

Francis Road, Withington

Transport Statement

221121/SK22154/TS01(-05)

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Beneficiary:
 Southway Housing Trust
 Southern Gate
 729 Princess Road
 Didsbury
 Manchester M20 2LT

Project	Document	Rev	Description	Authorised by	Signed	Date
SK22154	TS01	00	First draft	L Speers	LGS	28/09/2021
SK22154	TS01	01	Second draft	L Speers	LGS	19/10/2021
SK22154	TS01	02	Submission	L Speers	LGS	15/12/2021
SK22154	TS01	03	Francis Road Access Change	L Speers	LGS	19/04/2022
SK22154	TS01	04	Relocation of Francis Road Access	L Speers	LGS	12/07/2022
SK22154	TS01	05	Updated layout	L Speers	LGS	21/11/2022

1 Introduction

- 1.1 SK has been appointed to prepare a Transport Statement (TS) to accompany a planning application for the demolition of existing buildings and the construction of a residential development on a site on Francis Road in Withington. The proposal will deliver 24 affordable apartments. The layout is attached as Appendix A.
- 1.2 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
 - MCC (2012) Manchester's Local Development Framework: Core Strategy Development Plan
 - Transport for Greater Manchester (2013), Transport for Sustainable Communities
 - Chartered Institution of Highways & Transportation (2019), Better planning, better transport, better places

2 Existing Situation

Site Location

- 2.1 Figure 2.1 shows that the site is located to the southeast of the centre of Withington.
- 2.2 The site is currently occupied by two industrial units (MPC House and Pellowe Court) which have a combined floor area of 1,190sqm.

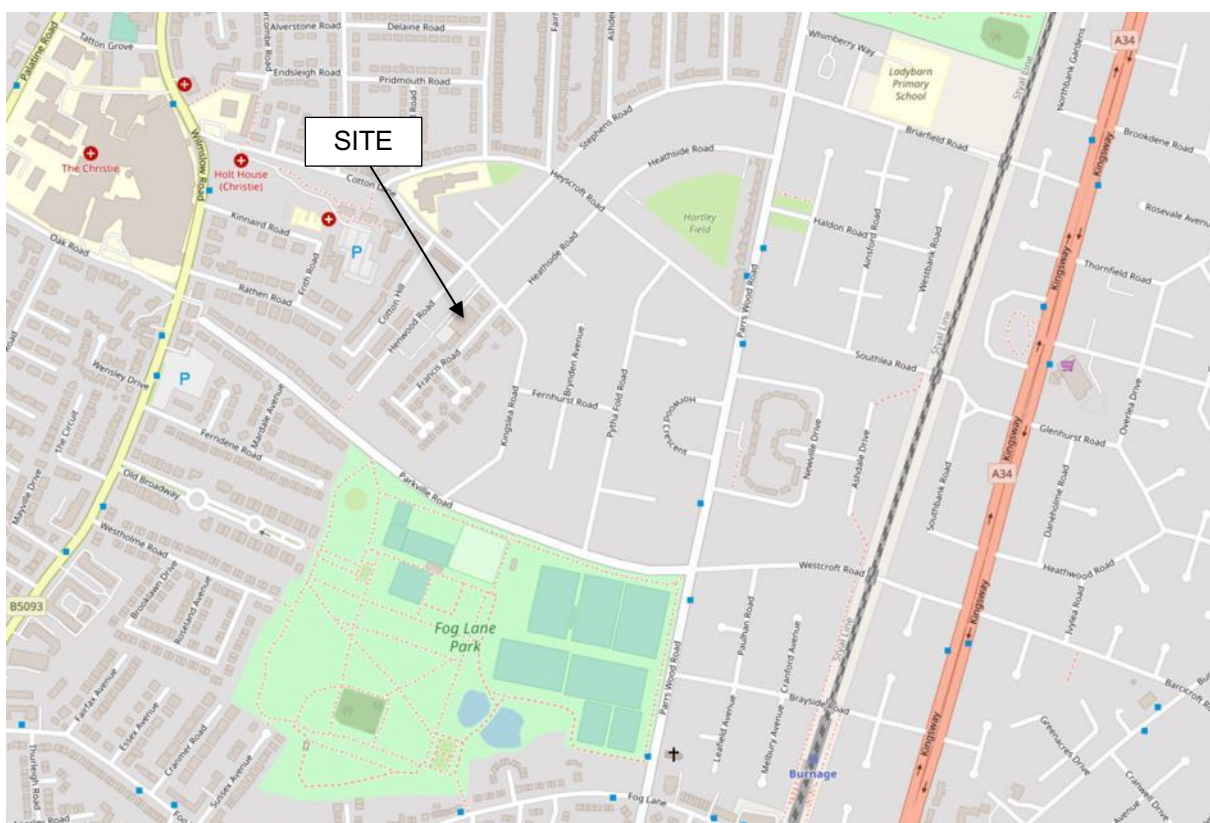


Figure 2.1: Site Location
[source: ISO4 2022]

Vehicle Access & Local Highway Network

- 2.3 Vehicle access is provided to the rear of the site via a private route from Cotton Lane, but this cannot currently be relied upon for future access to the site due to uncertainty over access rights.
- 2.4 While service shutters are provided to the rear of the existing building it is understood that historically servicing was concentrated at the front of the building from kerbside.

- 2.5 In addition to the rear parking area, parking is provided for the site at the front of the building on Francis Road. This is accessed via a continuous dropped kerb, crossover arrangement along the length of the Francis Road frontage.
- 2.6 Francis Road bounds the site to the front. It is a 7.5m wide cul-de-sac road with 2.6m footways on either carriageway edge. Francis Road meets Cotton Lane at a crossroad arrangement formed with Heathside Road and Kingslea Road. The road is subject to a 20mph speed limit restriction.

Parking Controls (Traffic Regulation Orders)

- 2.7 The site sits in the Christie Parking Scheme with a single yellow line TRO in place on the northern side of Francis Road. The TRO limits waiting to three hours with no return in four hours between Monday and Friday (8am to 6pm) with a exemption for permit holders.

Baseline Site Traffic Flows

- 2.8 The site is currently occupied by two buildings that are permitted for use as industrial premises. The TRICS database has been used to establish the traffic flows associated with the existing use of the site. In line with Good Practice guidance, TRICS sites have been removed that that will make the sample unrepresentative of the site's characteristics, such as TRICS sites where the surveys were undertaken during the Covid period, where there is no site parking and where the parking level is greater than MCC's B2 adopted standard of 1 space per 45sqm.
- 2.9 The TRICS output is attached as Appendix B, with a summary provided in Table 2.1.

	Trip Rate (per 100sqm)			Existing Site Traffic Flows		
	In	Out	Total	In	Out	Total
AM Peak Hour	0.523	0.206	0.729	6	2	9
PM Peak Hour	0.124	0.482	0.593	1	6	7
Daily (12 Hour)	2.852	2.949	5.801	34	35	69

Table 2.1: Existing Site Traffic Flows (industrial use)

Road Safety

- 2.10 The TfGM accident database has been reviewed for the most recent five-year period of available data, up to June 2021. The locations and severities of accidents are shown in Figure 2.3.
- 2.11 Figure 2.2 shows that there have been no accidents on the Francis Road frontage during the five-year period assessed.

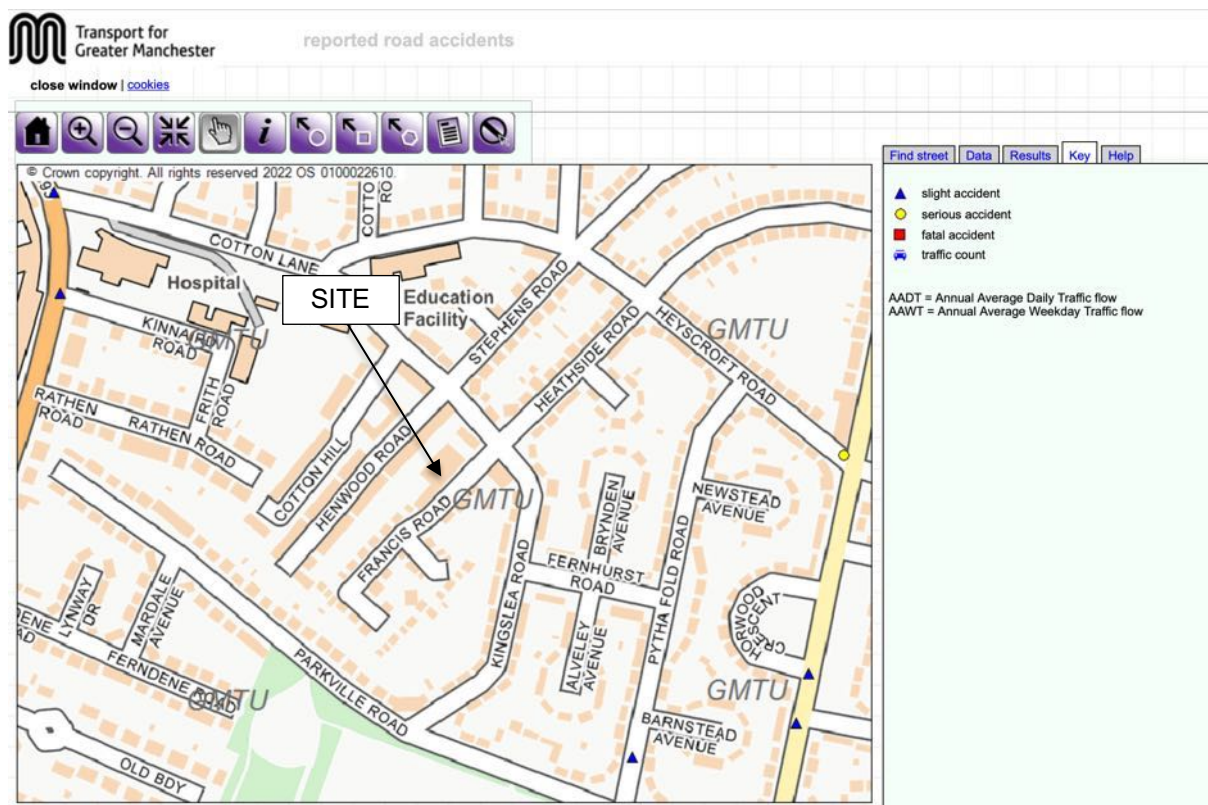


Figure 2.2: Accident Locations - Five Years
[source: TfGM/GMTU 2022]

3 Proposed Development

- 3.1 The proposed ground floor layout is attached as Appendix A. The proposal will demolish the existing buildings on the site and construct a residential development providing 24 apartments (affordable tenure), parking provision, landscaping, and associated works.
- 3.2 The main pedestrian access to the site will be provided from Francis Road. The applicant will fund the reinstatement of redundant access points on the site frontage.
- 3.3 A secondary pedestrian access is provided from the rear of the building to allow access to car park.
- 3.4 A cycle storage is provided on site for 20 bikes, with 10 in the internal store and 10 in the external store. The cycle parking is in excess of MCC's standard requirements.
- 3.5 Vehicle access to the proposal is provided from the location of the existing standard dropped kerb crossover on Francis Road that is currently a vehicle crossover to the frontage parking. Appendix C shows that the existing footway width provides visibility for vehicles joining Francis Road. Retaining a crossover arrangement is considered to be suitable to serve the site as movement levels are expected to be extremely low.
- 3.6 The parking layout is shown in Appendix A. Parking is provided for 15 cars, including two disabled spaces, a provision of 63%. In line with MCC's typical requirements, at least four spaces will be to EV standard in line with MCC's 20% standard (minimum 7kw). The appropriateness of the proposed parking level is assessed in Section 5.
- 3.7 The aisle width is just over 5m on the northern row of spaces proposed to the rear of the building. Whilst this is sufficient for two-way movement, the width is below the normal aisle width of 6m that would typically be provided for manoeuvring into and out of the spaces. Accordingly, the spaces have been widened to 3m based on vehicle tracking, in accordance with the advice in Manual for Streets. Swept paths are attached in Appendix C to demonstrate that the increased bay width is appropriate. Elsewhere the aisle width is 6m and the bays are 2.5m wide.
- 3.8 A separate parking area is retained for use by Kingslea House in the car park.

- 3.9 The bin store is located to the front of the building. Bin lorries will collect refuse from Francis Road kerbside on collection day, in line with the arrangements for adjacent residential properties.
- 3.10 Delivery movements will continue to be concentrated on the Francis Road frontage in line with the historic site servicing activity and arrangements for surrounding residential properties.
- 3.11 These arrangements will be confirmed within a Service Management Plan which will be prepared prior to occupation of the development.
- 3.12 The scale of the proposal is beneath that which DfT guidance states a Travel Plan is required. However, the applicant is committed to supporting sustainable travel practices at the site and an Interim Travel Plan has been prepared to assist with this. The Interim Travel Plan is attached as Appendix D.
- 3.13 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 Impact

Preamble

- 4.1 The site is located within an existing residential community, to the southeast of the centre of Withington. The assessment considers the amenities and services that can be accessed by residents. TfGM supports locations where residents can gain access to local facilities within a 15-minute journey time of their home. The accessibility assessment considers the destinations that can be reached within this distance of the development.

Access on Foot

- 4.2 Francis Road and Cotton Lane both have footways above 2m on either carriageway edge, and both roads are subject to 20mph speed limit restrictions. The route connecting to Withington centre and surrounding amenities are residential in character, providing a suitable environment for pedestrian trips. Controlled and uncontrolled crossing facilities are provided on major routes, such as the B5093 Wilmslow Road.
- 4.3 DfT states that it is journeys under 2km for which walking offers the opportunity for car trips and TfGM supports principles whereby a resident can access numerous amenities and services within a 15-minute journey time of home (1.2km). Figure 4.1 shows a 2km catchment from the site.

