

Brigham Street, Openshaw

Transport Statement

230523/SK22337/TS01(-00)

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Project	Document	Rev	Description	Authorised by	Signed	Date
SK22337	TS01	00	Draft for Comment	L Speers	LGS	23/05/2023

1 Introduction

- 1.1 SK has been appointed by One Manchester to prepare a Transport Statement (TS) that examines the impact of developing 24 dwellings on a site off Bringham Street in Openshaw, Manchester. The proposed site plan is attached as Appendix A.
- 1.2 A planning application has already been submitted for the development under reference 136171 / FO / 2023.
- 1.3 The scale of the proposal is such that typically a formal TS would not be required by Department for Transport (DfT) guidance and Planning Practice Guidance (PPG). The TS has been prepared at the request of Manchester City Council (MCC). In line with guidance, the study area used in the assessment (streets bounding the site) reflects scale and low impact generated by the proposal.
- 1.4 The TS has been prepared in line with standard appraisal methods and in line with the following guidance:
 - Ministry of Housing, Communities & Local Government (2021), National Planning Policy Framework
 - Ministry of Housing, Communities & Local Government (2016), Planning Practice Guidance
 - Transport for Greater Manchester (2018), GM Transport Strategy 2040
 - Transport for Greater Manchester (2013), Transport for Sustainable Communities
 - Manchester City Council (2016), Residential Design Guide
 - Manchester City Council (2012), Local Development Framework: Core Strategy

2 Existing Situation

Site Location

- 2.1 Figure 2.1 shows that the site is located in an established residential area to the north of Ashton Old Road (A635). The site is bounded to the north by the side elevations of existing terrace housing, to the east by Bringham Street, to the south by the rear of existing terrace housing fronting Meech Street, and to the west by the rear of existing terrace housing on Connie Street.
- 2.2 The site is currently vacant and covered in grass. Vehicle access (gated) is provided from Staton Street, which sits between two houses fronting Meech Street.
- 2.3 The site forms part of MCC's Project 500 scheme that seeks to deliver almost 600 new homes before 2024 / 25. The Project 500 development opportunities mainly consist of smaller infill sites.

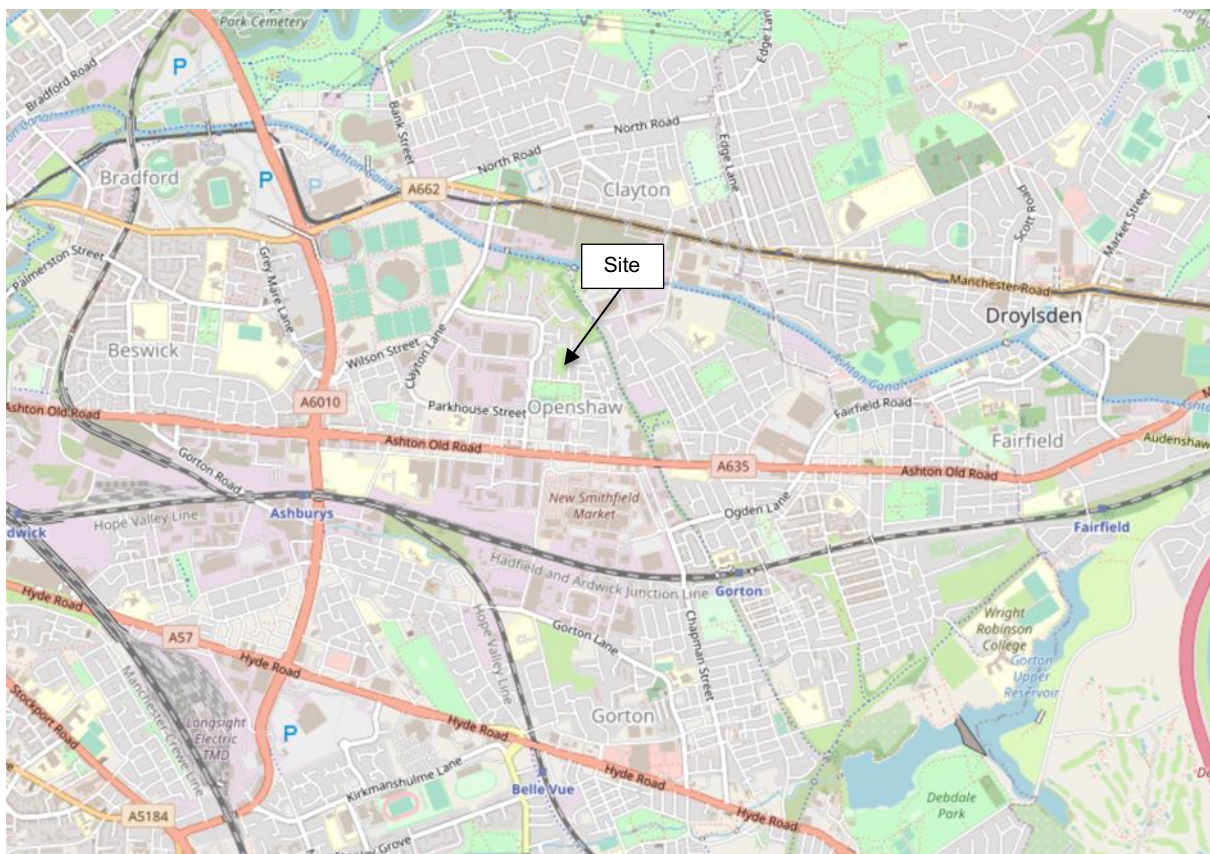


Figure 2.1: Site Location
[source: ISO4]

Local Highway Network

- 2.4 Vehicle access (gated) is provided from Staton Street, which sits between two houses fronting Meech Street. Staton Street has a carriageway width of 6m and 2m+ footways on both sides. Staton Street has street lighting.
- 2.5 Meech Street is a residential street, with street lighting and a 20mph speed limit. The carriageway is 6.3m wide with 2m+ footways on both sides. Directly opposite the Meech Street / Staton Street junction access can be gained to segregated footpaths through Openshaw Park.
- 2.6 Travelling west on Meech Street provides access to Greenside Street, another 20mph residential street. Greenside Street has 1.8m-2m footways and local bus stops. Continuing south provides access to Parkhouse Street, which is traffic calmed route connecting to the wider network.
- 2.7 Brigham Street is a 20mph, lit, residential route with a carriageway width of 6.4m adjacent to the site and 2m+ footways on both sides of the carriageway.
- 2.8 The residential streets provide access to Ashton Old Road. Ashton Old Road is a key bus route corridor with wide footways and controlled crossing points.

Traffic Regulation Orders

- 2.9 There are no Traffic Regulation Orders (TRO) on the roads fronting the site (Meech Street and Brigham Street) and the area is characterised by street parking associated with existing terraced properties.

Road Safety

- 2.10 The GMTU database has been used to establish accident patterns over the most recent five-year period available (to March 2023).

