

Technical design note

Project name	Welcomb Street, Manchester		
Design note title	Technical Note		
Document reference	22975-HYD-XX-XX-RP-TP-1001-P01		
Author	Sam Denby BA (Hons) MSc CMILT		
Revision	P02		
Date	21 August 2024	Approved	✓

1. Introduction

- 1.1.1 Hydrock have been instructed by Network Space to prepare a Technical Note [TN] in response to Manchester City Council [MCC] planning comments relating to the Planning Application Reference 139997/FO/2024, Land at Welcomb Street Manchester.
- 1.1.2 The comments can be seen in full in **Appendix A**.
- 1.1.3 For ease of reference this technical note will address MCC's comments in the original order that they are presented, with the bold emphasis as per the original comments.

1.2 MCC comment

- 1.2.1 HFAS (Highway Forecasting and Analytical Services) and UTC (Urban Traffic Control) were consulted in relation to the trip generation and junction capacity assessments and provided the following comments. The TA states that the development is likely to be a mix of B2 and B8 land use, but the assessment will focus on a 100% B8 development as it is believed that this will result in higher trips. The trip generation exercise contained within the TA demonstrates that the development is likely to generate 24 two-way vehicle trips in the AM Peak hour (08:00- 09:00) and 23 two-way car trips in the PM peak hour (17:00- 18:00). TfGM HFAS would highlight that the trip rate has been determined for 100% B8 use which generally attracts fewer trips than B2 use. **Highways and TfGM suggest that B2 trip rates should have been applied to provide a robust assessment for the development, as per their comments during pre-application discussions:**
- 1.2.2 "If the amount of development between B2 and B8 use is not established, the trips should be calculated using a worst-case scenario i.e. B2 use"

1.3 Hydrock Response

- 1.3.1 The approach undertaken within the TA was set out and agreed at the scoping stage. Notwithstanding the above the following presents a further comparison of the previously presented B2 TRICS rates. These are included in **Appendix B** for reference.
- 1.3.2 In summary the B2 rates are presented in **Table 1.1**.

Table 1.1: B2 Trip Rates

Trip Rates	Weekday AM Peak (08:00-09:00)		Weekday PM Peak (15:00 - 16:00)	
	Arrivals	Departures	Arrivals	Departures
Total Vehicle Trip Rates	0.162	0.042	0.02	0.181
HGV Trip Rates	0.013	0.013	0.004	0.00

1.3.3 In comparison the B8 Trip rates presented in the TA are replicated in **Table 1.2** below

Table 1.2: B8 Trip Rates

Trip Rates	Weekday AM Peak (08:00-09:00)		Weekday PM Peak (15:00 - 16:00)	
	Arrivals	Departures	Arrivals	Departures
Total Vehicle Trip Rates	0.171	0.165	0.173	0.163
HGV Trip Rates	0.038	0.093	0.079	0.057

1.3.4 As set out in the original scoping while the development is likely to be a mix of B2/B8 site assessing the site at 100% B8 land use is robust as this generates higher vehicle trip rates than B2 land use.

1.4 MCC comment

1.4.1 HIGHWAYS SAFETY: The Department for Transport database has been reviewed for 2017 - 2021. The analysis shows that over the five-year period there has been a total of 4 incidents recorded, all of which were recorded as slight. These incidents were clustered around Welcomb Street and Ashton Old Road. **TfGM requests that the latest 5-year period is used to assess road safety and this should include data that is available from 2023.**

1.5 Hydrock Response

1.5.1 As requested an updated Accident review is set out below.

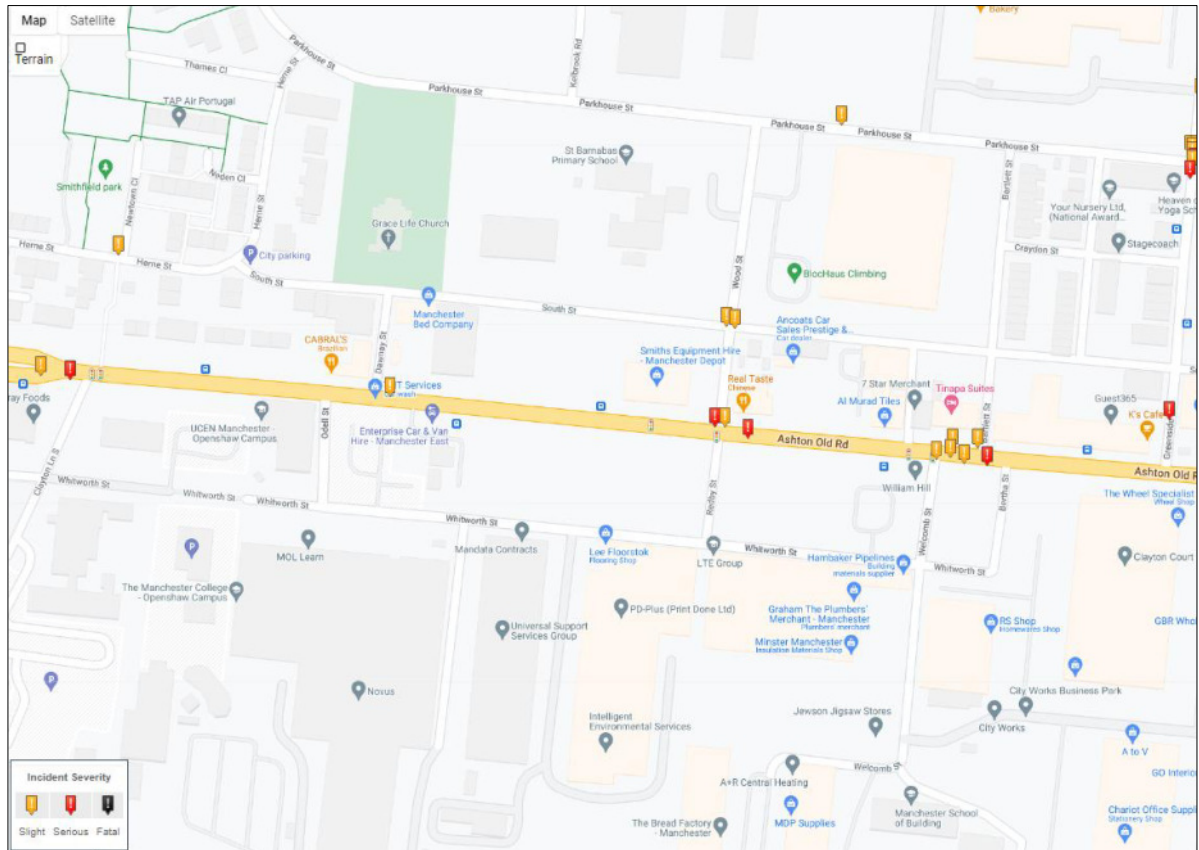
1.5.2 The DfT document "Guidance on Transport Assessment" states that:

"Critical locations on the road network with poor accident records should be identified. This is to determine if the proposed development will exacerbate existing problems or, if proposed, whether highway mitigation works or traffic management measures will help to alleviate the problems".

