



Proposed Lidl Foodstore and Drive Thru Monks Cross, York

Transport Assessment

November 2023

PROPOSED LIDL FOODSTORE AND DRIVE THRU
MONKS CROSS
YORK

LIDL GREAT BRITAIN

TRANSPORT ASSESSMENT

Report by: Nick Calder

Bryan G Hall
Consulting Civil & Transportation Planning Engineers
Suite E15, Joseph's Well, Hanover Walk, Leeds, LS3 1AB

Ref: 23-329-001.02

November 2023

Report Reference No: 23-329-001.02

	Name	Signed	Date
Report prepared by	Nick Calder	[Redacted]	08/11/2023
Report checked by	Martin Crabtree	[Redacted]	08/11/2023
Overview by	Stuart Wilkins	[Redacted]	08/11/2023

Distribution of Copies

Revision	Electronic	Number of bound copies	Issued to	Date Issued
.01	Y	-	Client	12/10/2023
.02	Y	-	Client	08/11/2023

CONTENTS

1.0	INTRODUCTION	1
2.0	RELEVANT PLANNING AND TRANSPORT POLICY	5
3.0	THE APPLICATION SITE AND THE EXISTING HIGHWAY NETWORK	8
4.0	EXISTING OPERATING CONDITIONS	11
5.0	SUSTAINABLE TRANSPORT	14
6.0	BASE OPERATING CONDITIONS	21
7.0	THE DEVELOPMENT PROPOSALS	24
8.0	DEVELOPMENT TRIP GENERATION, TRIP TYPES AND TRIP DISTRIBUTION	27
9.0	TRAFFIC IMPACT ON THE LOCAL HIGHWAY NETWORK	30
10.0	SUMMARY AND CONCLUSIONS	32

APPENDICES

Appendix BGH1	Site Location Plan (drawing No. 21/306/LOC/002 Rev A)
Appendix BGH2	PIC Data
Appendix BGH3	Traffic Survey Data
Appendix BGH4	2021 Existing Traffic Flow Diagrams
Appendix BGH5	2021 Existing Modelling Outputs
Appendix BGH6	Pedestrian Catchment Plan (drawing No. 21/306/LOC/003)
Appendix BGH7	Cycling Catchment Plan (drawing No. 21/306/LOC/004)
Appendix BGH8	City of York Cycle Map
Appendix BGH9	City of York Bus Map
Appendix BGH10	2028 Base Traffic Flow Diagrams
Appendix BGH11	2028 Base Modelling Outputs
Appendix BGH12	Proposed Site Layout Plan (HTC drawing No. 2504 P432 C)
Appendix BGH13	Vehicle Swept Path Analysis (drawing No. 23/329/ATR/001 and 23/329/ATR/002)
Appendix BGH14	TRICS Vehicle Trip Rates
Appendix BGH15	Development Traffic Flow Diagrams
Appendix BGH16	2028 Predicted Traffic Flow Diagrams
Appendix BGH17	2028 Predicted Modelling Outputs

1.0 INTRODUCTION

- 1.1 This Transport Assessment (TA) forms part of a full planning application submitted by Lidl Great Britain for the 'Demolition of the existing building and erection of a new Lidl food store (Use Class E) and drive-through unit with associated car parking and landscaping' on the site of the former TK Maxx and Argos stores at the Monks Cross Shopping Park, York.
- 1.2 A planning application for a Lidl foodstore and drive thru unit was submitted to City of York Council (CYC) on this site in June 2022 (planning application reference 22/01135/FULM). The application was recommended for approval by officers and, indeed, it was granted planning approval at planning committee on 12th January 2023.
- 1.3 Since the permission was granted, Lidl have updated their standard store specification and intend to adopt this new store layout at this site. The layout of the drive thru unit has also been updated. This TS has therefore been prepared to support a new planning application on the site for the revised store and Drive Thru unit layouts.
- 1.4 The site is bound to the north by office premises, by Monks Cross Drive to the east, a Sainsburys Supermarket and associated car park to the south, and by an industrial estate to the west. The site is currently occupied by a vacant building which was formerly occupied by a TK Maxx superstore and an Argos Store. The site location is shown in Figure 1.1 below, as well as on the plan attached at Appendix BGH1.

Figure 1.1: Site Location



- 1.5 The planning application now submitted seeks permission for the construction of a new Lidl foodstore with a gross internal floor area (gfa) of 2,172m² and a retail floor area (rfa) of 1,512m². The application also seeks permission to construct a fast food drive thru unit with a gfa of 242m². The proposals also include a shared car park for both units with a total provision of 137 parking spaces, comprising of 117 standard spaces, 9 disabled spaces, 9 parent and child spaces and 2 electric vehicle (EV) charging spaces. 20% of the standard spaces will be provided with appropriate infrastructure to allow easy conversion to EV spaces in the future.
- 1.6 There will be two points of access into the site, firstly, from the existing priority-controlled T-junction with Monks Cross Drive at the north-eastern corner of the site with secondary access via the existing entrance to the car park to the south of the site associated with the Sainsbury's foodstore. The Sainsbury's car park entrance to the south leads onto the 6-arm roundabout junction with Jockey Lane / Julia Avenue / Monk's Cross Drive. The operation of both of these points of access will be assessed within this TA.

- 1.7 Pedestrian access to the site will be provided via footways directly adjacent to the vehicular access with Monks Cross Drive. A separate pedestrian link will be provided into the site from Monk's Cross Drive approximately 50 metres to the south of the vehicular site access. Footways will also be provided to the south of the site through the Sainsbury's foodstore car park which pedestrians will be able to use, these routes provide links to Jockey Lane to the south and to Monk's Cross Drive to the east. Access for cyclists will be provided on-carriageway via Monk's Cross Drive and through the Sainsbury's car park.
- 1.8 The revised proposals for the site are not materially different to what was previously approved from a highways and transportation perspective. This TA will set out the changes to the site layout, it will demonstrate that the development proposals continue to accord with relevant national and local transport planning policy and that the development will have no residual traffic impact on the operation of the local highway network. It has already been demonstrated and accepted as part of the extant planning permission that the site is situated within a sustainable location to promote travel modes other than the private car, consistent with transport policy guidance.
- 1.9 The application is supported by a Travel Plan (TP) which sets out a series of measures to be adopted by Lidl, to assist with its commitment to reducing the number of car trips associated with the store and encouraging travel by more sustainable means. The TP has been prepared predominantly for staff at the store but will also be aimed at customers where applicable.
- 1.10 The remainder of this TA is structured as set out in Table 1.1 below:-

Table 1.1
Transport Assessment Report Structure

Section	Title	Description
2.0	Relevant Planning and Transport Policy	This section will set out the local and national planning and transport policy relevant to the application site.
3.0	The Application Site and The Existing highway network	This section will describe the existing site, the local highway network and its function.
4.0	Existing Operating Conditions	This section includes an assessment of the existing operation of the local highway network based upon up-to-date traffic flow information.
5.0	Sustainable Transport	This section will describe the existing situation in the vicinity of the site with regards to the opportunities for customers and employees to travel by alternative modes, such as by walking, cycling and public transport.
6.0	Base Operating Conditions	This section will assess the operation of the highway network at a future base year, including background traffic growth and committed development, but in the absence of this development site.
7.0	The Development Proposals	This section describes the proposed development, the vehicular and pedestrian access strategy and an assessment of the car parking needs.
8.0	Development Trip Generation, Trip Types and Distribution	This section presents trip generation rates for the development and assesses the distribution of development related traffic on to the highway network, based upon retail assessment work undertaken.
9.0	Traffic Impact on the Local Highway Network	The impact of the traffic generated by the development on the local transport network is presented in this section.
10.0	Summary & Conclusions	This section presents the conclusions drawn from the analysis contained within the Transport Assessment.