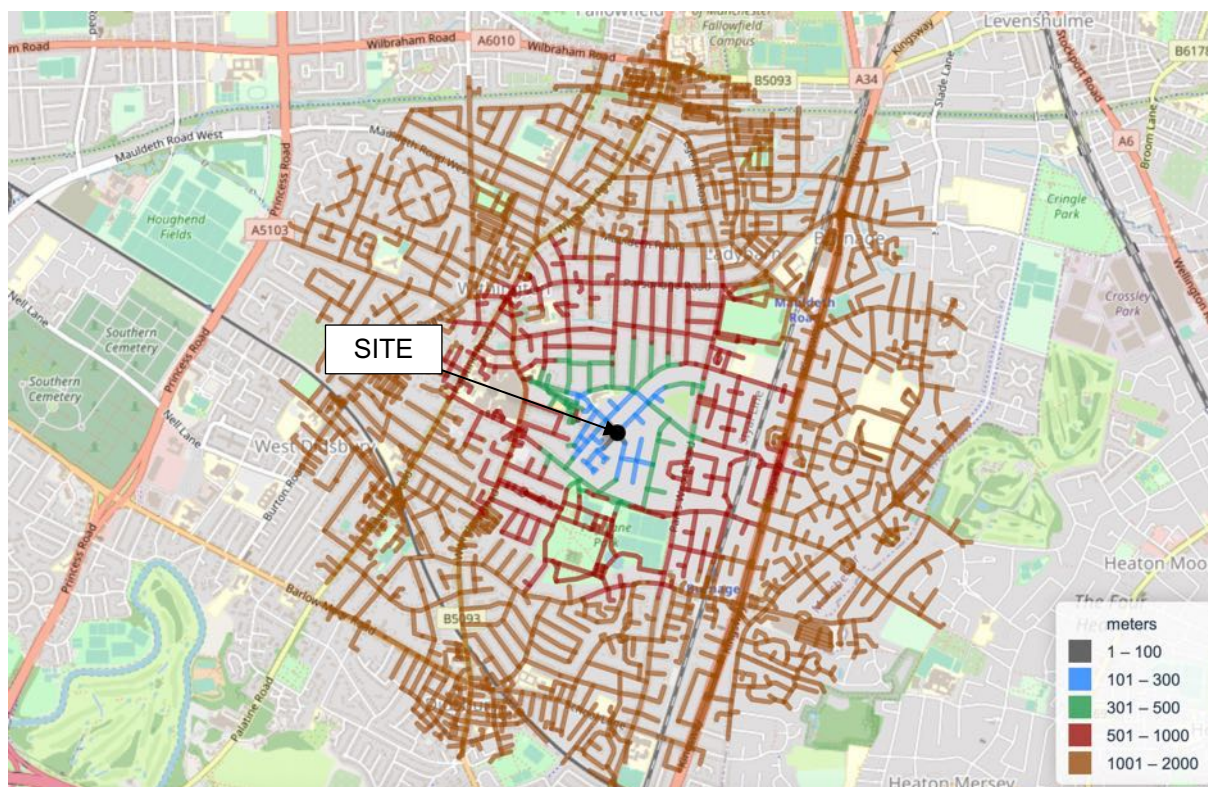


Figure 4.1: 15-Minute Walking Isochrone
[source: ISO4 2022]

- 4.4 Figure 4.1 shows that the centre of Withington, Ladybarn Park, Fog Lane Park, Lloyds Pharmacy, Ladybarn Group Medical Practice, various churches, and Burnage train station are all within 1km of the site. Close to the site, on Cotton Lane / Heathside Road, is a convenience store. In the centre of Withington, a post office, library, ATM, and various shops (including food stores) are available. It is also shown that West Didsbury, Burnage and southern end of Fallowfield are within 2km of the site.
- 4.5 The assessment shows that the site is well placed to meet 15-minute neighbourhood principles and also DfT's accessibility criteria. The existing infrastructure surrounding the site creates opportunities for access on foot and the site is located a short walk to key amenity areas.

Access by Cycle

- 4.6 Figure 4.2 shows that Francis Road and Cotton Lane are 20mph routes on the Greater Manchester Cycle Network. It also shows that the residential streets surrounding the site are also 20mph streets that provide connections to formal cycle infrastructure on Parrs Wood Road and Wilmslow Road. It is shown that access can be gained to Burnage tram stop and the centre of Withington using routes that provide a suitable environment for cyclists. The local routes can also be used to access Regional and National Routes, including Route 6, Route 60 (the Fallowfield Loop) and Route 85.
- 4.7 Figure 4.3 shows the site in the context of the Bee Network, showing that Cotton Lane and the streets surrounding the site are Bee Lines.

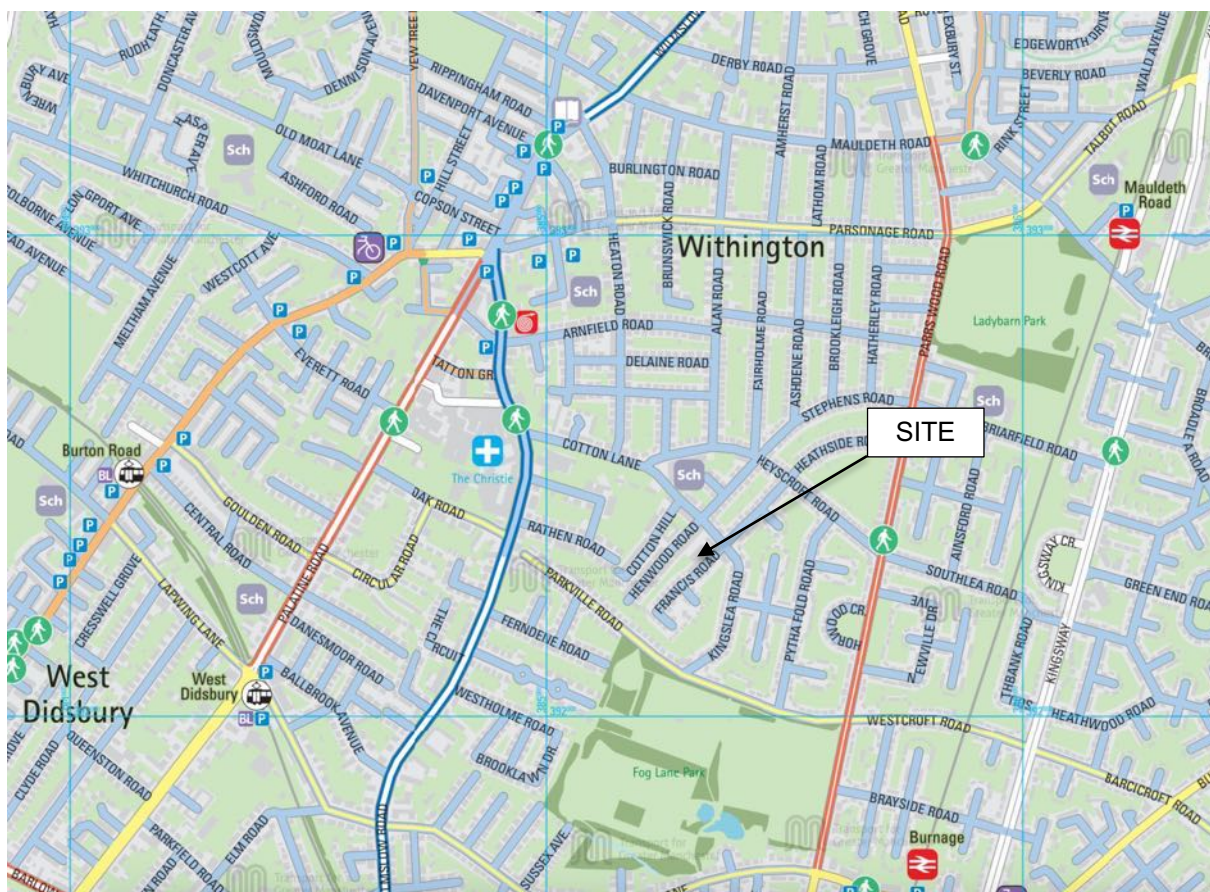


Figure 4.2: GM Cycle Network
[source: TfGM 2022]

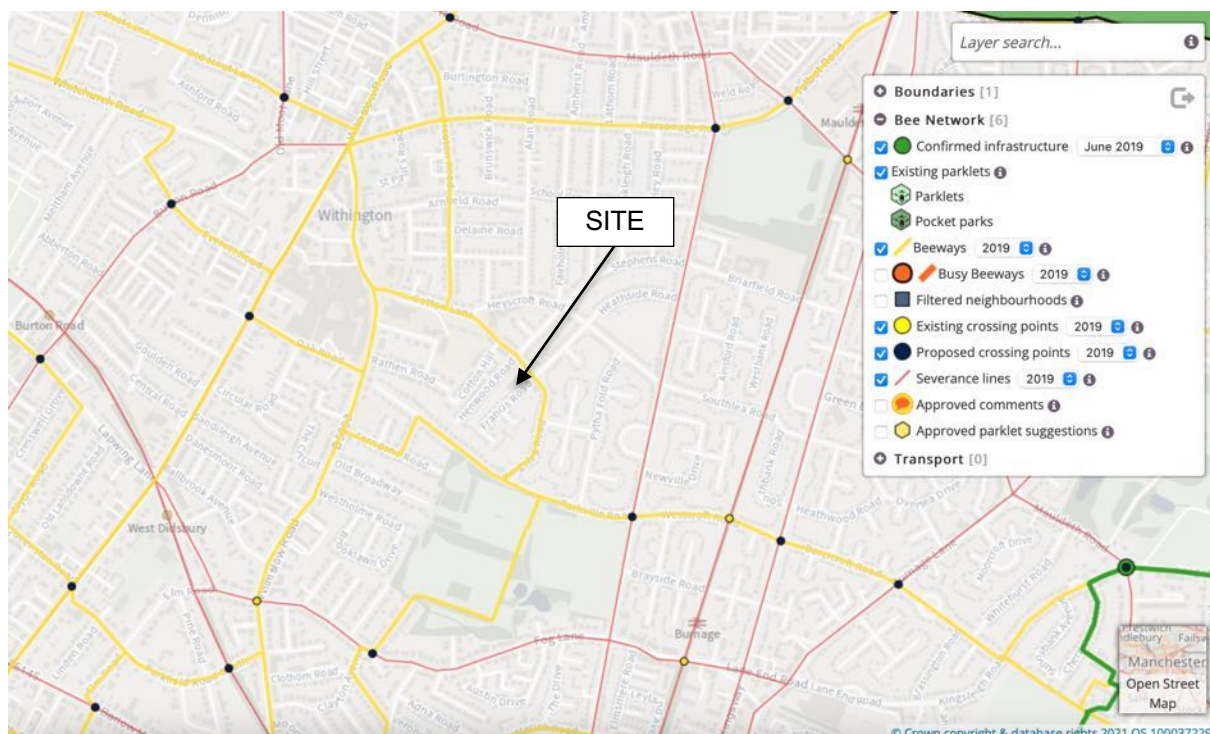


Figure 4.3: Bee Network
[source: MappingGM 022]

4.8 Figure 4.4 shows a 15-minute journey time by bike from the site, based on a leisurely or easy speed.

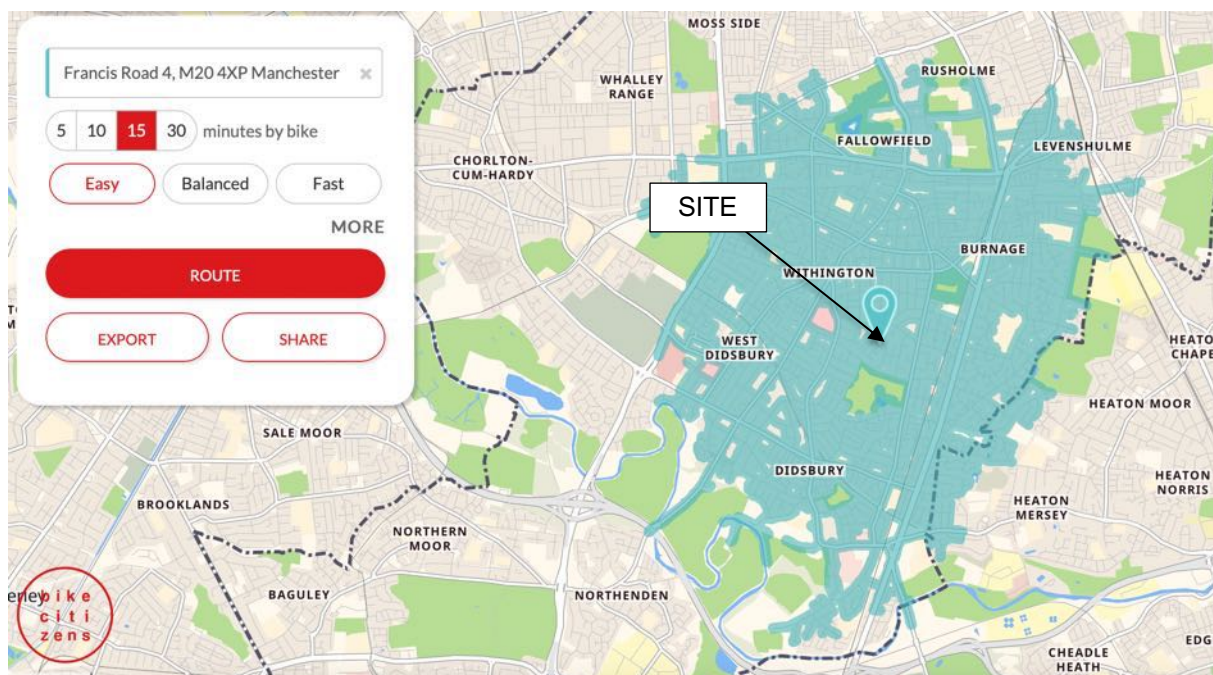


Figure 4.4: 15-Minute Cycle Isochrone
[source: Bike Citizens 2022]

- 4.9 Figure 4.4 shows that the site is within a 15-minute leisurely cycle of Withington, West Didsbury, Didsbury, Fallowfield and Levenshulme. Access can also be gained within 15 minutes to leisure cycle routes 6 and 60 of the Regional / National network, tram stops at West Didsbury and Burton Road, and train stations at Burnage and Mauldeth Road.
- 4.10 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.

Access by Public Transport

- 4.11 Figure 4.5 shows the public transport network serving the site.



Figure 4.5: Public Transport Network
[source: TfGM 2022]

- 4.12 The nearest bus stops to the site are located on Wilmslow Road and Parris Wood Road. Table 4.1 provides a summary of the routes and frequencies of services stopping on Wilmslow Road and Parris Wood Road.

No.	Route	Weekday (buses per hour)		Weekend (buses per hour)	
		Daytime	Evening	Saturday	Sunday
42	Manchester – Didsbury - Stockport	2	2	2	1
42A	Reddish – Heaton Moor – Manchester	2	0	2	2
42B	Manchester – Cheadle – Woodford	1	1	1	1
42C	Handforth Dean – Cheadle – Manchester	1	1	1	1
142	East Didsbury – Manchester	6	6	6	6
171	East Didsbury – Openshaw – Newton Heath	1	1	1	1

Table 4.1: Bus Routes
[source: TfGM 2022]

- 4.13 Table 4.1 shows that the site is served by 13 buses per hour, in each direction. Access can also be gained to Burnage train station and West Didsbury tram stop.
- 4.14 A Greater Manchester Accessibility Level (GMAL) calculation has been undertaken for the site. A GMAL is calculated using the interactive tool managed and maintained by TfGM for use in assessing the accessibility by non-car modes of a development site. The tool measures AM Peak 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 found in the city centre.
- 4.15 Figure 4.6 shows that the site has a split GMAL of 6-7, indicating a very good level of accessibility by public transport.