1.5.3 A review of the Personal-Injury Accidents [PIAs] recorded within the study area has been undertaken using the most recently available five-year data (1st January 2019-31st December 2023) available from the DfT.

1.5.4 **Figure 1.1** below illustrates the recorded findings.

Figure 1.1: Study Area Accident Record



Source: Crashmap.co.uk©

1.5.5 **Table 1.3** summarises the accident record and severity over the last 5 years in more detail.

Table 1.3: Study Area Accident Record Summary

Year/Severity	Slight	Serious	Fatal	Total
2019	-	-	-	-
2020	1	-	-	1
2021	1	1	-	2
2022	1	-	-	1
2023	1	-	-	1
Total	4	1	-	5

1.5.6 Examination of the PIA data revealed that during the five-year period a total of five accidents occurred at the Welcomb Street / A635 Ashton Old Road Junction. Of those 4 accidents, 4 resulted in slight injuries, with one serious.

1.5.7 Whilst all accidents are unfortunate, it is Hydrock's view that given the nature of the road network and subsequently traffic flows, the collisions can be attributed to random fluctuations, with circumstantial factors and weather conditions likely to have been the main causes.

1.5.8 Therefore, Hydrock consider the accident history is not a result of existing layout design issues, and concludes that there are no underlying accident concerns within the study area.

1.6 MCC Comment

1.6.1 SITE ACCESSIBILITY: The site is well accessed by sustainable modes. Regular bus services, Metrolink services and railway services are available in walking distance from the site.

1.7 Hydrock Response

1.7.1 Noted

1.8 MCC Comment

1.8.1 PARKING AND ACCESS: A new access is proposed on the unadopted Welcomb Street, which is managed by the owners of the site. Currently the road continues south from Ashton Old Road around a sharp bend which provides access to Medlock Court. As part of Phase 1 of the development estate roads were provided from Welcomb Street.

1.8.2 It is understood that an existing access is in place from Welcomb Street and will be retained as part of the development proposals. This will result in Welcomb Street being redesigned to allow this access. The aim of this reconfiguration is to improve access to the site and reduce areas of conflict at the access. No alterations are proposed at the Welcomb Street / Ashton Old Road junction.

1.8.3 The site is currently accessed by an unadopted section of Welcomb Street which is managed by the owners of the site. It is understood that the road will remain unadopted.

1.8.4 As part of the proposals for the site the following alterations will be made to Welcomb Street:

- » The priority of Welcomb Street will be altered with a give-way junction introduced at the existing sharp bend and the main priority given to vehicles travelling along the exiting estate road to the east of the site.
- » The two existing accesses to the Manchester school of building will be altered with the main HGV road removed and the access to the car park repositioned away from the sharp bend on Welcomb Street.
- » Pedestrian infrastructure will be redesigned to accommodate pedestrian connectivity within the site.

1.8.5 It is understood that no works will take place on the adopted highway and therefore works will remain with the private boundary of the site and managed by the current owners.

1.8.6 Swept path analyses has been undertaken with a large refuse vehicle and a 16.5m articulated vehicle. Drawing '22973-HYD-XX-XX-DR-TP-0001 and 22973-HYD-XX-XX-DR-TP-0002' demonstrates that a large refuse vehicle and 16.5m articulated vehicle can enter, manoeuvre and egress safely.

- 1.8.7 A pedestrian crossing will be provided on the eastern side of the junction to provide safe crossing facilities for pedestrians. The pedestrian crossing will link to a new footway which will continue along the southern boundary of Welcomb Street. This footpath will connect to Medlock Court and the new units to the west of the site. The footpath is welcomed by Highways.
- 1.8.8 Parking will be provided for each unit and access provided from Welcomb Street. The car parking provision is as follows:
- » Unit 1: 11 parking spaces (including 2 accessible and 2 EV)
 - » Unit 2: 18 parking spaces (including 2 accessible and 3 EV)
 - » Unit 3: 35 parking spaces (including 3 accessible and 5 EV)
 - » Unit 4: 34 parking spaces (including 4 accessible and 7 EV)
- 1.8.9 A total of 98 car parking spaces will be provided of which 17% are EV and 11% are disabled. This provision is acceptable to Highways.
- 1.8.10 Regarding the dimension of these spaces, these should all accord with MCC's standard minimum requirement. It is recommended that standard parking bay dimensions be a minimum of 2.4m x 4.8m and disabled parking bay dimensions a minimum of 3.6m x 6.0m. This should also include a 6-metre aisle width to allow vehicles to safely manoeuvre within the car park with formal demarcation of all spaces.
- 1.8.11 OFF-SITE HIGHWAYS WORKS: Should the planning application be approved, the applicant will be required to enter into a Section 278 agreement for any alterations to the existing adopted highways. This will require the agreement with MCC's Highways Applications and Network Resilience teams via Contact Manchester (Tel. 0161 234 5004). This will be funded at the applicant's expense.
- 1.8.12 Any modifications / improvements to the public highway or footpath will require agreement with MCC's Highways Applications and Network Resilience teams. This will be funded at the applicant's expense. The following link provides access:
https://www.manchester.gov.uk/directory_record/287709/permission_to_work_on_the_highways_-_section_278_agreements/category/355/highways_and_pavements
- 1.8.13 It is expected that all modifications / improvements to the public highway are achieved with a maximum carbon footprint of 40%. Materials used during this process must also be a minimum of 40% recycled and fully recyclable. Developers will be expected to demonstrate that these standards can be met prior to planning conditions being discharged. The developer is to agree the above with MCC's Statutory Approvals and Network Resilience Teams post planning approval and prior to construction taking place.

1.9 Hydrock Response

- 1.9.1 Noted

1.10 MCC Comment

- 1.10.1 TRAFFIC REGULATION ORDERS: **TfGM would suggest that it may be beneficial for a review to be undertaken of the Traffic Regulation Orders in the vicinity of the development, with a view to introducing additional parking restrictions as appropriate, as well as ensuring adequate parking restrictions remain in place, and are refreshed accordingly. This will help to discourage pavement parking associated with the development and therefore assist in improving the quality of the surrounding public realm.**

1.11 Hydrock Response

- 1.11.1 Welcomb Street benefits from double yellow lines along its full course, therefore parking in the vicinity of the of the development is regulated.
- 1.11.2 As previously set out the parking provision proposed, 98 spaces in total, is in line with council guidance and no parking issues are anticipated.

