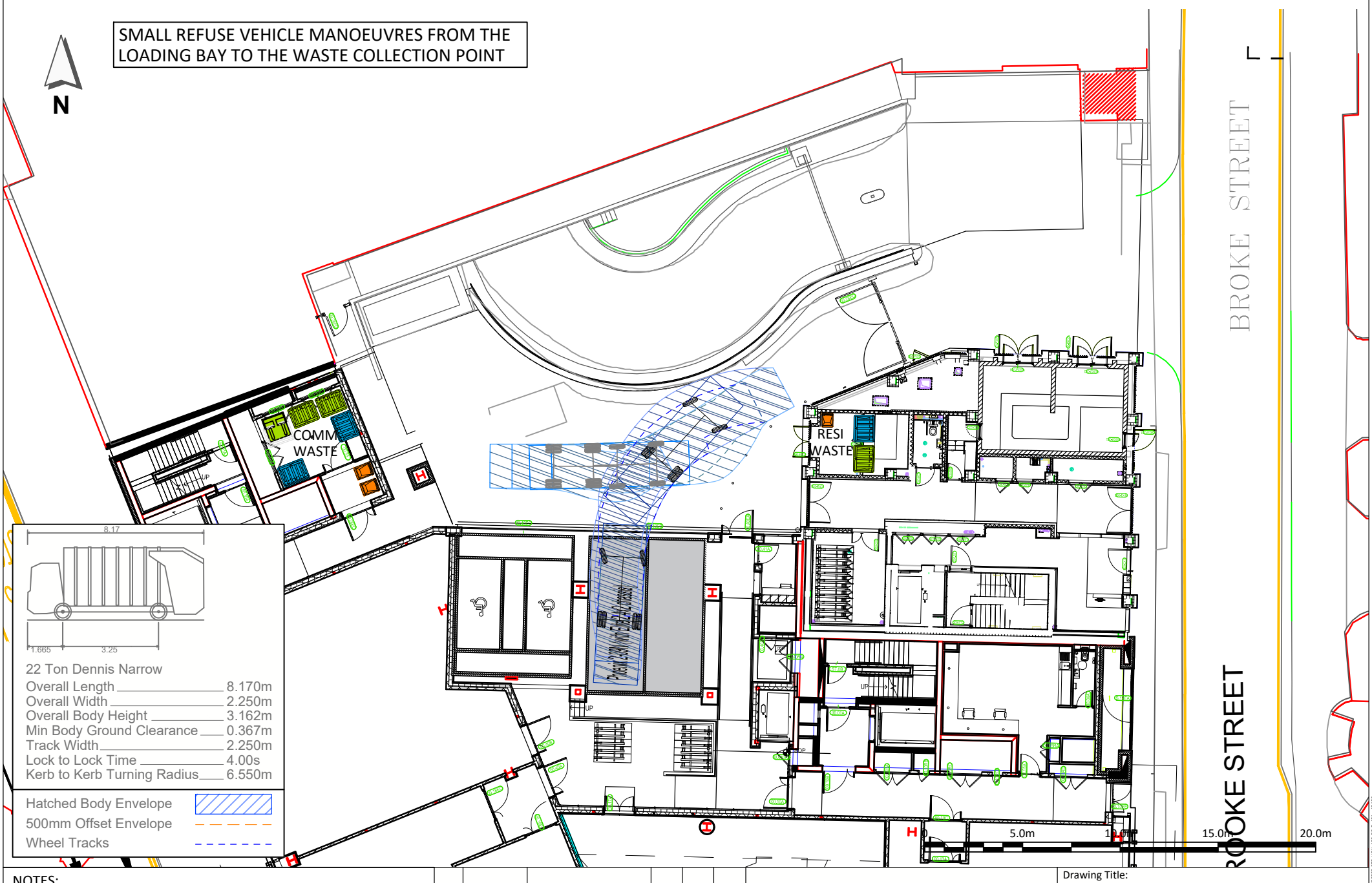
Drawing No. 22888503-STR-HGN-100-DR-40105

DATE: 04/05/2021 CAD REFERENCE: L:\London\Projects\228\88503\STR\CAD\Drawings\22888503-STR-HGN-100-DR-D-401 - 40105

