

## 9 TRANSPORT AND ACCESS

### Introduction

- 9.1 This chapter of the ES assesses the likely significant effects of the Development on the environment in respect of Transport and Access. This chapter should be read in conjunction with the stand-alone WSP Transport Assessment (TA) and WSP Framework Travel Plan (TP) which have been submitted separately as part of this application.
- 9.2 The scope of the TA and Framework TP, and this associated ES chapter, have been based on an extensive scoping exercise undertaken with Lancashire County Council (local highway authority) and National Highways in late 2021, which included scoping meetings and a formal scoping note, which was responded to by both parties.

### Policy Context

National Planning Policy Framework<sup>i</sup>

- 9.3 The latest version of the National Planning Policy Framework (NPPF) was published in July 2021. The Framework identifies that the purpose of the planning system is to contribute towards sustainable development. It maintains that plans and decisions should apply a presumption in favour of sustainable development.
- 9.4 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 46 ; 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.'*

9.5 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.'*

9.6 Furthermore, paragraph 113 of the NPPF states:

*'All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed.'*

9.7 The TA addresses the above policy guidance by outlining opportunities for sustainable travel to and from the Site and by detailing how sustainable and active travel options will be promoted through the Framework TP.

9.8 The TA outlines the Site access proposals, which have been designed to provide safe and suitable access to all users. It also assesses the impact of the Development on the local highway network and concludes that the residual cumulative impacts of the Development are not severe.

Planning Policy Guidance<sup>ii</sup>

9.9 The Government's Planning Practice Guidance (PPG) supplements the NPPF. The PPG clarifies the over-arching principles of Travel Plans, Transport Assessments and Transport Statements. The guidance on Transport Assessments and Statements re-iterates the circumstances in which either document would usually be required and outlines the process for determining the scope of the assessment. The PPG has been considered in the production of the TA and this ES Chapter.

National Highways policy (DfT Circular 02/2013)<sup>iii</sup>

9.10 The Department for Transport Circular 02/2013, published in September 2013, outlines policy relating to the strategic road network and the delivery of sustainable development.

9.11 Paragraph 9 states that *'Development proposals are likely to be acceptable if they can be accommodated within the existing capacity of a section (link or junction) of the strategic road network, or they do not increase demand for use of a section that is already operating at over-capacity levels, taking account of any travel plan, traffic management and/or capacity enhancement measures that may be agreed.'*

9.12 Paragraph 26 states that *'The Highways Agency expects the promoters of development to put forward initiatives that manage down the traffic impact of proposals to support the promotion of sustainable transport and the development of accessible sites.'*

9.13 The Framework TP will help to ensure that the forecast trip generation of the Site can be accommodated within the existing capacity of the Strategic Road Network (SRN). The Site is located in a sustainable location, accessible by local bus and rail services as well via cycling and walking.

Lancashire County Council Local Transport Plan (2011-2021)<sup>iv</sup>

9.14 The Lancashire County Council Local Transport Plan covers the period 2011 to 2021 and set out the following transport goals to increase prosperity and well-being for all communities in Lancashire:

- *'To help to secure a strong economic future by making transport and travel into and between our major economic centres more effective and efficient and by improving links to neighbouring major economic areas and beyond';*
- *'To provide all sections of the community with safe and convenient access to the services, jobs, health, leisure and educational opportunities that they need';*
- *'To improve the accessibility, availability and affordability of transport as a contribution to the development of strong and cohesive communities';*
- *'To create more attractive neighbourhoods by reducing the impact of transport on our quality of life and by improving our public realm';*
- *'To reduce the carbon impact of Lancashire's transport requirements, whilst delivering sustainable value for money transport options to those who need them';*
- *'To make walking and cycling more safe, convenient and attractive, particularly in the more disadvantaged areas of Lancashire, bringing improvements in the health of Lancashire's residents.'; and*
- *'In all that we do, to provide value for money by prioritising the maintenance and improvement of Lancashire's existing transport infrastructure where it can help to deliver our transport goals.'*

9.15 The Local Transport Plan also sets out seven transport priorities developed to deliver improvements and drive targeted investment in transport. These priorities include:

- *'Improving access into areas of economic growth and regeneration;*
- *Providing better access to education and employment;*

- *Improving people's quality of life and wellbeing;*
- *Improving safety of our streets for our most vulnerable residents;*
- *Providing safe, reliable, convenient and affordable transport alternatives to the car;*
- *Maintaining our assets; and*
- *Reducing carbon emissions and its effects'*

9.16 The Development will provide a local leisure facility, accessible via existing walking and cycling infrastructure, and via sustainable transport modes. The Development can be delivered in accordance with the aims and objectives outlined in the Local Transport Plan.

Central Lancashire Core Strategy (2012)<sup>v</sup>

9.17 The Central Lancashire Core Strategy Local Development Framework was adopted in 2012 and sets out the spatial planning proposals for Preston, South Ribble and Chorley.

9.18 The core strategy identifies the following Strategic Objectives relevant to the application site:

- *'SO 3: To reduce the need to travel, manage car use, promote sustainable modes of travel and improve the road network to the north and south of Preston.'*; and
- *'SO 19: To improve access to health care, sport and recreation, open green spaces, culture, entertainment, and community facilities and services.'*

9.19 The Development will promote sustainable modes to travel to and from the Site and will bring a new sport and recreation facility that will welcome and encourage community uses. Policy 3 of the Core Strategy outlines a series of measures to approach planning for travel:

- (a) Reducing the need to travel
- (b) Improving Pedestrian facilities
- (c) Improving opportunities for cycling
- (d) Improving public transport
- (e) Enabling travellers to change their mode of travel on trips
- (f) Encouraging car sharing
- (g) Managing car use
- (h) Improving the road network
- (i) Enabling the use of alternative fuels for transport purposes

Central Lancashire Highways and Transport Masterplan (2013)<sup>vi</sup>

- 9.20 The Central Lancashire Highways and Transport Masterplan adopted in 2013. The masterplan includes reference to improvements of the A582 South Ribble Western Distributor, to increase capacity on the A582 by upgrading it to dual carriageway along its full length between Cuerden and Preston city centre.
- 9.21 As part of the Development, a number of improvements have already been delivered including improvements of Stanifield Roundabout. The existing roundabout was widened to create extra lanes and install traffic lights to increase capacity and traffic flows through the junction. Cycle and pedestrian facilities have also improved with on and off-carriageway cycle lanes, shared use cycle/footways and controlled crossings.
- 9.22 A planning application for the dualling of A582 was submitted in February 2020 (Planning Ref: LCC/2020/0014) and is yet to be determined. The dualling of the A582 is considered as an 'expected development' in the remainder of this TA.

South Ribble Borough Council – Local Plan (2015) <sup>vii</sup>

- 9.23 The South Ribble Local Plan was adopted in July 2015 and sets out the vision for development within the Borough. Policy F1 outlines parking standards for development proposals within South Ribble.
- 9.24 The development site has been identified as an employment site within the local plan. Policy C4 relates to the Cuerden Strategic Employment Site.
- 9.25 'Planning permission will be granted for development of the Cuerden Strategic Site subject to the submission of:
- a) an agreed Masterplan for the comprehensive development of the site, to provide a strategic employment site, to include employment, industrial and Green Infrastructure uses;*
  - b) a phasing and infrastructure delivery schedule;*
  - c) an agreed programme of implementation in accordance with the Masterplan and agreed design code.*
- 9.26 *Alternative uses, such as retail, leisure and housing may be appropriate where it can be demonstrated that they help deliver employment uses on this strategic site. The scale of any alternative enabling development will be limited to that which is clearly demonstrated to be necessary to fund essential infrastructure and which will not prejudice the delivery and maintenance of the primary employment function of the site. Any proposed main town*

*centre uses must satisfy the sequential and impact tests set out in the NPPF, relevant policies of the Core Strategy and this Local Plan'*

- 9.27 It is clear from Policy C4, that development of the site is supported within the Local plan, and that infrastructure plays a critical part in the development. This TA outlines the proposed Masterplan for the site which includes employment opportunities as well as supporting land uses.

### **Assessment Methodology**

- 9.28 As set out earlier in this Chapter, our assessment methodology has been based upon the TA scoping exercise undertaken with Lancashire County Council and National Highways. This set out the key parameters and scope for the TA and Framework TP.
- 9.29 Key outcomes relating to the traffic capacity assessment work have included the agreement of committed and 'expected' developments as follows:

#### Committed Developments:

- Leyland Test Track 07/2017/3361/ORM;
- Land west of Lancashire Business Park 07/2020/00781/OUT;
- Former New Mill Site Land off Wesley St, Bamber Bridge 07/2012/0728/OUT;
- Land Formerly Gas Works, Leyland Rd, Lostock Hall 07/2013/0008/ORM;
- Vernon Carus, Penwortham 07/2014/0190/ORM;
- Land to the rear of 2 Leyland Lane 454 Croston Road 07/2012/0627/ORM;
- Land off Croston Road 07/2014/0184/ORM;
- North of Altcar Lane 07/2016/0310/OUT;
- Land Near Shaw Road Brook Rd, Altcar Lane 07/2016/0591/OUT;
- Land south of Cuerden Farm and Woodcocks Farm 10/00414/OUTMAJ;
- Land north of Lancaster Lane 12/00941/OUTMAJ; and
- Land Adjoining Cuerden Residential Park 12/00872/FULMAJ.