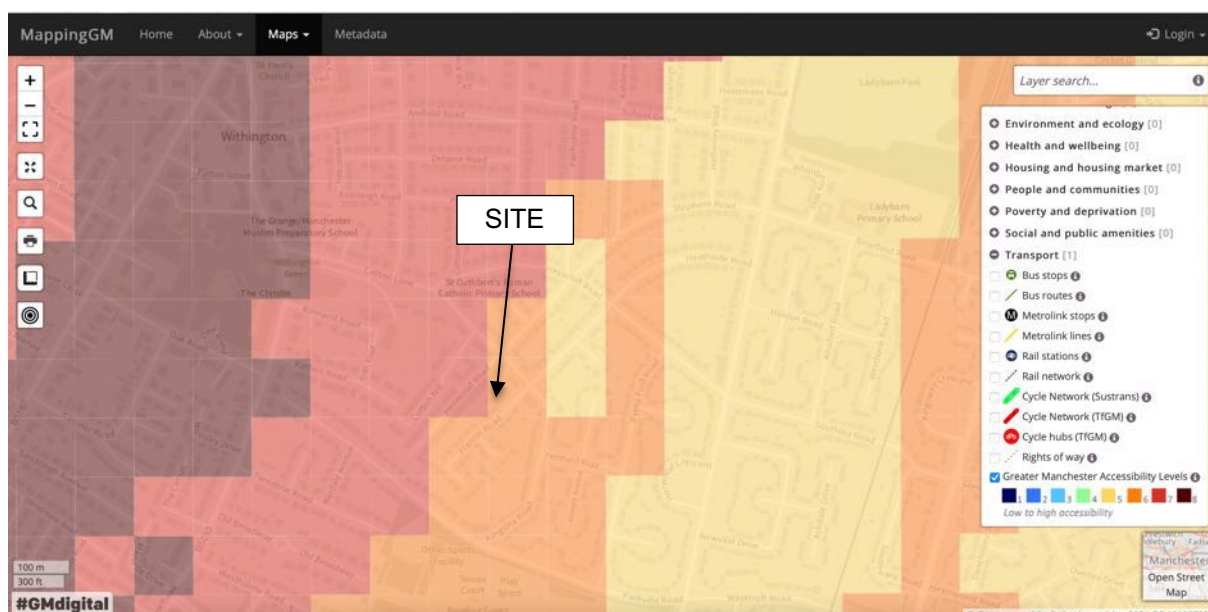


Figure 4.6: Greater Manchester Accessibility Level
[source: MappingGM 2022]

- 4.16 The assessment shows that there are opportunities to access public transport services.

Casual Car Use

- 4.17 Enterprise Car Club provides an alternative to car ownership that complements the sustainable transport system Greater Manchester. Car clubs enable members to benefit from low cost, convenient and greener motoring, and a more sustainable pattern of living that negates the requirement to own and store a car.
- 4.18 Enterprise currently locates car club vehicles in the centre of Withington at 494 Wilmslow Road.

Summary & Policy Compliance

- 4.19 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 is within a 15-minute journey time of numerous amenities and services. The assessment also shows that the existing infrastructure offers opportunities to access these destinations by sustainable modes of travel.
- 4.20 Paragraph 110 of NPPF (2021) supports developments that allow appropriate opportunities to promote sustainable transport modes. The proposal is in line with NPPF policy.

5 Traffic & Parking Impact

Trip Generation

- 5.1 The TRICS database has been used to forecast the trips associated with the development. TRICS data is attached as Appendix E, with a summary provided below.

	Total People		Taxis		Pedestrians		Public Transport		Total Vehicles	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
AM Peak Hour	0.152	0.374	0.004	0.004	0.037	0.202	0.016	0.029	0.086	0.099
PM Peak Hour	0.321	0.342	0.004	0.004	0.086	0.115	0.016	0.004	0.16	0.14

Table 5.1: Multimodal Trip Rates (per dwelling)

5.2 Table 5.2 shows the multimodal trips generated by the development.

	Total People		Taxis		Pedestrians		Public Transport		Total Vehicles	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT
AM Peak Hour	4	9	0	0	1	5	0	1	2	2
PM Peak Hour	8	8	0	0	2	3	0	0	4	3

Table 5.2: Multimodal Development Trips

Traffic Impact

- 5.3 Table 5.2 shows that the proposal will be associated with a minimal level of peak hour traffic. The level of traffic will be imperceptible to other road users and is well below DfT significance thresholds. Based on this it is concluded that the proposal will not have a severe impact on highway operation or unacceptable effects on road safety.
- 5.4 When compared to the historic site traffic flows shown in Section 2, the proposal will lead to a reduction in peak hour traffic flows.

Parking Impact

- 5.5 The proposal provides 15 parking spaces for the development, a provision of 63%.
- 5.6 When considering appropriate levels of parking at a development, paragraph 105 of NPPF states that consideration should be given to the following criteria:
- The accessibility of the development
 - The type, mix and use of the development
 - Local car ownership levels
 - The need to make an adequate provision for spaces for charging plug-in and other ultra-low emission vehicles
- 5.7 MCC does not maintain any residential parking standards and states in Policy T2 of the Core Strategy that MCC will take the circumstances of each development into account when determining appropriate levels of parking.
- 5.8 The TS already sets out the site occupies a sustainable location that provides opportunities to access local amenities, is served by public transport and EV charging is provided. A further assessment has been undertaken that considers the typical car ownership levels in the area for similar types of residents.

Local Car Ownership Levels

- 5.9 The 2011 Census car ownership has been investigated to allow an understanding of historic car ownership levels in the area. Census output area Manchester 040 has been used in the analysis. The output data is attached as Appendix F and is summarised in Table 5.3.

Status	Census Data			Proposal
	All Accommodation Types	Houses Only	Apartments Only	
No Car	32%	25%	49%	37%
With Car	68%	75%	51%	63%

Table 5.3: Local Car Ownership by Accommodation Type
[source: Nomis Census Data 2021]

- 5.10 The Census data shows that apartment dwellers in the area own significantly fewer cars than residents living in houses. 49% of apartment households do not own a car, compared to houses where only 25% don't own a car. The data also shows that the level of parking proposed at the development is higher than the car ownership level for apartments in the area.
- 5.11 The data in Table 5.3 relates to all households with all types of tenures. However, the development will provide affordable accommodation. A review has been made of the Census car ownership data for affordable accommodation in the area and this is summarised in Table 5.4. The data shows that affordable housing dwellers own fewer cars.

Status	Census Data		Proposal
	All Affordable Accommodation	Affordable Apartments Only (Calculated)	
No Car	46%	60%	37%
With Car	54%	40%	63%

Table 5.4: Local Car Ownership Retired Households
[source: Nomis Census Data 2021]

- 5.12 The data in Table 5.4 is only available for 'all accommodation' types (houses and apartments combined). Evidence shows that people living in apartments have a lower level of car ownership than people living in households, as confirmed in Table 5.3. The data has been adjusted to establish the car ownership level for affordable apartments only.
- 5.13 The assessment shows a requirement for 10 parking spaces for the development using Census data relating to affordable apartment accommodation. A requirement for 12 spaces is required if the Census data relating to apartments is used with no adjustment for the tenure.
- 5.14 The proposal provides 15 parking spaces which is a higher level than shown to be required using either assessment method.

Parking Accumulation

- 5.15 A parking accumulation has been undertaken as a further test of the appropriateness of the parking level proposed. This has been assessed using the TRICS data (cars only) and a starting occupancy based on the worse-case car ownership presented in the section above (12 spaces). The TRICS data includes all movements by car, including residents and visitors.

	In	Out	Total	Parking Demand
07:00-08:00	0	3	3	9
08:00-09:00	1	1	3	9
09:00-10:00	1	1	3	8
10:00-11:00	0	1	3	8
11:00-12:00	2	2	3	8
12:00-13:00	2	2	5	7
13:00-14:00	2	2	4	7
14:00-15:00	1	0	3	8
15:00-16:00	1	2	4	8
16:00-17:00	4	3	6	9
17:00-18:00	3	2	6	9
18:00-19:00	3	2	5	10

Table 5.5: Parking Accumulation

- 5.16 The parking accumulation assessment shows that the proposed level of parking is sufficient to meet the forecast car park demand.

Summary & Policy Compliance

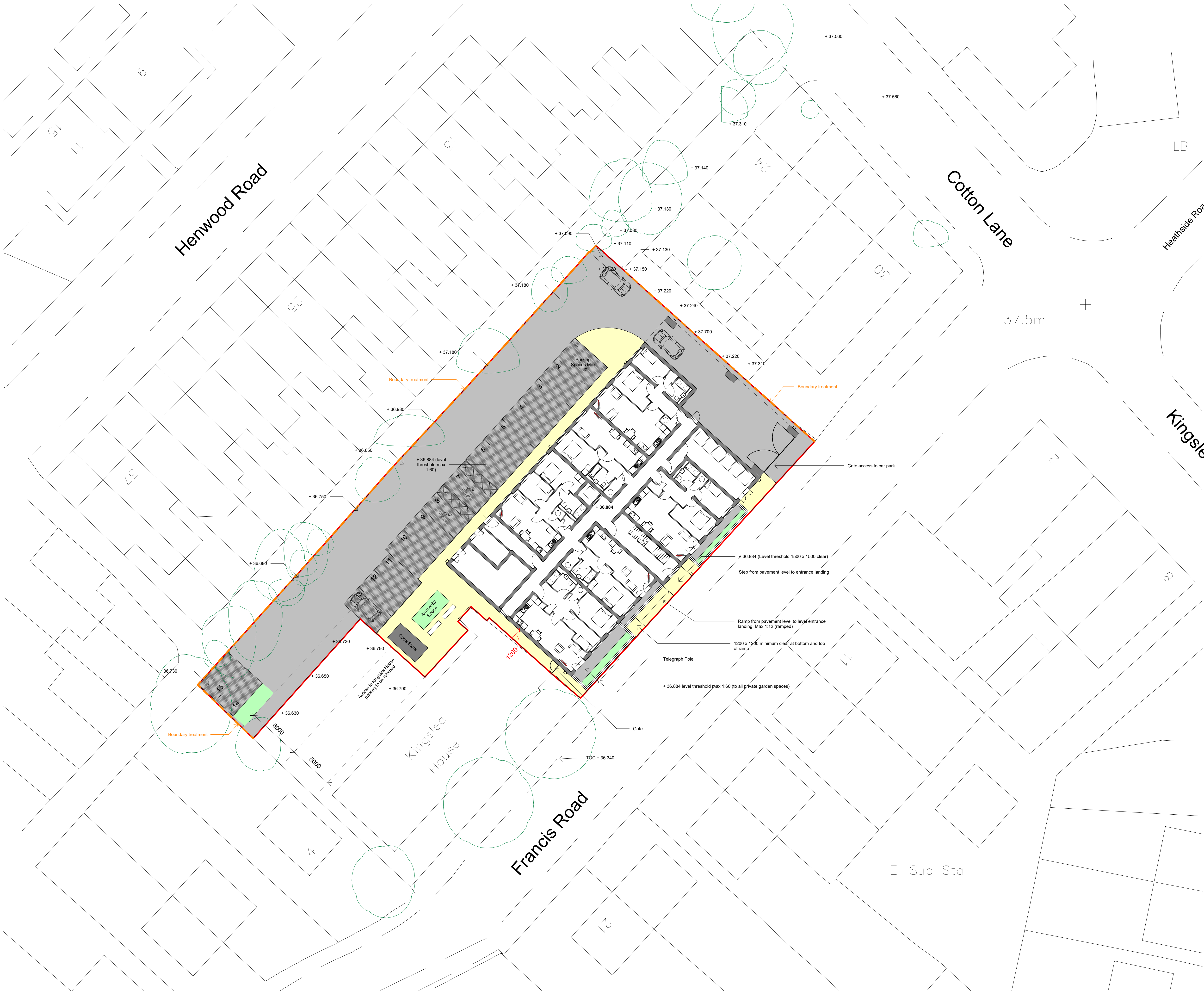
- 5.17 Paragraph 111 of NPPF (2021) states that developments should only be prevented on highways grounds if there would be an unacceptable impact on highway safety or where residual cumulative impacts would be severe. The impact assessment has been undertaken using established appraisal methods. The assessment shows that the proposal will not generate a significant level of traffic.
- 5.18 In line with MCC Core Strategy T2, an assessment has been undertaken to examine the parking requirements for the development. The assessment shows a parking requirement for a development of this type and location of between 10 and 12 spaces. The proposal provides 15 spaces, which will comfortably meet future resident and visitor demand levels shown in the assessment.

6 Conclusions

- 6.1 SK has been appointed to prepare a TS to accompany a planning application for a residential accommodation block on Francis Road in Withington. The TS has been prepared in line with local, regional, and national assessment guidance using standard appraisal methods.
- 6.2 The site is currently occupied by two buildings that have a permitted industrial use.
- 6.3 The proposal will deliver 24 apartments (affordable tenure), with access provided from Francis Road. Service and refuse collection arrangements are retained as per the historic use of the site. The proposal will provide 15 car parking spaces, including disabled and EV parking. A cycle store is also provided. The operation of the development will be underpinned by a Travel Plan.
- 6.4 The accessibility analysis shows that the site is well located to allow residents to easily access local amenities and services within a 15-minute walk or cycle. Public transport accessibility is good with opportunities available to access bus, train, and tram services. The site has a GMAL of between 6 and 7, which is a very good level of accessibility for a suburban area.
- 6.5 A road safety assessment has been undertaken, which shows that there have been no accidents in the past five years at the site access junction. Trip generation forecasts have been undertaken for both the historic and proposed uses at the site. This shows that the proposal is associated with a minimal level of traffic activity.
- 6.6 A parking assessment has been undertaken that shows that a development of this type and scale requires between 10 and 12 parking spaces. The proposal includes 15 parking spaces to comfortably accommodate resident and visitor demand.
- 6.7 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



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SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

Refer to the relevant Construction (Design and Management) documentation where applicable.

All works on this drawing will be carried out by a competent contractor, working to an approved method statement.

Site levels to be confirmed following site demolition and site clearance

- Site Boundary
- Boundary Treatment

P05	2022-11-14	Design updated following RTL feedback	RND
P04	2022-09-09	External cycle store added following planning officer comments.	RND
P03	2022-07-20	Issued for Planning	RND
P02	2022-07-04	Layout Issued for Approval	RND
P01	2022-06-24	Layout Issued for Approval	RND

rev: date: comment(s): issued by:

Status: FOR PLANNING RIBA Stage: 3

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Job: Francis Road Apartments

Title: Proposed Site Plan

Date: 2021-09-10 Scale @ A1: 1 : 200

Drawn: CC Checked By: NSJ Authorised By: NSJ

Job Number	Originator	Volume	Level	Type	Role	Number	Revision
A20045	SASA	Z0	Z0	DR	A	90100	P05

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Appendix B

Calculation Reference: AUDIT-443201-210909-0901

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

TOTAL VEHICLESSelected regions and areas:

02	SOUTH EAST	
	HF HERTFORDSHIRE	1 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
08	NORTH WEST	
	LC LANCASHIRE	1 days
09	NORTH	
	TW TYNE & WEAR	1 days
10	WALES	
	CF CARDIFF	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: 150 to 2600 (units: sqm)
 Range Selected by User: 150 to 3500 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/05 to 22/10/20

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:

Tuesday 2 days
 Thursday 4 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) 6

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 6

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:

Not Known 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:

10,001 to 15,000 1 days

20,001 to 25,000 1 days

25,001 to 50,000 4 days

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

Population within 5 miles:

125,001 to 250,000 3 days

250,001 to 500,000 3 days

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

Car ownership within 5 miles:

0.5 or Less 1 days

0.6 to 1.0 3 days

1.1 to 1.5 2 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.