SMALL REFUSE VEHICLE ENTERS THE SITE
AND REVERSING INTO A LOADING BAY



SMALL REFUSE VEHICLE MANOEUVRES FROM THE
LOADING BAY TO THE WASTE COLLECTION POINT



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REV	DATE	DESCRIPTION	DES	CHK	APP
P0	26 MAY 21	ORIGINAL ISSUE	CGF	MSB	

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Client: DAH REAL ESTATES SARL

Project Title: 150 HOLBORN

Drawing Title: SERVICING STRATEGY SWEPT PATH ANALYSIS

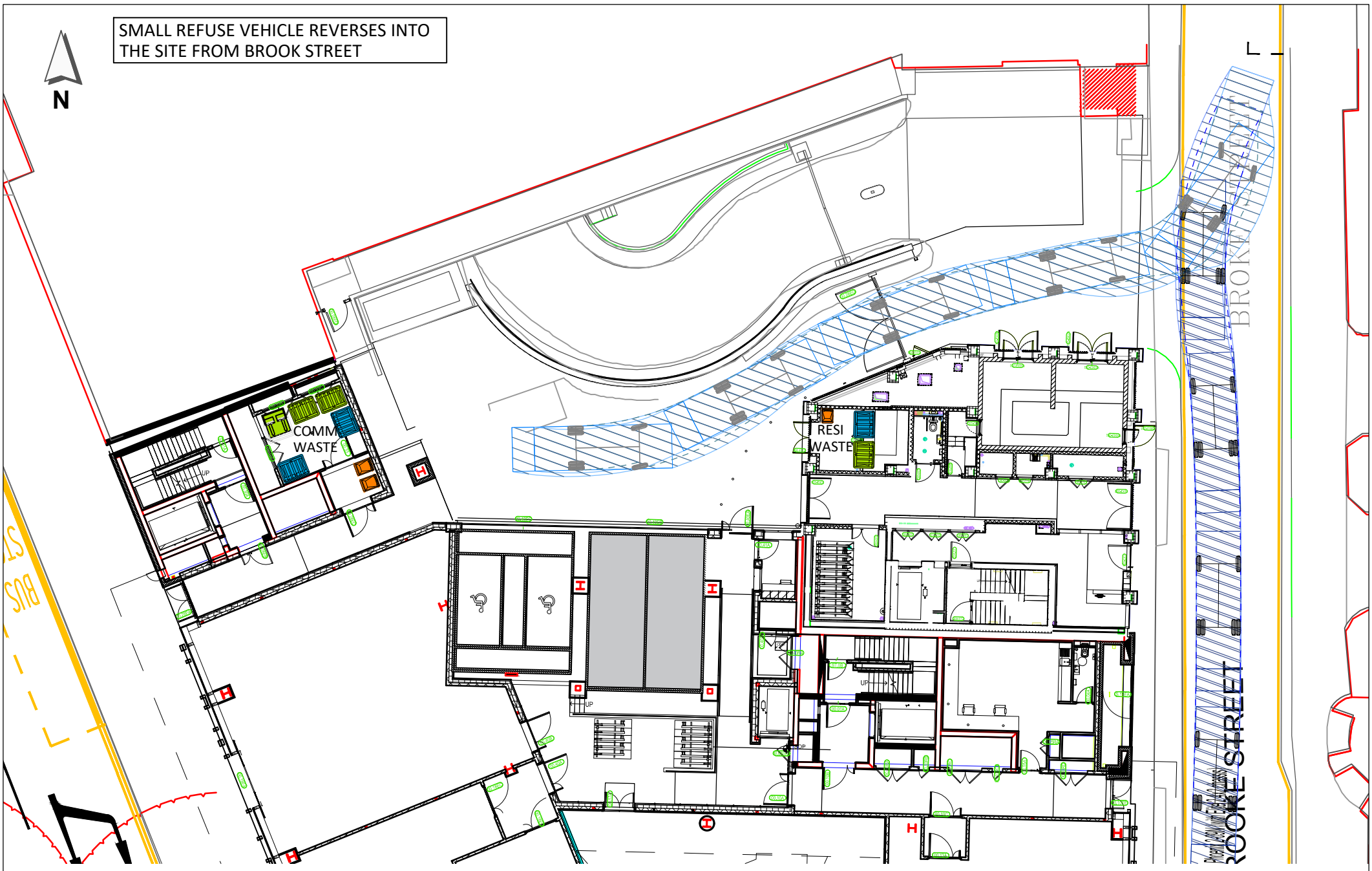
Status: FIT FOR INFORMATION

Size:	Scale:	Suitability	Rev.
A3	1:250	S2	P0

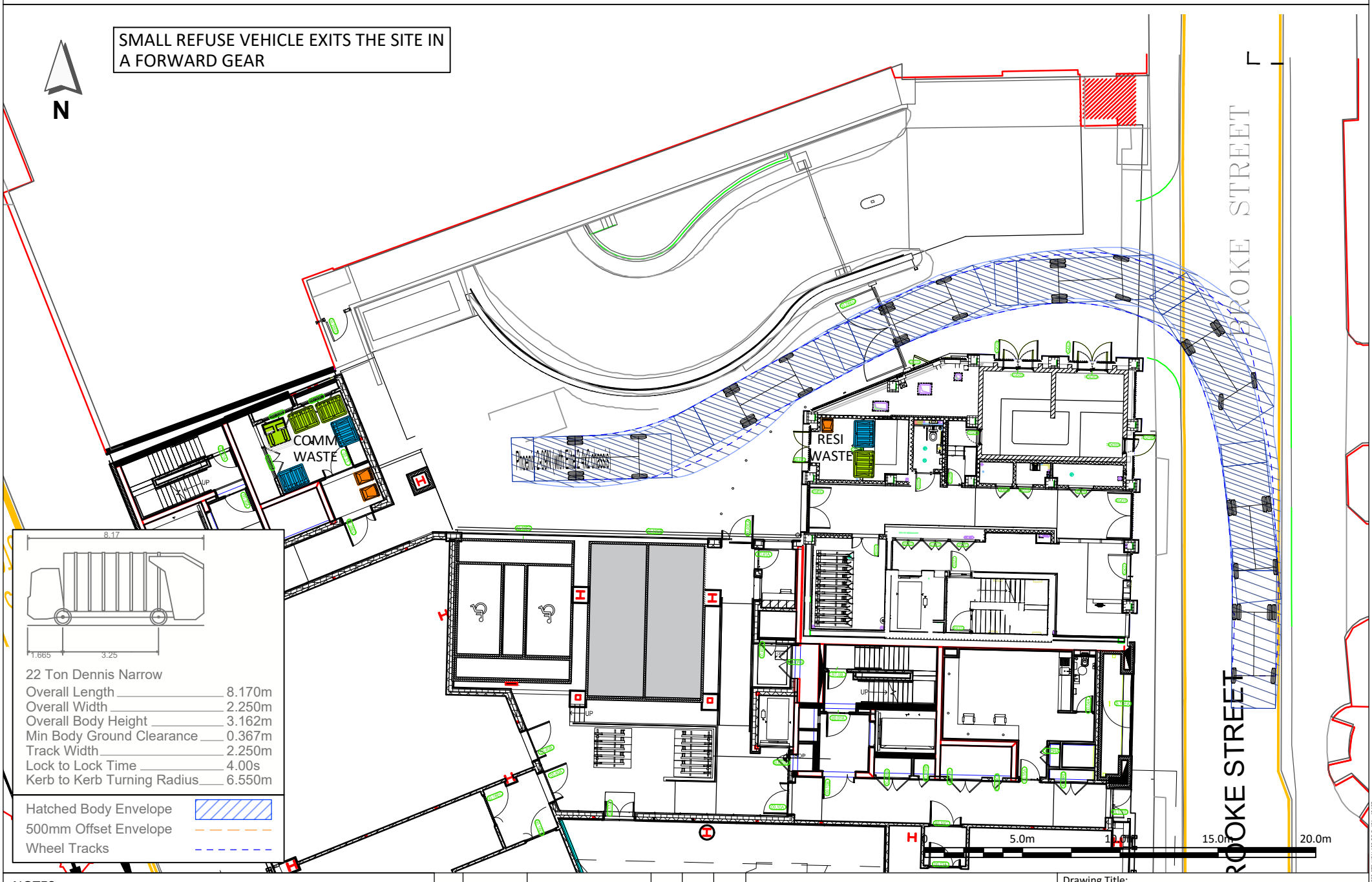
Drawing No. 22888503-STR-HGN-100-DR-40106