1.12 MCC Comment

- 1.12.1 CYCLE PARKING: In line with MCC recommendations, secure and sheltered cycle parking provision should be made, within the curtilage of the site, for the accommodation of staff/ visitor cycles. The development proposed to provide 42 cycle spaces. **It is requested that further information on where the cycle parking is located is provided. It is also requested that the applicant confirm whether cycle parking for visitors will be provided. TfGM suggests that the cycle facilities should be covered and secure, ideally located within internal stores with measures such as the installation of CCTV and appropriate lighting to ensure security. Additionally, appropriate welfare facilities (shower/changing rooms/lockers) should be provided for staff to promote and encourage cycling as an alternative to car travel.**

1.13 Hydrock Response

- 1.13.1 Please find attached a cycle storage site layout plan (**Appendix D**) which illustrates the location of internal cycle parking storage within each individual unit. This cycle parking provision will also be available for visitor use if required. The plan also highlights the designated areas for future provision for shower change / locker provision, which will be provided by each tenant.

1.14 MCC Comment

- 1.14.1 BOUNDARY TREATMENTS: It is recommended that all fencing / railings adjacent to the adopted highway are visually permeable from a distance of 600mm upwards to ensure adequate visual permeability for child pedestrians. The applicant should be advised that all gated accesses will need to provide inward opening gates to ensure they do not impact on the adopted footway or highway.

1.15 Hydrock Response

- 1.15.1 Noted

1.16 MCC Comment

- 1.16.1 FRAMEWORK TRAVEL PLAN: A Framework Travel Plan (FTP) has been produced. The FTP provides measures, management, aims and objectives, targets, action plan and marketing strategy. The main objective of the FTP is to minimise the number of private car trips that are generated by the proposed development and especially those with a single occupant. A Travel Plan Coordinator (TPC) will be responsible for the ongoing monitoring and will review the success and identify the potential for future refinement. The TPC will be in place within 6 months of first occupation. The TPC will design and distribute a travel survey with the baseline travel survey being undertaken upon full occupation and operation of the facility. Once the baseline travel surveys are undertaken and the modal share assesses the interim travel plan will be updated to a full TP. The development, submission, implementation and monitoring of a full Travel Plan should be included in the conditions of any planning consent.

1.17 Hydrock Response

- 1.17.1 Noted

1.18 MCC Comment

- 1.18.1 CONSTRUCTION MANAGEMENT: A Construction Management Plan should be provided by the applicant prior to any construction works beginning. The Construction Management Plan should detail the phasing and quantification / classification of vehicular activity associated with planned construction. This should include commentary on types and frequency of vehicular demands together with evidence (including appropriate swept-path assessment) of satisfactory routeing both within the site and on the adjacent highway. The document should also consider ongoing construction works and contractor parking in the locality. It is also requested the applicant provides a dilapidation survey as part of the Construction Management Plan document. The survey should include photographs and commentary on the condition of carriageway / footways on construction vehicle routes surrounding the site. The applicant is advised that any requirements for licensing, hoarding / scaffolding and any associated temporary traffic management arrangements will need discussion and agreement with the council's Highways Applications and Network Resilience teams via Contact Manchester (Tel. 0161 234 5004).
- 1.18.2 It is recommended that the above is conditioned and attached to any planning permission that may be granted.

1.19 Hydrock Response

- 1.19.1 Noted

Appendices

Appendix A Highways Comments

139997

CHANGE OF USE

CONTEXT

The application seeks consent for the erection of 4no. two storey industrial buildings (Classes E(g)(ii)(iii), B2 and B8) following the demolition of existing buildings together with associated service yards, car parking, electric vehicle charging points, amended site access, refuse storage facilities, substations, boundary treatments, landscaping, and associated works and infrastructure at Land at Welcomb Street, Manchester.

The site is located within the private boundary of the development site.

HIGHWAYS RESPONSE

The application is for 4 units, 6,984sqm broken down as follows:

- Unit 1 – 713sqm
- Unit 2 – 1,099sqm
- Unit 3 – 2,735sqm
- Unit 4 – 2,437sqm

TRIP GENERATION AND JUNCTION CAPACITY:

HFAS (Highway Forecasting and Analytical Services) and UTC (Urban Traffic Control) were consulted in relation to the trip generation and junction capacity assessments and provided the following comments.

The TA states that the development is likely to be a mix of B2 and B8 land use, but the assessment will focus on a 100% B8 development as it is believed that this will result in higher trips. The trip generation exercise contained within the TA demonstrates that the development is likely to generate 24 two-way vehicle trips in the AM Peak hour (08:00- 09:00) and 23 two-way car trips in the PM peak hour (17:00-18:00). TfGM HFAS would highlight that the trip rate has been determined for 100% B8 use which generally attracts fewer trips than B2 use.

Highways and TfGM suggest that B2 trip rates should have been applied to provide a robust assessment for the development, as per our comments during pre-application discussions:

- *“If the amount of development between B2 and B8 use is not established, the trips should be calculated using a worst-case scenario i.e. B2 use”*

HIGHWAYS SAFETY:

The Department for Transport database has been reviewed for 2017 – 2021.

The analysis shows that over the five-year period there has been a total of 4 incidents recorded, all of which were recorded as slight. These incidents were clustered around Welcomb Street and Ashton Old Road.

TfGM requests that the latest 5-year period is used to assess road safety and this should include data that is available from 2023.

SITE ACCESSIBILITY:

The site is well accessed by sustainable modes. Regular bus services, Metrolink services and railway services are available in walking distance from the site.

PARKING AND ACCESS:

A new access is proposed on the unadopted Welcomb Street, which is managed by the owners of the site. Currently the road continues south from Ashton Old Road around a sharp bend which provides access to Medlock Court. As part of Phase 1 of the development estate roads were provided from Welcomb Street.

It is understood that an existing access is in place from Welcomb Street and will be retained as part of the development proposals. This will result in Welcomb Street being redesigned to allow this access. The aim of this reconfiguration is to improve access to the site and reduce areas of conflict at the access. No alterations are proposed at the Welcomb Street / Ashton Old Road junction.

The site is currently accessed by an unadopted section of Welcomb Street which is managed by the owners of the site. It is understood that the road will remain unadopted.

As part of the proposals for the site the following alterations will be made to Welcomb Street:

- The priority of Welcomb Street will be altered with a give-way junction introduced at the existing sharp bend and the main priority given to vehicles travelling along the existing estate road to the east of the site.
- The two existing accesses to the Manchester school of building will be altered with the main HGV road removed and the access to the car park repositioned away from the sharp bend on Welcomb Street.
- Pedestrian infrastructure will be redesigned to accommodate pedestrian connectivity within the site.