LIST OF SITES relevant to selection parameters

1	CF-02-C-01	PLASTICS COMPANY	CARDIFF
	PARC-TY-GLAS		
	CARDIFF		
	LLANISHEN		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	1068 sqm	
	Survey date: TUESDAY	24/10/06	Survey Type: MANUAL
2	DS-02-C-02	ENGINEERED PRODUCTS	DERBYSHIRE
	PONTEFRAC STREET		
	DERBY		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	2600 sqm	
	Survey date: THURSDAY	25/06/15	Survey Type: MANUAL
3	HF-02-C-01	INDUSTRIAL UNIT	HERTFORDSHIRE
	BRIDGE ROAD EAST		
	WELWYN GARDEN CITY		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	1800 sqm	
	Survey date: THURSDAY	17/07/08	Survey Type: MANUAL
4	LC-02-C-03	TIMBER SUPPLIES	LANCASHIRE
	GOLDEN HILL LANE		
	LEYLAND		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	150 sqm	
	Survey date: TUESDAY	06/11/18	Survey Type: MANUAL
5	NF-02-C-04	EXHIBITION DESIGN & MANUF.	NORFOLK
	FLETCHER WAY		
	NORWICH		
	UPPER HELLESDON		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	690 sqm	
	Survey date: THURSDAY	14/11/19	Survey Type: MANUAL
6	TW-02-C-01	INDUSTRIAL UNIT	TYNE & WEAR
	SHAFTESBURY AVENUE		
	JARROW		
	TYNE POINT IND. ESTATE		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	950 sqm	
	Survey date: THURSDAY	15/11/12	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.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
BR-02-C-01	More parking than MCC B2 standard 1 per 45sqm
NR-02-C-02	Covid survey
TV-02-C-02	Covid survey
WM-02-C-02	No site parking

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	6	1210	0.055	6	1210	0.028	6	1210	0.083
07:30 - 08:00	6	1210	0.083	6	1210	0.014	6	1210	0.097
08:00 - 08:30	6	1210	0.234	6	1210	0.041	6	1210	0.275
08:30 - 09:00	6	1210	0.289	6	1210	0.165	6	1210	0.454
09:00 - 09:30	6	1210	0.138	6	1210	0.110	6	1210	0.248
09:30 - 10:00	6	1210	0.152	6	1210	0.138	6	1210	0.290
10:00 - 10:30	6	1210	0.069	6	1210	0.083	6	1210	0.152
10:30 - 11:00	6	1210	0.110	6	1210	0.110	6	1210	0.220
11:00 - 11:30	6	1210	0.152	6	1210	0.124	6	1210	0.276
11:30 - 12:00	6	1210	0.083	6	1210	0.096	6	1210	0.179
12:00 - 12:30	6	1210	0.110	6	1210	0.152	6	1210	0.262
12:30 - 13:00	6	1210	0.165	6	1210	0.152	6	1210	0.317
13:00 - 13:30	6	1210	0.138	6	1210	0.138	6	1210	0.276
13:30 - 14:00	6	1210	0.179	6	1210	0.041	6	1210	0.220
14:00 - 14:30	6	1210	0.124	6	1210	0.138	6	1210	0.262
14:30 - 15:00	6	1210	0.165	6	1210	0.138	6	1210	0.303
15:00 - 15:30	6	1210	0.083	6	1210	0.110	6	1210	0.193
15:30 - 16:00	6	1210	0.220	6	1210	0.179	6	1210	0.399
16:00 - 16:30	6	1210	0.110	6	1210	0.193	6	1210	0.303
16:30 - 17:00	6	1210	0.069	6	1210	0.276	6	1210	0.345
17:00 - 17:30	6	1210	0.069	6	1210	0.179	6	1210	0.248
17:30 - 18:00	6	1210	0.055	6	1210	0.303	6	1210	0.358
18:00 - 18:30	6	1210	0.000	6	1210	0.041	6	1210	0.041
18:30 - 19:00	6	1210	0.000	6	1210	0.000	6	1210	0.000
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:			2.852			2.949			5.801

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.

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Parameter summary

Trip rate parameter range selected:	150 - 2600 (units: sqm)
Survey date range:	01/01/05 - 22/10/20
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:	4

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

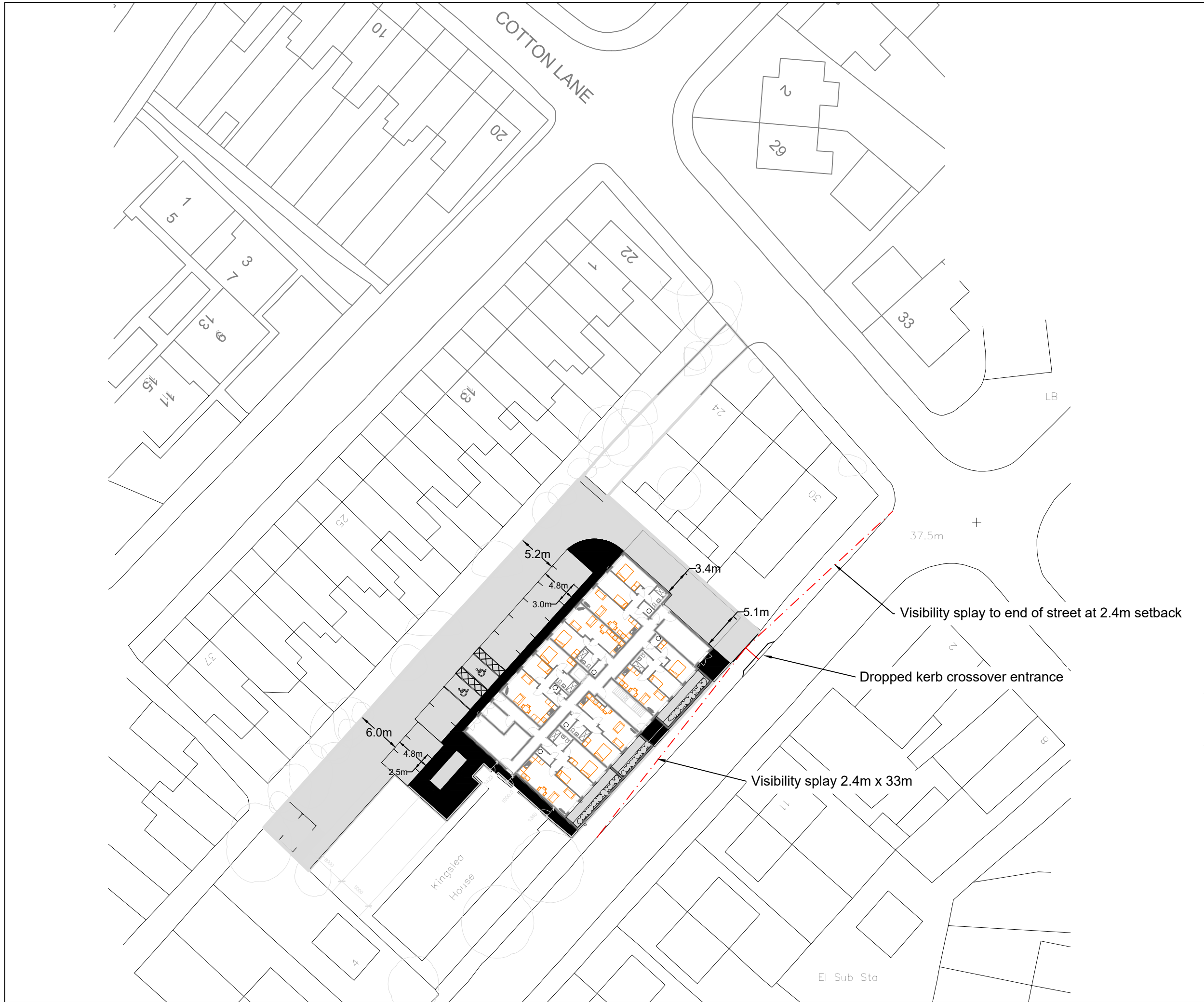
BOLD print indicates peak (busiest) period

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	6	1210	0.000	6	1210	0.000	6	1210	0.000
07:30 - 08:00	6	1210	0.000	6	1210	0.014	6	1210	0.014
08:00 - 08:30	6	1210	0.028	6	1210	0.014	6	1210	0.042
08:30 - 09:00	6	1210	0.014	6	1210	0.028	6	1210	0.042
09:00 - 09:30	6	1210	0.000	6	1210	0.014	6	1210	0.014
09:30 - 10:00	6	1210	0.000	6	1210	0.000	6	1210	0.000
10:00 - 10:30	6	1210	0.041	6	1210	0.028	6	1210	0.069
10:30 - 11:00	6	1210	0.014	6	1210	0.028	6	1210	0.042
11:00 - 11:30	6	1210	0.028	6	1210	0.055	6	1210	0.083
11:30 - 12:00	6	1210	0.028	6	1210	0.014	6	1210	0.042
12:00 - 12:30	6	1210	0.000	6	1210	0.014	6	1210	0.014
12:30 - 13:00	6	1210	0.028	6	1210	0.014	6	1210	0.042
13:00 - 13:30	6	1210	0.000	6	1210	0.014	6	1210	0.014
13:30 - 14:00	6	1210	0.028	6	1210	0.000	6	1210	0.028
14:00 - 14:30	6	1210	0.000	6	1210	0.014	6	1210	0.014
14:30 - 15:00	6	1210	0.000	6	1210	0.000	6	1210	0.000
15:00 - 15:30	6	1210	0.000	6	1210	0.000	6	1210	0.000
15:30 - 16:00	6	1210	0.000	6	1210	0.000	6	1210	0.000
16:00 - 16:30	6	1210	0.000	6	1210	0.000	6	1210	0.000
16:30 - 17:00	6	1210	0.000	6	1210	0.000	6	1210	0.000
17:00 - 17:30	6	1210	0.028	6	1210	0.000	6	1210	0.028
17:30 - 18:00	6	1210	0.014	6	1210	0.014	6	1210	0.028
18:00 - 18:30	6	1210	0.000	6	1210	0.000	6	1210	0.000
18:30 - 19:00	6	1210	0.000	6	1210	0.000	6	1210	0.000
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:			0.251			0.265			0.516

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.

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Appendix C



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

SK22154-005

Francis Road, Withington

Drawing Title

Proposed Site Access Arrangement

Scale at A3

1:500

Drawn	Approved
JAT	LGS
Check	Date
LGS	12.07.22

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Albion Wharf | Manchester | M1 5LN
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0161 234 6509



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NOTES
Vehicle Profile

Estate Car (2006)	4.710m
Overall Length	1.804m
Overall Width	1.442m
Overall Body Height	0.207m
Min Body Ground Clearance	1.756m
Max Track Width	4.00 sec
Lock to Lock Time	5.950m
Kerb to Kerb Turning Radius	

Revision Details	By	Date	Suffix
	Check		

Drawing Number

SK22154-006

Francis Road, Withington

Drawing Title

Swept Path Analysis
Large Estate Car
Entering / Leaving

Scale at A3

1:500

Drawn	Approved
JAT	LGS
Check	Date
LGS	12.07.22

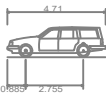
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THIS DRAWING MAY BE USED ONLY FOR
THE PURPOSE INTENDED AND ONLY
WRITTEN DIMENSIONS SHALL BE USED

NOTES

Vehicle Profile



Estate Car (2006)	4.710m
Overall Length	1.804m
Overall Width	1.442m
Overall Body Height	0.207m
Min Body Ground Clearance	1.756m
Max Track Width	4.00 sec
Lock to Lock Time	5.950m
Kerb to Kerb Turning Radius	

Revision Details	By	Date	Suffix
	Check		

Drawing Number
SK22154-006

Francis Road, Withington

Drawing Title
Swept Path Analysis Large Estate Car Sample Parking Manoeuvre

Scale at A3
1:500

Drawn	Approved
JAT	LGS

Check	Date
LGS	12.07.22

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Appendix D

Francis Road, Withington

Interim Travel Plan

221121/SK22154/ITP01(-05)

Contents

	Page
1 Introduction & Background to the Development	1
2 Travel Plan Process, Benefits & Objectives	1
3 Site Location & Highway Network	4
4 Accessibility Audit	5
5 Plan Management	10
6 Measures Toolkit	11
7 Monitoring & Review Mechanisms	14
8 Action Plan	15

Project	Document	Rev	Description	Authorised by	Signed	Date
SK22154	ITP01	00	Draft	L Speers	LGS	28/09/21
SK22154	ITP01	01	Updated Layout	L Speers	LGS	19/10/21
SK22154	ITP01	02	Submission	L Speers	LGS	15/12/21
SK22154	ITP01	03	Updated Layout	L Speers	LGS	19/04/22
SK22154	ITP01	04	Updated Layout	L Speers	LGS	12/07/22
SK22154	ITP01	05	Updated Layout	L Speers	LGS	21/11/22

1 Introduction & Background to the Development

Background

- 1.1 SK has been appointed to prepare an Interim Travel Plan for a residential accommodation development (affordable tenure) on Francis Road in Withington.
- 1.2 A Transport Statement (TS) has been prepared for the planning application and this should be reviewed for full details of the proposal and its impact.
- 1.3 The scale of the proposal is beneath that which DfT guidance states a Travel Plan is required. However, the applicant is committed to supporting sustainable travel practices at the site and an Interim Travel Plan has been prepared to assist with this.

Development Proposal

- 1.4 The proposed ground floor layout is attached as Appendix A of the TS. The proposal will demolish the existing buildings on the site and construct a residential development providing 24 apartments (affordable tenure), parking provision, landscaping, and associated works.
- 1.5 The main pedestrian access to the site will be provided from Francis Road. The applicant will fund the reinstatement of redundant access points on the site frontage.
- 1.6 A secondary pedestrian access is provided from the rear of the building to allow access to car park.
- 1.7 Storage for 20 bikes is provided at the site, 10 in the internal store and 10 in the external store.
- 1.8 Vehicle access to the proposal is provided from the existing crossover arrangement on Francis Road. Appendix C of the TS shows that the existing footway width provides visibility for vehicles joining Francis Road. Retaining the crossover arrangement is considered to be suitable to serve the site as movement levels are expected to be extremely low.
- 1.9 The parking layout is shown in Appendix A of the TS. Parking is provided for 15 cars, including two disabled spaces, a provision of 63%. In line with MCC's typical requirements, at least four spaces will be to EV standard in line with MCC's 20% standard (minimum 7kw). The appropriateness of the proposed parking level is assessed in Section 5 of the TS.
- 1.10 The aisle width is just over 5m on the northern row of spaces proposed to the rear of the building. Whilst this is sufficient for two-way movement, the width is below the normal aisle width of 6m that would typically be provided for manoeuvring into and out of the spaces. Accordingly, the spaces have been widened to 3m based on vehicle tracking, in accordance with the advice in Manual for Streets. Swept paths are attached in Appendix C of the TS to demonstrate that the increased bay width is appropriate. Elsewhere the aisle width is 6m and the bays are 2.5m wide.
- 1.11 A separate parking area is retained for use by Kingslea House in the car park.
- 1.12 The bin store is located to the front of the building. Bin lorries will collect refuse from Francis Road kerbside on collection day, in line with the arrangements for adjacent residential properties.
- 1.13 Delivery movements will continue to be concentrated on the Francis Road frontage in line with the historic site servicing activity and arrangements for surrounding residential properties.
- 1.14 These arrangements will be confirmed within a Service Management Plan which will be prepared prior to occupation of the development.
- 1.15 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.