DATE: 26/05/2021 CAD REFERENCE: U:\London\Projects\228\85\05\CAD\Drawings\22888503-STR-HGN-100-DR-S-401 - 40106

SMALL REFUSE VEHICLE REVERSES INTO THE SITE FROM BROOK STREET



SMALL REFUSE VEHICLE EXITS THE SITE IN A FORWARD GEAR



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REV	DATE	DESCRIPTION	DES	CHK	APP
P0	04 MAY 21	ORIGINAL ISSUE	CGF	MSB	

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Client: DAH REAL ESTATES SARL

Project Title: 150 HOLBORN

Drawing Title: SERVICING STRATEGY SWEPT PATH ANALYSIS

Status: FIT FOR INFORMATION

Size:	Scale:	Suitability	Rev.
A3	1:250	S2	P0

Drawing No. 22888503-STR-HGN-100-DR-40107

DATE: 26/05/2021 CAD REFERENCE: U:\London\Projects\22888503-STR-HGN-100-DR-D-401 - 40107

D Vulnerable User Audit

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Memo

To	James Hammond (LB Camden Highways)		
Cc	Elaine Quigley (LB Camden Planning Officer) 150 Holborn Project Team		
From	Melanie de Wet		
Date	1 August 2016		
Project	150 Holborn	Project No.	22888501

150 Holborn Vulnerable User Audit (Planning Application Reference No. 2016/2094/P)

Introduction

1. This Vulnerable User Audit has been undertaken at the request of LB Camden Highways. The audit provides details of the design considerations to mitigate potential conflicts between the various users with the study area. The proposed development, study area, access strategy, potential conflicts and mitigation measures are described below.

Proposed Development

2. The site at 150 Holborn is bounded by Holborn to the south, Gray's Inn Road to the west and Brooke Street to the east.

3. The site will be redeveloped to provide a 14,604 sqm of office floorspace, ground floor retail totalling 1,450 sqm and 13 residential units.

4. Pedestrian access to the offices will be from Holborn. The ground floor retail units will have direct access from Gray's Inn Road and Brooke Street, while the primary access to the residential units will be from Brooke Street.

5. At the request of LB Camden, it is proposed to provide a passageway through the site from Gray's Inn Road to Brooke Street. The route runs through the service yard and the residential units. As such, it is proposed that the route is gated overnight.

6. The primary access for cyclists will be from Brooke Street. Cyclists wishing to access the ground floor cycle spaces or the office cycle parking at basement level will need to use the north of the office building, while residents will access their cycle parking spaces through the proposed passageway running through the centre of the residential units.