It is understood that no works will take place on the adopted highway and therefore works will remain within the private boundary of the site and managed by the current owners.

Swept path analyses has been undertaken with a large refuse vehicle and a 16.5m articulated vehicle. Drawing '22973-HYD-XX-XX-DR-TP-0001 and 22973-HYD-XX-XX-DR-TP-0002' demonstrates that a large refuse vehicle and 16.5m articulated vehicle can enter, manoeuvre and egress safely.

A pedestrian crossing will be provided on the eastern side of the junction to provide safe crossing facilities for pedestrians. The pedestrian crossing will link to a new footway which will continue along the southern boundary of Welcomb Street. This footpath will connect to Medlock Court and the new units to the west of the site. The footpath is welcomed by Highways.

Parking will be provided for each unit and access provided from Welcomb Street. The car parking provision is as follows:

- Unit 1: 11 parking spaces (including 2 accessible and 2 EV)
- Unit 2: 18 parking spaces (including 2 accessible and 3 EV)
- Unit 3: 35 parking spaces (including 3 accessible and 5 EV)
- Unit 4: 34 parking spaces (including 4 accessible and 7 EV)

A total of 98 car parking spaces will be provided of which 17% are EV and 11% are disabled. This provision is acceptable to Highways.

Regarding the dimension of these spaces, these should all accord with MCC's standard minimum requirement. It is recommended that standard parking bay dimensions be a minimum of 2.4m x 4.8m and disabled parking bay dimensions a minimum of 3.6m x 6.0m. This should also include a 6-metre aisle width to allow vehicles to safely manoeuvre within the car park with formal demarcation of all spaces.

OFF-SITE HIGHWAYS WORKS:

Should the planning application be approved, the applicant will be required to enter into a Section 278 agreement for any alterations to the existing adopted highways. This will require the agreement with MCC's Highways Applications and Network Resilience teams via Contact Manchester (Tel. 0161 234 5004). This will be funded at the applicant's expense.

Any modifications / improvements to the public highway or footpath will require agreement with MCC's Highways Applications and Network Resilience teams. This will be funded at the applicant's expense. The following link provides access:

https://www.manchester.gov.uk/directory_record/287709/permission_to_work_on_the_highways_-_section_278_agreements/category/355/highways_and_pavements

It is expected that all modifications / improvements to the public highway are achieved with a maximum carbon footprint of 40%. Materials used during this process must also be a minimum of 40% recycled and fully recyclable. Developers will be expected to demonstrate that these standards can be met prior to planning conditions being discharged. The developer is to agree the above with MCC's Statutory Approvals and Network Resilience Teams post planning approval and prior to construction taking place.

TRAFFIC REGULATION ORDERS:

TfGM would suggest that it may be beneficial for a review to be undertaken of the Traffic Regulation Orders in the vicinity of the development, with a view to introducing additional parking restrictions as appropriate, as well as ensuring adequate parking restrictions remain in place, and are refreshed accordingly. This will help to discourage pavement parking associated with the development and therefore assist in improving the quality of the surrounding public realm.

CYCLE PARKING:

In line with MCC recommendations, secure and sheltered cycle parking provision should be made, within the curtilage of the site, for the accommodation of staff/ visitor cycles.

The development proposed to provide 42 cycle spaces. It is requested that further information on where the cycle parking is located is provided. It is also requested that the applicant confirm whether cycle parking for visitors will be provided.

TfGM suggests that the cycle facilities should be covered and secure, ideally located within internal stores with measures such as the installation of CCTV and appropriate lighting to ensure security. Additionally, appropriate welfare facilities (shower/changing rooms/lockers) should be provided for staff to promote and encourage cycling as an alternative to car travel.

BOUNDARY TREATMENTS:

It is recommended that all fencing / railings adjacent to the adopted highway are visually permeable from a distance of 600mm upwards to ensure adequate visual permeability for child pedestrians.

The applicant should be advised that all gated accesses will need to provide inward opening gates to ensure they do not impact on the adopted footway or highway.

REFUSE AND SERVICING:

A refuse storage area is noted within the site. This is considered to be appropriate in ensuring no obstruction on the adjacent highway.

The TA notes that waste servicing requirements have been considered. However, no information has been provided in the TA and no Waste Service Management information provided. It is requested that details on how the site will be serviced, waste collected, and waste storage is provided.

As above it is noted that a large refuse vehicle and 16.5m articulated vehicle can enter, manoeuvre and egress safely.

FRAMEWORK TRAVEL PLAN:

A Framework Travel Plan (FTP) has been produced. The FTP provides measures, management, aims and objectives, targets, action plan and marketing strategy.

The main objective of the FTP is to minimise the number of private car trips that are generated by the proposed development and especially those with a single occupant.

A Travel Plan Coordinator (TPC) will be responsible for the ongoing monitoring and will review the success and identify the potential for future refinement. The TPC will be in place within 6 months of first occupation.

The TPC will design and distribute a travel survey with the baseline travel survey being undertaken upon full occupation and operation of the facility. Once the baseline travel surveys are undertaken and the modal share assesses the interim travel plan will be updated to a full TP.

The development, submission, implementation and monitoring of a full Travel Plan should be included in the conditions of any planning consent.

CONSTRUCTION MANAGEMENT:

A Construction Management Plan should be provided by the applicant prior to any construction works beginning. The Construction Management Plan should detail the phasing and quantification / classification of vehicular activity associated with planned construction. This should include commentary on types and frequency of vehicular demands together with evidence (including appropriate swept-path assessment) of satisfactory routeing both within the site and on the adjacent highway. The document should also consider ongoing construction works and contractor parking in the locality.

It is also requested the applicant provides a dilapidation survey as part of the Construction Management Plan document. The survey should include photographs and commentary on the condition of carriageway / footways on construction vehicle routes surrounding the site.

The applicant is advised that any requirements for licensing, hoarding / scaffolding and any associated temporary traffic management arrangements will need discussion and agreement with the council's Highways Applications and Network Resilience teams via Contact Manchester (Tel. 0161 234 5004).

It is recommended that the above is conditioned and attached to any planning permission that may be granted.