2 Travel Plan Process, Benefits & Objectives

Travel Plan Process

- 2.1 A Travel Plan is a tool for managing access to a site that sets out a management strategy that seeks to promote sustainable travel choices and reduce single occupancy car use to achieve stated objectives. It should contain a package of measures designed to meet the objective to reduce single-occupancy car use generated from the site by supporting sustainable modes of transport, where practicable.
- 2.2 A Travel Plan should include a mixture of site infrastructure measures and marketing measures to assist the plan to meet defined objectives. Within a Travel Plan there is a need to set objectives, targets and indicators, the purpose of which is to monitor change and review policies overtime to allow it to meet the needs of the users of a site.
- 2.3 In line with NPPF, the measures adopted in a Travel Plan should be commensurate with the scale of impact from the development and should acknowledge the infrastructure and contributions to be delivered as part of the development, and also the type and use of the development. It is notable that the site is located within an existing residential community, to the southeast of the centre of Withington. The site is within 15 minutes of local amenities and services, and the location of the site creates a good basis for resident active and sustainable travel practices.
- 2.4 The preparation of an Interim Travel Plan is the first stage of the process and is typically prepared as part of a planning application. The Interim sets out recommendations for the full Travel Plan to be prepared on occupation of the development. The Interim Travel Plan outlines the existing sustainable transport routes that can be used to access the site, the proposed site infrastructure measures, and management and policy measures for adoption upon occupation of the site to promote use of existing infrastructure. The Interim Travel Plan also sets out measures that will be used to manage and monitor the Plan over time.
- 2.5 The Travel Plan draws on the following guidance and best practice:
 - Ministry of Housing, Communities & Local Government (2019), National Planning Policy Framework
 - Ministry of Housing, Communities & Local Government (2016), Planning Practice Guidance
 - MCC (2012) Manchester's Local Development Framework: Core Strategy Development Plan
 - Transport for Greater Manchester (2013), Transport for Sustainable Communities
 - Transport for Greater Manchester (2017), Greater Manchester Transport Strategy 2040
 - Department for Transport (2007), Guidance on Transport Assessment
 - Department for Transport (2020), Decarbonising Transport: Setting the Challenge
 - Department for Transport (2008), Delivering Travel Plans through the Planning Process
 - Chartered Institution of Highways & Transportation (2019), Better planning, better transport, better places

Travel Plan Pyramid

- 2.6 The Department of Transport (DfT) states that it is helpful to:

‘... view the Travel Plan as a pyramid of measures and actions, some of which may form the foundations of the Travel Plan and part of which will be outcomes from the Transport Assessment.’
- 2.7 The DfT pyramid (shown in Figure 2.1) views the Travel Plan process as a series of considerations that is constructed from the ground up, with each new layer building on the last within the context of objectives sought.



Figure 2.1: Travel Plan Pyramid
[source: DfT 2009]

- 2.8 At the bottom of the pyramid is the location of the site and at this stage characteristics of access to the site by all modes of travel. This is set out in Section 3 and 4 of the Plan.
- 2.9 At the next level the physical aspects of the proposed development are set out to allow acknowledgement of that some Travel Plan measures are built-in to the layout to influence travel. These measures include pedestrian access arrangements, parking level, and cycle parking proposals that will be delivered to serve a development. This information is as set out above in Section 1 and also in Section 6.
- 2.10 The remaining levels outline the management, promotion and *soft* measures that are to be adopted as part of the travel plan to reinforce the site location, infrastructure proposals and access opportunities. DfT research has consistently demonstrated that investment in *soft* or SMART travel planning measures, when coupled with marketing interventions, can have a very real impact upon influencing travel behaviour. These are set out in Sections 5 and 6 of the Plan.
- 2.11 Section 7 sets out the monitoring plan which details how and when the travel plan will be reviewed. This includes how and when surveys will be undertaken, and the targets that will be set to meet the stated objectives.
- 2.12 Section 8 provides a summary of the actions identified in the Travel Plan along with timescales for implementation.

Travel Plan Benefits

- 2.13 Travel plans result in a variety of health, financial, environmental and site operation benefits, which are set out below.
- 2.14 Reduced levels of single occupancy car use can lead to an improvement in air quality both surrounding the site and across the wider area. In addition, increases in active travel have very

real impact on peoples' health as moderate physical activity can help prevent obesity, mental health issues, cancer, high blood pressure and cardiovascular disease.

- 2.15 The financial benefits of Travel Plans include personal cost savings from using more cost-effective modes of travel and indirect and wider cost savings relating to reduced illness and reduced accident rates.
- 2.16 The environmental benefits of Travel Plans include reduced carbon emissions and air quality issues.
- 2.17 Travel Plans also bring societal benefits including a happier and healthier community, and more social interaction.

Travel Plan Objectives

- 2.18 The main objectives of a Travel Plan are to reduce the environmental effects of transport associated with developments and raise awareness of sustainable means of access. In this instance, the main objective of the Travel Plan is to outline a realistic strategy that allows residents to travel by sustainable modes and to reduce single occupancy car use.
- 2.19 A secondary objective of the Travel Plan is to outline an Action Plan for the site that clearly defines the strategy and monitoring measures to be adopted to meet the defined objectives of the Plan. To this end, the Plan seeks:
 - To support site users to make informed travel choices
 - To set out a suitable monitoring and management structure

3 Site Location & Local Highway Network

Site Location

- 3.1 Figure 3.1 shows that the site is located to the southeast of the centre of Withington.
- 3.2 The site is currently occupied by two industrial units (MPC House and Pellowe Court) which have a combined floor area of 1,190sqm.

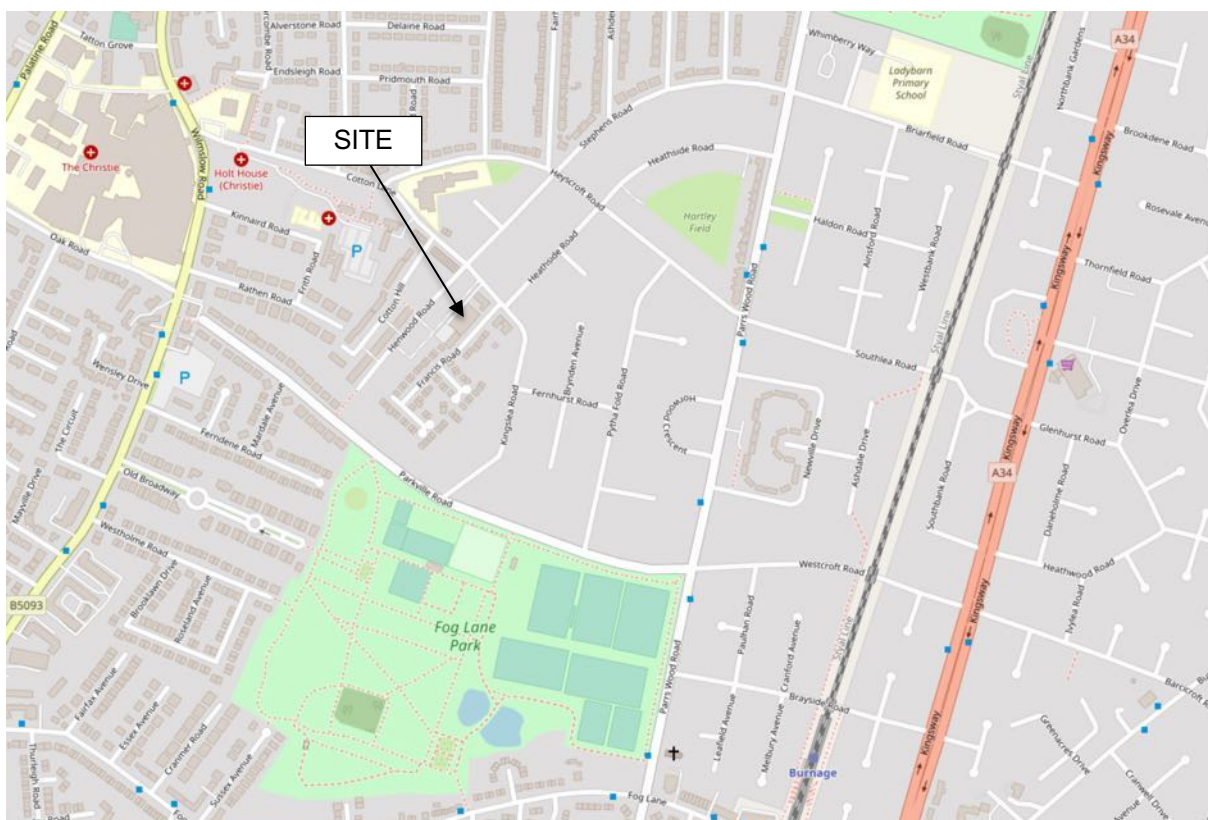


Figure 3.1: Site Location
[source: ISO4 2022]

Vehicle Access & Local Highway Network

- 3.3 Vehicle access is provided to the rear of the site via a private route from Cotton Lane but this cannot currently be relied upon for future access to the site due to uncertainty over access rights.
- 3.4 While service shutters are provided to the rear of the existing building it is understood that historically servicing was concentrated at the front of the building from kerbside.
- 3.5 In addition to the rear parking area, parking is provided for the site at the front of the building on Francis Road. This is accessed via a continuous dropped kerb, crossover arrangement along the length of the Francis Road frontage.
- 3.6 Francis Road bounds the site to the front. It is a 7.5m wide cul-de-sac road with 2.6m footways on either carriageway edge. Francis Road meets Cotton Lane at a crossroad arrangement formed with Heathside Road and Kingslea Road. The road is subject to a 20mph speed limit restriction.
- 3.7 Francis Road sits in the Christie Controlled Parking Zone, details of the controls are provided in the TS.

4 Accessibility Audit

Pedestrian Access

- 4.1 The site is located within an existing residential community, to the southeast of the centre of Withington. The assessment considers the amenities and services that can be accessed by residents. TfGM supports locations where residents can gain access to local facilities within a 15-minute journey time of their home. The accessibility assessment considers the destinations that can be reached within this distance of the development.
- 4.2 Francis Road and Cotton Lane both have footways above 2m on either carriageway edge, and both roads are subject to 20mph speed limit restrictions. The route connecting to Withington centre and surrounding amenities are residential in character, providing a suitable environment for pedestrian trips. Controlled and uncontrolled crossing facilities are provided on major routes, such as the B5093 Wilmslow Road.

- 4.3 DfT states that it is journeys under 2km for which walking offers the opportunity for car trips and TfGM supports principles whereby a resident can access numerous amenities and services within a 15-minute journey time of home (1.2km). Figure 4.1 shows a 2km catchment from the site.

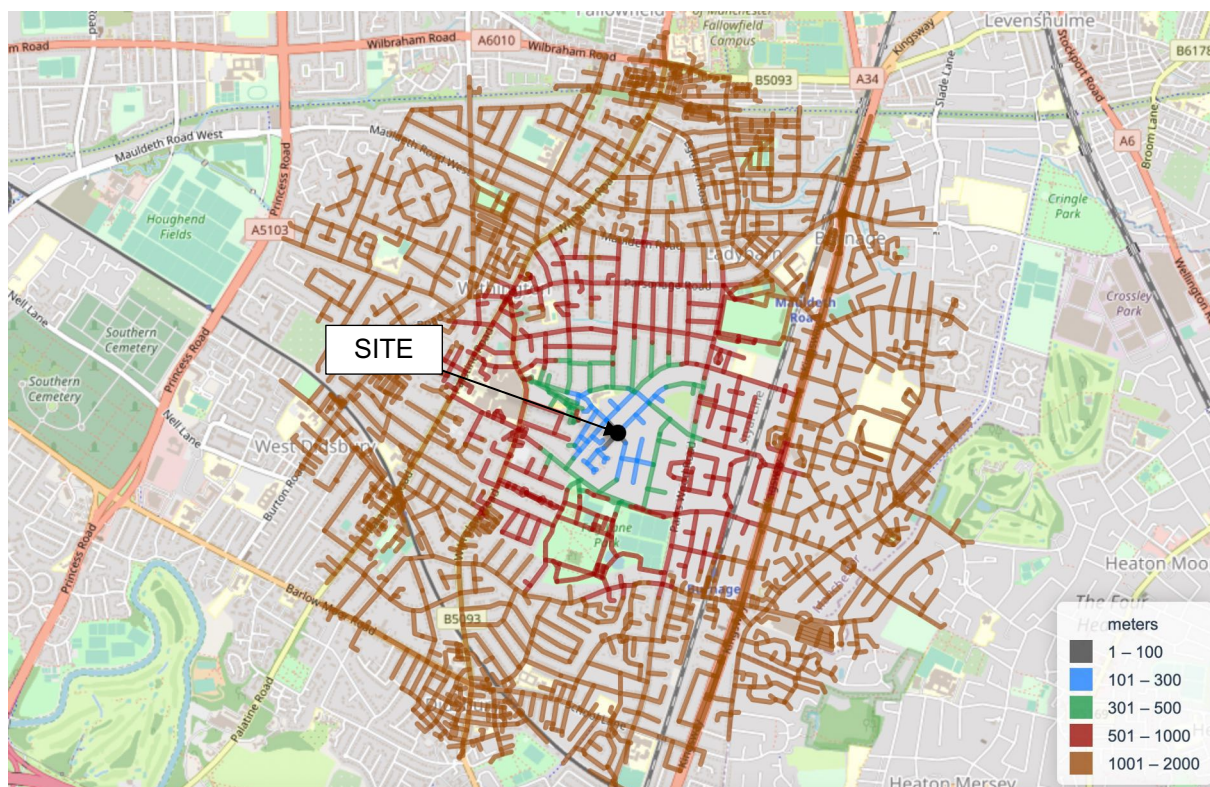


Figure 4.1: 15 Minute Walking Isochrone

- 4.4 Figure 4.1 shows that the centre of Withington, Ladybarn Park, Fog Lane Park, Lloyds Pharmacy, Ladybarn Group Medical Practice, various churches, and Burnage train station are all within 1km of the site. Close to the site, on Cotton Lane / Heathside Road, is a convenience store. In the centre of Withington, a post office, library, ATM, and various shops (including food stores) are available. It is also shown that West Didsbury, Burnage, and southern end of Fallowfield are within 2km of the site.
- 4.5 The assessment shows that the site is well placed to meet 15-minute neighbourhood principles and also DfT's accessibility criteria. The existing infrastructure surrounding the site creates opportunities for access on foot and the site is located a short walk to key amenity areas.