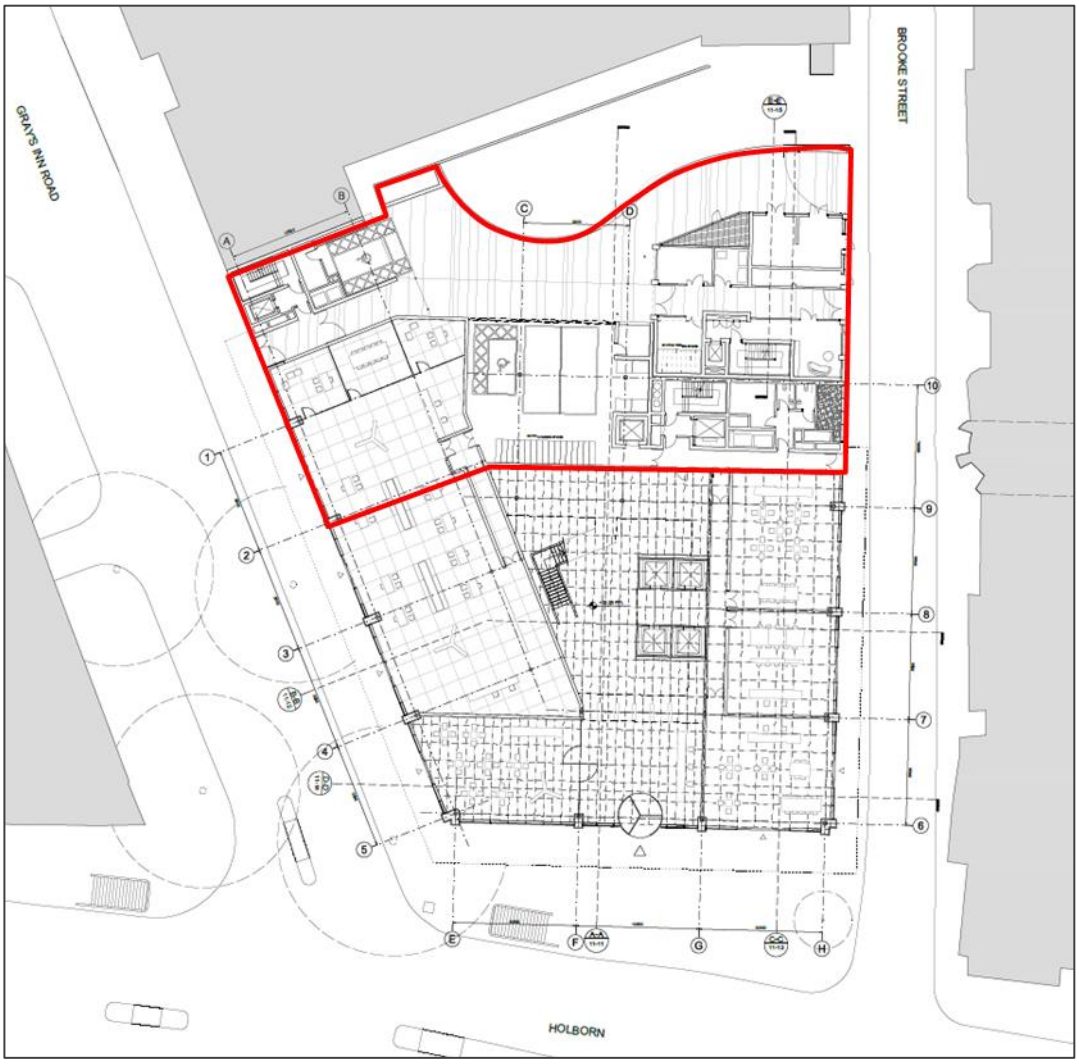
7. All vehicular access to the site will be from Brooke Street, as it is at present. An off-street service yard is located at the north-eastern corner of the site and is accessed via a crossover from Brooke Street. The crossover to the site is shared by a vehicular access to the basement of the adjacent Fox Court office building. No changes are proposed to the site access. The service yard will be reconfigured to provide two 8m loading bays and two disabled car parking spaces for the site.

8. Swept path analysis of the service yard is included in the Transport Statement and Delivery and Servicing Plan. The largest vehicle forecast to access the site will be a small refuse lorry. The swept path analysis shows that the refuse vehicle can enter the site in a forward gear, turn around using the loading area and exit the site in a forward gear. The servicing manoeuvre does not impact the part of the passageway designated for pedestrians.