1.11 This TA will demonstrate that the development proposals are acceptable and that planning consent should not reasonably be withheld on highways or transportation grounds.

2.0 RELEVANT PLANNING AND TRANSPORT POLICY

National Policy

National Planning Policy Framework (NPPF)

2.1 The National Planning Policy Framework (NPPF) was first published in March 2012 and most recently revised in September 2023. It sets out the Government's planning policies for England and how these should be applied.

2.2 Paragraph 110 of the NPPF states that:

“In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

- a) Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;
- b) Safe and suitable access to the site can be achieved for all users;
- c) The design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and
- d) Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.”

2.3 Paragraph 111 of the NPPF states that:

“Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.”

2.4 Paragraph 112 of the NPPF goes on to state:

“Within this context, applications for development should:

- a) Give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;

- b) Address the needs of people with disabilities and reduced mobility in relation to all modes of transport;
- c) Create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;
- d) Allow for the efficient delivery of goods, and access by service and emergency vehicles; and
- e) Be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.”

2.5 All developments that will generate significant amounts of movement should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed. The application includes this TA in line with this requirement.

Planning Practice Guidance (PPG)

2.6 The Department for Transport web-based resource Planning Practice Guidance (March 2015) contains the chapter “Travel plans, transport assessments and statements in decision-taking.” With reference to the NPPF statement that “all developments that generate significant amounts of transport movement should be supported by a Transport Statement or Transport Assessment”, the guidance advises that local planning authorities must make a judgement as to whether a development proposal would generate significant amounts of movement on a case-by-case basis.

2.7 The PPG acknowledges that the necessary scope and specific details required as part of a Transport Assessment will inevitably differ between sites. However, the guidance sets out that in general when agreeing the scope for assessment with the local planning authority, a number of factors should be considered.

Local Policy

City of York Local Plan – Current Draft Local Plan

2.8 The CYC currently adopted Local Plan is named ‘City of York Draft Local Plan Incorporating the 4th Set of Changes’ and was adopted in April 2005, this represents the planning framework which should be applied to all new development in York. A new Local Plan is currently being examined by Independent Planning Inspectors, but at the time of writing (November 2023) is yet to be adopted.

2.9 Policy SP8 of the Local Plan is with regard to ‘Reducing Dependence on the Car’ and states:

“Applications for large new developments, such as housing, shopping, employment, health or leisure proposals, must be able to demonstrate that they will reduce dependence on the private car by providing for more environmentally friendly modes of transport.”

In particular, a proposal must demonstrate that:

- a) It is well related to the primary road network; and
- b) i) Within an Air Quality Management Area (AQMA), defined in Appendix K, and does not compromise the achievements of air quality improvement targets; and
ii) outside an AQMA it does not give rise to an unacceptable increase in vehicular traffic, air pollution or parking on the public highway; and
- c) It is immediately accessible to existing or proposed pedestrian, cycle and public transport networks; and
- d) Adequate provision is made for car and cycle parking in accordance with the standards set out in Appendix E; and
- e) Measures are incorporated to control traffic speeds and provide appropriate priority and a safe environment for pedestrians and cyclists; and
- f) It does not give rise to an unacceptable deterioration in air quality.

City of York Council Local Transport Plan (LTP3) 2011-2031

2.10 The CYC LTP3 sets out the transport policies and measures that will contribute to the city’s economic prosperity.

2.11 The transport strategy has been developed with the following five themes:

Providing quality alternatives to the car to provide more choice and enable more trips to be undertaken by sustainable means.

Improving Strategic Links to enhance the wider connections with the key residential and employment areas in and around York, and beyond.

Encouraging Behavioural Change to maximise the use of walking, cycling and public transport and continue improving road safety.

Tackling Transport Emissions to reduce the release of pollutants harmful to health and the environment.

Enhancing Public Streets and Spaces to improve the quality of life, minimise the impact of motorised traffic and encourage economic, social and cultural activity.

3.0 THE APPLICATION SITE AND THE EXISTING HIGHWAY NETWORK

Application Site

- 3.1 The site is located within the Monks Cross Shopping Park and is currently occupied by a vacant building, formerly occupied as a TK Maxx superstore and Argos Store. The site is bound to the north by existing office premises, by Monks Cross Drive to the east, a Sainsburys Supermarket and associated car park to the south, and by an industrial estate to the west. A site location plan is attached at Appendix BGH1.

Existing Highway Network

- 3.2 Monks Cross Drive runs in a north-south direction along the eastern boundary of the site. Access is provided into the site via an existing ghost island right turn lane junction. Monks Cross Drive is a single carriageway road with single lanes in both directions. It has a typical carriageway width of 7.3 metres, with 2.0-metre-wide footways on both sides. Monks Cross Drive is subject to a speed limit of 30mph, has street lighting along its length and is subject to double yellow line parking restrictions.
- 3.3 To the north of the site access junction, Monks Cross Drive continues for some 75 metres before meeting with Alpha Court and 2 service yard accesses at a 5-arm roundabout. The 2 service yard access arms are located to the south-east of the roundabout and allow one-way movements only from the roundabout; no vehicles can enter the roundabout from these arms. Alpha Court is the north-western arm of this roundabout and provides access towards multiple business, retail and hospitality units. Monks Cross Drive continues via the eastern arm of this roundabout and provides access to further parts of the Monks Cross Shopping and Employment Park, including some employment premises. Monks Cross Drive also provides access to Monks Cross Link and the wider highway network, including the A1237 York Outer Ring Road to the north.
- 3.4 Returning to the site access, Monks Cross Drive continues to the south for some 250 metres before meeting with Jockey Lane, Julia Avenue and 2 shopping park access roads at a 6-arm priority-controlled roundabout ('Jockey Lane roundabout'). Julia Avenue forms the southern arm and provides access to a small number of commercial / employment units. The 2 shopping park access roads lead to the north-east and north-west respectively. The north-eastern arm leads to Monks Cross retail park with a large car park, with shops including Schuh, Superdrug, TK Maxx, Primark, B&M and an Asda superstore. The north-western arm of the roundabout leads to a large car park serving the adjacent Sainsbury's superstore

and petrol filling station (PFS). Travelling through this car park to the north leads to the proposed application site.