Appendix B TRICS OUTPUT

Calculation Reference: AUDIT-540501-201112-1105

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : C - INDUSTRIAL UNIT

TOTAL VEHICLESSelected regions and areas:

03	SOUTH WEST	
	DV DEVON	1 days
05	EAST MIDLANDS	
	NR NORTHAMPTONSHIRE	1 days
06	WEST MIDLANDS	
	HE HEREFORDSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	1 days
11	SCOTLAND	
	EB CITY OF EDINBURGH	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
 Actual Range: 1880 to 20000 (units: sqm)
 Range Selected by User: 150 to 80000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/08 to 14/11/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	2 days
Tuesday	2 days
Thursday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Edge of Town	5
--------------	---

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	3
Commercial Zone	1
Development Zone	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:Use Class:

B2

4 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Use Class Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	2 days
10,001 to 15,000	1 days
50,001 to 100,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

50,001 to 75,000	2 days
125,001 to 250,000	2 days
250,001 to 500,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	4 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	5 days
----	--------

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	5 days
-----------------	--------

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

Site(1): CH-02-C-03
 Development Name: OFFICE FURNITURE
 Location: MACCLESFIELD
 Postcode: SK11 0TA
 Main Location Type: Edge of Town
 Sub-Location Type: Development Zone
 PTAL: n/a

Site area: 0.91 hect
 Gross floor area: 6658 sqm
 Parking spaces: 97
 No of Employees: 122
 Survey Date: 19/09/16
 Survey Day: Monday

Site(2): DV-02-C-01
 Development Name: TUBE MANUFACTURE
 Location: PLYMOUTH
 Postcode: PL6 7LG
 Main Location Type: Edge of Town
 Sub-Location Type: Industrial Zone
 PTAL: n/a

Site area: 6.13 hect
 Gross floor area: 20000 sqm
 Parking spaces: 185
 No of Employees: 372
 Survey Date: 17/07/12
 Survey Day: Tuesday

Site(3): EB-02-C-02
 Development Name: FOOD PRODUCTION
 Location: EDINBURGH
 Postcode: EH11 4HN
 Main Location Type: Edge of Town
 Sub-Location Type: Industrial Zone
 PTAL: n/a

Site area: 5.44 hect
 Gross floor area: 19805 sqm
 Parking spaces: 68
 No of Employees: 600
 Survey Date: 25/10/10
 Survey Day: Monday

Site(4): HE-02-C-02
 Development Name: THERMAL PROCESSING
 Location: HEREFORD
 Postcode: HR1 1JR
 Main Location Type: Edge of Town
 Sub-Location Type: Commercial Zone
 PTAL: n/a

Site area: 0.63 hect
 Gross floor area: 1880 sqm
 Parking spaces: 27
 No of Employees: 15
 Survey Date: 22/10/13
 Survey Day: Tuesday

Site(5): NR-02-C-01
 Development Name: PAPER COMPANY
 Location: NORTHAMPTON
 Postcode: NN4 7JE
 Main Location Type: Edge of Town
 Sub-Location Type: Industrial Zone
 PTAL: n/a

Site area: 4.10 hect
 Gross floor area: 11500 sqm
 Parking spaces: 142
 No of Employees: 120
 Survey Date: 27/11/08
 Survey Day: Thursday

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

TOTAL VEHICLES**Calculation factor: 100 sqm****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	5	11969	0.060	5	11969	0.017	5	11969	0.077
07:30 - 08:00	5	11969	0.122	5	11969	0.023	5	11969	0.145
08:00 - 08:30	5	11969	0.080	5	11969	0.027	5	11969	0.107
08:30 - 09:00	5	11969	0.082	5	11969	0.015	5	11969	0.097
09:00 - 09:30	5	11969	0.055	5	11969	0.013	5	11969	0.068
09:30 - 10:00	5	11969	0.032	5	11969	0.028	5	11969	0.060
10:00 - 10:30	5	11969	0.027	5	11969	0.015	5	11969	0.042
10:30 - 11:00	5	11969	0.028	5	11969	0.012	5	11969	0.040
11:00 - 11:30	5	11969	0.025	5	11969	0.023	5	11969	0.048
11:30 - 12:00	5	11969	0.012	5	11969	0.020	5	11969	0.032
12:00 - 12:30	5	11969	0.028	5	11969	0.043	5	11969	0.071
12:30 - 13:00	5	11969	0.033	5	11969	0.040	5	11969	0.073
13:00 - 13:30	5	11969	0.055	5	11969	0.072	5	11969	0.127
13:30 - 14:00	5	11969	0.105	5	11969	0.025	5	11969	0.130
14:00 - 14:30	5	11969	0.047	5	11969	0.134	5	11969	0.181
14:30 - 15:00	5	11969	0.040	5	11969	0.028	5	11969	0.068
15:00 - 15:30	5	11969	0.030	5	11969	0.070	5	11969	0.100
15:30 - 16:00	5	11969	0.040	5	11969	0.045	5	11969	0.085
16:00 - 16:30	5	11969	0.017	5	11969	0.042	5	11969	0.059
16:30 - 17:00	5	11969	0.008	5	11969	0.109	5	11969	0.117
17:00 - 17:30	5	11969	0.010	5	11969	0.087	5	11969	0.097
17:30 - 18:00	5	11969	0.010	5	11969	0.074	5	11969	0.084
18:00 - 18:30	5	11969	0.012	5	11969	0.028	5	11969	0.040
18:30 - 19:00	5	11969	0.008	5	11969	0.022	5	11969	0.030
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.966			1.012			1.978

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

Parameter summary

Trip rate parameter range selected:	1880 - 20000 (units: sqm)
Survey date range:	01/01/08 - 14/11/19
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

OGVS**Calculation factor: 100 sqm****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	5	11969	0.003	5	11969	0.003	5	11969	0.006
07:30 - 08:00	5	11969	0.003	5	11969	0.010	5	11969	0.013
08:00 - 08:30	5	11969	0.005	5	11969	0.008	5	11969	0.013
08:30 - 09:00	5	11969	0.008	5	11969	0.005	5	11969	0.013
09:00 - 09:30	5	11969	0.012	5	11969	0.005	5	11969	0.017
09:30 - 10:00	5	11969	0.005	5	11969	0.005	5	11969	0.010
10:00 - 10:30	5	11969	0.007	5	11969	0.008	5	11969	0.015
10:30 - 11:00	5	11969	0.015	5	11969	0.007	5	11969	0.022
11:00 - 11:30	5	11969	0.005	5	11969	0.007	5	11969	0.012
11:30 - 12:00	5	11969	0.002	5	11969	0.007	5	11969	0.009
12:00 - 12:30	5	11969	0.007	5	11969	0.005	5	11969	0.012
12:30 - 13:00	5	11969	0.008	5	11969	0.003	5	11969	0.011
13:00 - 13:30	5	11969	0.003	5	11969	0.008	5	11969	0.011
13:30 - 14:00	5	11969	0.003	5	11969	0.002	5	11969	0.005
14:00 - 14:30	5	11969	0.007	5	11969	0.002	5	11969	0.009
14:30 - 15:00	5	11969	0.008	5	11969	0.002	5	11969	0.010
15:00 - 15:30	5	11969	0.003	5	11969	0.000	5	11969	0.003
15:30 - 16:00	5	11969	0.008	5	11969	0.002	5	11969	0.010
16:00 - 16:30	5	11969	0.002	5	11969	0.003	5	11969	0.005
16:30 - 17:00	5	11969	0.000	5	11969	0.000	5	11969	0.000
17:00 - 17:30	5	11969	0.002	5	11969	0.000	5	11969	0.002
17:30 - 18:00	5	11969	0.002	5	11969	0.000	5	11969	0.002
18:00 - 18:30	5	11969	0.000	5	11969	0.002	5	11969	0.002
18:30 - 19:00	5	11969	0.002	5	11969	0.000	5	11969	0.002
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.120			0.094			0.214