- 2.11 Figure 2.2 shows that there have been no accidents on the Meech Street frontage during the period assessed.
- 2.12 A single accident has occurred at the junction of Meech Street / Greenside Street. The accident occurred in 2016.
- 2.13 A single accident has occurred on Greenside Street (S). The accident occurred in 2021 and involved a cyclist.
- 2.14 The data shows that there are no prevailing road safety issues that will compromise future access to the site.

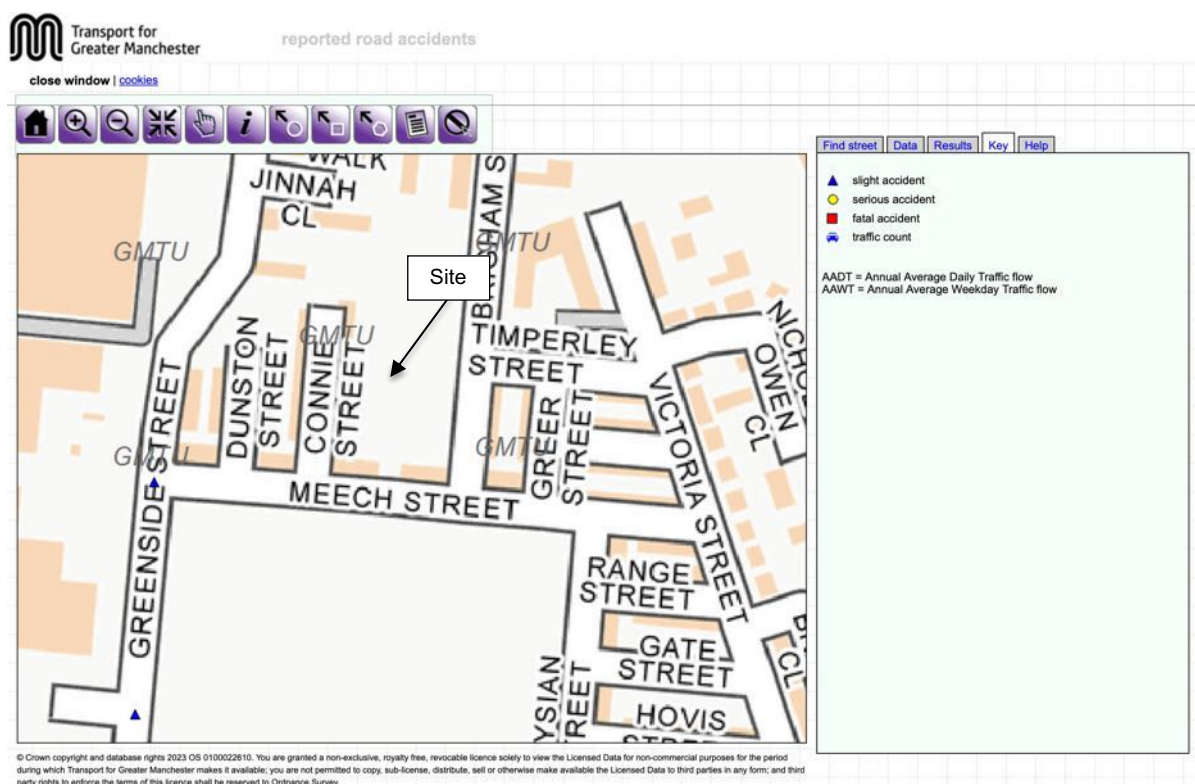


Figure 2.2: Road Safety
[source: GMTU]

3 Proposed Development

- 3.1 The proposed site plan is attached as Appendix A.
- 3.2 The proposal seeks planning permission to construct 24 dwellings, of which four will be apartments and 20 will be houses. The dwellings will all be affordable tenure.

Bedroom Numbers	Dwellings	Parking Spaces
2 Bed Apartment	4	4
2 Bed House	10	10
3 Bed House	7	7
4 Bed House	3	6
Total	24	27

Table 3.1: Land Use Schedule
[source: Triangle Architects]

- 3.3 12 of the dwellings will be accessed from Staton Street, which will be extended to form a new access route into the site. The access route is 5.5m wide with 2m footways on both sides of the

carriageway. A turning head is provided at the northern end of the access route. Tactile paving will be introduced at the Staton Street / Meech Street junction. Appendix A shows that visibility splays of 2.4m x 25m can be achieved at the junction, in line with Manual for Streets requirements for a 20mph street.

- 3.4 12 of the dwellings will be accessed from driveway arrangements on to Brigham Street.
- 3.5 The footways bounding the site will be resurfaced with any redundant access points reinstated. As noted above, 2m footways will be provided on both sides of the new Staton Street access road and tactile paving at the Staton Street / Meech Street junction. The footways on Brigham Street are 2m providing appropriate access to the properties fronting this location. Dropped kerbs and tactile paving will be provided at the Brigham Street / Meech Street junction. These works are shown in Appendix B.
- 3.6 Each property is provided with an external storage area that can be used to accommodate bikes.
- 3.7 Servicing will be concentrated on Staton Street and Brigham Street. Bins will be collected from kerbside. All properties are within 30m drag distance of kerbside where refuse vehicles can wait while bins are emptied (refuse operatives will not be required to pull bins over 10m). A swept path has been undertaken and is attached as Appendix B.
- 3.8 MCC does not maintain any residential parking standards in the Core Strategy (Policy T2). The development will provide 100% parking for the 2-to-3-bedroom dwellings and 200% parking provision for the 4-bedroom dwellings.
- 3.9 Driveway spaces are proposed with a standard length of 6m and width of 3m with an additional 300m clearance against walls.
- 3.10 Appropriate levels of EV parking will be provided with one space per house. 100% is also proposed for the apartments.
- 3.11 A Construction Management Plan will be prepared for the site prior to construction. This will outline access, road safety and parking arrangements during the construction phase of the development.

4 Accessibility Assessment

Pedestrian Access: Audit

- 4.1 The roads bounding the site are residential streets that are subject to a 20mph speed limit with street lighting present. The footways on the roads serving the site are 2m in width. Dropped kerb provision is in place. The local streets are lightly trafficked and low speed creating a suitable environment for pedestrians.
- 4.2 Controlled crossings are in place on Ashton Old Road to allow access to the wider network and bus stops on the key public transport corridor.
- 4.3 Pedestrian access can also be gained to segregated footpaths through Openshaw Park and, to the north, access can be gained to a segregated network of footpaths that allow access to the Fallowfield Loop and Ashton Canal towpath.