- 3.5 To the east of this roundabout, the Jockey Lane arm is a dual carriageway that travels south away from the Monks Cross shopping park. Jockey Lane in this direction provides a link to Monks Cross Link leading to the north, and to A1036 Malton Road to the south. Jockey Lane also forms the western arm of the roundabout and provides a link to the Huntington residential area of York.

Personal Injury Collision Data

- 3.6 The record of personal injury collisions (PICs) recorded as road traffic accidents, that have occurred within the vicinity of the site have been obtained from CYC as part of the previous proposal, from 1st September 2016 to 31st August 2021. This data is attached at Appendix BGH2.
- 3.7 The data shows that there have been 4 PICs within the study period, all of which are classified as 'slight' in severity. All 4 of the collisions occurred on or near to the Jockey Lane roundabout.
- 3.8 The first PIC (ref: 12170147979) occurred on the circulatory carriageway of the Jockey Lane roundabout. The collision involved a single vehicle that entered the roundabout from Jockey Lane and mounted the central island of the roundabout. Members of the public attended the scene, at which point the driver fled the scene.
- 3.9 The second PIC (ref: 12170227882) also occurred within the circulatory carriageway of the Jockey Lane roundabout. The collision involved several vehicles and occurred as a result of a vehicle attempting to manoeuvre from the inside lane into the outside lane on the roundabout in heavy traffic, in making this manoeuvre the vehicle has collided with a second vehicle that was already travelling in the outside lane.
- 3.10 The third PIC (ref:1900073) occurred on the Jockey Lane roundabout and involved a vehicle and a cyclist. The vehicle attempted to enter the roundabout from Monks Cross Drive where it has collided with a cyclist that was already travelling on the roundabout.
- 3.11 The final PIC (ref:2000844) occurred on the Jockey Lane roundabout and two vehicles were involved. Details of this collision are limited on the obtained data, however there were 4 casualties involved and the incident was classed as 'slight' in severity.

- 3.12 No PICs have occurred at the site access or along the stretch of Monks Cross Drive that runs adjacent to the site.
- 3.13 The above analysis indicates that of the 4 recorded PICs that have occurred in the area under consideration they can generally be attributed to driver error. There are no recurring patterns of accident causation factors or readily identifiable geometric road characteristics that seem to be having an adverse impact upon road safety that are likely to be exacerbated by the development proposals.

4.0 EXISTING OPERATING CONDITIONS

Existing Traffic Surveys

4.1 In order to determine the peak hour usage of the local highway network, traffic surveys were undertaken on Friday 15th October 2021 between the hours of 3:00pm – 7:00pm, and on Saturday 16th October between the hours of 10:00am – 4:00pm. These time periods were chosen as the busiest periods expected at the proposed Lidl foodstore and busiest expected periods on the existing network, and therefore the periods when there would be the greatest cumulative impact on the local highway network. The surveys recorded fully classified vehicular turning counts in 15-minute intervals at the following junctions:

1. Monks Cross Drive / Car Park (East) / Jockey Lane / Julia Avenue / Car Park (West) roundabout; and
2. Monks Cross Drive / TK Maxx and Argos units Car Park T junction.

4.2 The raw traffic survey data is attached at Appendix BGH3 and demonstrates that the Friday evening peak period occurred between 5:00pm – 6:00pm, and that the Saturday peak period occurred between 12:15pm – 1:15pm. Traffic flow diagrams showing the existing peak hour traffic flows on the local highway network are attached at Appendix BGH4.

2021 Existing Operational Assessments

Junction 1 – Jockey Lane Roundabout

4.3 The existing operation of the Jockey Lane roundabout has been assessed using the ARCADY module of the TRL industry standard software package, Junctions8. The geometric parameters used to build the traffic model have been measured from Ordnance Survey mapping retrieved from Promap. The results of the modelling are summarised in Table 4.1 below and the full technical outputs attached at Appendix BGH5.

Table 4.1
2021 Existing Operation – Jockey Lane Roundabout

Movement	2021 Existing Flows			
	Weekday Evening Peak Hour		Saturday Peak Hour	
	RFC	Queue	RFC	Queue
Monks Cross Drive	0.23	0	0.36	1
Car Park (North-east)	0.27	0	0.40	1
Jockey Lane (East)	0.37	1	0.55	1
Julia Avenue	0.06	0	0.09	0
Jockey Lane (West)	0.35	1	0.40	1
Car Park (North-west)	0.30	0	0.38	1

4.4 It can be seen that the junction is currently operating with a maximum RFC of 0.55, occurring on the Jockey Lane eastern arm during the Saturday peak period, with an associated queue of 1 vehicle. This junction is clearly operating well within capacity.

Junction 2 – Monks Cross Drive / Site Access T Junction

4.5 The existing operation of the Monks Cross Drive / Site Access T-junction has been assessed using the PICADY module of the TRL industry standard software package, Junctions8. The geometric parameters used to build the traffic model have been measured from Ordnance Survey mapping retrieved from Promap. The results of the modelling are summarised in Table 4.2 below and the full technical outputs attached at Appendix BGH5.

Table 4.2
 2021 Existing Operation – Site Access/Monks Cross Drive T-Junction

Movement	2021 Existing Flows			
	Weekday Evening Peak Hour		Saturday Peak Hour	
	RFC	Queue	RFC	Queue
Site Access Left / Right turn out	0.09	0	0.17	0
Monks Cross Drive (N) Ahead / Right turn in	0.16	0	0.20	0

4.6 It can be seen that the junction is currently operating with a maximum RFC of 0.20, occurring on Monks Cross Drive during the Saturday peak period, with an associated queue of 1 vehicle. This junction is clearly operating well within capacity.

5.0 SUSTAINABLE TRANSPORT

5.1 The Government’s objectives set out in the NPPF are to ensure that new developments are provided in sustainable locations, where the need to travel is minimised and the use of sustainable modes can be maximised. The site is well located with regard to access from adjacent residential areas by sustainable modes of transport. This was accepted by highway officers at CYC as part of the previous planning application, but for completeness the accessibility of the site has been restated as part of this TA in the following paragraphs.

Pedestrian Accessibility

5.2 With regard pedestrian provision at new development, the Chartered Institution of Highways and Transportation (CIHT) document ‘Planning for Walking’ (April 2015) describes how approximately 80% of all journeys under 1 mile are made wholly on foot. If destinations are within a convenient walking distance, people are more likely to make journeys on foot as long as it is safe, comfortable, and the environment is attractive.