Cycle Access

- 4.6 Figure 4.2 shows that Francis Road and Cotton Lane are 20mph routes on the Greater Manchester Cycle Network. It also shows that the residential streets surrounding the site are also 20mph streets that provide connections to formal cycle infrastructure on Parrs Wood Road and Wilmslow Road. It is shown that access can be gained to Burnage tram stop and the centre of Withington using routes that provide a suitable environment for cyclists. The local routes can also be used to access Regional and National Routes, including Route 6, Route 60 (the Fallowfield Loop) and Route 85.

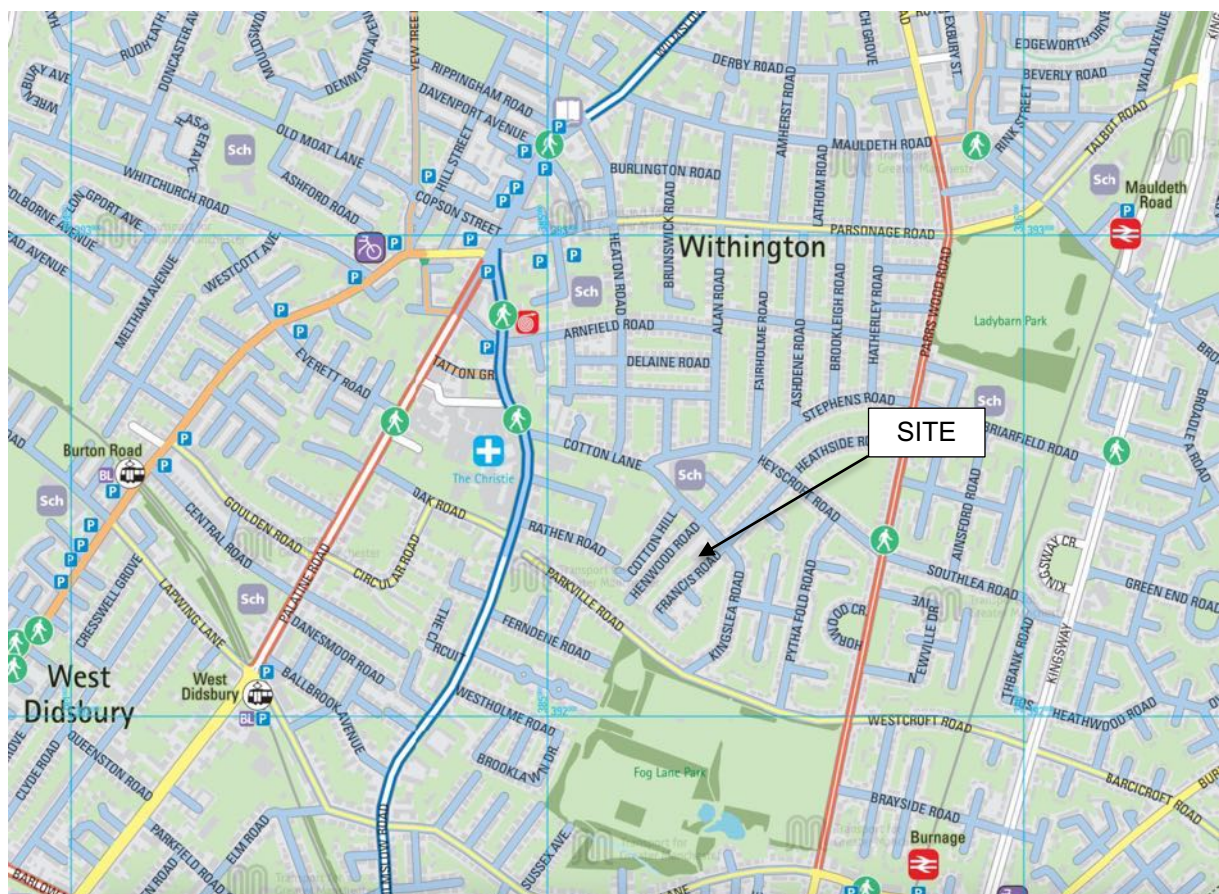


Figure 4.2: Existing Cycle Network
[source: TfGM 2022]

- 4.7 Figure 4.3 shows the site in the context of the Bee Network, showing that Cotton Lane and the streets surrounding the site are Bee Lines.
- 4.8 Figure 4.4 shows a 15-minute journey time by bike from the site, based on a leisurely or easy speed.

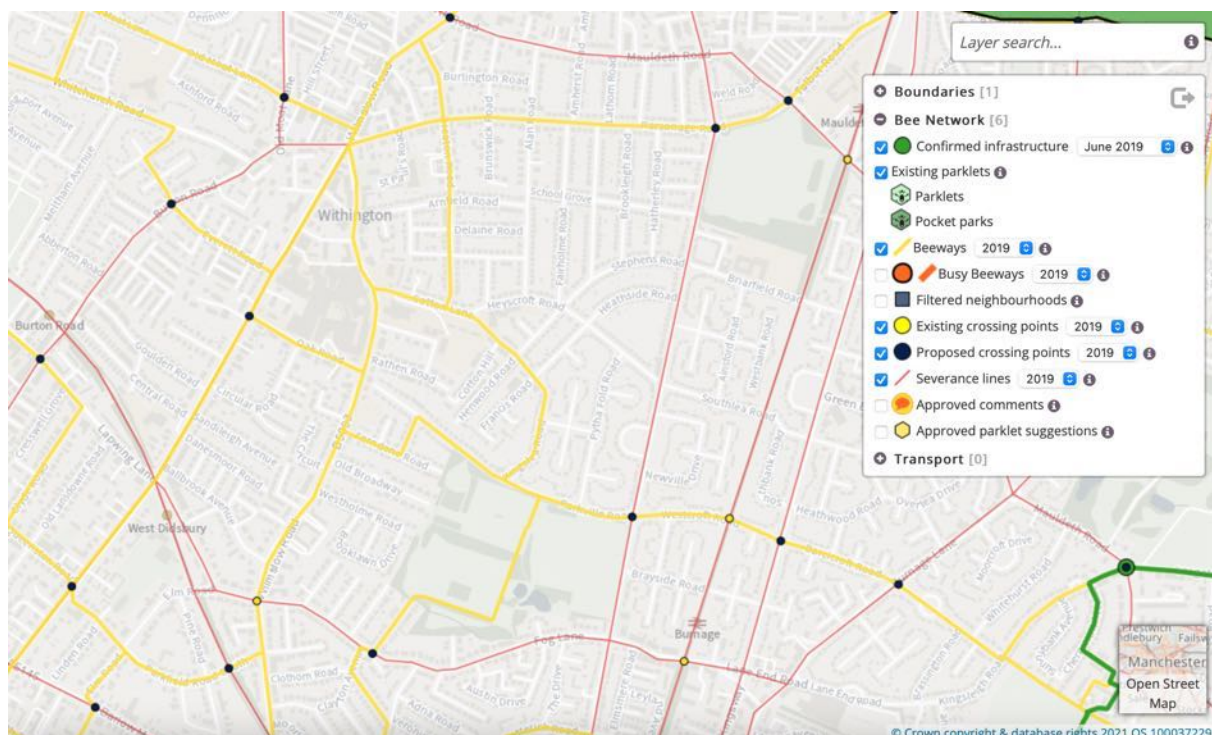


Figure 4.3: Bee Network
[source: MappingGM 022]

- 4.9 Figure 4.4 shows 10-, 15-, 20- and 25-minute cycle journey times from the site based on leisurely cycle speed of 16km/h.

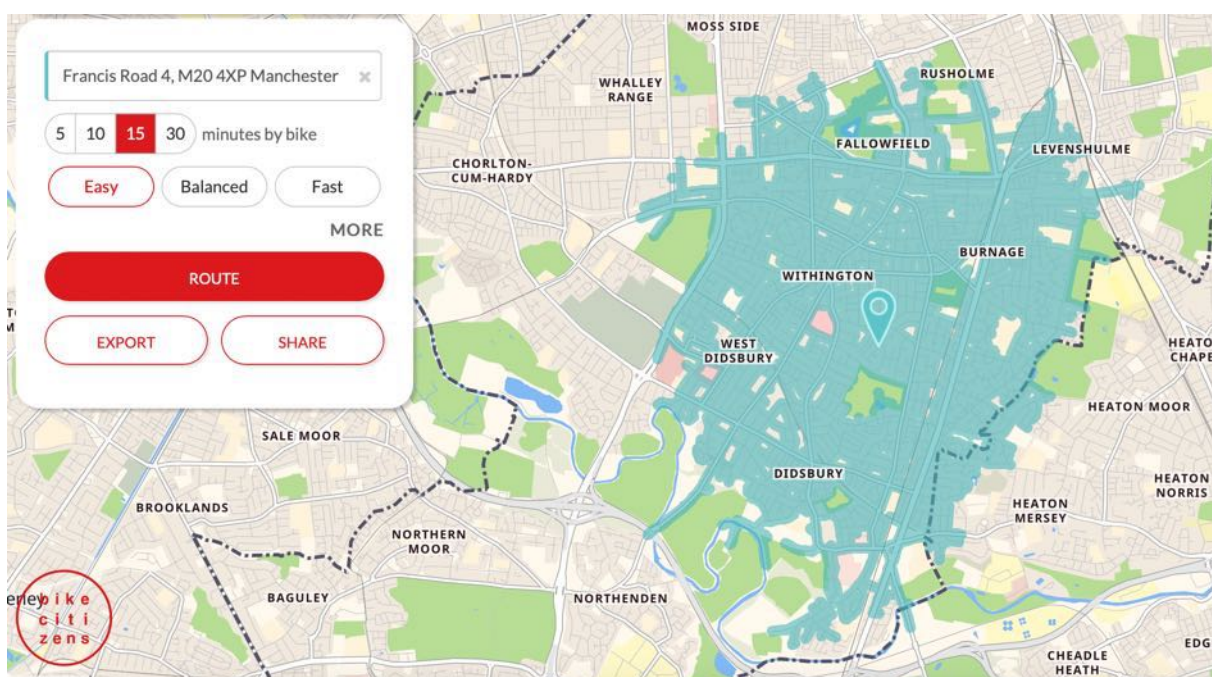


Figure 4.4: 15-Minute Cycle Isochrone
[source: Bike Citizens 2022]

- 4.10 Figure 4.4 shows that the site is within a 15-minute leisurely cycle of Withington, West Didsbury, Didsbury, Fallowfield and Levenshulme. Access can also be gained within 15 minutes to leisure cycle routes 6 and 60 of the Regional / National network, tram stops at West Didsbury and Burton Road, and train stations at Burnage and Mauldeth Road.

- 4.11 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.

Public Transport Access

- 4.12 The public transport network serving the site is shown on Figure 4.5.

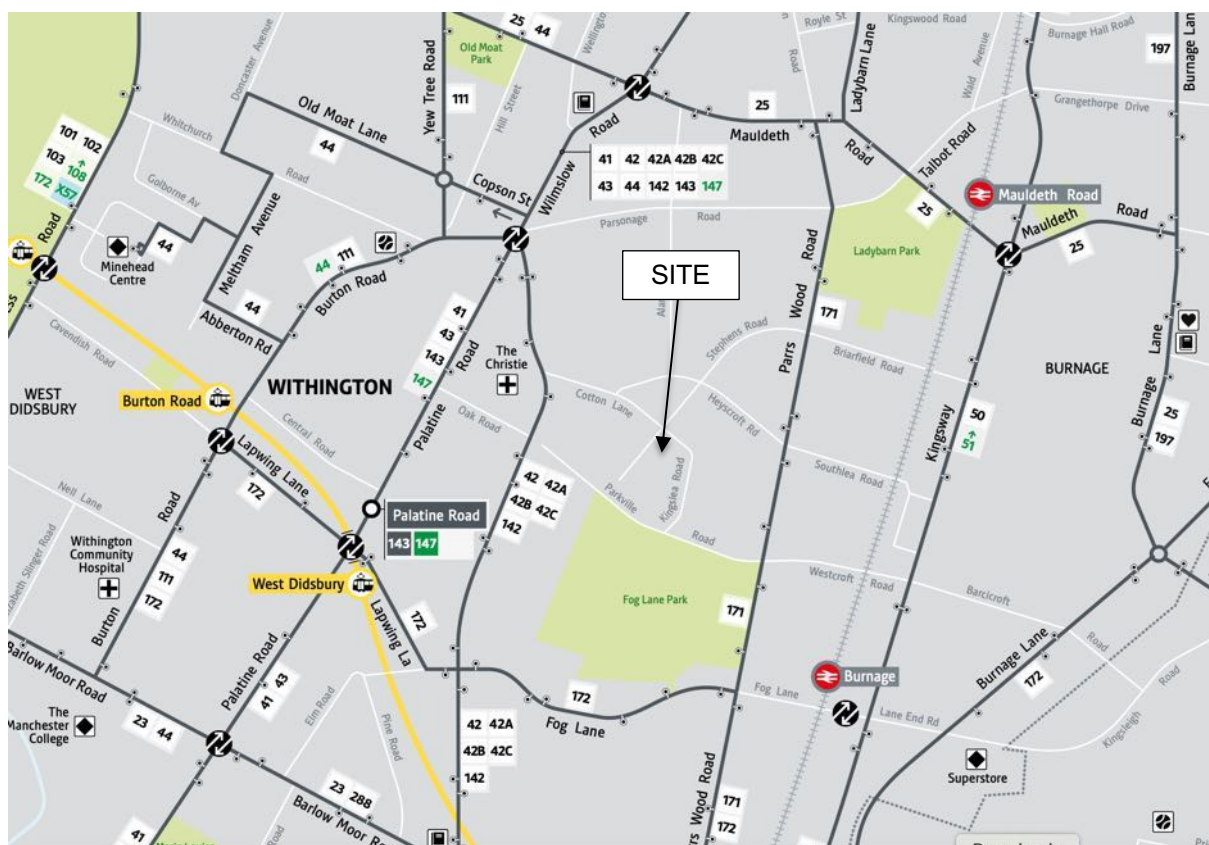


Figure 4.5: Public Transport Network
[source: TfGM 2022]

- 4.13 The nearest bus stops to the site are located on Wilmslow Road and Parris Wood Road. Table 4.1 provides a summary of the routes and frequencies of services stopping on Wilmslow Road and Parris Wood Road.

No.	Route	Weekday (buses per hour)		Weekend (buses per hour)	
		Daytime	Evening	Saturday	Sunday
42	Manchester – Didsbury - Stockport	2	2	2	1
42A	Reddish – Heaton Moor – Manchester	2	0	2	2
42B	Manchester – Cheadle – Woodford	1	1	1	1
42C	Handforth Dean – Cheadle – Manchester	1	1	1	1
142	East Didsbury – Manchester	6	6	6	6
171	East Didsbury – Openshaw – Newton Heath	1	1	1	1

Table 4.1: Existing Bus Services
[source: TfGM 2022]

- 4.14 Table 4.1 shows that the site is served by 13 buses per hour, in each direction. Access can also be gained to Burnage train station and West Didsbury tram stop.