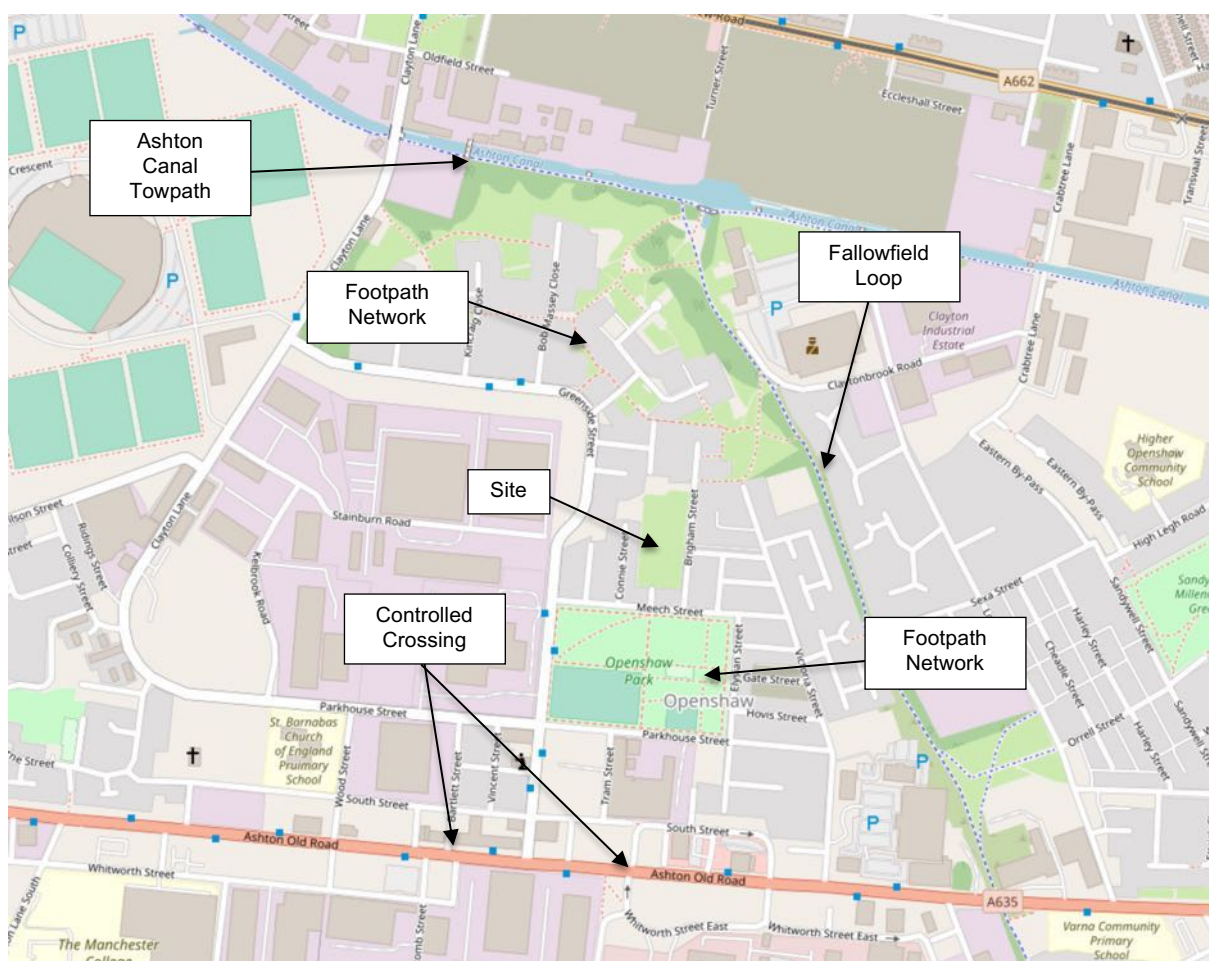


Figure 4.1: Pedestrian Network
[source: ISO4]

Pedestrian Access: Road Safety

- 4.4 The road safety assessment presented in Section 2 shows that there have been no collisions in the study area during the five-year period assessed.

Pedestrian Access: Proposed Development

- 4.5 The proposed development includes 2m footways on the access route created by the extension of Staton Street. Tactile paving will be provided at the junction of Staton Street / Meech Street and Brigham Street / Meech Street.
- 4.6 Redundant access points will be reinstated by the proposal and the footway on the Brigham Street frontage resurfaced.
- 4.7 Two-thirds of all journeys in the UK are under-five miles and short distance trips offer the greatest opportunity for changes in travel behaviour. DfT best practice guidance states that walking has the potential to substitute for car trips under 2km. CIHT provides further advice on suitable walking distances these are set out in Table 4.1.

Destination Type	Walk Distance (m)	Walk Time (mins)*
Commuting / Education	2000	25
Local Centre / Local Retail	800	10
Other	1200	15

Table 4.1: CIHT Walk Distances

- 4.8 Figure 4.1 shows that the site is less than 500m (6-minute walk) from the bus stops on Greenside Street, St Barnabas Church of England Primary School, Openshaw Park, the local centre uses fronting Ashton Old Road, the Fallowfield Loop, employment uses to the west of the site, and Matalan. The site is less than 1km (12.5-minute walk) from Higher Openshaw Community School, The Manchester College, New Smithfield Market, Morrisons, the National Cycling Centre, Clayton Industrial Estate, and Clayton Hall Tram Stop. The site is less than 2km (25-minute walk) from Lidl, Lime Square Medical Centre, Farmfoods, a gym, and the East Manchester Academy.

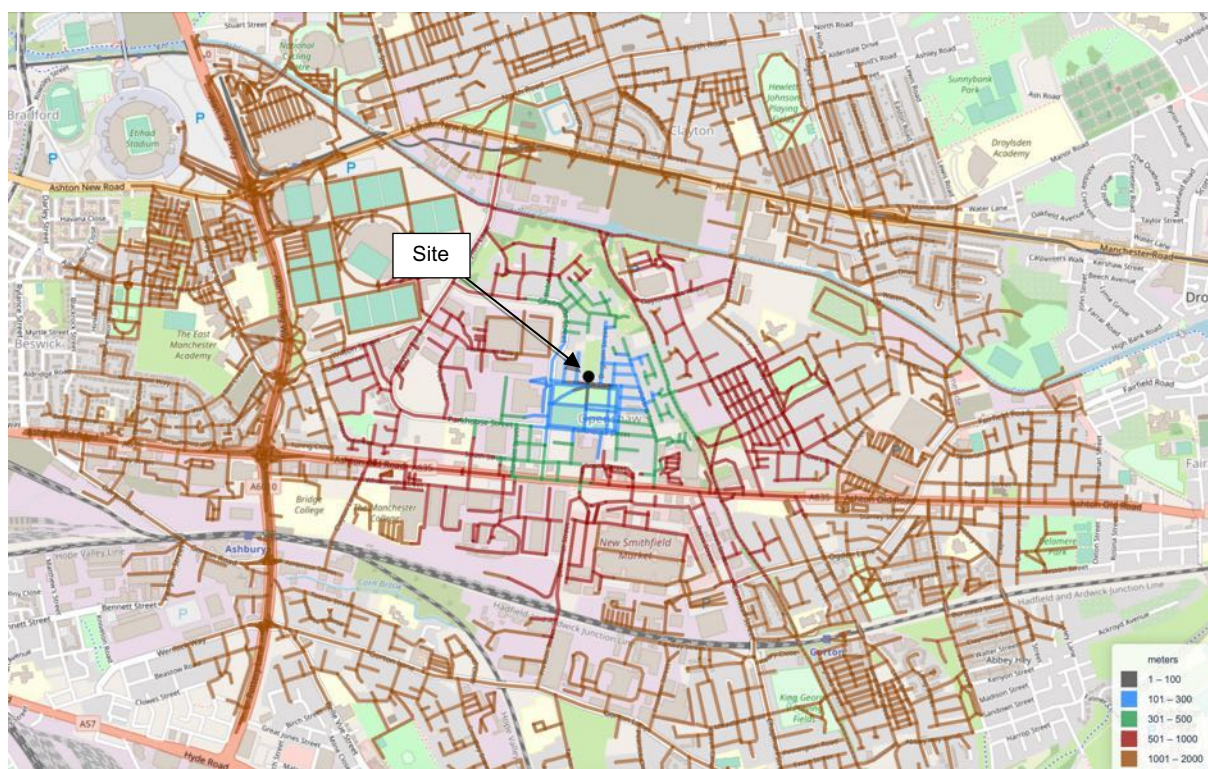


Figure 4.1: 2km Walking Catchment
[source: ISO04]

- 4.9 The assessment shows that the site relates well to local amenities and that there are opportunities to access these using existing infrastructure.

Cycle Access: Audit

- 4.10 DfT states that lightly trafficked, 20mph streets provide a good basis for cycle trips. Figure 4.2 shows that the cycle network serving the site comprises of a network of 20mph streets which allow connections to the formal network, including Route 60 (the Fallowfield Loop), the Ashton Canal towpath and routes on Ashton Old Road.
- 4.11 The above is further confirmed by the fact that the streets provide access to Bee Network routes, as shown in Figure 4.4.

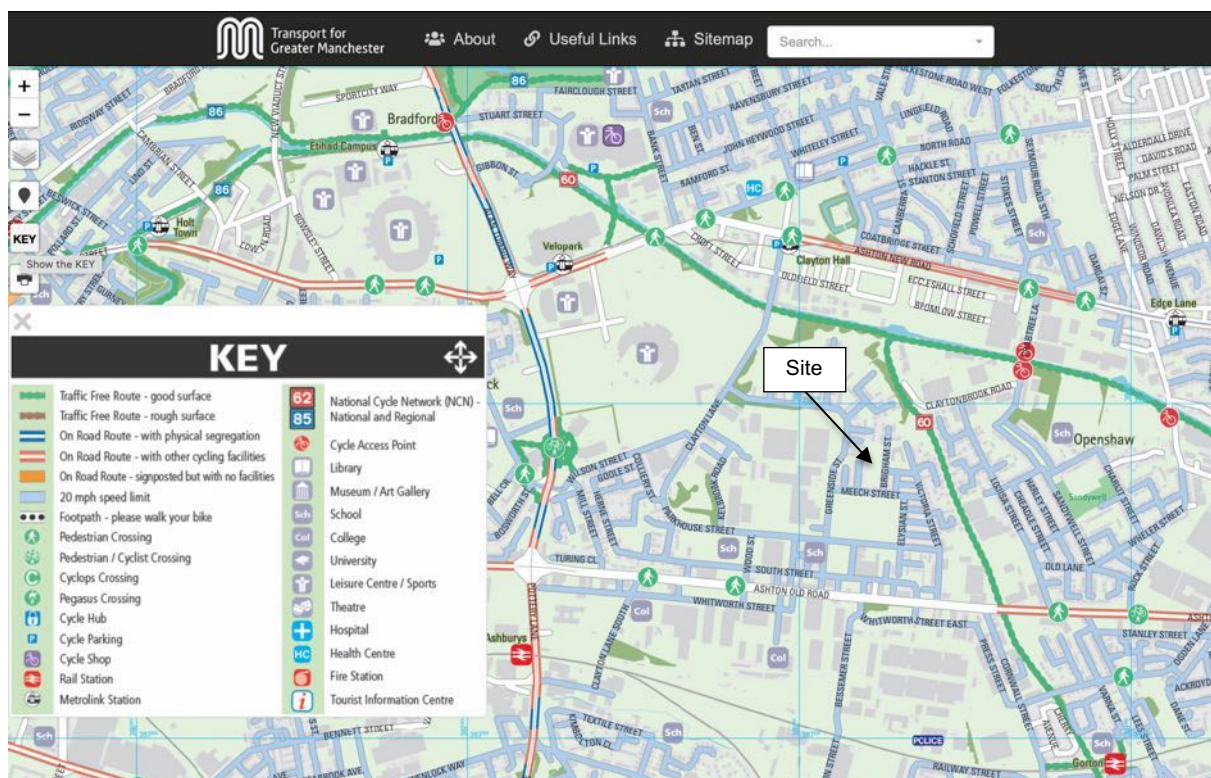


Figure 4.2: Cycle Network
[source: TfGM]

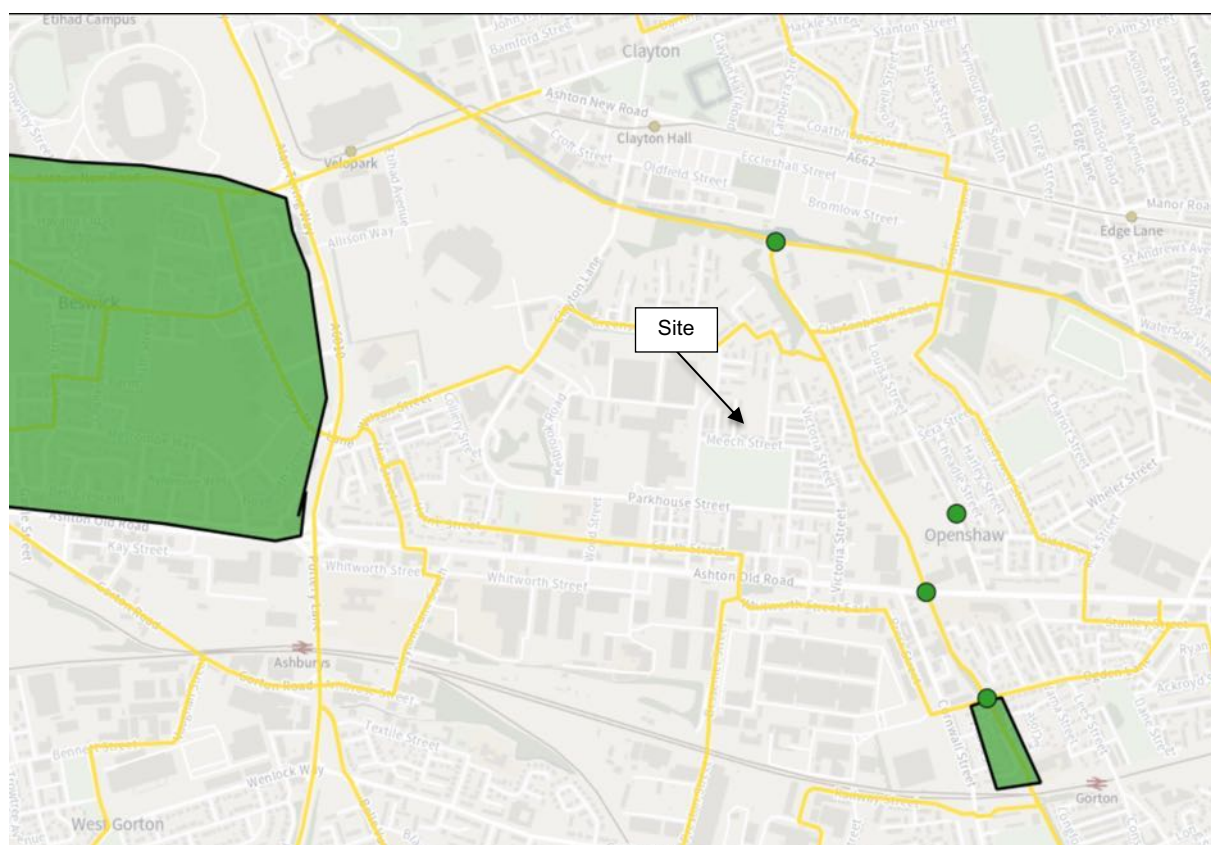


Figure 4.3: Bee Network
[source: Mapping GM]

- 4.12 The existing infrastructure surrounding the site creates opportunities for access by bike and access can be gained a short cycle from the site to key amenity areas. The proposal includes

appropriate levels of cycle parking and the Travel Plan includes measures to support resident cycle trips.

Cycle Access: Road Safety

- 4.13 The road safety assessment presented in Section 2 shows that there has been a single collision involving a cyclist in the study area during the five-year period assessed in the study area.
- 4.14 An isolated cycle collision does not indicate a prevalent road safety issue in the study area that requires mitigating as part of the development.

Cycle Access: Proposed Development

- 4.15 The development includes external storage for each property that can be used for bikes.

Access by Public Transport

- 4.16 The nearest bus stops to the site are located on Greenside Street (180m / 2-minute walk) and Ashton Old Road (400m / 5-minute walk). The bus stops on Greenside serve a local function and the northbound stop has a flag pole and timetable information. The southbound bus stop has a flag pole, timetable information, seating, and a shelter. The bus stops on Ashton Old Road serve a strategic function and have a flag pole, timetable information, shelter, and seating.
- 4.17 Table 4.2 provides a summary of the buses serving the nearest stops.

No.	Route	Weekday (buses per hour / each way)			Weekend (buses per hour / each way)	
		Peak	Day	Evening	Day	Day
171	East Didsbury – Openshaw – Newton Heath	1	1		1	
172	Southern Cemetery – Burnage – Gorton – Newton Heath	1	1	1	1	
219	Ashton – Audenshaw – Manchester	6	6	3	6	6
220 / 221	Stalybridge – Beswick – Manchester	2				

Table 4.2: Existing Bus Services
[source: TfGM]

- 4.18 Table 4.2 shows that there are typically eight buses per hour (each-way) serving the area. These services provide frequency services to a range of destinations across Greater Manchester. Services are available in the evening and at the weekend.
- 4.19 School bus services 688, 703, 719 and 725 also serve the local area.
- 4.20 Access can also be gained Clayton Hall Lane tram stop in a 12.5-minute walk of the site.
- 4.21 GMAL is calculated using the interactive tool managed and maintained by TfGM. This tool measures accessibility by public transport of a point of interest and provides a score between 1 and 8, where 1 is a low level of accessibility and 8 is the highest level of accessibility.
- 4.22 The site has a GMAL of 5, which is a very good level of accessibility by public transport for a site in a suburban setting.

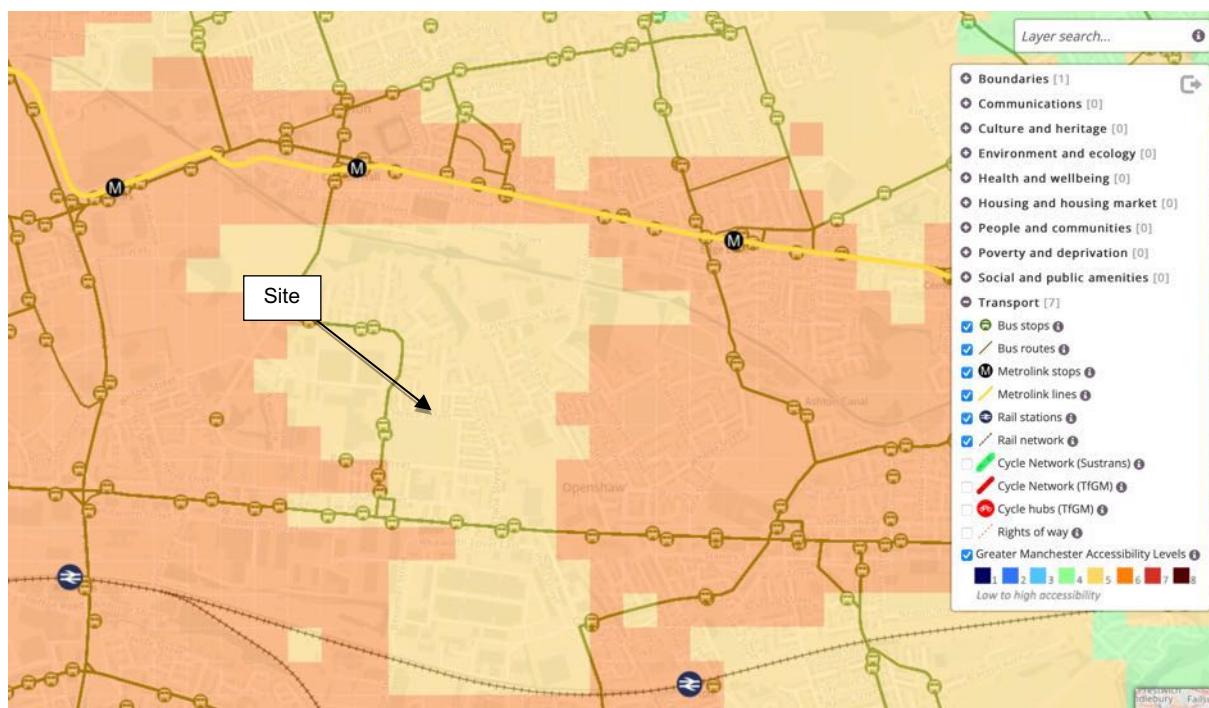


Figure 4.4: GMAL
[source: TfGM]

- 4.23 The assessment shows that the site relates well to frequent bus services that provide connections to local destinations and the wider region.

Summary & Policy Compliance

- 4.24 Evidence and research show that people can and will live active, sustainable, low-carbon lifestyles in developments that are located with easy access to employment, local amenities, and leisure spaces. The assessment shows that the site relates well to numerous amenities and services. The assessment also shows that the existing infrastructure offers opportunities to access these destinations by sustainable / active modes of travel. Measures are included in the proposal to enhance access to the site by sustainable modes.
- 4.25 Paragraph 110 of NPPF supports developments that allow appropriate opportunities to promote sustainable transport modes. The proposal is in line with NPPF policy.

5 Traffic Assessment

Person Trip Generation

- 5.1 TRICS has been used to allow an understanding of the future trip generating potential of the site. The following parameters have been set:
- Land Use: 03 / Residential / A / Houses Privately Owned selected
 - Regions: Greater London, Northern Ireland & Republic of Ireland removed
 - Location: Suburban area selected
- 5.2 Private houses has been used, rather than affordable, to allow a robust assessment.
- 5.3 The TRICS output is attached as Appendix C, with a summary provided in Table 5.1.

	Person Trip Rates (per dwelling)			Total Trips – Houses		
	In	Out	Total	In	Out	Total
AM Peak Hour	0.25	0.989	1.239	6	24	30
PM Peak Hour	0.458	0.303	0.761	11	7	18

Table 5.1: Person Trip Rates & Total Site Trips
[source: TRICS]

Development Mode Share

- 5.4 Census mode share data (Bradford ward) has been used to derive the car driver trips from the site. 2011 Census data has been used as ONS advises caution with the use of the 2021 Census as it was undertaken during the Covid period.
- 5.5 The Census data is attached as Appendix D with a summary provided in Table 5.2.

Modes	Share
On Foot	21%
Bicycle	3%
Public Transport	32%
Car Driver	39%
Car Passenger	4%

Table 5.2: Census Data
[source: Nomis]

Sustainable Trip Generation

- 5.6 Table 5.3 shows the walking, cycling and public transport trips generated by the development.

	Pedestrian Trip Rates			Public Transport Trip Rates			Cycling Trip Rates		
	In	Out	Total	In	Out	Total	In	Out	Total
AM Peak Hour	1	5	6	2	8	10	0	1	1
PM Peak Hour	2	2	4	4	2	6	0	0	1

Table 5.3: Sustainable Trips

Vehicle Trip Generation

- 5.7 The car driver mode share has been applied to the total trips to derive the vehicle trips generated by the development.

	Vehicle Trips		
	In	Out	Total
AM Peak Hour	2	9	12
PM Peak Hour	4	3	7

Table 5.4: Development Vehicle Trips

OGV Trip Generation

- 5.8 The TRICS OGV trip rates have been used to establish the number of large vehicle trips generated by the development.

	OGV Trip Rate (per dwelling)			OGV Trips		
	In	Out	Total	In	Out	Total
Daily	0.035	0.035	0.07	1	1	2

Table 5.5: Large Vehicle Trips

Traffic Impact

- 5.9 Table 5.3 shows that the proposal will not generate a significant level of sustainable trips in the peak hours. The existing infrastructure is suitable for use by this increase in trips.
- 5.10 Table 5.4 shows that the proposal will generate a maximum of 11 vehicles in the peak hours. This is not a significant level of traffic and will not have an impact on highway operation or road safety.

Policy Compliance

- 5.11 Paragraph 111 of NPPF (2021) states that developments should only be prevented on highways grounds if there would be an unacceptable impact on highway safety or where residual cumulative impacts would be severe. The impact assessment has been undertaken using established appraisal methods. The assessment shows that the proposal will not generate a significant level of traffic. When compared to the existing use of the site the development will lead to a reduction in traffic.

6 Conclusions

- 6.1 SK has been appointed by One Manchester to prepare a TS to assess the impact of a 24 dwelling development off Brigham Street in Openshaw, Manchester.
- 6.2 The TS has been prepared in line with local, regional, and national assessment guidance using standard appraisal methods.
- 6.3 The proposal will deliver 24 dwellings (29 town houses and 42 apartments) with access provided to part of the site from the extension to Staton Street and via driveway arrangements for the remainder of the site. Pedestrian access is provided on the extended Staton Street access route and the footway bounding the site will be resurfaced and redundant access points reinstated. Cycle storage is accommodated in external stores. Car parking is provided at a rate of 1 space per 2 to 3 bed dwelling and 2 spaces per 4 bed dwelling.
- 6.4 The accessibility analysis shows that the site is well located to allow residents to easily access local amenities and services on foot or by cycle. The existing infrastructure provides a suitable level of provision for active travel trips. Public transport accessibility is also good with opportunities available to access bus and train services. The site has a GMAL of 5, which is a good level of accessibility for a suburban area.
- 6.5 A road safety assessment has been undertaken, which shows that there are no accident hotspots in the study area. Trip generation forecasts have been undertaken for both the existing and proposed uses at the site. This shows that the proposal is associated with a minimal level of traffic activity.
- 6.6 It is concluded that the proposed development meets the requirements of local and national policy, and that the residual traffic effects will not be severe, and that the road safety impact of the will not be unacceptable when considered in the context of NPPF. It is also shown that the proposal meets local and national policy requirements in terms of sustainable access.

Appendix A

- NOTES:
- THE CONTRACTOR IS RESPONSIBLE FOR CHECKING DIMENSIONS & REFERENCES. ANY DISCREPANCIES MUST BE REPORTED TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORKS.
 - WHERE AN ITEM IS COVERED BY DRAWINGS OF DIFFERENT SCALES, THE LARGER SCALE DRAWING TO BE WORKED TO.
 - ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE STATED. DIMENSIONS TO BE WORKED TO IN ALL CASES.
 - THIS DRAWING TO BE READ IN CONJUNCTION WITH:

Materials Key

450mm x 450mm concrete paving to front and 1800mm wide patios at rear of dwellings

Tarmac areas

Grassed areas

Shrub planting

Existing tree to be retained

Existing tree to be removed

New tree

Water butt (volume to be a minimum of 200litrs)

UCP

New uncontrolled crossing point

External storage

Dwelling bin storage (4x240l bin capacity)

New sewer diversion with 6m easement highlighted

Boundary Treatments

1800mm high concrete post and timber panel fence (to separate rear gardens to a distance of 500mm from the rear facade)

1800mm high concrete post with 1600mm high timber panel fence and 300mm high brick wall to be used between rear gardens. No trellis adjacent to bin store.

900mm high metal railings from back of pavement to building (if/s)

450mm high low brick wall with 450mm high metal railings on low side (along back of pavement)

Existing Boundary Treatments

High metal railings

Low metal railings

Existing Features

LP Existing lamp post

Schedule of Accommodation

House type	Description	Area/m2	Plot Nos.
A	283P House	70.6	10 09-12, 17-22
B	38-4P House	87.9	7 03-08, 23
C	483P House	100.2	3 01,02, 24
D1 (Gr)	283P Apartment	61.9	2 13, 14
D2 (Gr)	283P Apartment	69.4	2 15, 16
Total			24

[Car parking : 2 & 3-bed 100%; 4-bed 200% shown]

Tenure

Social Rent (4no.)

Affordable Rent (11no.)

Shared Ownership (10no.)

A Layout amended to planning comments. Tenure 10.05.23
updated
Rev
By

Client:
One Manchester

Project:
Project500.Ph1.Brigham Street
Openshaw

Description:
Proposed Site Plan

Purpose of Issue:
PLANNING

Drawn by:	Checked by:	Scale:
JH	MT	1:200@A1
Date:	Project No:	Drawing No/ Rev:
Aug 22	20-051	02 A

TRIANGLE ARCHITECTS

Partners: office, River House, 13 Farfield Street, Salford, M12 6BA. Tel: 0161 272 3505 Fax: 0161 272 3501
www.trianglearchitects.co.uk
info@trianglearchitects.co.uk



Appendix B



THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

NOTES
Layout subject to detailed design and confirmation of statutory undertakers' equipment.

Revision Details	By	Date	Suffix
	Check		

Drawing Number

SK22337-001

Brigham Street, Openshaw

Drawing Title

Proposed Site Access Arrangements

Scale at A3

1:500

Drawn	Approved
JAT	LGS

Check	Date
LGS	31.05.23

SK

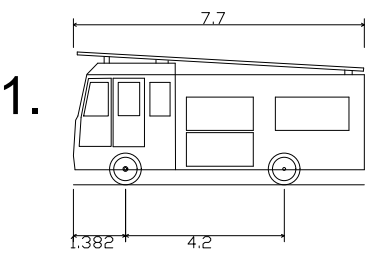
SK Transport Planning Ltd
Albion Wharf | Manchester | M1 5LN
www.sktransport.co.uk
0161 234 6509



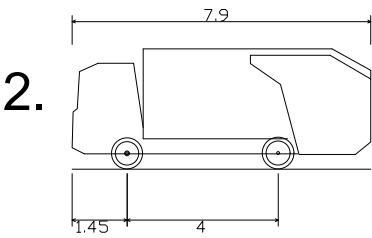
1. DENNIS SABRE FIRE TENDER (LWB)

NOTES:
● THE CONTRACTOR IS RESPONSIBLE FOR CHECKING DIMENSIONS, TOLERANCES & REFERENCES. ANY DISCREPANCY TO BE VERIFIED WITH THE ARCHITECT BEFORE PROCEEDING WITH THE WORKS.
● WHERE AN ITEM IS COVERED BY DRAWINGS OF DIFFERENT SCALES, THE LARGER SCALE DRAWING TO BE WORKED TO.
● DO NOT SCALE FROM THE DRAWING. FIGURED DIMENSIONS TO BE WORKED TO IN ALL CASES.
● THIS DRAWING TO BE READ IN CONJUNCTION WITH:

(Software: Autodesk Vehicle Tracking 2022)
Tracking based on vehicles/data shown below:



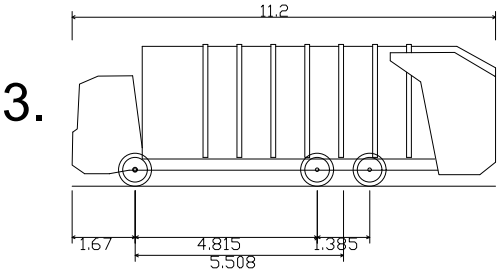
Dennis Sabre Fire Tender (LWB)
Overall Length 7.700m
Overall Width 2.400m
Overall Body Height 2.400m
Min Body Ground Clearance 0.397m
Track Width 2.400m
Lock to lock time 5.00s
Kerb to Kerb Turning Radius 7.400m



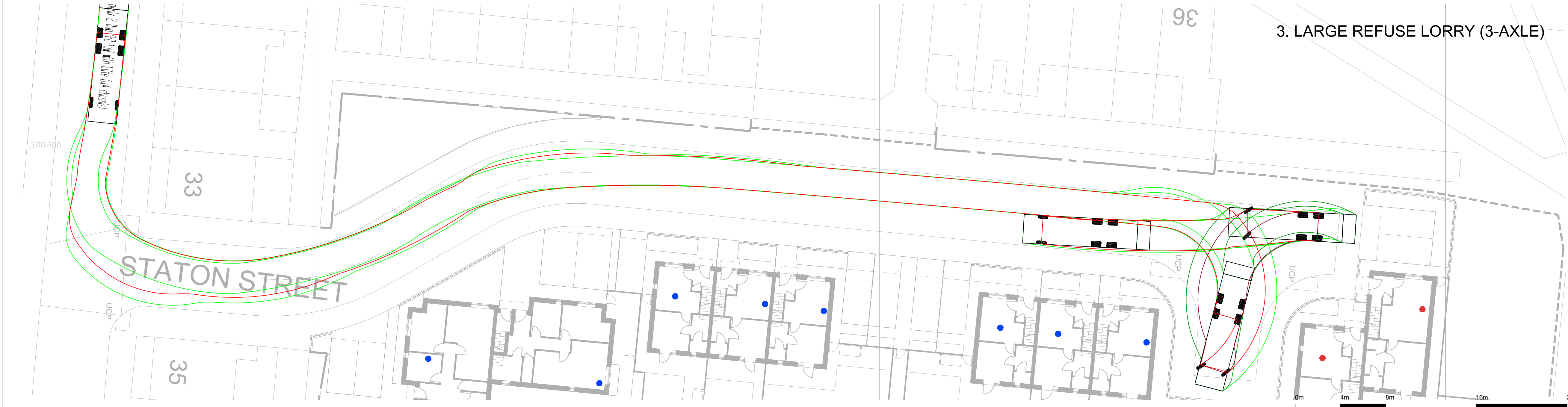
DB32 Refuse Vehicle
Overall Length 7.900m
Overall Width 2.400m
Overall Body Height 2.400m
Min Body Ground Clearance 0.388m
Max Track Width 2.400m
Lock to lock time 6.00s
Kerb to Kerb Turning Radius 9.625m



2. SMALL REFUSE LORRY (2-AXLE)



Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)
Overall Length 11.200m
Overall Width 2.400m
Overall Body Height 2.400m
Min Body Ground Clearance 0.304m
Track Width 2.400m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 9.500m



3. LARGE REFUSE LORRY (3-AXLE)

Rev Date By

Client:

One Manchester

Project:

Project500.Ph1.Brigham Street
Openshaw

Description:

Vehicle Tracking

Purpose of issue:

PLANNING

Drawn by: JH

Checked by: MT

Scale: 1:200@A1

Date: Sept 22

Project No: 20-051

Drawing No: 10

TRIANGLE ARCHITECTS

Manchester office: Raven House, 113 Farnfield Street, Manchester, M12 4LS. Tel 0161 272 3000 Fax 0161 272 3001
studio@trianglearchitects.co.uk www.trianglearchitects.co.uk

Appendix C

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	HC HAMPSHIRE	1 days
03	SOUTH WEST	
	SD SWINDON	1 days
	TB TORBAY	1 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
	PB PETERBOROUGH	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
08	NORTH WEST	
	AC CHESHIRE WEST & CHESTER	1 days
10	WALES	
	PS POWYS	1 days
11	SCOTLAND	
	HI HIGHLAND	1 days

Primary Filtering selection:

Parameter: No of Dwellings
Actual Range: 10 to 40 (units:)
Range Selected by User: 6 to 40 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/15 to 09/11/22

Selected survey days:

Monday	2 days
Tuesday	1 days
Wednesday	3 days
Thursday	3 days

Selected survey types:

Manual count	9 days
Directional ATC Count	0 days

Selected Locations:

Suburban Area (PPS6 Out of Centre)	9
------------------------------------	---

Selected Location Sub Categories:

Residential Zone	9
------------------	---

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	1 days - Selected
Servicing vehicles Excluded	8 days - Selected

Secondary Filtering selection:

Use Class:

C3 9 days

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000 4 days

15,001 to 20,000 2 days

20,001 to 25,000 1 days

25,001 to 50,000 2 days

Population within 5 miles:

5,001 to 25,000 1 days

25,001 to 50,000 1 days

50,001 to 75,000 3 days

125,001 to 250,000 4 days

Car ownership within 5 miles:

0.6 to 1.0 2 days

1.1 to 1.5 7 days

Travel Plan:

Yes 2 days

No 7 days

PTAL Rating:

No PTAL Present 9 days

LIST OF SITES relevant to selection parameters

1	AC-03-A-04 LONDON ROAD NORTHWICH LEFTWICH Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 24 Survey date: THURSDAY 06/06/19	TOWN HOUSES	CHESHIRE WEST & CHESTER	Survey Type: MANUAL
2	HC-03-A-17 CANADA WAY LIPHOOK Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 36 Survey date: THURSDAY 12/11/15	HOUSES & FLATS	HAMPSHIRE	Survey Type: MANUAL
3	HI-03-A-14 KING BRUDE ROAD INVERNESS SCORGUIE Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 40 Survey date: WEDNESDAY 23/03/16	SEMI-DETACHED & TERRACED	HIGHLAND	Survey Type: MANUAL
4	NF-03-A-51 CITY ROAD NORWICH LAKENHAM Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 34 Survey date: TUESDAY 13/09/22	SEMI-DETACHED	NORFOLK	Survey Type: MANUAL
5	NY-03-A-13 CATTERICK ROAD CATTERICK GARRISON OLD HOSPITAL COMPOUND Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 10 Survey date: WEDNESDAY 10/05/17	TERRACED HOUSES	NORTH YORKSHIRE	Survey Type: MANUAL
6	PB-03-A-04 EASTFIELD ROAD PETERBOROUGH Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 28 Survey date: MONDAY 17/10/16	DETACHED HOUSES	PETERBOROUGH	Survey Type: MANUAL
7	PS-03-A-02 GUNROG ROAD WELSHPOOL Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 28 Survey date: MONDAY 11/05/15	DETACHED / SEMI-DETACHED	POWYS	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	SD-03-A-01	SEMI DETACHED	SWINDON
	HEADLANDS GROVE		
	SWINDON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	27	
	Survey date: THURSDAY	22/09/16	Survey Type: MANUAL
9	TB-03-A-01	TERRACED HOUSES	TORBAY
	BRONSHILL ROAD		
	TORQUAY		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	37	
	Survey date: WEDNESDAY	30/09/15	Survey Type: MANUAL

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period
 Total People to Total Vehicles ratio (all time periods and directions): 1.74

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	9	29	0.087	9	29	0.265	9	29	0.352
08:00 - 09:00	9	29	0.174	9	29	0.436	9	29	0.610
09:00 - 10:00	9	29	0.170	9	29	0.163	9	29	0.333
10:00 - 11:00	9	29	0.152	9	29	0.140	9	29	0.292
11:00 - 12:00	9	29	0.144	9	29	0.133	9	29	0.277
12:00 - 13:00	9	29	0.186	9	29	0.201	9	29	0.387
13:00 - 14:00	9	29	0.167	9	29	0.205	9	29	0.372
14:00 - 15:00	9	29	0.193	9	29	0.227	9	29	0.420
15:00 - 16:00	9	29	0.314	9	29	0.239	9	29	0.553
16:00 - 17:00	9	29	0.322	9	29	0.193	9	29	0.515
17:00 - 18:00	9	29	0.280	9	29	0.182	9	29	0.462
18:00 - 19:00	9	29	0.208	9	29	0.133	9	29	0.341
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.397			2.517			4.914

Parameter summary

Trip rate parameter range selected:	10 - 40 (units:)
Survey date date range:	01/01/15 - 09/11/22
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period
 Total People to Total Vehicles ratio (all time periods and directions): 1.74

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	9	29	0.193	9	29	0.473	9	29	0.666
08:00 - 09:00	9	29	0.250	9	29	0.989	9	29	1.239
09:00 - 10:00	9	29	0.280	9	29	0.269	9	29	0.549
10:00 - 11:00	9	29	0.254	9	29	0.265	9	29	0.519
11:00 - 12:00	9	29	0.212	9	29	0.220	9	29	0.432
12:00 - 13:00	9	29	0.292	9	29	0.318	9	29	0.610
13:00 - 14:00	9	29	0.246	9	29	0.326	9	29	0.572
14:00 - 15:00	9	29	0.303	9	29	0.307	9	29	0.610
15:00 - 16:00	9	29	0.739	9	29	0.428	9	29	1.167
16:00 - 17:00	9	29	0.561	9	29	0.277	9	29	0.838
17:00 - 18:00	9	29	0.458	9	29	0.303	9	29	0.761
18:00 - 19:00	9	29	0.364	9	29	0.201	9	29	0.565
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.152			4.376			8.528

Appendix D

QS701EW - Method of travel to work

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population	All usual residents aged 16 to 74
units	Persons
area type	2011 wards
area name	E05000690 : Bradford
rural urban	Total

Method of Travel to Work	2011	%
All categories: Method of travel to work	6,451	
Underground, metro, light rail, tram	129	2%
Train	281	4%
Bus, minibus or coach	1,634	25%
Taxi	44	1%
Motorcycle, scooter or moped	24	0%
Driving a car or van	2,496	39%
Passenger in a car or van	274	4%
Bicycle	199	3%
On foot	1,370	21%