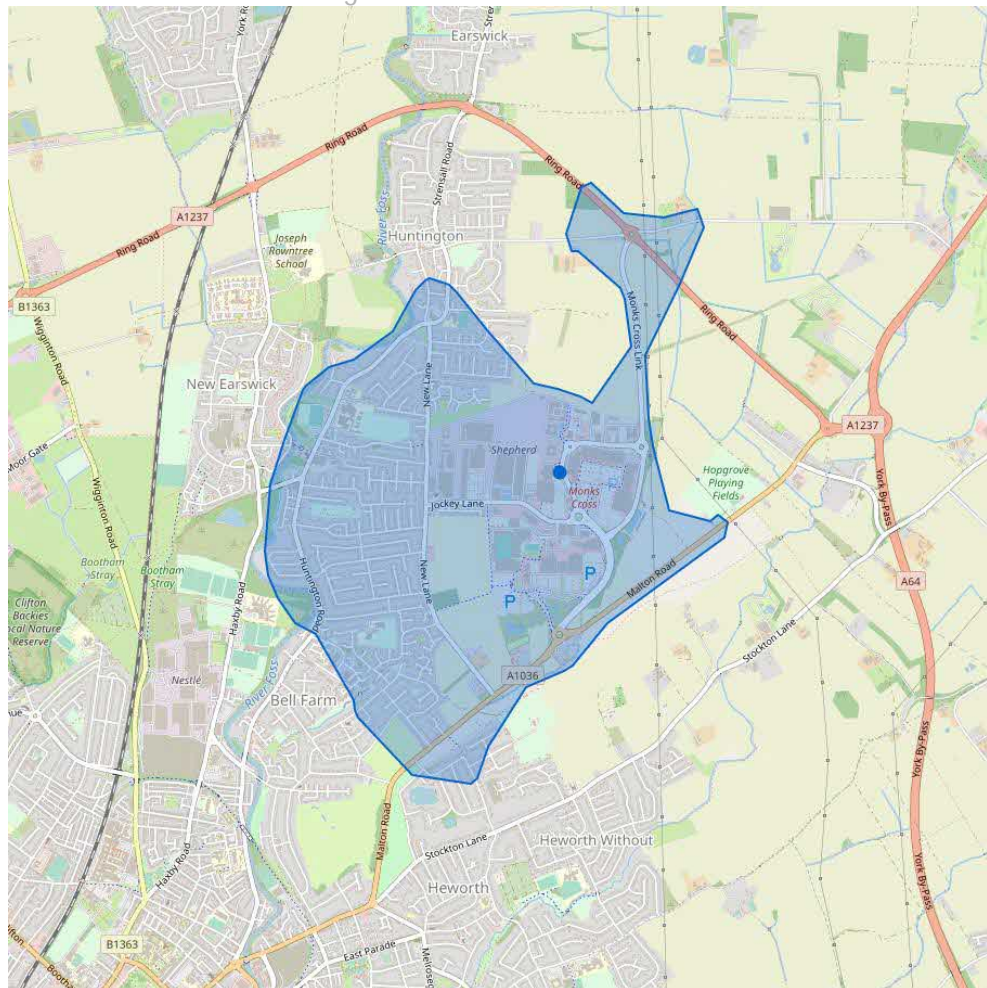
5.3 Further relevant guidance is set out within the CIHT document ‘Guidelines for Providing for Journeys on Foot’ (2000), which summarises suggested acceptable walking distances to and from development for commuting / school and for other journeys, including retail and shopping.

Table 5.1
 CIHT Recommended Walking Distances

	Trip Purpose	
	Commuting	Other Journeys (Retail/Shopping)
Desirable	500 metres	400 metres
Acceptable	1,000 metres	800 metres
Preferred	2,000 metres	1,200 metres

5.4 As can be seen above, the preferred maximum walking distance for ‘other journeys’ is 1,200 metres; whilst for commuting the preferred maximum walking distance is 2,000 metres. A 2-kilometre pedestrian isochrone is illustrated in Figure 5.1 (prepared using Iso4app) and is provided at Appendix BGH6.

Figure 5.1: 2 Kilometre Pedestrian Catchment Plan

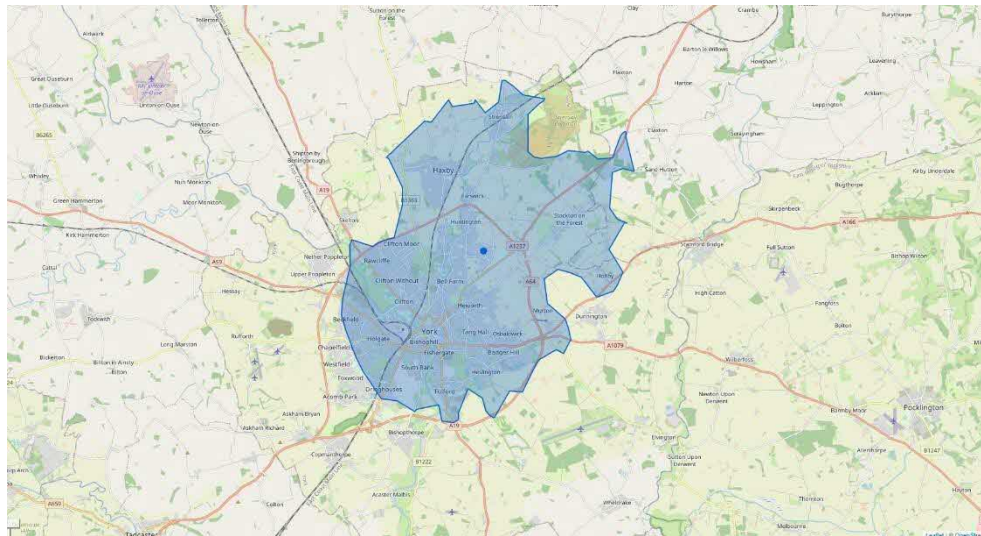


- 5.5 As can be seen on the isochrone provided above, the site is located within a convenient walking distance of the wider Monks Cross Shopping Park and this will promote linked pedestrian trips between the various retail offers. The site is also located within a reasonable walking distance of residential areas to the west within Huntington. Any staff or customers living in these areas can conveniently walk to the proposed development.
- 5.6 The proposed development site is easily accessed by pedestrians. There are footways provided on both sides of Monks Cross Drive and these link with the footway network in the wider vicinity. Footway links are provided throughout the Sainsbury's car park to the south, and there are multiple footpath links onto Monks Cross Drive to the east and on to Jockey Lane to the south.
- 5.7 Tactile paving and dropped kerbs are provided at the existing site access junction with Monks Cross Drive and these will be maintained to provide a crossing facility

for pedestrians. There is an existing footpath link from the site car park onto Monks Cross Drive, approximately 55 metres to the south of the site access; this link will be retained as part of the proposals.