Greater Manchester Accessibility Level

- 4.15 A Greater Manchester Accessibility Level (GMAL) calculation has been undertaken for the site. A 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.
- 4.16 Figure 4.6 shows that the site has a split GMAL of 6 and 7, indicating a very good level of accessibility by public transport.

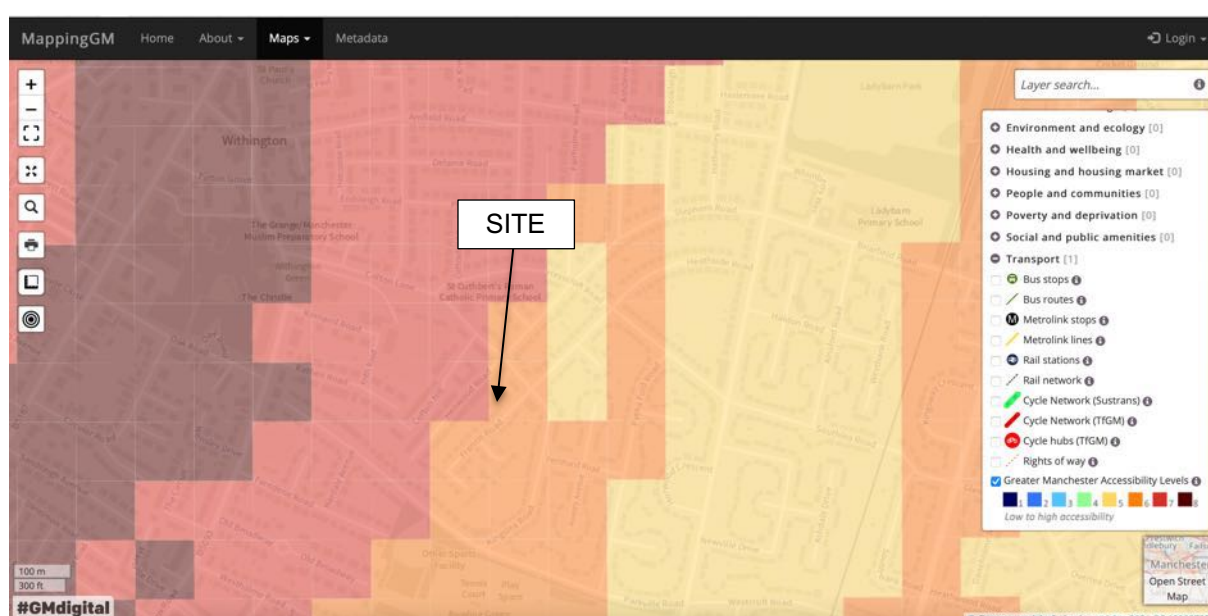


Figure 4.6: Greater Manchester Accessibility Level
[source: TfGM 2022]

Casual Car Use

- 4.17 Co-Wheels and Enterprise Car Club provide an alternative to car ownership that complements the sustainable transport system Greater Manchester. Car clubs enable members to benefit from low cost, convenient and greener motoring, and a more sustainable pattern of living that negates the requirement to own and store a car.
- 4.18 Enterprise currently locates car club vehicles in the centre of Withington at 494 Wilmslow Road.

5 Travel Plan Management

Travel Plan Co-ordinator

- 5.1 An effective Travel Plan needs a clear hierarchy of responsibility. The applicant has been closely involved in the development of the Interim Plan and is committed to its successful implementation on completion of the development.
- 5.2 The applicant, or their successor in title, will continue to have a regular overseeing role in the progress of the Plan and is committed to funding the resources required for its implementation.
- 5.3 Travel Plan Co-ordinators play an important role in developing, implementing, and managing Travel Plans. The Travel Plan Co-ordinator for the site will be identified prior to occupation of the development and contact details provided to MCC.
- 5.4 The Co-ordinator will form the main point of contact for the local authority and residents. The Co-ordinator will also be responsible for raising awareness and marketing the Travel Plan and surveying its effectiveness and assessing this against the stated objectives and targets.

5.5 In summary, the Travel Plan Co-ordinator's main responsibilities are:

- Implementing the Plan measures
- Providing a point of contact for residents, the local community and MCC
- Publicising and raising awareness of local and national initiatives
- Preparing and issuing the travel packs
- Providing periodic updates to residents on changes to local services and facilities
- Monitoring and surveying travel patterns
- Periodic reporting to MCC

Future Management & Handover Arrangements

5.6 Should the interest in the site be sold, the responsibility for the Travel Plan implementation will transfer to the successor in title. If this should be the case, then full contact details of the new site operator and the new Travel Plan Co-ordinator will be provided to MCC in a timely manner to allow the Travel Plan to continue uninterrupted at the site.

6 Measures Toolkit

Promotion & Marketing Measures

6.1 Good communication is a vital component of the Travel Plan to ensure that residents are fully aware of the options available to them. Research undertaken by DfT shows that promotion and marketing of Travel Plan's is one of the most important measures in encouraging people to travel sustainably and actively.

6.2 The Travel Plan Co-ordinator will be responsible for marketing and promoting the Travel Plan. The following measures will be used to promote and market the Travel Plan:

1. Preparation and issue of travel packs for each household
2. Maintenance of a travel noticeboard in a communal area
3. Promotion of local authority/local area travel campaigns/networks

6.3 Copies of the Travel Plan will be made available to residents on request.

Travel Packs & Travel Noticeboard

6.4 Travel packs and noticeboards are an important means of disseminating information and making sure that residents are aware of the travel choices available to them when they move into their new home. The travel packs will be made available in the sales office and a copy provided to each resident when they move into their home.

6.5 The travel packs will include the following information:

1. Travel Plan Co-ordinator contact details
2. Information on journey planning software
3. Information on cycle and walking routes
4. Information on bus / tram / train routes and frequencies
5. Details of current MCC / TfGM initiatives
6. Links to further information, including cycle providers and home delivery services
7. Information on Enterprise Car Club

6.6 A travel noticeboard will be maintained in a prominent location in a communal area and will include the same information as provided in the travel pack

Journey Planning Software Promotion

- 6.7 Residents will be encouraged via the travel pack to familiarise themselves with the journey planning websites and phone apps promoted by TfGM. The [MyTfGM](http://my.tfgm.com/)¹ website now directs users to use the following [Traveline](https://www.traveline.info/)², [Citymapper](https://citymapper.com/manchester)³ and [Transit](https://transitapp.com/)⁴ journey planning software. Other mode specific journey planning software will also be promoted, and these are set out in the relevant sections below.

Travel Plan Benefits

- 6.8 The Travel Plan Co-ordinator will also be responsible for making residents aware of the many benefits for travelling more sustainably (as set out below).

1. Improve health and wellbeing
2. Save money
3. Reduce traffic congestion
4. Increase physical activity and fitness
5. Improve air quality
6. Reduce carbon emissions
7. Meet new people

Information Dissemination

- 6.9 The Travel Plan Co-ordinator will encourage residents to regularly review the travel noticeboard for information updates.
- 6.10 Periodic meetings will be held with residents to discuss progress updates, travel information, service changes and any new initiatives.

Measures to Encourage Walking

- 6.11 Walking is the cheapest and most sustainable mode of travel. Most people of reasonable health will be able to incorporate some walking as part of a daily journey and this can have very real impacts on the health and wellbeing of the individual.
- 6.12 Section 4 of the Travel Plan shows that the site is well located for walking trips to local amenities and services within a 15-minute walk of the site. It is also shown that the existing pedestrian infrastructure serving the site is of good quality.
- 6.13 The Travel Plan Co-ordinator will be responsible for raising awareness of the health benefits of walking using the travel pack and regular Travel Plan email updates.
- 6.14 Information on local walking routes will be provided in the travel pack and the noticeboard, including a local area map. The travel pack will also include details of on-line and phone app journey planning software that is available from [TfGM](http://my.tfgm.com/)⁵. In addition, website links are provided to the [GMWalking](https://gmwalking.co.uk)⁶ website which provides resources on routes and local walking groups.
- 6.15 The NHS Active 10 tracker app to set daily goals for journeys so that users can set challenges. Bigger challenge with the Coach to 5km phone app. Both are available from this [NHS website](https://www.nhs.uk/better-health/get-active/)⁷.

Measures to Encourage Cycling

- 6.16 The site is well located to allow access to the Greater Manchester Cycle Network and the Bee Network. The proposal includes 20 bike parking spaces in a secure locations.
- 6.17 Information on local cycling routes will be provided in the travel pack and on the noticeboard, including a local area map. The travel pack will also include details of on-line and phone app

¹ <http://my.tfgm.com/>

² <https://www.traveline.info/>

³ <https://citymapper.com/manchester>

⁴ <https://transitapp.com/>

⁵ <http://my.tfgm.com/>

⁶ <https://gmwalking.co.uk>

⁷ <https://www.nhs.uk/better-health/get-active/>

cycle maps and journey planning software that is available from TfGM. In addition, the travel pack will also include website links to [Sustrans](http://www.sustrans.org.uk/)⁸, who provide information on local and national routes, and [Cycling UK](http://www.cyclinguk.org/)⁹, who provide information on local cycling groups, cycle tips and routes.

- 6.18 TfGM offer [free cycle training and maintenance](https://tfgm.com/cycling/training)¹⁰ sessions for adults for beginners and experienced cyclists and provides safety tips and advice on the [TfGM](https://tfgm.com/)¹¹ website. Details of regular cycle events, such the Summer Cycle Camp, Let's Ride Pop-Up and Let's Ride Manchester are provided on the [TfGM](http://my.tfgm.com/)¹² website. TfGM offer a cycle newsletter service is frequently updated with new route information and activities.

Public Transport Measures

- 6.19 Section 4 shows that there are opportunities to access the site by public transport and the site has a GMAL of between 6 and 7.
- 6.20 The travel pack and noticeboard will include a plan showing the location of the nearest public transport nodes and a summary of bus, tram, and train services available.
- 6.21 The travel pack will include information relating to website bus service information available on TfGM, including timetables and ticket prices. The [MyTfGM](http://my.tfgm.com/)¹³ website now directs users to use the following [Traveline](http://www.traveline.info/)¹⁴, [Citymapper](https://citymapper.com/manchester)¹⁵ and [Transit](https://transitapp.com/)¹⁶ journey planning software.
- 6.22 The Travel Plan Co-ordinator will be responsible for regularly reviewing the TfGM database to check for service changes and any new public transport initiatives.

Efficient Vehicle Use

- 6.23 Parking is provided on site for 15 vehicles, including disabled and EV charging provision. The level of parking has been set to meet the realistic requirements of residents and visitors, while avoiding overprovision that could encourage an overreliance on the private car.
- 6.24 There may be occasions when a resident who does not own a car, requires the use of a car. [Enterprise Car Club](https://www.enterprise-carclub.co.uk/gb/en/home.html)¹⁷ provides vehicles in the centre of Withington and details of this will be provided in the travel pack and noticeboard.
- 6.25 The travel pack will include information on on-line food retail facilities that serve the area, such as [Sainsburys](https://www.sainsburys.co.uk/)¹⁸, [Tesco](https://www.tesco.com/)¹⁹ and [Ocado](http://www.ocado.com/)²⁰.

7 Monitoring & Review Mechanisms

Data Collection & Analysis

- 7.1 Monitoring resident travel patterns is an important tool in measuring the progress of the Travel Plan and success of the Plan in terms of meeting the declared objectives and targets.
- 7.2 Initial travel surveys will be undertaken within six months of first occupation.
- 7.3 The surveys will gather the following information:
1. Usual mode of travel for all residents in the household
 2. Household car and cycle ownership
 3. Reasons for mode choice
 4. Initiatives that would encourage a change in mode
 5. Travel Plan awareness

⁸ www.sustrans.org.uk/

⁹ www.cyclinguk.org/

¹⁰ <https://tfgm.com/cycling/training>

¹¹ <https://tfgm.com/>

¹² <https://tfgm.com/cycling>

¹³ <http://my.tfgm.com/>

¹⁴ <http://www.traveline.info/>

¹⁵ <https://citymapper.com/manchester>

¹⁶ <https://transitapp.com/>

¹⁷ <https://www.enterprise-carclub.co.uk/gb/en/home.html>

¹⁸ <https://www.sainsburys.co.uk/>

¹⁹ <http://www.tesco.com/>

²⁰ <http://www.ocado.com/>

- 7.4 The results from the first survey will be used to set the targets for the Travel Plan and to update the measures, if required. The updated Travel Plan will be submitted to MCC within nine months of first occupation of the development.
- 7.5 Following the first survey, monitoring surveys will be undertaken periodically.

Targets

- 7.6 Travel Plans should always include targets against which the success of the Plan can be monitored and assessed over time. Targets should be ambitious yet realistic. There are two main types of targets that are applicable to Travel Plans; action targets and quantitative targets.
- 7.7 Action-based targets are based on the Travel Plan reaching set milestones or indicators. Action targets include the commitment to deliver a package of measures to help promote and encourage sustainable travel. The following action/milestone targets have been set for this stage in the Plan:
- Appoint the Travel Plan Co-ordinator prior to occupation
 - Prepare and distribute the travel packs
 - Prepare and maintain a travel noticeboard
 - Undertake travel surveys within six months of occupation
- 7.8 Following the first surveys, quantitative targets will be set for the Travel Plan based on the stated objectives to encourage sustainable trip making and reduce single occupancy car use. The targets will be reviewed regularly as part of the monitoring plan.
- 7.9 Quantitative targets also provide a useful indicator against which the performance of the Travel Plan can be assessed. The targets are required to be SMART (Site-specific, Measurable, Achievable, Realistic and Timed). SMART targets will be set as part of the production of the full Travel Plan.

Monitoring Plan Summary

- 7.10 Table 7.1 sets out the monitoring mechanisms that will be used to review the performance of the Travel Plan.