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

Calculation Reference: AUDIT-540501-220526-0549

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : E - WAREHOUSING (SELF STORAGE)
 TOTAL VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	WL WILTSHIRE	1 days
04	EAST ANGLIA	
	SF SUFFOLK	1 days
05	EAST MIDLANDS	
	NT NOTTINGHAMSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
09	NORTH	
	CB CUMBRIA	1 days
	TW TYNE & WEAR	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
 Actual Range: 1350 to 5500 (units: sqm)
 Range Selected by User: 1350 to 10000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 15/10/21

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	1 days
Wednesday	1 days
Thursday	2 days
Friday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	6 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	3

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	4
Development Zone	1
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

B8 6 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000	1 days
10,001 to 15,000	2 days
15,001 to 20,000	1 days
25,001 to 50,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	1 days
75,001 to 100,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	1 days
500,001 or More	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	3 days
1.6 to 2.0	1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No 6 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present 6 days

This data displays the number of selected surveys with PTAL Ratings.

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
-----------------------	-----	--

LIST OF SITES relevant to selection parameters

1	CB-02-E-01 MILLBROOK ROAD CARLISLE KINGSTOWN IND. ESTATE Edge of Town Industrial Zone Total Gross floor area: 3100 sqm Survey date: FRIDAY 15/10/21	BOX CLEVER SELF STORAGE CUMBRIA	Survey Type: MANUAL
2	NT-02-E-02 LENTON LANE NOTTINGHAM Suburban Area (PPS6 Out of Centre) Development Zone Total Gross floor area: 2860 sqm Survey date: THURSDAY 17/11/16	BIG YELLOW SELF STORAGE NOTTINGHAMSHIRE	Survey Type: MANUAL
3	NY-02-E-01 OAKNEY WOOD ROAD SELBY Edge of Town Industrial Zone Total Gross floor area: 1350 sqm Survey date: TUESDAY 21/09/21	SELF STORAGE NORTH YORKSHIRE	Survey Type: MANUAL
4	SF-02-E-01 WHITE HOUSE ROAD IPSWICH Edge of Town Industrial Zone Total Gross floor area: 1530 sqm Survey date: THURSDAY 24/06/21	SELF STORAGE SUFFOLK	Survey Type: MANUAL
5	TW-02-E-01 STONEYGATE CLOSE GATESHEAD Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 5500 sqm Survey date: MONDAY 13/06/16	1ST STORAGE TYNE & WEAR	Survey Type: MANUAL
6	WL-02-E-01 DRAKES WAY SWINDON Suburban Area (PPS6 Out of Centre) No Sub Category Total Gross floor area: 4925 sqm Survey date: WEDNESDAY 21/09/16	BIG YELLOW SELF STORAGE WILTSHIRE	Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 02 - EMPLOYMENT/E - WAREHOUSING (SELF STORAGE)

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	3211	0.057	6	3211	0.031	6	3211	0.088
08:00 - 09:00	6	3211	0.109	6	3211	0.078	6	3211	0.187
09:00 - 10:00	6	3211	0.187	6	3211	0.151	6	3211	0.338
10:00 - 11:00	6	3211	0.171	6	3211	0.176	6	3211	0.347
11:00 - 12:00	6	3211	0.130	6	3211	0.109	6	3211	0.239
12:00 - 13:00	6	3211	0.213	6	3211	0.218	6	3211	0.431
13:00 - 14:00	6	3211	0.140	6	3211	0.119	6	3211	0.259
14:00 - 15:00	6	3211	0.161	6	3211	0.176	6	3211	0.337
15:00 - 16:00	6	3211	0.145	6	3211	0.161	6	3211	0.306
16:00 - 17:00	6	3211	0.114	6	3211	0.119	6	3211	0.233
17:00 - 18:00	6	3211	0.057	6	3211	0.135	6	3211	0.192
18:00 - 19:00	6	3211	0.026	6	3211	0.031	6	3211	0.057
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.510			1.504			3.014

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP* FACT. Trip rates are then rounded to 3 decimal places.