#### 'Expected' Developments (to be included in assessment as a sensitivity test):

- Pickerings Farm 07/2021/00886/ORM;
- A582 Dualling LCC/2020/0014; and
- Farington Cricket Amenity.

9.30 The impacts of the development proposals on the Lydiate Quarry site, in the context of their planning permission 07/2006/0672/CM, have been considered but are not determined to be significant due to the relatively low traffic impacts on the sections of highway adjacent to the Quarry.

9.31 The scope of the traffic assessment has been agreed as follows:

- J1. A582 Farrington Rd/ A5083 Stanifield Ln / B5254 Watkin Ln (4-arm signalised roundabout);
- J2. Cuerden Way/ A582 Lostock Ln (4-arm signalised junction);
- J3. A6 Lostock Ln / Cuerden Way / South Rings (4 arm signalised junction);
- J4. A6 Lostock Ln / B6256 Station Rd / A49 Wigan Rd (4-arm signalised junction);
- J5. M6 / A6 (4-arm roundabout);
- J6. A5083 Stanifield Rd / A5083 Lydiate Ln / B5254 Stanifield Rd (3-arm- p/c junction);
- J7. A5083 Lydiate Ln / A49 Wigan Rd (3-arm-signalised junction);
- J8. M6 / M65 (Part Signalised 4-arm roundabout);
- J9. Nook Lane / A49 Wigan Road (3-arm- p/c junction);
- J10. M65 / Proposed Development Access (2-arm Roundabout);
- J11. Old Lostock Lane /A49 (p/c junction);
- J12. Todd Lane South/ A582 Lostock Ln / Old School Ln (p/c, left in left out); and
- J13. B5256 Leyland Way / B5256 Lancaster Lane / A49 Wigan Road (4 Arm Signalised Junction).

9.32 The scenarios to be tested for the AM and PM peak weekday periods have been agreed as follows:

- Do-Minimum: 2032 + Committed Developments – without development;
- Do-Something: 2032 + Committed Developments – with development;
- Do-Minimum Sensitivity Test: 2032 + Committed and Expected Developments – without development;
- Do-Something: 2032 + Committed and Expected Developments – with development;
- Do-Minimum: 2037 + Committed Developments – without development;
- Do-Something: 2037 + Committed Developments – with development;
- Do-Minimum Sensitivity Test: 2037 + Committed and Expected Developments – without development; and
- Do-Something: 2037 + Committed and Expected Developments – with development

## Baseline Conditions

- 9.33 This includes a description of the local highway network, as well as local pedestrian and cycle facilities. A review of public transport and nearby facilities accessible from the Site is also provided, along with a review of local accident records.

### Site Location

- 9.34 The Site is located to the south of the settlements of Lostock Hall and Bamber Bridge in South Ribble, Lancashire. It is approximately 4.5km to the south of Preston. The Site is bordered by Stanifield Lane on its western edge, the A582 and the M65 on its northern edge, the A49 Wigan Road on its eastern edge and open fields and a Quarry currently in use by JA Jackson Contractors to the south. Figure 9.1 below shows the location of the Site within the context of the local highway network.

**Figure 9.1- Site Location Plan**





### Existing Highway Network

- 9.35 The Site is well located for access to the Strategic Road Network (SRN). The Site boundary borders the terminus of the M65, an east-west route connecting southern Preston to nearby towns of Blackburn, Accrington, Burnley and Colne. It is also approximately 1km from access to the M6 via J29. The M6 is a strategic north-south route providing connections towards Lancaster, Carlisle and Scotland to the north, and towards Wigan, Merseyside, Cheshire and the West Midlands to the south. The M61 3.5km to the east of the site provides a strategic link to Chorley and Greater Manchester to the south. The M6, M65 and M61 are part of the SRN and retained by National Highways (NH).
- 9.36 The site is also well situated for access onto key local routes including the A6, located c. 650m from the site, which provides a north-south connection to Preston City Centre, and the A582 South Ribble Western Distributor Road.

### M65 Terminus Roundabout

- 9.37 The M65 terminus roundabout adjacent to the Site boundary is the western extent of the M65. The M65 terminus is currently a two-arm roundabout, with the M65 as the eastern arm and the link between the M65 and the A6 / A582 roundabout to the north as the northern arm. There are two circulating lanes, however traversing the northern circulating carriageway is prohibited, with no entry to vehicles between the exit onto the link to the A6, and the entrance from the link from the A6. The access and egress to the DVSA Enforcement check site is located between the entrance arm of the M65 and the exit arm of the M65.
- 9.38 As discussed further in Chapter 3 Site and Development, with the Development the M65 terminus roundabout is proposed to serve as a site access, via the addition of a western arm.

### M65/M6

- 9.39 The M65 reduces to one lane westbound approximately 700m from the terminus and merges with the M6 northbound off-slip from J29 approximately 170m from the roundabout entry. The speed limit on the approach to the terminus is 50 mph.
- 9.40 National Highways retail ownership of the M65 and M6 slip up to the giveaway line of the roundabout, which is under the general control of LCC.

- 9.41 Eastbound, the M65 has a two lane exit from the terminus and leads to the slips to the M65/M6 roundabout, which is a partially signalised, grade separated junction below the M65 main carriageway.

#### A582 South Ribble Western Distributor Road

- 9.42 The Site is bounded by the A582 to the north. The A582 South Ribble Western Distributor is a radial route connecting Preston with the M65. It runs on an east-west orientation from its junction with the A6 to its junction with the B5253 Flensburg Way. The A582 then runs on a north-south orientation, from its junction with the B5253 towards Preston and its junction with the A59. Adjacent to the Site, the A582 (Lostock Lane) is a two-way dual carriageway with a 60mph speed limit.

**Figure 9.2- A582 at its junction with Old School Lane (Facing East)**



- 9.43 To the northeast of the Site, the A582 connects with the A6 at a 4-arm signalised roundabout.

9.44 A planning application for the dualling of the A582 was submitted by LCC on 27th February 2020 (LCC Planning Ref: LCC/2020/0014). This proposal would increase the capacity of the A582 to the west of the A582/Stanifield Lane roundabout. As of March 2022, the application is yet to be determined.

Stanifield Lane

9.45 Stanifield Lane is a two-way single lane carriageway with a speed limit of 60mph adjacent to the Site boundary. Stanifield Lane runs on a north-south orientation linking Farington and Leyland to the south with the A582 and Lostock Hall to the north. Adjacent to the site, Stanifield Lane has a carriageway width of approximately 7.5m, is bordered by open fields and has a footway along its eastern carriageway, as seen in Figure 9.3.

**Figure 9.3- Stanifield Lane by Stoney Lane (Facing North)**



9.46 To the south of the Site, Stanifield Lane turns more residential in nature as it approaches Farington village and is subject to a 30mph speed limit. Gateway features mark the approach to Farington village, and 30mph speed limit signage is present.

- 9.47 Stanifield Lane meets the A582 at a signalised four arm roundabout to the northwest of the Site. The traffic signals along with improved footway and cycle provision were introduced as part of an upgrade to the roundabout completed in 2016. Dedicated on-carriageway cycle lanes are provided to facilitate north-south cycle movements through the roundabout. Signalised pedestrian crossing facilities are also provided at this junction and connect to existing footways.

#### A6

- 9.48 East of the A582/A6 roundabout, the A6 proceeds through two large signal-controlled junctions. The A6 then connects with the M6 in a large, grade-separated roundabout. The route is 40 mph from the roundabout to the Wigan Road junction and is fully lit.
- 9.49 As the A6 approaches the A582 from the east, it proceeds northbound forming two lanes toward Preston City Centre at the A582/A6 roundabout.

#### A49 Wigan Road

- 9.50 The A49 Wigan Road is a single carriageway road linking the A6 at the north with the B6258 Lancaster Lane to the south with Euxton/Chorley beyond. It routes via some residential areas. It passes under the M65 and the M6, with a significant sag curve present at the M6 underpass. The speed limit at this section is varying between 30 to 50 mph.
- 9.51 Another access to the Site would be at the east side in Wigan Road. Wigan Road connects with the A6 which then connects with the M6 and M65.

#### Old School Lane

- 9.52 Old School Lane is access only and is a single-track lane. It serves as an access to residential properties and is approximately 450m in length. At its northern end it meets the A582 at a priority controlled left-in-left-out junction and at its southern extent meets Stoney Lane. Old School Lane is outside of the red line boundary for the Development, but runs between the proposed residential Zone (Zone E) to the northwest of the Site, and the Green Infrastructure adjacent to Zone A and Zone C.