Exercise	Key Information	Frequency	Responsibility
Issue of Travel Packs	Dissemination of travel information and travel survey to residents	On occupation and with regular updates to information	Travel Plan Co-ordinator
First resident survey	Data to be used to allow appropriate targets to be set	Within 6 months of occupation	Travel Plan Co-ordinator
Updated Travel Plan	Baseline surveys to be included to allow measurement of objectives and to enable targets to be set	Within 9 months of occupation	Travel Plan Co-ordinator
Monitoring survey	Data to be used to establish progress of the Plan and review success of measures	Periodically	Travel Plan Co-ordinator
Preparation of Monitoring Report	Set out mode share, targets and any changes to the Plan	3 months after each survey period	Travel Plan Co-ordinator

Table 7.1: Monitoring Plan

8 Action Plan & Timescales

- 8.1 Table 8.1 also provides initial timescales for each measure using the following time periods:

- Quick Wins (Q) – to be undertaken prior to or on occupation
- Ongoing (O) – on-going elements which may be regularly undertaken throughout the Plan's life

8.2 The Action Plan will be firmed up when the full Travel Plan is prepared.

Element	Measure	Category	Timescale	Responsibility
Marketing	Prepare travel packs	Q	Prior to occupation	Travel Plan Co-ordinator
	Issue travel packs	Q	Prior to occupation	Travel Plan Co-ordinator
	Prepare travel noticeboard	Q	As required	Travel Plan Co-ordinator
	Promote Local & National Campaigns	O	As required	Travel Plan Co-ordinator
Walking / Cycling / Public Transport	Provide public realm / pedestrian access measures	Q	Prior to occupation	Developer
	Provide cycle storage	Q	Prior to occupation	Developer
	Distribute details of journey planning resources	O	On occupation	Travel Plan Co-ordinator
	Check for service changes	O	Annually	Travel Plan Co-ordinator
Vehicles	Provide reduced car parking level, and disabled and EV parking	Q	Prior to occupation	Developer
	Distribute details of local on-line food retailers	O	On occupation	Travel Plan Co-ordinator
	Promotion of Enterprise Car Club	O	On occupation	Travel Plan Co-ordinator

Table 8.1: Initial Action Plan

Appendix E

Calculation Reference: AUDIT-443201-211130-1112

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : D - AFFORDABLE/LOCAL AUTHORITY FLATS

MULTI-MODAL TOTAL VEHICLESSelected regions and areas:

02 SOUTH EAST	
ES EAST SUSSEX	2 days
HC HAMPSHIRE	2 days
05 EAST MIDLANDS	
LN LINCOLNSHIRE	1 days
NT NOTTINGHAMSHIRE	1 days
08 NORTH WEST	
CH CHESHIRE	1 days
10 WALES	
CF CARDIFF	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: No of Dwellings
 Actual Range: 10 to 91 (units:)
 Range Selected by User: 6 to 100 (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: 01/01/06 to 07/10/16

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	2 days
Wednesday	1 days
Thursday	2 days
Friday	2 days

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

Selected survey types:

Manual count	8 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)	7
Neighbourhood Centre (PPS6 Local Centre)	1

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:

Residential Zone	6
No Sub Category	2

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:

C3 8 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®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
15,001 to 20,000	2 days
25,001 to 50,000	3 days
50,001 to 100,000	2 days

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

Population within 5 miles:

100,001 to 125,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	5 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	5 days
1.1 to 1.5	3 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 8 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 8 days

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

LIST OF SITES relevant to selection parameters

1	CF-03-D-01	BLOCKS OF FLATS	CARDIFF
	TYN-Y-PARC ROAD		
	CARDIFF		
	WHITCHURCH		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total No of Dwellings:	24	
	Survey date: FRIDAY	07/10/16	Survey Type: MANUAL
2	CH-03-D-01	BLOCK OF FLATS	CHESHIRE
	HEATH LANE		
	CHESTER		
	BOUGHTON HEATH		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	30	
	Survey date: THURSDAY	24/05/12	Survey Type: MANUAL
3	ES-03-D-01	BLOCKS OF FLATS	EAST SUSSEX
	LEWES ROAD		
	BRIGHTON		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total No of Dwellings:	91	
	Survey date: TUESDAY	20/11/07	Survey Type: MANUAL
4	ES-03-D-06	FLATS & HOUSES	EAST SUSSEX
	WELLINGTON ROAD		
	BRIGHTON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	15	
	Survey date: THURSDAY	16/10/14	Survey Type: MANUAL
5	HC-03-D-02	FLATS	HAMPSHIRE
	BOURNEMOUTH ROAD		
	EASTLEIGH		
	AMPFIELD		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total No of Dwellings:	10	
	Survey date: FRIDAY	16/11/07	Survey Type: MANUAL
6	HC-03-D-05	BLOCK OF FLATS	HAMPSHIRE
	WORTING ROAD		
	BASINGSTOKE		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	29	
	Survey date: MONDAY	18/10/10	Survey Type: MANUAL
7	LN-03-D-02	FLATS	LINCOLNSHIRE
	ADDISON DRIVE		
	LINCOLN		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	22	
	Survey date: WEDNESDAY	01/07/15	Survey Type: MANUAL
8	NT-03-D-02	BLOCK OF FLATS	NOTTINGHAMSHIRE
	WATCOMBE ROAD		
	NOTTINGHAM		
	CARRINGTON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total No of Dwellings:	22	
	Survey date: TUESDAY	23/06/15	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 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

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	8	30	0.049	8	30	0.128	8	30	0.177
08:00 - 09:00	8	30	0.086	8	30	0.099	8	30	0.185
09:00 - 10:00	8	30	0.082	8	30	0.103	8	30	0.185
10:00 - 11:00	8	30	0.062	8	30	0.099	8	30	0.161
11:00 - 12:00	8	30	0.070	8	30	0.066	8	30	0.136
12:00 - 13:00	8	30	0.095	8	30	0.111	8	30	0.206
13:00 - 14:00	8	30	0.095	8	30	0.095	8	30	0.190
14:00 - 15:00	8	30	0.107	8	30	0.074	8	30	0.181
15:00 - 16:00	8	30	0.115	8	30	0.132	8	30	0.247
16:00 - 17:00	8	30	0.165	8	30	0.111	8	30	0.276
17:00 - 18:00	8	30	0.160	8	30	0.140	8	30	0.300
18:00 - 19:00	8	30	0.132	8	30	0.095	8	30	0.227
19:00 - 20:00	1	29	0.138	1	29	0.034	1	29	0.172
20:00 - 21:00	1	29	0.207	1	29	0.241	1	29	0.448
21:00 - 22:00	1	29	0.103	1	29	0.103	1	29	0.206
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.666			1.631			3.297

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.

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Parameter summary

Trip rate parameter range selected: 10 - 91 (units:)
Survey date range: 01/01/06 - 07/10/16
Number of weekdays (Monday-Friday): 8
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.

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS

MULTI-MODAL TAXIS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

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	8	30	0.004	8	30	0.004	8	30	0.008
08:00 - 09:00	8	30	0.004	8	30	0.004	8	30	0.008
09:00 - 10:00	8	30	0.004	8	30	0.004	8	30	0.008
10:00 - 11:00	8	30	0.000	8	30	0.000	8	30	0.000
11:00 - 12:00	8	30	0.000	8	30	0.000	8	30	0.000
12:00 - 13:00	8	30	0.008	8	30	0.008	8	30	0.016
13:00 - 14:00	8	30	0.016	8	30	0.016	8	30	0.032
14:00 - 15:00	8	30	0.016	8	30	0.012	8	30	0.028
15:00 - 16:00	8	30	0.021	8	30	0.025	8	30	0.046
16:00 - 17:00	8	30	0.004	8	30	0.004	8	30	0.008
17:00 - 18:00	8	30	0.008	8	30	0.004	8	30	0.012
18:00 - 19:00	8	30	0.012	8	30	0.016	8	30	0.028
19:00 - 20:00	1	29	0.000	1	29	0.000	1	29	0.000
20:00 - 21:00	1	29	0.000	1	29	0.000	1	29	0.000
21:00 - 22:00	1	29	0.000	1	29	0.000	1	29	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.097			0.097			0.194

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS

MULTI-MODAL OGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

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	8	30	0.004	8	30	0.000	8	30	0.004
08:00 - 09:00	8	30	0.008	8	30	0.004	8	30	0.012
09:00 - 10:00	8	30	0.004	8	30	0.012	8	30	0.016
10:00 - 11:00	8	30	0.004	8	30	0.004	8	30	0.008
11:00 - 12:00	8	30	0.000	8	30	0.000	8	30	0.000
12:00 - 13:00	8	30	0.000	8	30	0.000	8	30	0.000
13:00 - 14:00	8	30	0.000	8	30	0.000	8	30	0.000
14:00 - 15:00	8	30	0.004	8	30	0.004	8	30	0.008
15:00 - 16:00	8	30	0.008	8	30	0.008	8	30	0.016
16:00 - 17:00	8	30	0.000	8	30	0.000	8	30	0.000
17:00 - 18:00	8	30	0.004	8	30	0.004	8	30	0.008
18:00 - 19:00	8	30	0.000	8	30	0.000	8	30	0.000
19:00 - 20:00	1	29	0.000	1	29	0.000	1	29	0.000
20:00 - 21:00	1	29	0.000	1	29	0.000	1	29	0.000
21:00 - 22:00	1	29	0.000	1	29	0.000	1	29	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.036			0.036			0.072

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS

MULTI-MODAL CYCLISTS

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

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	8	30	0.000	8	30	0.008	8	30	0.008
08:00 - 09:00	8	30	0.004	8	30	0.008	8	30	0.012
09:00 - 10:00	8	30	0.000	8	30	0.004	8	30	0.004
10:00 - 11:00	8	30	0.004	8	30	0.000	8	30	0.004
11:00 - 12:00	8	30	0.000	8	30	0.000	8	30	0.000
12:00 - 13:00	8	30	0.000	8	30	0.000	8	30	0.000
13:00 - 14:00	8	30	0.000	8	30	0.000	8	30	0.000
14:00 - 15:00	8	30	0.000	8	30	0.000	8	30	0.000
15:00 - 16:00	8	30	0.004	8	30	0.004	8	30	0.008
16:00 - 17:00	8	30	0.000	8	30	0.004	8	30	0.004
17:00 - 18:00	8	30	0.012	8	30	0.004	8	30	0.016
18:00 - 19:00	8	30	0.008	8	30	0.004	8	30	0.012
19:00 - 20:00	1	29	0.000	1	29	0.000	1	29	0.000
20:00 - 21:00	1	29	0.000	1	29	0.000	1	29	0.000
21:00 - 22:00	1	29	0.000	1	29	0.000	1	29	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.032			0.036			0.068

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS

MULTI-MODAL PEDESTRIANS

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

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	8	30	0.008	8	30	0.021	8	30	0.029
08:00 - 09:00	8	30	0.037	8	30	0.202	8	30	0.239
09:00 - 10:00	8	30	0.107	8	30	0.152	8	30	0.259
10:00 - 11:00	8	30	0.099	8	30	0.140	8	30	0.239
11:00 - 12:00	8	30	0.091	8	30	0.086	8	30	0.177
12:00 - 13:00	8	30	0.070	8	30	0.053	8	30	0.123
13:00 - 14:00	8	30	0.095	8	30	0.086	8	30	0.181
14:00 - 15:00	8	30	0.107	8	30	0.115	8	30	0.222
15:00 - 16:00	8	30	0.276	8	30	0.140	8	30	0.416
16:00 - 17:00	8	30	0.115	8	30	0.074	8	30	0.189
17:00 - 18:00	8	30	0.086	8	30	0.115	8	30	0.201
18:00 - 19:00	8	30	0.082	8	30	0.049	8	30	0.131
19:00 - 20:00	1	29	0.310	1	29	0.034	1	29	0.344
20:00 - 21:00	1	29	0.103	1	29	0.000	1	29	0.103
21:00 - 22:00	1	29	0.069	1	29	0.034	1	29	0.103
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.655			1.301			2.956

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

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	8	30	0.004	8	30	0.037	8	30	0.041
08:00 - 09:00	8	30	0.016	8	30	0.029	8	30	0.045
09:00 - 10:00	8	30	0.000	8	30	0.025	8	30	0.025
10:00 - 11:00	8	30	0.012	8	30	0.029	8	30	0.041
11:00 - 12:00	8	30	0.004	8	30	0.012	8	30	0.016
12:00 - 13:00	8	30	0.008	8	30	0.025	8	30	0.033
13:00 - 14:00	8	30	0.033	8	30	0.012	8	30	0.045
14:00 - 15:00	8	30	0.025	8	30	0.025	8	30	0.050
15:00 - 16:00	8	30	0.012	8	30	0.008	8	30	0.020
16:00 - 17:00	8	30	0.045	8	30	0.016	8	30	0.061
17:00 - 18:00	8	30	0.016	8	30	0.004	8	30	0.020
18:00 - 19:00	8	30	0.012	8	30	0.004	8	30	0.016
19:00 - 20:00	1	29	0.000	1	29	0.000	1	29	0.000
20:00 - 21:00	1	29	0.000	1	29	0.000	1	29	0.000
21:00 - 22:00	1	29	0.000	1	29	0.000	1	29	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.187			0.226			0.413

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.

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

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	8	30	0.074	8	30	0.230	8	30	0.304
08:00 - 09:00	8	30	0.152	8	30	0.374	8	30	0.526
09:00 - 10:00	8	30	0.189	8	30	0.300	8	30	0.489
10:00 - 11:00	8	30	0.198	8	30	0.309	8	30	0.507
11:00 - 12:00	8	30	0.169	8	30	0.177	8	30	0.346
12:00 - 13:00	8	30	0.210	8	30	0.206	8	30	0.416
13:00 - 14:00	8	30	0.239	8	30	0.214	8	30	0.453
14:00 - 15:00	8	30	0.276	8	30	0.243	8	30	0.519
15:00 - 16:00	8	30	0.440	8	30	0.329	8	30	0.769
16:00 - 17:00	8	30	0.403	8	30	0.284	8	30	0.687
17:00 - 18:00	8	30	0.321	8	30	0.342	8	30	0.663
18:00 - 19:00	8	30	0.292	8	30	0.202	8	30	0.494
19:00 - 20:00	1	29	0.552	1	29	0.103	1	29	0.655
20:00 - 21:00	1	29	0.483	1	29	0.586	1	29	1.069
21:00 - 22:00	1	29	0.241	1	29	0.069	1	29	0.310
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.239			3.968			8.207

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.

Appendix F

LC4416EW - Tenure by car or van availability by number of usual residents aged 17 or over in household

ONS Crown Copyright Reserved [from Nomis on 30 November 2021]

population All households
units Households
date 2011
area type 2011 super output areas - middle layer
area name E02001084 : Manchester 040
no of usual residents in household All categories: Number of usual residents aged 17 or over in household

Cars or Vans	All categories: Tenure	Owned or shared ownership (part owned and part rented)	Social rented	Private rented or living rent free	All Rented
All categories: Car or van availal	3,325	1,603	641	1,081	1,722
No cars or vans in household	1,053	262	387	404	791
1 car or van in household	1,426	764	226	436	662
2 or more cars or vans in househ	846	577	28	241	269

LC4415EW - Accommodation type by car or van availability by number of usual residents aged 17 or over in household

ONS Crown Copyright Reserved [from Nomis on 26 August 2021]

population All households
units Persons
date 2011
area type 2011 super output areas - middle layer
area name E02001084 : Manchester 040
no of usual residents in household All categories: Number of usual residents aged 17 or over in household

Cars or Vans	All categories: Accommodation type	Whole house or bungalow	Flat, maisonette, apartment, caravan or other mobile or temporary structure
All categories: Car or van available	3,325	2,433	892
No cars or vans in household	1,053	614	439
1 car or van in household	1,426	1,086	340
2 or more cars or vans in household	846	733	113