- 5.8 Pedestrian crossings are provided on Monks Cross Drive at a number of locations. Uncontrolled pedestrian crossing points with tactile paving, dropped kerbs and a central refuge island are provided some 70 metres to the north of the site access junction adjacent to the roundabout with Alpha Court, and some 40 metres to the south of the site access junction. A traffic signal controlled 'toucan' crossing is also provided on Monks Cross Drive some 160 metres to the south of the site access junction. To the south of the site and to the south of the Sainsbury's car park, traffic signal-controlled crossings are provided at the junction of Jockey Lane and Kathryn Avenue, providing a safe facility for pedestrians to cross the carriageway. A zebra crossing is also provided on Jockey Lane at the south-western corner of the Sainsbury's site, and a traffic signal controlled 'toucan' crossing is provided on Jockey Lane to the south-east of the roundabout junction, facilitating access to / from the Vanguard shopping centre
- 5.9 The nearest residential areas to the site are located in Huntington to the west of the site, some 850 metres walking distance away. Any customers from this area (or staff living in this area) wishing to walk to the proposed site would walk east along Jockey Lane from its junction with New Lane, using the existing footways on either side of the carriageway. Pedestrians would be required to cross several minor arms where they meet with Jockey Lane, tactile paving and dropped kerbs are provided across the majority of these minor junctions. After some 600 metres, pedestrians would turn north onto the footpath link to the Sainsbury's car park, then follow the existing footway adjacent to the Sainsbury's foodstore to reach the proposed site.
- Cycle
- 5.10 Guidance in the Department for Transport's (DfT) 'Cycling and Walking Investment Strategy' (April 2017) and 'Cycle Infrastructure Design' (LTN 1/20 - July 2020) sets out that two out of every three personal trips are within 5 miles (8 kilometres), which is an achievable distance to cycle for most people.
- 5.11 It is also generally accepted that the bike is an ideal mode of transport for journeys under 8 kilometres and that cycling has clear potential to substitute for short car trips, particularly those under 5 kilometres, and to form part of a longer journey by public transport.
- 5.12 An 8-kilometre cycling isochrone is illustrated in Figure 5.2 below (prepared using Iso4app) and is provided at Appendix BGH7.

Figure 5.2: 8 Kilometre Cycle Catchment Plan



- 5.13 The above plan in Figure 5.2 shows that there is a significant residential catchment within an 8-kilometre cycling distance. This includes the majority of the city of York and areas to the north including Earswick, Haxby and Wigginton. These areas combined provide a significant residential catchment from where future staff and customers can reasonably be expected to cycle to the site. York railway station is also located within a reasonable cycle distance of the site and offers the chance for multi-modal trips by rail and cycle.
- 5.14 The highway network within the vicinity of the site is considered to be suitable to accommodate cyclists. In addition, a shared footway / cycleway is provided on Monks Cross Drive to the south of the existing toucan crossing. This shared footway / cycleway extends to the south to the Jockey Lane roundabout, and around all arms of this roundabout. Cycle lanes are also provided through the Sainsburys shopping car park to the east of the site and to the east of Monks Cross Drive.
- 5.15 York City Centre provides access to various routes, including the National Cycle Network (NCN). This includes NCN route 66, that provides a route towards Kingston upon Hull and route 65 that runs from Hornsea to Middlesbrough. These routes are fully signposted and provide a mixture of on and off-road cycling facilities.
- 5.16 A copy of the CYC Cycle Map is attached at Appendix BGH8 and this shows the extensive network of cycle routes and cycle facilities within the York area. It shows that there is an extensive network of off-road shared use cycleways within Monks Cross Shopping Park and in the vicinity of the site as described above. It also shows the network of on-road cycle lanes and advisory cycle lanes in the wider area, promoting travel by cycle for any staff or customers living in the wider York area.

Public Transport

Bus

- 5.17 With regard to public transport provision at new development, the CIHT publication ‘Buses in Urban Developments’ (January 2018) recommends that sites be designed to enable access to public transport services and to ensure that these are located within reasonable walking distances, as shown in Table 5.2. The guidance also notes that these standard distances should not be applied uniformly without regard to the specific characteristics of the particular location or route.

Table 5.2
CIHT Recommended Walking Distance for Bus Stops

Trip Purpose	Maximum Walking Distance
Core bus corridors with two or more high-frequency services	500 metres
Single high-frequency routes (every 12 minutes or better)	400 metres
Less frequent routes	300 metres
Town / city centres	250 metres

- 5.18 The nearest bus stop to the site is on Monks Cross Drive for northbound services only, located some 130 metres to the south of the vehicular access into the site. The footpath links into the proposed site car park and Sainsbury’s car park provide a direct link to the site for pedestrians from this stop. The bus stop benefits from a shelter, seating and timetable information. Due to the nature of services using Monks Cross Shopping Centre, this stop acts as both an arrival and departure stop into the site, so no bus stop is provided on the opposite side of Monks Cross Drive. A summary of the services (accurate at the time of writing) is provided in Table 5.3 below.

Table 5.3
Summary of Existing Bus Services

Route Number	Operator	Route Description	Frequency			
			Weekday	Weekday Evening	Saturday	Sunday
9 P&R	First York	Monks Cross Park and Ride – York Rougier Street – York Stonebow	12 mins	15 mins	12 mins	12 mins
Y12	First York	Monks Cross – York Rail Station – Woodthorpe Shops	Hourly	Hourly	Hourly	-
20	Transdev York	Rawcliffe – Haxby – Huntingdon – Monks Cross	Hourly	-	Hourly	-
Castleline	Transdev York	York – Monks Cross – Castle Howard - Malton	5 services a day	-	5 services a day	-

5.19 It can be seen that the bus stop on Monks Cross Drive offers frequent and regular bus services across all days of the week, to and from the City Centre and wider York areas. The York Bus network map is attached at Appendix BGH9 and provides further information on routes and frequencies of all other bus routes within the wider York area.

Rail

5.20 York railway station can be reached by cycle in around 20 minutes and offers a good opportunity for multi-modal trips by rail and cycle. Bus services also run between the railway station and the proposed store at a frequency of around every 12 minutes, via the Park & Ride No. 9 service.

5.21 York Railway Station provides regular rail services to surrounding towns and villages, including Malton, Poppleton, Hammerton and Church Fenton. York is also on the East Coast Main Line (ECML) and transpennine line, and as such provides frequent services to major cities such as London, Newcastle, Leeds, Manchester and Edinburgh, and all stations in between.

Summary

5.22 The development is considered to be well located to encourage journeys by all modes of sustainable transport. The proposed site is within a convenient walking distance of the wider retail park and the residential area of Huntingdon and is within cycling distance of the majority of York, providing a real opportunity for future staff and customers living in this area to cycle to the site. The existing bus stop on Monks Cross Drive is conveniently located very close to the site to provide a very good

opportunity for travel to and from the site by bus due to the frequency and locality of the services and also provides a link to York's railway station.

6.0 BASE OPERATING CONDITIONS

6.1 Historic good practice guidance on TA's set out within the DfT's 'Guidance on Transport Assessment' states the timeframe that an assessment should cover should be 5 years from the date of the planning application. Therefore a 5-year timeframe to a future year of 2028 is considered to be appropriate and has been adopted within this assessment.

6.2 Morning and evening peak hour traffic flows at a future year of 2028 have been determined using Tempro (v8.1), for the York 005 middle super output area (MSOA) as the area in which the site is located and for the 'Core' common analytical scenario. Road Traffic Forecast adjusted growth rates retrieved from Tempro are set out in Table 6.1 below.

Table 6.1

Tempro Adjusted Road Traffic Forecast Growth Factors

	RTF Growth Factors, Core CAS	
	Weekday PM Peak Period	Saturday Peak Period
2021 – 2028 York 005 MSOA	1.0404	1.0414

6.3 The factors indicate a 4.0 % to 4.1% growth in local background traffic between 2021 (as the year of the traffic surveys) and 2028, and they take account of planned increases in households and employment figures. No manual adjustments to account for the increase in employment associated with the proposed development site have been made within Tempro and as such the factors are considered robust.

6.4 Application of these growth factors to the 2021 peak hour flows shown on the diagrams at Appendix BGH4, provides peak hour growthed traffic flows at a future year of 2028, as shown on the traffic flow diagrams at Appendix BGH10.

6.5 With regard to vehicle trips associated with any committed developments in the local area, a search on CYC's planning portal has not revealed any relevant sites with the benefit of planning permission, which are not yet generating traffic on the local highway network. The background growth rates adopted from Tempro account for a level of future development and therefore, the 2028 growthed flows

shown at Appendix BGH10 are considered to represent traffic flows on the network in the 2028 base scenario (in the absence of the proposed development).

2028 Base Operational Assessments

Junction 1 – Jockey Lane Roundabout

6.6 The 2028 base operation of the Jockey Lane roundabout has been assessed using the same model described and assessed within Chapter 4. The results of the modelling are summarised in Table 6.2 below and the full technical outputs attached at Appendix BGH11.

Table 6.2
2028 Base Operation – Monks Cross Drive / Car Park (East) / Jockey Lane / Julia Avenue / Car Park (West) Roundabout

Movement	2028 Base Flows			
	Weekday Evening Peak Hour		Saturday Peak Hour	
	RFC	Queue	RFC	Queue
Monks Cross Drive	0.25	0	0.33	1
Car Park (East)	0.29	0	0.37	1
Jockey Lane (E)	0.38	1	0.51	1
Julia Avenue	0.07	0	0.08	0
Jockey Lane (W)	0.36	1	0.37	1
Car Park (West)	0.32	1	0.36	1

6.7 It can be seen that the junction is expected to continue operating well within capacity, with a maximum RFC of 0.51 and a maximum queue of 1 vehicle, occurring during the Saturday peak period on the Jockey Lane eastern arm.

Junction 2 – Monks Cross Drive / Site Access T Junction

6.8 The 2028 base operation of the Monks Cross Drive / Site Access T-junction has been assessed using the same model described and assessed within Chapter 4. The results of the modelling are summarised in Table 6.3 below and the full technical outputs attached at Appendix BGH11.

Table 6.3

2028 Base Operation – Site Access/Monks Cross Drive T-Junction

Movement	2028 Base Flows			
	Weekday Evening Peak Hour		Saturday Peak Hour	
	RFC	Queue	RFC	Queue
Site Access Left/Right turn out B	0.09	0	0.18	0
Monks Cross Drive (N) Ahead/Right turn in C	0.16	0	0.21	0

6.9

It can be seen that the junction is expected to continue operating within capacity, with a maximum RFC of 0.21, occurring on Monks Cross Drive during the Saturday peak period, with negligible levels of queuing.

7.0 THE DEVELOPMENT PROPOSALS

- 7.1 The planning application seeks full planning permission for a new Lidl foodstore with a gfa of 2,172m² and a retail floor area of 1,512m², and a new drive thru unit to the north of the Lidl foodstore with a gfa of 242m². The gfa of the proposed Lidl foodstore has increased by just 3m² compared to the original permission, whilst the gfa of the proposed drive thru unit has increased by 74m².
- 7.2 A shared car park with 137 parking spaces will be provided for both units, comprising of 117 standard spaces, 9 disabled spaces, 9 parent and child spaces and 2 EV spaces. 20% of the standard spaces will be provided with appropriate infrastructure to allow easy conversion to EV spaces in the future. 6 cycle stands will be provided adjacent to the Lidl foodstore providing space for 12 cycles, with increased spacing at one end to allow for abnormal-sized cycles. 4 cycle spaces will also be provided adjacent to the drive thru unit. The proposed site layout plan is attached at Appendix BGH12.
- 7.3 Vehicular access to the site will be provided via two existing points of access. The primary point of access is via an existing ghost island right turn lane priority-controlled T-junction with Monks Cross Drive, to the east. This access point served the former TK Maxx and Argos store on the site and as such is appropriate to accommodate retail development traffic including servicing vehicles. The form of this junction will be maintained exactly as it is as part of the proposals. The second point of access is from the Jockey Lane roundabout, through the Sainsbury's car park to the south of the site. The site can currently be accessed in this way, and the present access arrangements will be maintained as part of the proposals. These are the same access arrangements that were approved as part of the extant planning permission for a food store on the site.
- 7.4 The access road into the site from Monks Cross Drive will be maintained as existing. The site benefits from an existing access which has historically operated safely and satisfactorily and therefore is considered appropriate to serve the proposed development.
- 7.5 Pedestrian access to the site is provided via footways alongside the vehicular access, and via a dedicated footpath link onto Monks Cross Drive some 55 metres to the south of the vehicular access. An internal footway with crossing points and tactile paving will be provided within the car park for those walking between the Lidl foodstore and Monks Cross Drive.

- 7.6 Internally within the site, aisle widths have been designed to have a minimum width of 6.5 metres, this allows vehicles to travel two-way and provides sufficient space for vehicles to manoeuvre into and out of parking spaces. The aisle width connecting with the Sainsbury's car park to the south is 7.0 metres wide. Parking bays are 2.7 metres wide by 5.2 metres long, accessible spaces have an additional 1.2 metre buffer, and parent & toddler spaces have a width of 3.6 metres with a length of 5.2 metres.
- 7.7 The largest type of vehicle expected to access the Lidl foodstore will be for delivery and servicing movements, and will be a 16.5-metre-long maximum legal length articulated HGV. These types of vehicles will be used to provide deliveries to the Lidl foodstore and will use the servicing bay identified on the site plan on the western side of the Lidl store. With regard to the drive thru unit, the largest type of vehicle expected to visit the site will be a 12-metre-long delivery vehicle. These vehicles will access the car park and stop adjacent to the drive thru unit to undertake any servicing / deliveries. A vehicle stopped in this way will still allow vehicles to use the aisle one-way and will also allow vehicles to access and egress the drive-thru lane.
- 7.8 Vehicle swept path analysis has been undertaken to demonstrate that the proposed site access arrangement and internal arrangement can safely accommodate the anticipated delivery vehicle movements. The vehicle tracking for the Lidl foodstore and drive thru unit demonstrate that vehicles will be able to manoeuvre satisfactorily, entering and egressing the site in forward gear. Drawings attached at Appendix BGH13 (drawing ref: 23/329/ATR/001 and drawing ref: 23/329/ATR/002) demonstrate that the site layout can accommodate these vehicle movements.
- 7.9 With regard to parking provision, reference is made to Appendix E of the CYC Local Plan. Appendix E defines maximum parking standards for A1 shops with a gfa less than 2500m² as being 1 space per 30 sqm gfa. There is no category for fast food retail uses, so the same standard has been applied to both the proposed Lidl foodstore as well as the fast food drive thru unit. The proposed gfa of the Lidl foodstore is 2,172m² and the proposed gfa of the fast food drive thru unit is 242m², for a combined total gfa of 2,414m². The standards therefore equate to a maximum provision of 80 spaces, and whilst the proposed provision of 137 spaces is clearly above this, it simply reflects a similar amount of car parking to what is already available at the site.
- 7.10 It should be noted that the parking standards for shops with a gfa greater than 2,500m² is significantly different to those with a gfa less than 2,500m², with a stated

maximum provision of 1 space per 10m². The proposed gfa is very close to this threshold, and if this standard was adopted, then the maximum car parking provision would be 241 spaces, which of course the proposed 137 spaces would be well within. Based on Lidl's operating experience elsewhere, and considering the nature of the proposals as food retail with a fast food unit generating high turnover of traffic movements, the level of parking being provided is considered satisfactory from an operational point of view.

7.11

As further justification of the number of parking spaces being provided for the proposed development can be made through reference to the level of car parking provided at similar discount foodstore and fast food drive-thru developments within the TRICS database. Following a simple filtering exercise within TRICS for these two land uses (see Chapter 8 for more details), an average parking space based on gfa has been calculated. For discount foodstores this is 1 space per 16.8m², and for fast food drive-thrus this is 1 space per 8.8m². Based on the proposed gfa of the two units and these ratios, the development would provide 146 total parking spaces. The proposed 137 spaces is in accordance with this figure, and as such, the level of car parking at the development is considered satisfactory.

8.0 DEVELOPMENT TRIP GENERATION, TRIP TYPES AND TRIP DISTRIBUTION

Trip Generation

- 8.1 In order to estimate the number of vehicle trips which the proposed site is likely to generate, reference is made to the trip rates adopted for the previous planning application. These trip rates were agreed to be appropriate with highway officers at CYC and it is therefore considered appropriate to adopt the same rates for this application.
- 8.2 The agreed vehicular trip rates are summarised in Table 8.1 below, with the full TRICS output attached at Appendix BGH14.

Table 8.1
 Agreed Vehicular Trip Rates (Trips per 100sqm gfa)

Land Use	Weekday PM Peak Hour			Saturday Peak Hour		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Proposed Food Store	4.143	4.221	8.364	6.935	7.547	14.482
Proposed Drive Thru	23.757	22.880	46.637	30.614	32.821	63.435

- 8.3 The trip generation of the proposed Lidl foodstore and fast food drive thru units have been calculated using these trip rates and the proposed gfa of 2,172m² for the food store and 242m² for the drive thru. The resulting trip generation is set out in Table 8.2 below.

Table 8.2
 Vehicle Trip Generation

Land Use	Weekday PM Peak Hour			Saturday Peak Hour		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Proposed Food Store	90	92	181	151	164	315
Proposed Drive Thru	57	55	113	74	79	154
Total	147	147	295	225	243	468

8.4 It can be seen that the development proposals are predicted to generate some 295 vehicle trips during the weekday evening peak period and some 468 vehicle trips during the Saturday midday peak period.

Trip Types

8.5 The Department for Transport's Guidance on Transport Assessment (now withdrawn and superseded by the DfT's PPG, but still commonly referenced) identifies five different categories of trip type, and three of these are applicable to this application, these being pass-by trips, linked trips and transferred trips.

8.6 Good practice guidance on trip type proportions is set out within the TRICS Research Report 14/1 'Pass-by and Diverted Trips' (December 2014). This report recommends that a site-by-site approach is taken in justifying the trip type proportions adopted.

8.7 However, notwithstanding the above, for the purposes of this assessment and to ensure a robust assessment, it has been assumed that all trips to the development will be totally new to the network. This is a very conservative approach as in reality trips will be either pass-by/diverted i.e., trips passing by the site as part of another journey, transferred i.e., transferring from an adjacent retail facility, or linked trips i.e., trips associated with adjacent retail offers on the site. As such they would already be on the network in the vicinity of the site and would simply be re-assigned towards the development. Clearly, considering all development trips as new to the network does not take into account any of this level of trip discounting, and is a wholly unrealistic scenario to assess, but it does present a very robust assessment of the impact of development related traffic.

Existing Trips

- 8.8 The site has operated in the past as a combined TK Maxx superstore and Argos store, with traffic associated with the stores taking access from the existing access on Monks Cross Drive. The TK Maxx and Argos stores will have generated vehicle trips when they were in operation. No account of the trip-generating potential of the existing units on the site has been taken and again this provides a robust assessment of the net impact of the current proposals.

Trip Distribution

- 8.9 It is noted that the access into the site from Monks Cross Drive is the primary access to the site, however there is a greater traffic flow passing through the Jockey Lane roundabout junction than there is passing by the site on Monks Cross Drive, so proportionally there is a higher likelihood of trips arriving at the site via the Jockey Lane roundabout than via Monks Cross Drive. For the purposes of this assessment development trips have been split evenly between the two points of access, i.e. via the priority-controlled T-junction with Monks Cross Drive and via the Jockey Lane roundabout. The development trips have been distributed at the access junctions based on the existing turning proportions at the junctions. This is the same distribution profile adopted and agreed as part of the original planning application.
- 8.10 This distribution profile has been applied to the trip generation set out in Table 8.2, with the resulting traffic flows shown on the traffic flow diagrams at Appendix BGH15.

9.0 TRAFFIC IMPACT ON THE LOCAL HIGHWAY NETWORK

9.1 The new traffic likely to be generated by the development proposals as shown on the traffic flow diagrams at Appendix BGH15, has been added to the 2028 base flows at Appendix BGH10 to provide predicted traffic flows on the network in 2028, as shown on the traffic flow diagrams at Appendix BGH16. The traffic flows shown on these diagrams have been used to assess the likely future operation of the local highway network.

2028 Predicted Operational Assessments

Jockey Lane Roundabout

9.2 The predicted operation of the Jockey Lane roundabout has been assessed using the same model described and assessed earlier within this report. The predicted peak hour operational characteristics of this junction are summarised in Table 9.1 below, with the full operational output attached at Appendix BGH17.

Table 9.1
 2028 Predicted Operation – Jockey Lane Roundabout

Movement	2028 Predicted Flows			
	Weekday Evening Peak Hour		Saturday Peak Hour	
	RFC	Queue	RFC	Queue
Monks Cross Drive	0.28	0	0.47	1
Car Park (East)	0.30	0	0.46	1
Jockey Lane (E)	0.42	1	0.63	2
Julia Avenue	0.07	0	0.12	0
Jockey Lane (W)	0.40	1	0.49	1
Car Park (West)	0.38	1	0.51	1

9.3 It can be seen that the Jockey Lane Roundabout is predicted to operate with a maximum RFC of 0.63 on the Jockey Lane eastern arm during the Saturday peak

hour, with an associated queue of 2 vehicles. The results show that this roundabout is predicted to continue operating within capacity and with no issues.

Site Access / Monks Cross Drive T junction

9.4 The 2028 predicted operation of the Site Access / Monks Cross Drive T Junction has been assessed using the same model described and assessed earlier within this report. The results of the modelling are summarised in Table 9.2 below and the full technical outputs attached at Appendix BGH17.

Table 9.2
2028 Predicted Operation – Site Access / Monks Cross Drive

Movement	2028 Predicted Flows			
	Weekday Evening Peak Hour		Saturday Peak Hour	
	RFC	Queue	RFC	Queue
Site Access Left/Right turn out B	0.28	0	0.54	1
Monks Cross Drive (N) Ahead/Right turn in C	0.23	0	0.32	1

9.5 It can be seen that the junction is expected to operate with a maximum RFC of 0.54 on the site access arm during the Saturday peak hour, with an associated queue of 1 vehicle. The results show that this junction is predicted to continue operating well within capacity and with no queuing issues.

10.0 SUMMARY AND CONCLUSIONS

- 10.1 This Transport Assessment forms part of a full planning application submitted by Lidl Great Britain seeking full permission for the 'Demolition of the existing building and erection of a new Lidl food store (Use Class E) and drive-through unit with associated car parking and landscaping' on the site of the former TK Maxx and Argos stores at Monks Cross, York.
- 10.2 A planning application for a Lidl foodstore and drive thru unit on this site was submitted to CYC in June 2022 (planning application reference 22/01135/FULM). The application was granted planning approval on 12th January 2023.
- 10.3 The site is located within the Monks Cross Shopping Park and is currently occupied by a vacant building, formerly occupied as a TK Maxx superstore and Argos store. The site is bound to the north by existing offices, by Monks Cross Drive to the east, a Sainsburys Supermarket and associated car park to the south, and by an industrial estate to the west.
- 10.4 Vehicular access to the site will be provided from 2 separate points. The primary point of access is from the existing priority-controlled T-junction with Monks Cross Drive at the north-eastern corner of the site. The existing form of this junction as a ghost island right turn lane T-junction has been assessed within this TA and has been found to be appropriate to serve the development proposals. The secondary point of vehicular access to the south of the site is via the Jockey Lane roundabout with the store reached through the existing Sainsbury's car park in the same way that access to the Argos and TK Maxx stores was gained.
- 10.5 Pedestrian access to the site will be provided via footways directly adjacent to the vehicular access with Monks Cross Drive. A separate footpath link will be provided into the site approximately 55 metres to the south of the vehicular site access, providing a direct access point for pedestrians from Monks Cross Drive to the Lidl store, with a further access being available from the Sainsbury's store to the south. Access for cyclists will be provided on-carriageway via the proposed vehicular access points.
- 10.6 The record of personal injury collisions occurring on the highway in the vicinity of the site has been analysed and it is considered that there are no highway layout characteristics which are adversely affecting road safety or likely to be exacerbated by the development traffic.

- 10.7 The development is considered to be well located to encourage journeys by all modes of sustainable transport. The proposed site is within a convenient walking distance of the local residential area of Huntington and the wider retail offer within Monks Cross, and within a convenient cycling distance of a significant built-up area of the City of York. This provides a real opportunity for future staff and customers living in these areas to travel to the site by sustainable modes of transport. The existing bus stop on Monks Cross Drive is conveniently located very close to the site and provides a very good opportunity for travel to and from the site by bus, for any staff travelling from further afield. The bus services also provide a good link to Yorks' railway station.
- 10.8 The proposals include a shared car park with a total provision of 137 spaces. This level of provision is consistent with Lidl's operational experience elsewhere, and a comparison against similar food store and fast food drive thru developments elsewhere in the UK has been undertaken to demonstrate that the level of car parking is in accordance with levels of car parking provided elsewhere.
- 10.9 Internally within the site, aisle widths and parking spaces have been designed in accordance with Lidl's own good practice guidance. The existing points of access to the site will be retained in their current form and the site has been designed to accommodate the required servicing and delivery movements from both the food store and the drive thru.
- 10.10 The development is expected to generate some 295 vehicle trips during the weekday evening peak period and some 468 vehicle trips during the Saturday midday peak period. Clearly, these vehicle trips are not all new to the network and will be either transferred from other competing food retail offers, will be linked with other retail uses in the wider Monks Cross area or will be passing-by the site as part of another journey. However, and whilst it is acknowledged that it is a wholly unrealistic scenario to assess, to ensure a robust assessment of the impact of development traffic, all development trips have been considered to be new to the network in the operational assessments that have been undertaken.
- 10.11 Assessments have been undertaken of the operation of the priority-controlled T-junction with Monks Cross Drive and the Jockey Lane roundabout. The assessments have revealed that the junctions will continue to operate satisfactorily even following the addition of the development related trips with no discounting for transferred, linked or pass by trips.
- 10.12 In summary, this Transport Assessment has shown that the proposed development site will be accessible by all modes of transport, and that the local highway network

will continue to operate satisfactorily following the introduction of the proposed development. It is therefore considered that there are no transport reasons why planning approval should be withheld.

Bryan G Hall Limited

Registered in England & Wales
Co No: 4104802
VAT No: 399 4601 07

Website: www.bryanghall.co.uk
Email: transportleeds@bryanghall.co.uk

Registered Office

Suite E15, Joseph's Well
Hanover Walk
Leeds, LS3 1AB

☎ Leeds : 0113 246 1555
☎ London: 0203 553 2336