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

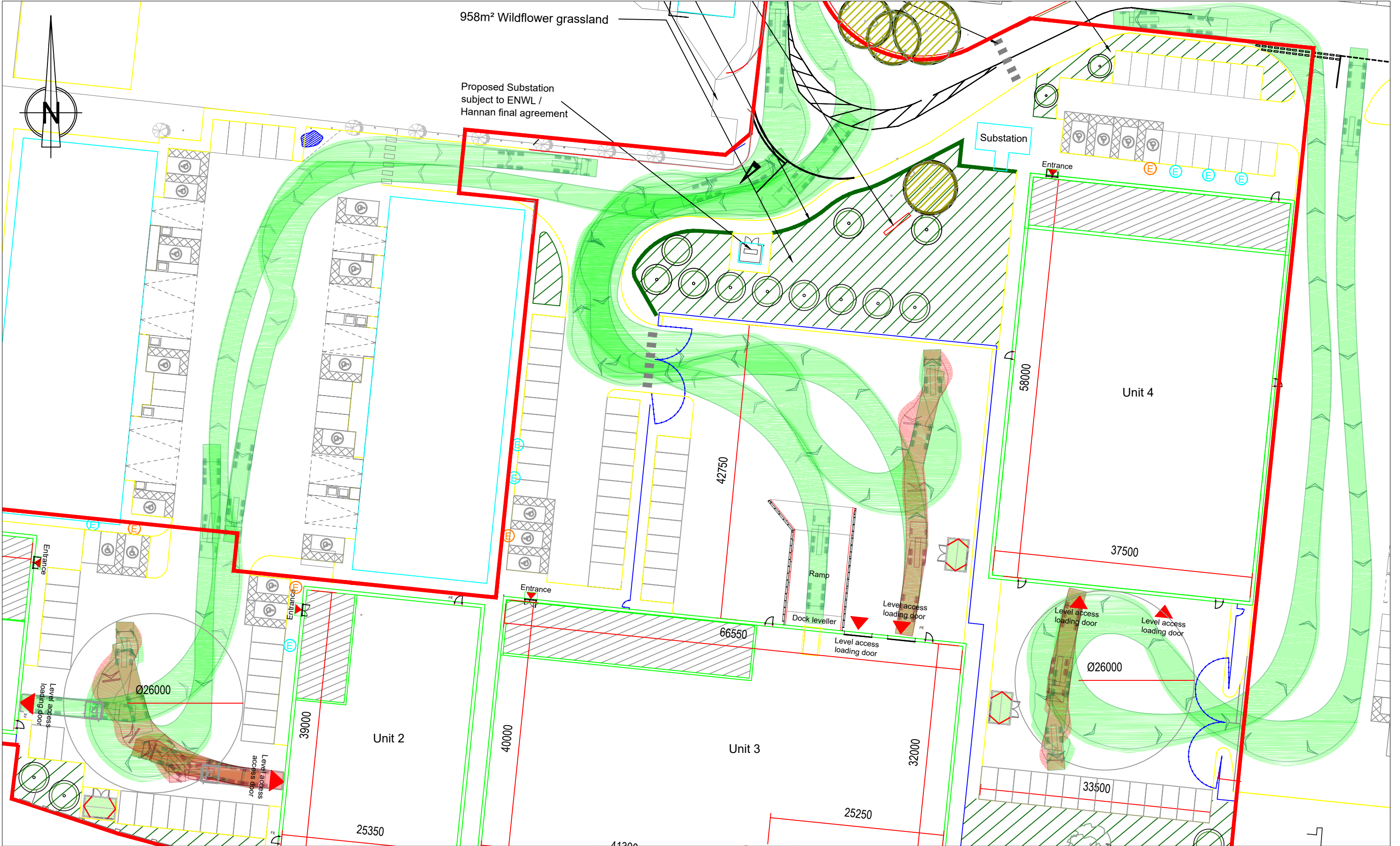
The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

Parameter summary

Trip rate parameter range selected:	1350 - 5500 (units: sqm)
Survey date range:	01/01/14 - 15/10/21
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Appendix C Swept Path



KEY PLAN

- VEHICLE BODY IN FORWARD GEAR
- VEHICLE BODY IN REVERSE GEAR
- VEHICLE CHASSIS IN FORWARD GEAR
- VEHICLE CHASSIS IN REVERSE GEAR

Max Legal Length (UK) Articulated Vehicle (16.5m)

Overall Length 16.500m

Overall Width 2.550m

Overall Body Height 3.681m

Min Body Ground Clearance 0.411m

Max Track Width 2.500m

Lock to lock time 6.00s

Kerb to Kerb Turning Radius 6.530m

NOTES (CONTINUED)

1) THIS DRAWING IS FOR DISCUSSION PURPOSES ONLY AND NOT FOR CONSTRUCTION

2) THE CONTENT OF THIS DRAWING WILL REQUIRE FURTHER WORK SUCH AS A ROAD SAFETY AUDIT AND DETAILED DESIGN

3) THIS DRAWING IS BASED ON 3RD PARTY SURVEY INFORMATION

REVISIONS (CONTINUED)

P06	FIRST ISSUE	HT	30.04.24	SD	30.04.24	SD	30.04.24
P05	FIRST ISSUE	HT	22.04.24	SD	22.04.24	SD	22.04.24

REVISIONS

P01.04	FIRST ISSUE	CR	02.11.23	SD	02.11.23	SD	02.11.23
P01.03	FIRST ISSUE	HT	21.06.23	TA	21.06.23	SD	21.06.23
P01.02	FIRST ISSUE	HT	21.06.23	TA	21.06.23	SD	21.06.23
P01.01	FIRST ISSUE	HT	23.05.23	TA	23.05.23	SD	23.05.23

REVNOTES

REV	DRAWNBY	DATE-D	CHKBY	DATE-C	APPLY	DATE-A
-----	---------	--------	-------	--------	-------	--------

CLIENT

Network Space

PROJECT

Welcomb Street, Manchester

TITLE

Swept Path Analysis - Maximum Legal HGV (UK) - Proposed Site Layout

HYDROCK PROJECT NO.

TMBI - 22973

SCALE @ A3

1:500

STATUS DESCRIPTION

Suitable for Stage Approval

DRAWING NO.