Study Area

9. For the purpose of this Vulnerable User Audit, the study area is shown in Figure 1.

Figure 1: Study Area



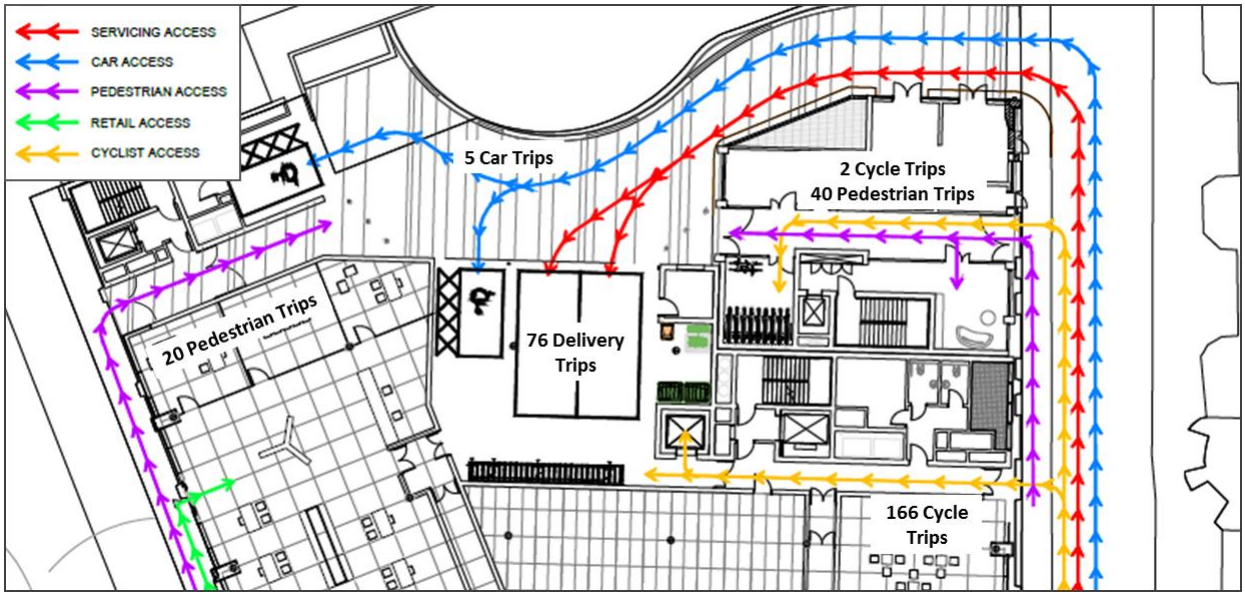
Access Plan

10. Figure 2 shows the access plan for the study area.

11. Based on the trip generation forecasts for the site, there will be 5 two-way car trips per day and 38 deliveries (76 two-way delivery trips) in the service yard per day. Of the 40 two-way trips that will start on foot from the residential units per day, it is forecast that 30 will access the site via Brooke Street and 10 will use Gray's Inn Road. Cycle trips to the residential units will access the site from Brooke Street. All cycle trips to the offices will use Brooke Street; 166 two-way trips per day. The trips are shown on Figure 2.

12. Figure 2 shows that the potential conflict of vehicle and vulnerable users (pedestrians and cyclists) will be made up of the forecast 5 car trips, 38 deliveries and 20 pedestrian per day that will be required to share the space. In a peak hour the forecast worst case trips will be 2 two-way car trips, 8 two-way delivery trips and 20 two-way pedestrian trips. The potential for pedestrian and vehicle conflict is therefore reasonably low. Measures to improve safety within the shared space are discussed below.

Figure 2: Study Area Access Plan



Mitigation

13. The design proposals include the following mitigation measures in order to improve the safety of the shared use space:

- During the peak hours of operation there will be a dockmaster or equivalent security personnel in the vicinity who will be responsible for managing conflicts between modes.
- The area will be well lit at all times when the passageway is open, to ensure that any opportunities for criminal / antisocial behaviour are minimised, and to improve inter-visibility between modes.
- Signage will be provided to ensure that drivers are aware that pedestrians may be present in the loading area and therefore to take extra care during manoeuvres.
- The east-west passageway and service yard will be delineated using different colour paving.
- Bollards will be provided on either end of the passageway at the entrance points to the service yard/parking area to warn pedestrians that they are entering a shared use space. The bollard lines will provide a safe area for pedestrians to wait, with excellent visibility of the whole area.

Conclusion

14. Based upon the above, it is considered that with the mitigation measures proposed, pedestrians will be able to safely cross the shared use space.

Control Information

Prepared by	Prepared for
Steer 28-32 Upper Ground London SE1 9PD +44 20 7910 5000 www.steergroup.com	Perkins + Will The White Chapel Building 10 Whitechapel High Street London E1 8QS

Steer project/proposal number	Client contract/project number
22888503	150 Holborn

Author/originator	Reviewer/approver
Steer	Matthew Booley

Other contributors	Distribution
	Client: Steer:

Version control/issue number	Date
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V2.0	September 2019 – Issue for final approval
V3.0	October 2019 - FINAL
V4.0	May 2021 – Update for 106 Obligation discharge
V5.0	June 2021 – Update with LBC comments

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