**Figure 9.4 - Old School Lane (Facing South)**

### Stoney Lane

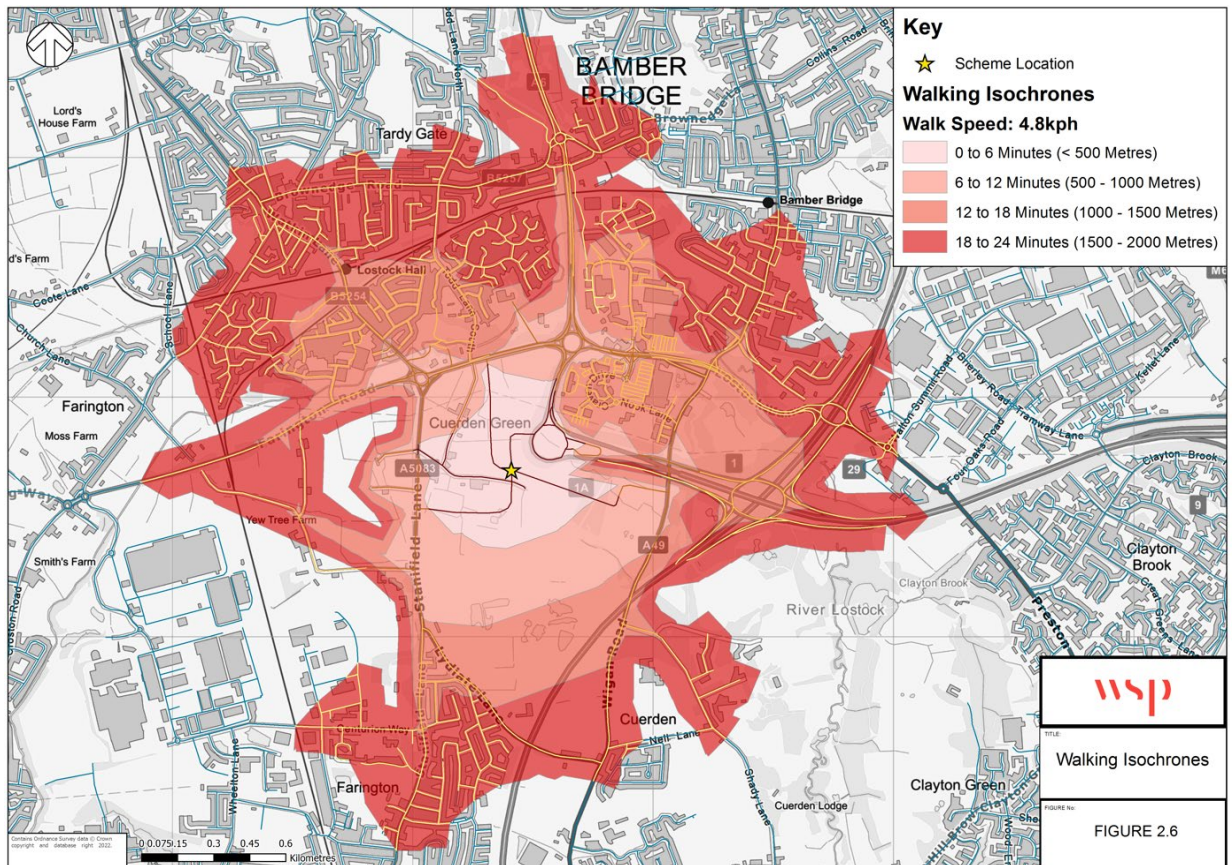
- 9.53 Stoney Lane is a single-track lane approximately 250m in length and runs from Stanifield Lane at its western extent, providing an access route to Old School Lane and terminates at properties to the east of Old School Lane.

**Figure 9.5 - Stoney Lane (Facing West)**

Pedestrian Infrastructure

9.54 Figure 9.6 shows the areas located within 30-minute walk of the site which includes Lostock Hall, Farington and parts of Bamber Bridge. Lostock Hall Rail Station is within a 15-minute walk of the site, and Leyland Station is approximately 30-minute walk from the site.

**Figure 9.6 - Walking Isochrones**



Stanifield Lane

9.55 A footway is present on the eastern side of Stanifield Lane along the entire length of the Site providing a pedestrian route towards Farington village to the south and to the A582 roundabout to the north. This route along Stanifield Lane has street lighting along its entire length.

9.56 Pedestrian facilities are also provided at the A528 / Stanifield Lane roundabout with signalised pedestrian crossing facilities and footways on all arms of the roundabout.

### Watkin Lane

- 9.57 On its northern arm of the A528 / Stanifield Lane roundabout, footways are present on both sides of the Watkin Lane and provide a route to local facilities and residential properties along Watkin Lane and Lostock Hall. Footways along Watkin Lane provide a signposted pedestrian route to Lostock Hall Rail Station.

### A582

- 9.58 A footway on the eastern arm of the junction extends along the northern side of the A582 to the A6 and to retail and leisure facilities east of the A6.

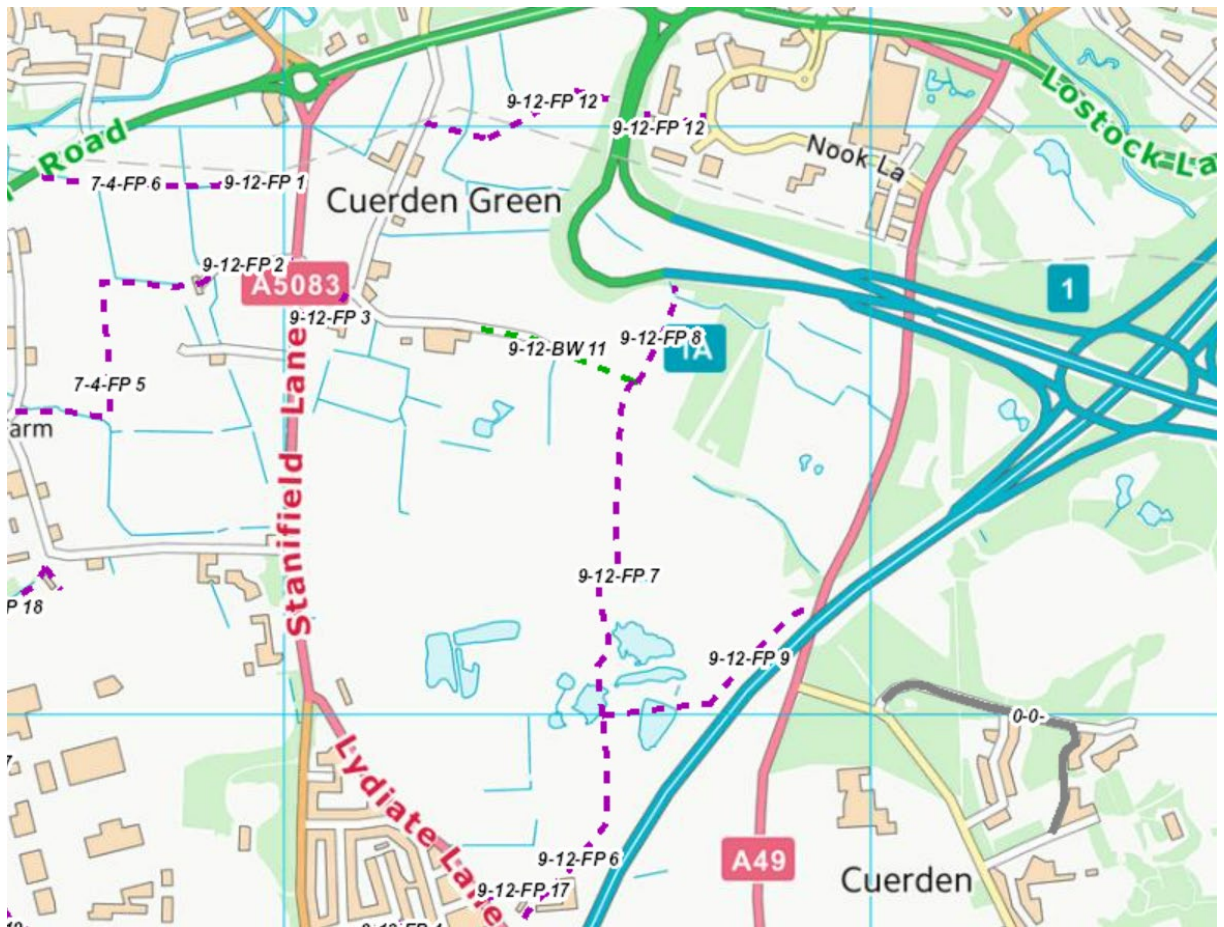
### PRoW

- 9.59 In addition to the paved footways, there are currently a number Public Rights of Way (PRoWs) crossing the application site as shown in Figure 9.7. Footpath 9-12 FP12 connects from the Old School Lane to the link connecting the A6/M65 roundabout and the M65 terminus. This route crosses existing open fields within the site boundary.

- Footpath 9-12 FP6, FP7 and FP8 run from the M65 in the north to Lydiate Lane in the south – connecting the site to existing residential areas in Farington;
- 9-12 FP9 connect FP7 to Wigan Road to the east; and
- Bridleway 9-12-BW11 also turning into Stoney Lane at its western extent – connects to footway along Stanifield Lane.

- 9.60 These existing PRoWs will be retained, partially diverted and upgraded as part of the development. Details of the re-routing of the PRoW can be seen on the site layout plan provided in Appendix C of the Transport Assessment.

**Figure 9.7: Public Right of Way Plan (LCC)**

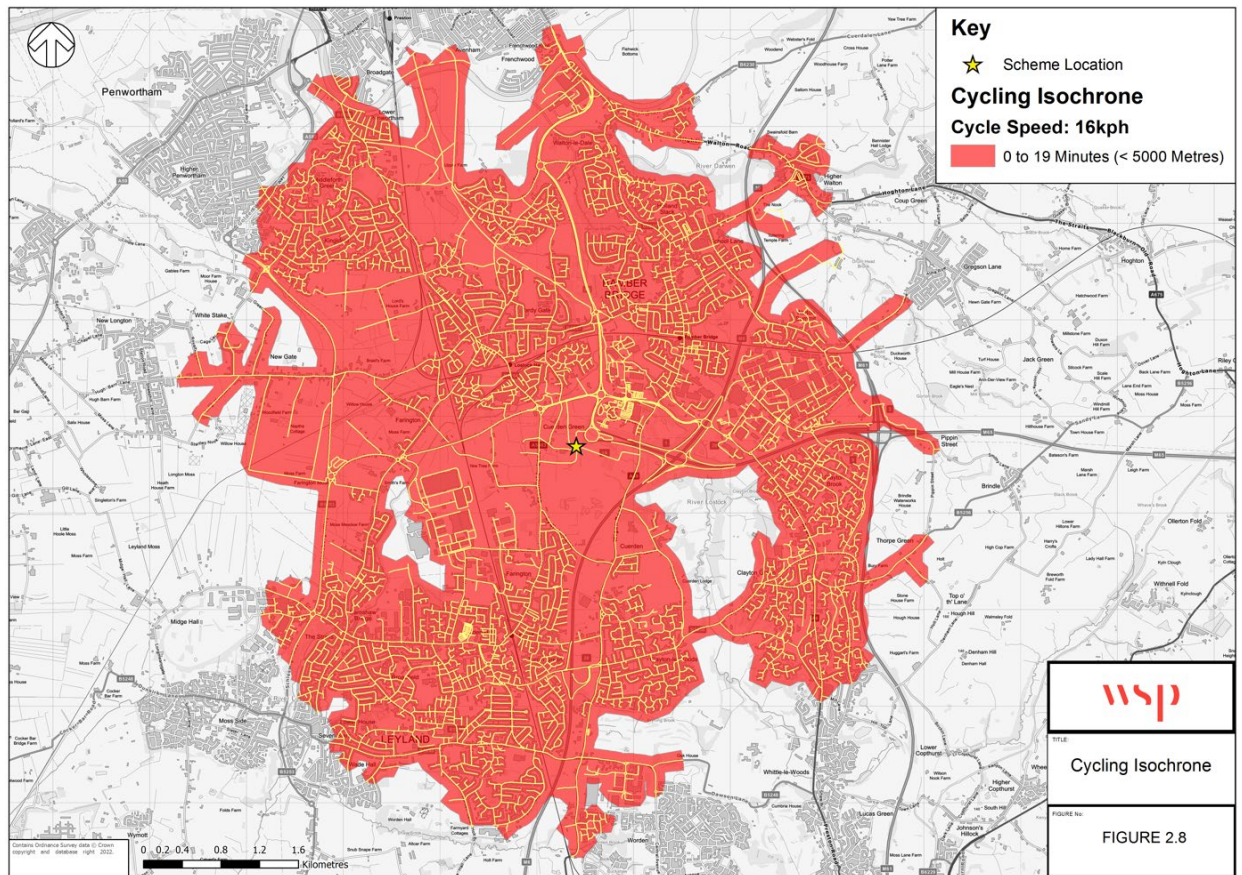


Cycle Infrastructure

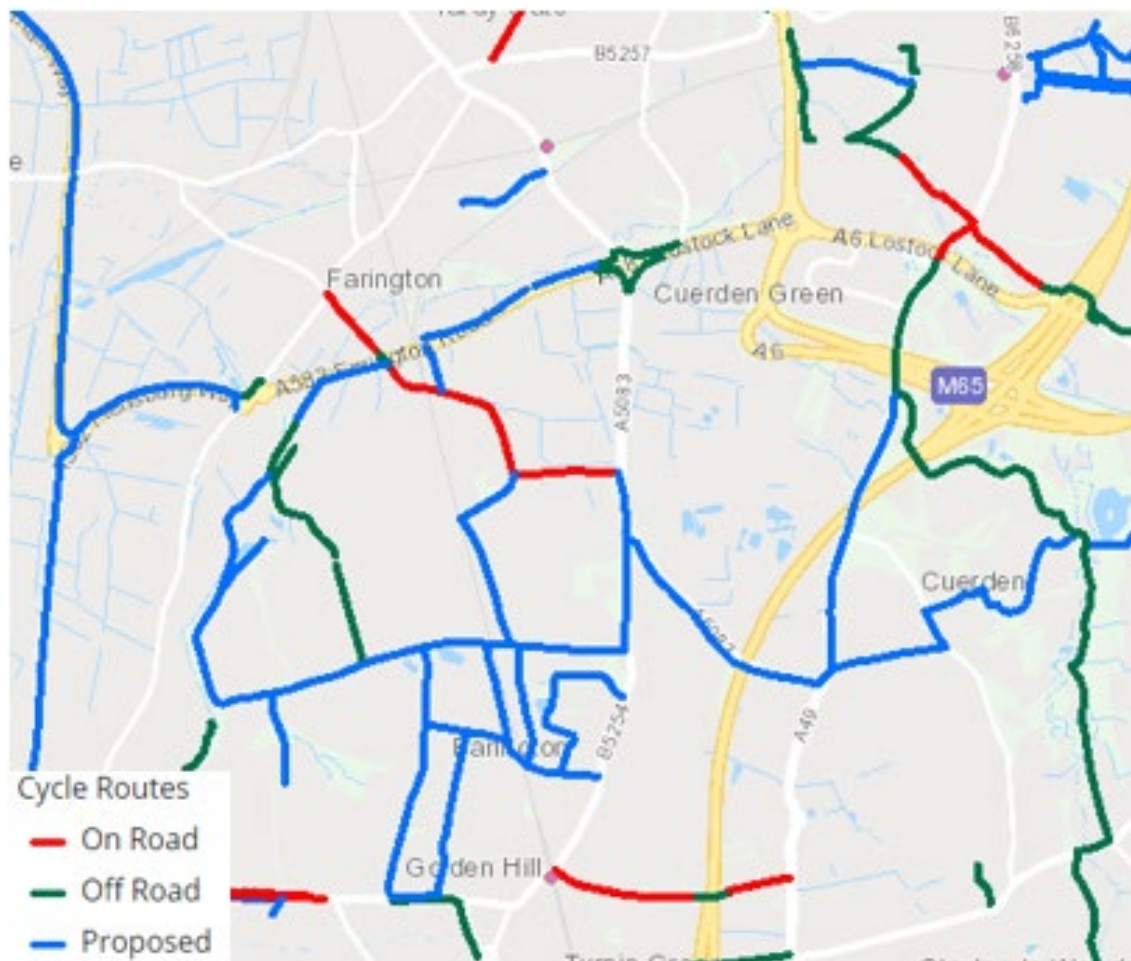
9.61 Figure 9.8 shows locations within a 30-minute cycle ride of the site. This includes locations such as Farington and Leyland to the south, and Lostock Hall, Bamber Bridge, Penwortham and Preston to the north.



**Figure 9.8 - Cycling Isochrones**



9.62 The National Cycle Route 55 runs north to south to the east of the Site through Cierden Valley Park and along Wigan Road, identified as the eastern most north-south green/red on Figure 9.9. The cycle route runs opposite the Site access off Wigan Road, providing a connection point into the Site. Route 55 also connects to existing cycle facilities on A582 and A6 to the north of the Site.

**Figure 9.9: Lancashire County Council Cycle route map**

9.63 The National Cycle Route 55 runs north to south to the east of the site through Cuerden Valley Park and along Wigan Road, identified as the eastern most north-south green/red on Figure 9.9. The cycle route runs opposite the proposed site access off Wigan Road, providing a connection point into the site. Route 55 also connects to existing cycle facilities on A582 and A6 to the north of the Site.

9.64 The off-road cycle facilities at A582 / Stanfield Lane roundabout are also shown on the above cycle plan.

#### Bus

9.65 There are bus stops located on Stanfield Lane adjacent to the site. Table 9.1 provides a summary of the bus services and their frequencies. Route 109 runs a half hourly frequency to Preston, Lostock Hall to the north, and to Leyland, Euxton and Chorley to the south. On a weekday and a Saturday, the Route 111 runs a 12-minute frequency to Preston and Lostock

Hall, and to Farington, Leyland and Broadfield, at an hourly frequency the 111 route extends to serve Standish and Wigan. On a Sunday, the 111 runs at a 30-minute frequency.

**Table 9.1: Bus Services from bus stops on Stanifield Lane**

No.	Operator	Route	Frequency (weekday and Saturday)	Frequency (Sunday)	First Last Weekday and Saturday Service	First Last Sunday Service
109	Stagecoach	Preston – Lostock Hall – Leyland – Euxton - Chorley	30 mins	60 mins	06:43 / 11:06	08:45 / 18:48
111	Stagecoach	Preston – Lostock Hall – Farington – Leyland – Seven Stars (Standish - Wigan)	12 mins (60 mins)	30 mins	05:49 / 23:21	09:04 / 22:36

9.66 The bus stops on Stanifield Lane consist of a bus stop flag and a printed timetable, as pictured on Figure 9.10.

**Figure 9.10: Woodcock Estate Bus Stop and Brook House Farm Bus Stop on Stanifield Lane**



Rail

9.67 Lostock Hall Rail Station is located approximately 600m to the north of the site and can be accessed via footways along Stanifield Lane and Watkin Lane. Table 9.2 summarises rail services from Lostock Hall which include an hourly service to Preston and an hourly service to Blackburn, Burnley and Colne.

**Table 9.2 - Rail Services from Lostock Hall Rail Station**

Service	Monday-Saturday Frequency	First / Last Service	Sunday Frequency	First / Last Service
Preston	60 mins	07:11 / 00:01	120 mins	10:21 / 22:25
Blackburn -Accrington – Burnley - Colne	60 mins	06:02 / 23:03	120 mins	08:21 / 22:07
Preston - Blackpool North	3 AM services	06:30, 07:36 and 08:35	-	-

9.68 Leyland Rail Station is located approximately 1.6km to the south of the Site and can be accessed via footways along Stanifield Lane. Table 9.3 summarises rail services from Leyland which include services to Blackpool, Manchester and Liverpool.

**Table 9.3 - Summary of Rail Services from Leyland Rail Station**

Service	Monday-Saturday Frequency	First / Last Service	Sunday Frequency	First / Last Service
Liverpool Lime Street	60 mins	06:34 / 22:48	60 mins	08:29 / 22:38
Blackpool North	2 per hour	06:48 / 23:20	30 mins	08:47 / 22:55
Manchester Victoria	120 mins	06:09 / 18:10	3 AM services (terminating at Manchester Oxford Rd)	09:31, 1031 and 11:31
Manchester Airport	60 mins	05:16 / 23:40	60 mins	12:35 / 22:54

#### Local Facilities

9.69 Future residents and users of the Development will have access to a range of local facilities provided within the Site boundary. The Land Use and Quantum parameter plan (refer to Figure 3.3) includes a range of day-to-day facilities including: a gym, food stores and food outlets, health centre, creche, leisure centre and employment opportunities.

9.70 The Site is well located to a range of existing local facilities within the nearby residential areas. Future residents of the Site will be able to make use of existing active and sustainable travel provision to access a range of facilities locally. Table 9.4 below outlines day-to-day facilities to be provided within the Development or within walking distance to the future residential parcel proposed at the northwest of the Masterplan.

**Table 9.4 - Local facilities**

<b>Amenity</b>	<b>Location</b>	<b>Distance (Walking)</b>
Food Store	Proposed on-site	On-site
Gym	Proposed on-site	On-site
Creche	Proposed on-site	On-site
Health Centre	Proposed on-site	On-site
Employment	Proposed on-site	On-site
Leisure centre	Proposed on-site	On-site
Sainsburys / Aldi	A6 Lostock Ln / Cuerden Way	25 mins ~
Primary School – Lever House	Bristol Avenue	25 mins ~
High School – Lostock Hall Academy	Todd Lane N	25 mins ~
Post Office	Watkin Ln / Brownedge Rd	25 min ~

#### Road Safety

- 9.71 A detailed assessment of highway accidents on the local links and junctions within the scope of assessment has been undertaken and is included in Appendix B of the TA
- 9.72 Based on the findings of the assessment, it is not considered there are any significant clusters or patterns of accidents local to the Site above and beyond those that might reasonably be expected given the nature and scale of the local highway network.
- 9.73 As set out within the TA, the Development will result in an overall decrease in traffic flows in the peak hours, in comparison to the consented Cuerden scheme.
- 9.74 Accordingly, it is not considered there will be any material safety disbenefit as a result of the Development.
- 9.75 Any off-site highway proposals, and any on-site highway which is proposed for adoption by LCC, will be subject to the Road Safety Audit process in accordance with LCC standards and guidance. This process will be used to inform and guide the design to ensure all possible risks are eliminated at the design stage.

## Future Baseline

### Baseline traffic data

- 9.76 As agreed with LCC during TA scoping, pre-COVID traffic data is to be used to establish the baseline traffic flows for the traffic capacity assessments.
- 9.77 Following a review of recent applications in the local area and their corresponding Transport Assessments, the traffic flows from the previous planning application for the Cuerden Strategic mixed-use Site (South Ribble Planning Reference 07/2017/0211/ORM) were identified as suitable for use within our traffic assessment.
- 9.78 The Site TA includes manually classified turning count data for the local highway network. The traffic surveys were undertaken on Wednesday 15th June, Saturday 25th June and Sunday 26th June 2016, and therefore cover both weekday and weekend conditions.
- 9.79 The traffic flows identified weekday network peaks at 07:30-08:30 in the morning and 16:30-17:30 in the evening. A Saturday peak hour was identified as 13:00-14:00. The base traffic flows from these 2016 surveys are provided in Appendix G of the Transport Assessment.
- 9.80 To account for a degree of background traffic growth, TEMPro growth rates have been applied to the 2016 traffic surveys to provide 2032 opening year and 2037 future year traffic flows. Committed and expected developments were also considered and further details are included below.

### Committed developments

- 9.81 Committed developments, those in the local area with planning consent, were considered in the development of future year traffic flows. Committed development flows have been taken from traffic flow diagrams available within the TA and supporting planning documents of recent planning applications; Cuerden TA Addendum and Land west of Lancashire Business Park. The committed development sites are outlined in Table 9.5 below. The Cuerden TA Addendum provides an assumed level of build out at the committed development sites for the years 2016, 2019 and 2024. For the 2032 and 2037 future years, full build out of these committed development sites is assumed to provide a robust representation of committed developments in the local area.

**Table 9.5 – Committed Developments**

Site	Development Proposals
Leyland Test Track (07/2017/3361/ORM)	950 dwellings, employment use
Land west of Lancashire Business Park (07/2020/00781/OUT)	Up to 612,500 sqft of B2 and B8
Former New Mill Site Land off Wesley St, Bamber Bridge (07/2012/0728/OUT)	200 dwellings
Land Formerly Gas Works, Leyland Rd, Lostock Hall (07/2013/0008/ORM)	281 dwellings
Vernon Carus, Penwortham (07/2014/0190/ORM)	385 dwellings
Land to the rear of 2 Leyland Lane 454 Croston Road (07/2012/0627/ORM)	175 dwellings
Land off Croston Road (07/2014/0184/ORM)	400 dwellings
North of Altcar Lane (07/2016/0310/OUT)	200 dwellings
Land Near Shaw Road Brook Rd, Altcar Lane (07/2016/0591/OUT)	400 dwellings
Land south of Cuerden Farm and Woodcocks Farm (10/00414/OUTMAJ)	300 dwellings
Land north of Lancaster Lane (12/00941/OUTMAJ)	160 dwellings
Land Adjoining Cuerden Residential Park (12/00872/FULMAJ)	52 dwellings

9.82 The weekday AM and PM peak hour committed development flows are included in the Traffic Flow Diagrams provided in Appendix G of the Transport Assessment, assuming all twelve sites are fully built out and their traffic distributed across the local highway network as per the distribution used in the previous Cuerden TA committed development flows.

#### Consented Cuerden Flows

9.83 As the Site currently benefits from planning approval, the traffic flows associated with consented Cuerden scheme have also been used as a committed development, assuming full build out of the consented development.

9.84 Traffic flows for the consented development have been taken from the traffic flow diagrams provided within the Mott MacDonald TA Addendum appendices. These are included within the committed development flows for the Do-Minimum scenario.

9.85 For the Do-Something scenario, which assess the impact of the revised masterplan, the consented development flows have been removed and replaced with the traffic flows associated with the Development as per the proposed Masterplan, including flows associated with the future phase land.

## Expected developments

- 9.86 As requested by LCC, expected developments within the local area have also been considered. These are developments for which applications have been submitted but are yet to be decided upon. This includes applications at Pickerings Farm, the A582 dualling scheme and Farington Cricket Amenity.
- 9.87 An outline application for a residential led mixed-use development of up to 920 dwellings, a local centre and primary school at Pickerings Farm was submitted in August 2021 (South Ribble Planning Reference: 07/2021/0886/ORM), along with an application for an additional 180 dwellings (South Ribble Planning Reference 07/2021/00887/ORM). Both applications were refused in November 2021. To date, no appeal has been launched however as the site is included within the South Ribble Local Plan (Policy C1) as an allocated residential led development, the proposed applications have been considered as an expected development. The background TEMPro growth factors applied to the traffic flows, outlined further in Section 6.7, account for a level of housing growth across South Ribble. As Pickerings Farm is included within the local plan, the traffic growth associated with this development is included within the TEMPro growth rates applied to the traffic flows and is therefore considered as part of the traffic flow scenarios.
- 9.88 A planning application for the dualling of A582 was submitted in February 2020 (Planning Ref: LCC/2020/0014) and as of March 2022, is yet to be determined. The dualling of the A582 is considered as an expected development.
- 9.89 A planning application has for a cricket facility with 2 cricket oval, outdoor training nets and pavilion building, located off Stanifield Lane was submitted in April/May 2022. As this application is yet to be determined, it is considered as an expected development. The peak hour traffic flows associated with the proposed Farington Cricket Facility have been taken from the Transport Assessment accompanying the planning application.
- 9.90 The details of these expected developments are provided in Table 9.6 below. Weekday traffic flows associated with the A582 dualling are available within the supporting information from the A582 dualling planning application. The forecast changes in traffic flows associated with this scheme are considered further within the junction modelling assessments.



**Table 9.6 – Expected Developments**

Site	Development Proposals	Status
Pickerings Farm (07/2021/00886/ORM)	1,100 dwellings and local centre (Local Plan up to 1350 dwellings)	Application submitted August 2021
A582 Dualling (LCC/2020/0014)	Dualling of A582	Application submitted Feb 2020
Farington Cricket Amenity (Add planning reference if submitted)	Cricket facility including 2 cricket ovals and associated training facilities and pavilion building	To be submitted for planning

- 9.91 Two planning applications have been submitted in March 2022 by Brookhouse Group Limited to provide new access points off Stanifield Lane and Old School Lane. Brookhouse Group own the land within the future phase plots to the north and south. Planning application reference 07/2022/00245/FUL is for the creation of a new vehicle access off Stanifield Lane to the south of Fowler Lane. Planning Reference 07/2022/00251 is for the realignment of the existing junction at A582 / Old School Lane. The planning application is currently being considered by SRBC.
- 9.92 The Old School Lane access point appears to allow access to the area of land labelled 'future phase' on Site layout (refer to Figure 3.5 Highways and Access), north of the residential component (Zone E) of the Development. For the purposes of this TA and the associated modelling, we have assumed the Old School Lane access point is not in place, and all residential traffic (Development Zone E plus the Brookhouse land) is accessed from the new junction onto Stanifield Lane. This is considered a 'worst case' scenario as it loads all traffic onto one junction, and if the Brookhouse access was approved traffic at the new Stanifield Lane junction would reduce.
- 9.93 Likewise with the Stanifield Lane access, this TA and the modelling assume that Zone D and the Brookhouse "future phase" land west of Zone D are accessed from the single Stanifield Lane access within Zone D. This is considered a 'worst case' scenario as it loads all traffic onto one junction, and if the Brookhouse access was approved traffic at the new Zone D / Stanifield Lane junction would reduce.

#### Forecast traffic flows

- 9.94 The 2016 surveyed traffic flows have been factored using TEMPro 7.2. Trip ends by time period were selected for the 2016 base year and the 2032 and 2037 future years. The following parameters were used in the calculation of growth rated:
- South Ribble Local Authority District geographic area;
  - All trip purposes;
  - Car drivers only;
  - Origin/Destination;

- Urban Road type; and
- Principal Roads.

9.95 As per LCC guidance, the TEMPro growth rates have been adjusted to avoid double counting of future developments in the region. Following the method of adjustment outlined in the Mott MacDonald Cuerden TA addendum, the growth rates have been revised by removing of housing and job growth associated with South Ribble MSOA 012 (as this is covered by the Cuerden proposed development flows) and removing development levels accounted for by the committed developments. The level of growth associated with the expected (but unconsented) development at Pickerings Farm is accounted for within the growth rates. The 2016 flows have been factored using these revised growth rates to create the 2032 and 2037 future traffic flows. The growth rates are provided in Table 9.7.

**Table 9.7– TEMPro growth rates – South Ribble**

	<b>AM Peak Period</b>	<b>PM Peak Period</b>
2016-2032	1.09	1.08
2016-2037	1.13	1.12

#### Traffic Flow Diagrams

9.96 The TEMPro growth rates, committed and expected development and proposed development traffic have been applied to the 2016 surveyed traffic flows and presented within the traffic flow diagrams provided in Appendix I of the Transport Assessment. The traffic flow diagrams include the following scenarios:

- DM1 2032: Do-Minimum: 2032 + Committed Developments with consented development;
- DM2 2032: Do-Minimum Sensitivity Test: 2032 + Committed and Expected Developments with consented development;
- DM1 2037: Do-Minimum: 2037 + Committed Developments with consented development;
- DM2 2037: Do-Minimum Sensitivity Test: 2037 + Committed and Expected Development with consented development;
- DS1 2032: Do-Something: 2032 + Committed Developments + proposed development;
- DS2 2032: Do-Something Sensitivity Test: 2032 + Committed and Expected Developments + proposed development;
- DS1 2037: Do-Something: 2037 + Committed Developments + proposed development;
- and
- DS2 2037: Do-Something Sensitivity Test: 2037 + Committed and Expected Developments + proposed development.

9.97 The above traffic flows are used in the junction capacity modelling summarised in Chapter 8 of the TA and later sections of this ES chapter.

### **Likely Significant Effects**

#### Construction Phase

9.98 Given the outline nature of the planning application for the individual buildings, it is not possible to be fully prescriptive on the likely traffic effects arising from the construction phase of the development. This is because the volume and type of construction vehicle movements will vary depending on the nature of the individual building, the method of construction, and the timescales for construction.

9.99 It is anticipated that a Construction Management Plan (CMP) would be submitted with each detailed (reserved matters) planning application. A CMP would provide information including an overview of the nature of the works, and the impact of the works on all receptors (not just the highway network), taking into account matters such as construction logistics, traffic management, phasing and timing of works, and site-specific health, safety and environmental issues.

9.100 From a transport and highways perspective, we would anticipate each CMP would cover matters including:

- Quantify the impact on the local highway network in terms of number of HGV's, and the timing.
- Arrangements for staff and visitor travel including parking.
- Set out the preferred construction vehicle routes, attempting to avoid sensitive receptors such as local residential areas.
- Set out any impact on existing traffic routes, e.g. road or footway closures or diversions, temporary traffic signals etc.
- How access will be retained to neighbouring properties and existing highway routes.
- How the above correlates with any assessment of the Air Quality and Noise impact of construction traffic.

9.101 In para 9.102 onwards we have set out the key mitigation strategies we would anticipate in order to address impacts arising from the above matters.

## Operational Phase

9.102 Table 9.8 summarises the difference in development traffic flows for the above scenarios at the junctions assessed.

**Table 9.8 – Total Development Flows per junction**

Junction	AM Peak Consented	AM Peak Proposed	AM Peak Difference	PM Peak Consented	PM Peak Proposed	PM Peak Difference
1	236	207	<b>-29</b>	300	232	<b>-68</b>
2	533	438	<b>-95</b>	717	514	<b>-203</b>
3	110	108	<b>-2</b>	148	119	<b>-29</b>
4 / 11	238	186	<b>-52</b>	325	224	<b>-101</b>
5	350	329	<b>-21</b>	480	371	<b>-109</b>
6	93	55	<b>-38</b>	126	74	<b>-52</b>
7	103	81	<b>-22</b>	141	97	<b>-44</b>
8	658	687	<b>29</b>	897	748	<b>-149</b>
9	128	78	<b>-50</b>	176	104	<b>-72</b>
10	1,140	1,067	<b>-73</b>	1,563	1206	<b>-357</b>
12	222	191	<b>-31</b>	286	217	<b>-69</b>
13	103	81	<b>-22</b>	141	97	<b>-44</b>

9.103 Table 9.8 shows that the development traffic flows are lower for the Development in comparison to the consented development.

### Mitigation Measures

#### Construction Phase

9.104 Whilst each CMP will be site specific to the building(s) being covered in that specific reserved matters application, we have set out as follows the general principles which we anticipate will form the basis of the CMPs.

- Seek to reduce the overall number of goods vehicles to and from the site, through suitable booking systems and measures such as construction consolidation.

- Ensure site design and compound access and egress arrangements are such that the public highway is not obstructed by waiting vehicles.
- Suitable wheel washing facilities to avoid debris being carried onto the public highway.
- Encourage sustainable staff and visitor travel through facilities such as cycle parking, and encouragement of car sharing.
- Ensure suitable levels of staff car parking are provided to avoid parking impact on neighbouring residential or commercial areas. If necessary investigate an off-site provision with 'park and ride' bus provision or similar.
- Consider the timing of construction shifts and working hours, to where possible reduce staff travel during the highway peak hours.
- Consider the timing of construction vehicle movements, again to attempt to minimise impact in the highway peak hours. For example morning deliveries could be prohibited between 08:00 and 09:00, to avoid exacerbating any existing congestion.
- Define the preferred construction vehicle routes, attempting to avoid sensitive receptors such as local residential areas. In practice this is likely to involve concentrating construction access onto the M65 terminus roundabout wherever possible, once the initial infrastructure in this area (i.e. the new access arm) has been completed to a standard suitable for goods vehicle use.
- Set out proposals for retention of existing routes. This will involve quantifying the impact (if any) of each construction phase on existing highways and public rights of way, and defining the diversion routes where necessary. Any closures or diversions should be for as short a period as practical, and should seek to minimise additional travel distances whilst maintaining safety for all users of the route.
- Likewise access to neighbouring properties should be retained in a safe manner, with any disruption minimised in terms of both timing and any additional travel distances.

#### Operational Phase

- 9.105 The Mott MacDonald TA Addendum accompanying the original Cuerden planning permission outlined the off-site mitigation proposed to support the increased demand in traffic resulting from the currently vacant development site. This included mitigation at four off-site junctions as well as the works proposed at the M65 terminus to enable access to the site. The mitigation proposed to support the Development match those proposed for the consented scheme and are included in Appendix I of the TA.
- 9.106 The proposed mitigations, as per the TA Addendum, have been included within the junction modelling presented below and within the VISSIM microsimulation modelling. As outlined in Chapter 9, the proposed scheme generates less vehicle trips than the consented scheme,

therefore provision of the same scale of mitigation as previously proposed is considered as more than appropriate for the revised development.

9.107 The off-site mitigation includes:

#### Junction 1: A582/Stanifield Lane/Watkin Lane

- Lengthening and widening of Stanifield Lane Approach arm (extra capacity in Left and right turn lanes);
- East and West A582 approach arms will be widened allowing for lengthening of the short left and right turn lanes; and
- Anti-clockwise signalling.

The proposed mitigation at this junction is shown in Drawing reference MMD-370964-C0DR-00-XX-0011 Rev P5 included in Appendix I of the Transport Assessment.

#### Junction 2: A582/A6 London Way

- Widening of A6 London Way southbound to provide longer left turn lane and improved capacity for the right turn lane;
- A dedicated left turn to the M65 from Lostock Lane east;
- Widening right turn lane from south (to extend to M65 terminus) and extension of the segregated left turn lane;
- Lengthening 3 lane approach from the west on Lostock Lane; and
- Widening of both the A6 approaches and exits.

The proposed mitigation at this junction is shown in Drawing reference MMD-370964-C0DR-00-XX-0012 Rev P5 included in Appendix of the Transport Assessment.

#### Junction 4: A6 Lostock Lane /B6258 Station Rd/A49 Wigan Rd

- Dedicated Left turn lanes on Lostock Ln for both east and west arms;
- Enhancements to storage at Station Rd left turn stop line and further extension of the left turn lane to the north of the bridge parapet;
- Lengthening of approach lanes to the Wigan Road stop lines; and
- Additional pedestrian crossing on the eastern arm.

The proposed mitigation at this junction is shown in Drawing reference MMD-370964-C-DR-00-XX-0013 Rev P5 included in Appendix I of the Transport Assessment.

Junction 5: M6 Junction 29 N / Church Rd A6 / Lostock Ln A6

- Signalisation of the M6 SB slip road and associated eastbound circulatory.

Additional off-site mitigation:

- Stanifield Lane reduced to 40mph, provision of gateway features at northern extent, SPIDs, signalised pedestrian crossing near Stoney Lane; and
- Lostock Lane – 3 lanes in each direction on Lostock Lane between Stanifield Ln roundabout and Sainsburys roundabout, controlled signalised Toucan crossing over A582 Lostock Lane.

### **Residual Effects**

Description of effects following implementation of Mitigation Measures

Construction Phase

9.108 Without undertaking the specific CMP for each reserved matters application, it is difficult to be prescriptive as to the exact residual effects. In broad terms the effects are likely to include:

- Additional goods vehicles on the local highway network;
- Potential additional delay due to new construction access junctions;
- Additional staff vehicles on the local highway network;
- Potential diversions of vehicle routes and / or pedestrian routes in the area.

Operational Phase

LINSIG Modelling Results

9.109 Table 7.2 of the TA summarises the results from the LinSig modelling. Due to the number of results and scenarios, the results have been presented in a summary table indicating key metrics and summarising the difference between performance with the consented scheme

(Do-Minimum) and the proposed scheme (Do-Something) for the 2037 scenario. The full junction modelling outputs can be found in the reports provided in Appendix J of the TA.

#### Junction 1 Stanifield Lane/Lostock Lane/Watkin Lane

- 9.110 The junction of Stanifield Lane/ A582 / Watkin Lane is a four-arm signal-controlled roundabout, with pedestrian crossing facilities. This junction was signalised as part of the City Deal Programme.
- 9.111 The modelling work supporting the previous application at the Site identified this junction as busy during the weekday peak periods. The junction operates under MOVA control, which provides additional capacity beyond that shown in the modelling results.
- 9.112 The mitigation outlined above has been included within the LinSig model used.
- 9.113 The results show that the junction is over capacity in both the consented scheme and proposed scheme scenarios, in both peak periods. There is an overall improvement in the performance of the junction with the proposed scheme compared to with the consented development flows.

#### Junction 2 A6 London Road/A6 Lostock Lane/A582 Lostock Lane

- 9.114 The junction of the A6 London Road/A6Lostock Lane/ A582 Lostock Lane is a four-arm signal-controlled roundabout, with signalised pedestrian crossing facilities on the northern arm.
- 9.115 The modelling work supporting the previous application at the site, also identified this junction as busy during the weekday peaks and proposed mitigation to ease congestion at this junction.
- 9.116 The above mitigation is included in the model used to assess the Do-Minimum and Do-Something scenarios. The junction operates under MOVA control, which provides additional capacity beyond that shown in the modelling results.
- 9.117 The results show that the junction is over capacity in both the consented scheme and proposed scheme scenarios, in both peak periods. There is minimal difference in the overall performance of the junction when comparing the Do-Minimum and Do-Something Scenarios.



### Junction 3 Cuerden Way/A6 Lostock Lane/Craven Drive

- 9.118 Junction 3 is a 4-arm signalised junction, with signalised pedestrian crossing facilities on all arms.
- 9.119 The previous modelling at this junction showed that the junction operates well in the AM peak and is busier in the PM peak. No mitigation is proposed at this junction.
- 9.120 The results show that the junction operates within capacity in all future scenarios in the AM peak and is over capacity in the PM peak reflecting the busier conditions in this peak period.
- 9.121 Overall, the junction performs better with the proposed development traffic, compared to the consented development traffic in both peak periods.

### Junction 4 & 11 B6258/A6 Lostock Lane/Wigan Road/Old Lostock Lane

- 9.122 Junction 4 is a 4-arm signalised junction, with signalised pedestrian crossing facilities on the northern and eastern arms.
- 9.123 The mitigation outlined in Section 7.4 of the Transport Assessment, as per the previous application, has been included in the junction capacity modelling.
- 9.124 The results show that the junction operates within capacity in all future scenarios in the AM peak and is over capacity in the PM peak. In both peak periods, there is slight improvement in junction performance with the proposed development traffic compared to the consented development traffic.

### Junction 5 M6/A6

- 9.125 Junction 5 is the junction of the M6 and A6, and is currently a large grade separated priority controlled roundabout.
- 9.126 LinSig modelling includes proposed mitigation as outlined in Section 8.4 and the drawing provided in the TA Addendum (Ref: MMD-370964-C-DR-00-XX-0014). This includes signalling the SB M6 slip road at its interface with the roundabout and widening to three lanes.

9.127 The results show that the junction is over capacity in both peak periods, especially in the AM peak which reports a large amount of queuing on the southern arm of the junction. While the modelling shows the junction to be over capacity in all scenarios, the junction performs better in the Do-Something than the Do-Minimum.

9.128 It is understood that additional correspondence with LCC and NH was undertaken post planning submission, with alternative mitigation of a fully signalised roundabout suggested. Further correspondence on the most suitable mitigation for this junction may be appropriate to support the development proposals.

#### Junction 7 A5083/Wigan Road

9.129 The junction of A5083 and Wigan Road is a three-arm signalised junction. No mitigation is proposed at this junction.

9.130 The junction is within capacity in all future scenarios, for both the AM and PM peak periods. The modelling results show a small increase in the performance of the junction with the proposed development, compared to the consented development.

#### Junction 8 M65/M6

9.131 The junction of the M6 and M65 is a large grade separated roundabout, which is partially signalised. No mitigation is proposed at this junction.

9.132 The junction is over capacity in the AM peak period both with the consented and proposed development. In the PM peak, the junction operates within capacity and the modelling results show a small increase in the performance of the junction with the Development, compared to the consented development in the PM peak.

#### Junction 10 M65 Terminus

9.133 The M65 terminus is proposed to be signalised and redesigned as part of the Development, to include an access point into the Site on its western arm. The revised layout has been modelled in LinSig.

9.134 In the AM peak, the junction is reported to be operating over capacity in both the Do-Minimum and Do-Something scenarios. The performance of the junction improves slightly as a result of the Development.

9.135 In the PM peak, the junction operated within capacity for the Development scenarios.

#### Junction 13 Leyland Way / Lancaster Lane

9.136 The junction of Wigan Road, Lancaster Lane and Leyland Way is a 4-arm signalised junction.

9.137 The junction is operating just over capacity in both the AM and PM peak periods. The results show that the junction operation improves with the proposed development compared to the consented development.

#### Wigan Road Access Junction

9.138 As outlined in Chapter 3 of this ES (Site and Development), the Site access off Wigan Road is proposed to be a four-arm signalised junction.

9.139 The junction modelling shows that the proposed junction operates in the AM peak and just over capacity in the PM peak.

#### Stanifield Lane Access Junction

9.140 The Site access off Stanifield Lane to Phase D is proposed to be a three-arm signalised junction, as per the consented scheme.

9.141 The junction modelling shows that the proposed junction operates within capacity in all future scenarios, in both the AM and PM peak periods.

#### PICADY Modelling Results summary

#### Junction 6 A5083 Stanifield Road / Lydiate Lane

9.142 Junction 6 is over capacity in both peak periods in the Do-Minimum scenarios. The junction remains over capacity in both peak periods in the Do-Something scenario, however with the revised scheme, the junction performs better than with the consented scheme.

#### Junction 9 Nook Lane / A49 Wigan Road

9.143 Junction 9 is well within capacity in both AM and PM peak scenarios.

9.144 There is a slight improvement to delay in the PM peak with the proposed scheme compared to the revised scheme, however the difference in junction capacity results between the Do-Minimum and Do-something scenarios at Junction 9 is negligible.

Junction 12 Todd Lane South/ A582 Lostock Ln / Old School Ln

9.145 The results for junction of Todd Lane South and the northern carriageway of the A582 Lostock Lane show Todd Lane South to be over capacity in the AM peak in all scenarios. This is a result of high traffic flows along the A582 compared to the number of vehicles attempting to exit Todd Lane South. The results show that the junction performs better in the Do-Something scenario compared to the Do-Minimum scenario, with delay reduced by approximately half a minute.

9.146 For the PM peak, the results show the junction to be operating well in all modelled future scenarios, with little difference between the Do-Minimum and Do-Something results.

Stanifield Lane Residential Access Junction

9.147 The proposed residential access off Stanifield Lane has been modelled as a 4-arm staggered junction with the access to the residential site as the eastern arm, and access to the proposed Farrington cricket amenity as the western arm.

9.148 The junction capacity results show this junction operates well, and within capacity in all modelled scenarios. Due to a small increase in the number of traffic flows using the residential access to the site in the Do-Something scenario the results for the Do-Minimum scenario are slightly better than for the Do-Something scenario. However, the results show the junction will operate well in all scenarios.

9.149 If the Farrington cricket amenity, was not built out a three-arm junction could easily accommodate the demand for the residential access.

ARCADY Modelling Results Summary

9.150 The two internal roundabouts within Zone A of the proposed Parameters Plan have been modelled using Junctions 10 ARCADY function. As these models are internal to the site, only the Do-Something scenario has been tested. The forecast development traffic flows are the same in the 2032 and 2037 future year scenarios, therefore only the 2037 AM peak and PM peak scenarios have been modelled for these two junctions. The results are presented in Table 7.4 and are summarised below.

### Primary Internal Roundabout

- 9.151 The primary internal roundabout is a three-arm priority-controlled roundabout providing access to Zone C and parts of Zone A via the northern arm, the remainder of the development via the southern arm, and to the site access point at the M65 terminus roundabout via the eastern arm.
- 9.152 The ARCADY modelling results show that the junction operates well within capacity in both the 2037 AM peak and PM peak scenarios, with minimal queuing or delay.
- 9.153 It can be concluded that the primary internal roundabout will be able to accommodate the level of development forecast within the site.

### Secondary Internal Roundabout

- 9.154 The secondary internal roundabout is a four-arm priority-controlled roundabout providing access to various parts of the development zones.
- 9.155 The ARCADY modelling results show that the junction operates well within capacity in both the 2037 AM peak and PM peak scenarios, with minimal queuing or delay.
- 9.156 It can be concluded that the secondary internal roundabout will be able to accommodate the level of development forecast within the site.

### VISSIM Modelling

- 9.157 As part of scoping discussions with LCC Highways, it was requested that microsimulation modelling would be carried out to assess the impact of the Development on the wider highway network.
- 9.158 The VISSIM model which supported the previous planning application has been obtained, and the demands in the model have been updated to reflect the below scenarios:
- 2037 Do-Minimum: 2016 base traffic uplifted to 2037 using adjusted TEMPro growth rates + Committed Developments, including flows associated with the consented Cuerden scheme.

- 2037 Do-Something: 2016 base traffic uplifted to 2037 using adjusted TEMPro growth rates + Committed Developments + proposed development flows (Masterplan and Future Phase)

9.159 As both scenarios include development on the Lancashire Central land in the form of the consented scheme or the proposed scheme, the model used for both scenarios include the full range of mitigation proposed as part of the consented Cuerden development as well as the site access junctions.

9.160 The microsimulation modelling has been undertaken for the 2037 future year, as this presents the maximum traffic flow scenarios. Modelling of both the AM and PM peaks has been undertaken.

9.161 The VISSIM model report has been included in Appendix K. The microsimulation modelling shows that:

- The overall network performance improves in both peak periods for the Do-Something scenario (Proposed development) compared to the Do-Minimum scenario (Consented development), with a reduction in average vehicle time, reduced delay per vehicle and increase average speeds on the modelled network.
- Journey time comparisons between the two scenarios also show quicker journey times on the majority of routes with the revised Lancashire central proposals compared to the consented scheme.

9.162 Overall, the VISSIM modelling has shown that the impact on the local highway network with the revised Lancashire central scheme is less than the impact of the consented scheme.

9.163 The results from the VISSIM modelling support the findings from the trip generation analysis and local junction modelling, showing that the impact of the revised Lancashire Central is less than the impact of the consented scheme.

## Cumulative Effects

Description of effects from the Development in combination with other committed developments that could give rise to likely significant cumulative effects.

### Construction Phase

9.164 It is anticipated the cumulative effects will mirror the residual effects and as such are likely to include:

- Additional goods vehicles on the local highway network;
- Potential additional delay due to new construction access junctions;
- Additional staff vehicles on the local highway network;
- Potential diversions of vehicle routes and / or pedestrian routes in the area.

### Operational Phase

#### *Heading*

9.165 The cumulative effects are considered within the residual effects section, as the modelling includes for both background traffic growth and committed (and expected) developments in the local area influencing the highway network.

## Summary

9.166 WSP have been commissioned by Lancashire County Council (LCC) and Maple Grove Developments Ltd. to prepare a Transport Assessment (TA) in support of an outline planning application for a mixed-use development at Lancashire Central, located in South Ribble, Lancashire.

9.167 The Development includes a mix of land uses including employment, retail, leisure, health and residential use, with associated parking, green infrastructure, internal highway layout and pedestrian and cycle infrastructure provision.

9.168 The Development complies with the national, regional and local transport policy of promoting sustainable development and facilitating means of travel by sustainable modes. The accompanying TP outlines measures to promote the use of sustainable travel modes to future users of the Site.

- 9.169 The Site is proposed to be accessed via four vehicle access junctions including the revision of the existing M65 terminus roundabout, a signalised junction off Wigan Road, a signalised junction off Stanifield Lane and a priority junction providing access to a residential parcel off Stanifield Lane.
- 9.170 A previous application (South Ribble Planning Reference 07/2017/0211/ORM) for a mixed-use development on the Site was approved in December 2017. This TA sets out a comparison between the approved planning application (07/2017/0211/ORM) and the revised proposals for Lancashire Central.
- 9.171 A trip generation exercise has been undertaken, comparing the trip generation associated with the proposed land uses and overall masterplan to the trip generation of the consented scheme. The results show that the Development generates fewer two-way vehicle trips than the consented scheme.
- 9.172 Junction capacity modelling and microsimulation modelling have also been undertaken to assess the impact of the proposed development on the local highway network and compare the impact of the proposed development to the impact of the consented development. The results show that overall, the proposed development will have a reduced impact on the local highway network compared to the consented scheme.
- 9.173 Overall, the impact of the Development on the local highway network is less than the previously consented development on the Site.
- 9.174 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 be severe*'.
- 9.175 As a result of the above assessment and conclusions, it has been demonstrated that the residual cumulative impacts of development are not severe and there are no overriding reasons to preclude Lancashire County Council from recognising that the proposals are acceptable in transport terms.
- 9.176 Table 9.8 contains a summary of the likely significant effects of the Development.



**Table 9.8: Table of Significance – Transport and Access**

Potential Effect	Nature of Effect (Permanent/ Temporary)	Significance (Major/Moderate/Minor) (Beneficial/Adverse/ Negligible)	Mitigation / Enhancement Measures	Geographical Importance*							Residual Effects (Major/Moderate/ Minor) (Beneficial/Adverse/ Negligible)
				I	UK	E	R	C	B	L	
<b>Construction</b>											
Additional goods vehicles on the local highway network;	Temporary	Moderate Adverse	Measures within CMP including timing and routing strategy.							x	Negligible
Potential additional delay due to new construction access junctions;	Temporary	Minor	Junctions to be designed to safety standards, and avoid causing undue delay to general traffic.							x	Negligible
Additional staff vehicles on the local highway network;	Temporary	Moderate Adverse	Measures within CMP including encouraging non-car staff travel, car sharing, and shift timing to avoid peak travel times.							x	Negligible
Potential diversions of vehicle routes and / or pedestrian routes in the area	Temporary	Minor	Suitable diversion routes which are safe and minimise additional travel times.							x	Negligible
<b>Completed Development</b>											
Additional Traffic Impact	Permanent	Moderate adverse	Package of highway mitigation as set out in this chapter and in TA.							x	Negligible
Additional pedestrian / cycle flows	Permanent	Minor	Active travel infrastructure measures on and off site, as set out in this chapter and in TA.							x	Negligible
Additional public transport usage	Permanent	Negligible	Public transport promotion as set out in Travel Plan							x	Negligible
<b>Cumulative Effects</b>											
<i>Construction</i>											
Additional goods vehicles on the local highway network;	Temporary	Moderate Adverse	Measures within CMP including timing and routing strategy.							x	Negligible
Potential additional delay due to new construction access junctions;	Temporary	Minor	Junctions to be designed to safety standards, and avoid causing undue delay to general traffic.							x	Negligible

Additional staff vehicles on the local highway network;	Temporary	Moderate Adverse	Measures within CMP including encouraging non-car staff travel, car sharing, and shift timing to avoid peak travel times.							x	Negligible
Potential diversions of vehicle routes and / or pedestrian routes in the area	Temporary	Minor	Suitable diversion routes which are safe and minimise additional travel times.							x	Negligible

**\* Geographical Level of Importance**

I = International; UK = United Kingdom; E = England; R = Regional; C = County; B = Borough; L = Local

## REFERENCES

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- <sup>i</sup> Ministry of Housing, Communities & Local Government (July 2021) National Planning Policy Framework
- <sup>ii</sup> Department for Levelling up, Housing and Communities (2016) Planning Practice Guidance
- <sup>iii</sup> Department for Transport (2013) The Strategic Road Network and the Delivery of Sustainable Development
- <sup>iv</sup> Lancashire County Council (2013) Central Lancashire Highways and Transport Masterplan
- <sup>v</sup> Lancashire County Council (2013) Central Local Plan
- <sup>vi</sup> Lancashire County Council (2013) Central Lancashire Highways and Transport Masterplan
- <sup>vii</sup> South Ribble Borough Council (2015) Local Plan