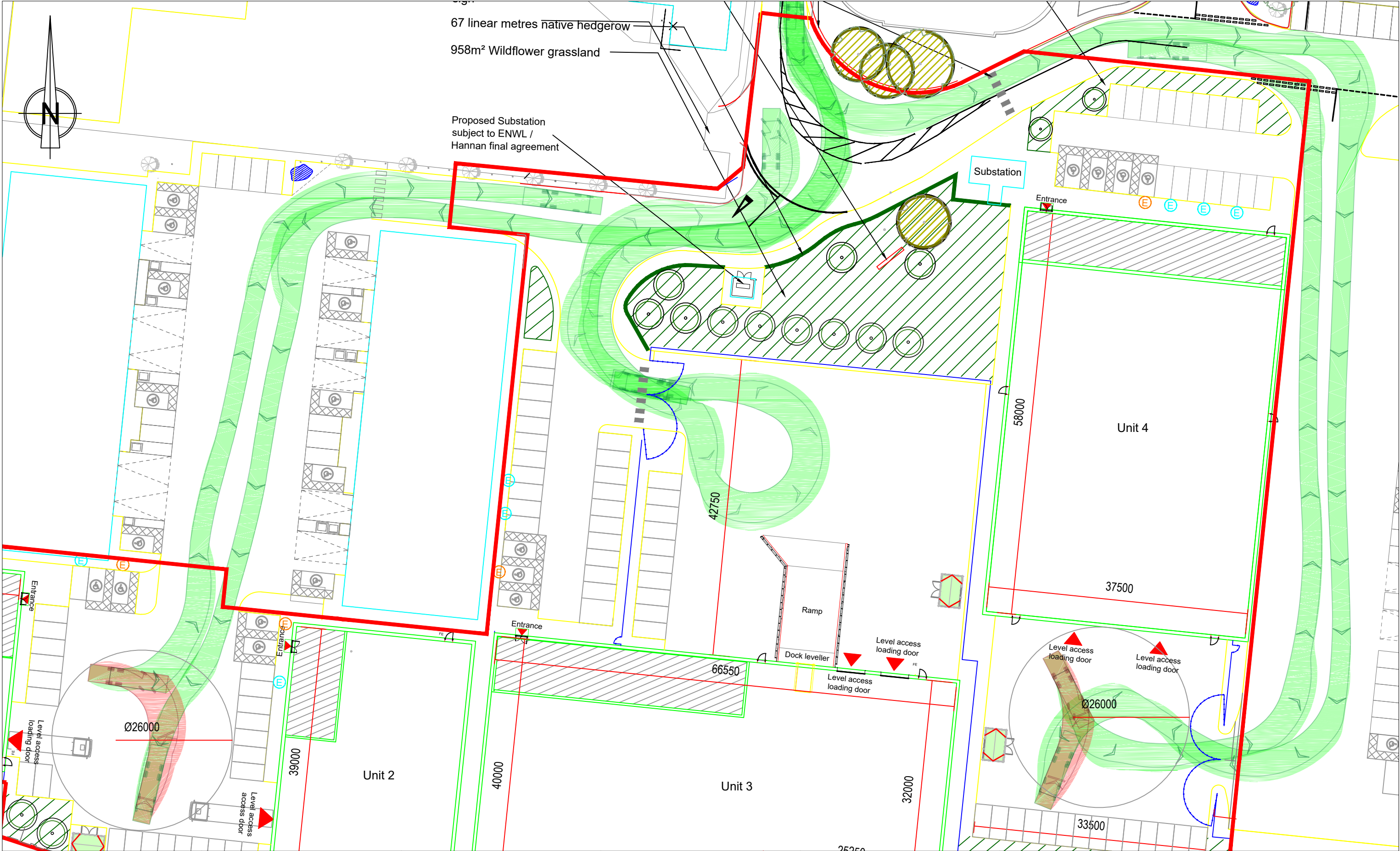
22973-HYD-XX-XX-DR-TP-0001

STATUS

S4

REVISION

P06



KEY PLAN

- VEHICLE BODY IN FORWARD GEAR
- VEHICLE BODY IN REVERSE GEAR
- VEHICLE CHASSIS IN FORWARD GEAR
- VEHICLE CHASSIS IN REVERSE GEAR

Large Refuse Vehicle (4 axle)

Overall Length	11.347m
Overall Width	2.500m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	6.00s
Wall to Wall Turning Radius	11.330m

NOTES (CONTINUED)

1) THIS DRAWING IS FOR DISCUSSION PURPOSES ONLY AND NOT FOR CONSTRUCTION

2) THE CONTENT OF THIS DRAWING WILL REQUIRE FURTHER WORK SUCH AS A ROAD SAFETY AUDIT AND DETAILED DESIGN

3) THIS DRAWING IS BASED ON 3RD PARTY SURVEY INFORMATION

REVISIONS (CONTINUED)

P06	FIRST ISSUE	HT	30.04.24	SD	30.04.24	SD	30.04.24
P05	FIRST ISSUE	HT	22.04.24	SD	22.04.24	SD	22.04.24

REVISIONS

P01.04	FIRST ISSUE	CR	02.11.23	SD	02.11.23	SD	02.11.23
P01.03	FIRST ISSUE	HT	21.06.23	TA	21.06.23	SD	21.06.23
P01.02	FIRST ISSUE	HT	21.06.23	TA	21.06.23	SD	21.06.23
P01.01	FIRST ISSUE	HT	23.05.23	TA	23.05.23	SD	23.05.23
REV	REVNOTES	DRAWNBY	DATE-D	CHKBY	DATE-C	APPLY	DATE-A

Hydrock

CLIENT

Network Space

PROJECT

Welcomb Street, Manchester

TITLE

Swept Path Analysis - Large Refuse Vehicle - Internal Layout

HYDROCK PROJECT NO.	SCALE @ A3
TMBI - 22973	1:500
STATUS DESCRIPTION	STATUS
Suitable for Stage Approval	S4
DRAWING NO.	REVISION
22973-HYD-XX-XX-DR-TP-0002	P06

Appendix D Cycle Parking Provision

Schedule of Accommodation							
Unit	Ground Floor GIA	First Floor GIA	TOTAL UNIT GIA	TOTAL UNIT GEA	Total Parking Inc. (Acc.) [EV]	Parking Ratio (m ²)	Height to underside of Haunch
Unit 1	616m ² / 6,630m ²	97 m ² / 1,044m ²	713m ² / 7,674m ²	777m ² / 8,363m ²	11 (2) [2]	1:70	8.0m
Unit 2	989m ² / 10,649m ²	110m ² / 1,184m ²	1,099m ² / 11,832m ²	1,182m ² / 12,722m ²	18 (2) [3]	1:66	8.0m
Unit 3	2,460m ² / 26,479 m ²	275m ² / 2,960m ²	2,735m ² / 29,439m ²	2,869m ² / 30,881m ²	35 (3) [5]	1:82	10m
Unit 4	2,175m ² / 23,411.5m ²	262m ² / 2,820m ²	2,437m ² / 26,231m ²	2,679m ² / 27,780m ²	34 (4) [7]	1:76	10m
	TOTAL GIA		6,984m ² / 75,175m ²	7,407m ² / 79,728m ²	98 (11) [17]	1:76	



Wall mounted cycle parking sign (NTS)

To be installed at heights of 1200mm above ground level clearly visible from nearest door



Wall mounted security bar (NTS)

To be installed alternately at heights of 1140mm and 1420mm above ground level from bottom of the wall rack fixing plate. Cycle racks are located internally to each unit fixed to internal block walls.



Legend

- Future provision for shower/
change & locker provision by tenant.
Cycle Racks

Cycle Rack Numbers

Unit 1	2
Unit 2	2
Unit 3	6
Unit 4	6

- | NOTES | AEN700 |
|--|--|
| <ul style="list-style-type: none"> All dimensions and levels are to be checked on site. Any discrepancies are to be reported to the architect before any work commences. | <ul style="list-style-type: none"> The drawing shall not be accepted to proceed any dimensions without to figure dimensions only. |
| <ul style="list-style-type: none"> This drawing shall not be reproduced without express written permission from AEN. | <ul style="list-style-type: none"> This drawing shall not be reproduced without express written permission from AEN. |
| <ul style="list-style-type: none"> The overall dimensions and accuracy boundaries are to be responsible for the contractor or their discrepancy on basis plans supplied to them. | <ul style="list-style-type: none"> All works are to be undertaken in accordance with Building Regulations and the latest British Standards. |
| <ul style="list-style-type: none"> All approved materials and products are to be used strictly in accordance with the manufacturers' recommendations. | <ul style="list-style-type: none"> All approved materials and products are to be used strictly in accordance with the manufacturers' recommendations. |

CDM 2015

Client notified of duties: **07/04/21**
Principal Designer: **Client**

Unless noted below, all known hazards have been highlighted on the drawing: