Developments Affecting Trunk Roads and Special Roads

National Highways Planning Response (NHPR 21-09)
Formal Recommendation to an Application for Planning Permission

From: Alan Shepherd – Divisional Director
Network Delivery and Development
North West Region
National Highways
planningNW@highwaysengland.co.uk

To: South Ribble Borough Council FAO: Janice Crook

CC: transportplanning@dft.gov.uk
growthandplanning@highwaysengland.co.uk

Council's References: 07/2021/00887/ORM (180 Dwellings – Outline) & 07/2021/00886/ORM (920 Dwellings – Outline)

Location: Pickerings Farm site, Flag Lane, Penwortham, Lancashire PR1 9TP

Proposal: development of up to 1100 dwellings, a local centre including retail, employment and community uses (Use Classes E and Sui Generis), a two form entry primary school (Use Class F), green infrastructure, and associated infrastructure following the demolition of certain existing buildings

National Highways Ref: 92576 & 92574

Referring to the consultation on a planning application dated 9th September 2021 referenced above, in the vicinity of the M65 and M6 that forms part of the Strategic Road Network, notice is hereby given that National Highways' formal recommendation is that we:

~~a) offer no objection;~~

~~b) recommend that conditions should be attached to any planning permission that may be granted (see Annex A – National Highways recommended Planning Conditions);~~

c) recommend that planning permission not be granted for a specified period (see Annex A – further assessment required);

~~d) recommend that the application be refused (see Annex A – Reasons for recommending Refusal).~~

Highways Act Section 175B ~~is~~ / is not relevant to this application.[1]

[1] Where relevant, further information will be provided within Annex A.

This represents National Highways' formal recommendation and is copied to the Department for Transport as per the terms of our Licence.

Should the Local Planning Authority not propose to determine the application in accordance with this recommendation they are required to consult the Secretary of State for Transport, as set out in the Town and Country Planning (Development Affecting Trunk Roads) Direction 2018, via transportplanning@dft.gov.uk and may not determine the application until the consultation process is complete.

Signature: Warren Hilton	**Date:** 30th September 2021
Name: Warren Hilton	**Position:** Assistant Spatial Planner
National Highways:	
8th Floor, Piccadilly Gate, Store Street, Manchester M1 2WD	

Annex A National Highway's assessment of the proposed development

National Highways has been appointed by the Secretary of State for Transport as a strategic highway company under the provisions of the Infrastructure Act 2015 and is the highway authority, traffic authority and street authority for the Strategic Road Network (SRN). The SRN is a critical national asset and as such we work to ensure that it operates and is managed in the public interest, both in respect of current activities and needs as well as in providing effective stewardship of its long-term operation and integrity.

Recommended Non-Approval

It is recommended that the application should not be approved until 30th January 2022.

Reason

1 *BACKGROUND*

1.1.1. National Highways have been appointed by the Secretary of State for Transport as a strategic highway company under the provisions of the Infrastructure Act 2015. National Highways are responsible for operating, maintaining and improving the Strategic Road Network (SRN) in England, in accordance with the Licence issued by the Secretary of State for Transport (April 2015) and Government policies and objectives.

1.1.2. The National Highways approach to engaging with the planning system is governed by the advice and guidance set out in:

> **The Strategic Road Network Planning for the Future** – A guide to working with Highways England (the former name of National Highways) on planning matters (2015).

1.1.3. The document is written in the context of statutory responsibilities as set out in National Highway's Licence, and in the light of Government policy and regulation, including the:

- National Planning Policy Framework (NPPF);
- Town and Country Planning Development Management (Procedure) Order (England) 2015 (DMPO); and
- DfT Circular 02/2013 The Strategic Road Network and the delivery of sustainable development ('the Circular').

1.1.4. As a statutory consultee in the planning system, National Highways has a regulatory duty to co-operate. Consequently, National Highways are obliged to give consideration to all proposals received and to provide **appropriate, timely and substantive** responses.

1.1.5. National Highway's desire to be a proactive planning partner goes beyond this statutory role, but follows the spirit of the Licence which stipulates that National Highways should:

> *"Support local and national economic growth and regeneration"*

1.2 **DEVELOPMENT OVERVIEW**

1.2.1. Taylor Wimpey and Homes England have submitted outline planning applications with all matters reserved, except for the principal means of access, to South Ribble Borough Council (SRBC) for residential-led mixed-use developments in Penwortham. The proposed development is located on land to the east of Penwortham Way and part of a wider SRBC site allocation designated within the

South Ribble Local Plan known locally as Pickering's Farm.

1.2.2. Vectos, the appointed transport consultants for the scheme, have provided a Transport Assessment (TA) and Framework Travel Plan (FTP) in support of the planning applications. National Highways has reviewed the transport submission supporting the planning application to ensure an appropriate assessment of the development traffic impacts of the SRN is undertaken with particular attention to the M6/M65 interchange and the M6/A6/Church Road junction.

1.2.3. This document summarises the findings of a review of the TA and FTP for the proposed development.

1.3 *TECHNICAL INFORMATION*

1.3.1. The following documents have been provided by SRBC and will be subsequently reviewed within this Report:

- Transport Assessment; and,
- Framework Travel Plan

1.4 *PRE-APPLICATION SCOPING*

1.4.1. No preapplication scoping discussions have been held between the transport consultants and National Highways for this application to inform the TA. With significant sites in proximity of the SRN National Highways would encourage early engagement to ensure any assessment is suitable to inform the impact on the SRN.

1.4.2. It is however noted that National Highways were consulted alongside Lancashire County Council (LCC) as part of consultation held for previous planning applications for this site (Ref: 07/2020/00014/FUL and 07/2020/00015/FUL), which were subsequently refused planning consent by South Ribble Borough Council in December 2020.

2 DEVELOPMENT PROPOSALS

2.1 *SITE DESCRIPTION*

2.1.1. The site is located to the south of Penwortham, South Ribble. It is bound by Penwortham Way to the west, existing residential development to the north, the West Coast Mainline railway to the east and agricultural fields to the south (land which is also safeguarded land in the South Ribble Local Plan). The site comprises of a mix of land uses including agricultural land, a pylon corridor and a network of adopted roads and public right of ways (PROWs). There also a number of individual residential properties which are privately owned.

2.1.2. The site is shown in Figure 2-1.

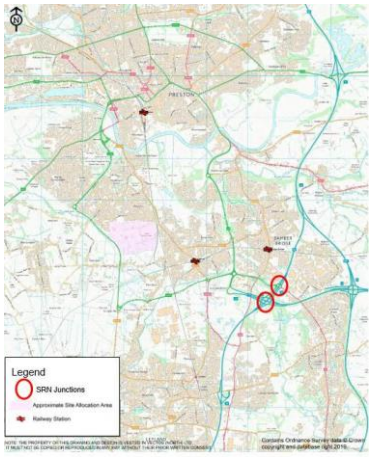
Figure 2-1 - The Site (Taken from the TA)

2.2 *SITE LOCATION IN RELATION TO THE SRN*

2.2.1. As shown in Figure 2-2, the site is located within proximity to two key SRN junctions: M6/M56 interchange and the M6/A6/Church Road junction.

2.2.2. From the nearest proposed site access, the site is approximately 3km driving distance from the SRN junctions. The location of the site in relation to the SRN junctions is shown in Figure 2-2. It is noted that there is no defined study area within the TA.

Figure 2-2 - Site Location and Study Area



2.3 *PERSONAL INJURY COLLISION ANALYSIS*

2.3.1. Although a five-year personal injury analysis (PIC) is included within the TA it does not cover the key junctions of the SRN which this development could impact, most notably the M6/M56 interchange and the M6/A6/Church Road junction. It is stated within the TA that the study area covered includes the A582 corridor (including Penwortham Way) and Leyland Road.

2.3.2. KEY POINTS

- We recommend the PIC analysis is updated to include the M6/M65 interchange and the M6/A6/Church Road junction alongside the inclusion of plan showing the location of any collisions.

2.4 *PROPOSALS*

2.4.1. The TA outlines the proposals for planning applications including the demolition of existing buildings and a residential-led mixed use development comprising of:

- *Up to 1,100 dwellings (use class C3 and C2), including 30% affordable housing;*
- *A local centre including retail, employment and community uses, mobility hub and third*

place working environment space (Use Classes E and sui generis);

- *A two-form entry primary school (use class F1);*
- *Green spaces; and*
- *Associated infrastructure.*

ACCESS ARRANGEMENTS

2.4.2. Vehicular access is proposed at the following locations:

- Off Penwortham Way via a new traffic signal-controlled junction
- Off Bee Lane via simple priority junction
- Off Flag Lane to provide access to existing properties which will be encompassed within the new community

2.4.3. It is proposed that the junction off Penwortham Way will be the primary vehicular access point providing access via an internal residential estate road to the majority of residential dwellings (i.e. 1,060 dwellings), the school and the local centre. It is stated that two lanes are to be provided on the site access arm to separate right and left turning movements. In addition, two ahead lanes are to be provided on the northern and southern arms of Penwortham Way, plus a dedicated left and right turning lane to facilitate access into the site whilst it is proposed it will minimise the potential impacts on general north-south movements along the corridor.

2.4.4. The proposed primary site access on Penwortham Way is shown in Figure 2-3 and Figure 2-4.

Figure 2-3 - Proposed Primary Site Access - Penwortham Way Single Carriageway Approach (Taken from the TA)

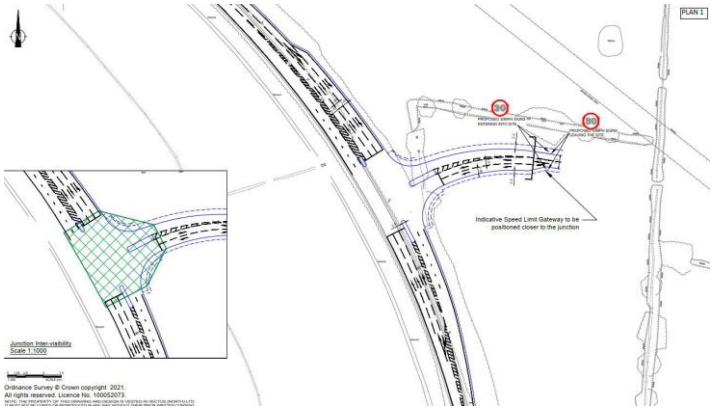
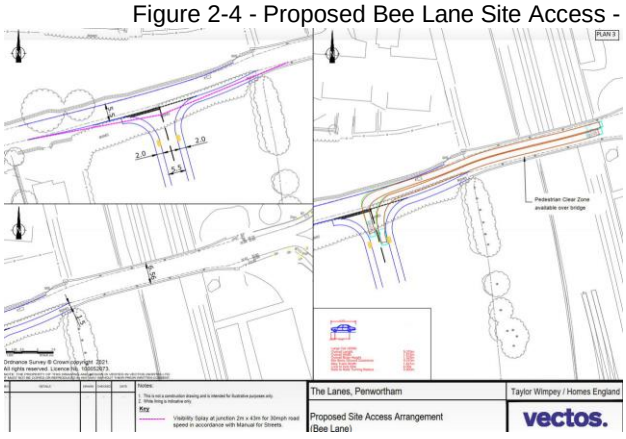


Figure 2-4 - Proposed Bee Lane Site Access - Tracked (Taken from the TA)



2.4.5. It is proposed that new active travel facilities will be constructed as part of the proposed development making it more convenient to travel by active travel modes than by private car. This is proposed to be achieved in part by ensuring there is no significant increase in motor vehicular traffic using the majority of the existing lanes but also through a series of targeted route improvements, both physical (i.e. surface, widths and security) and where possible relating to legal status (i.e. footpaths upgraded to bridleways). These include the following:

- Adopted highway connection retained linking to the residential area of Cloughfold providing active travel access to the west of the site including facilities in Penwortham;
- Part of Footpath 7-9-FP43 linking to the adopted highway at Cloughfold to provide improved surfacing, lighting and upgrade to bridleway status;
- Part of Footpath 7-9-FP42 connection towards Kingsfold Drive to the north to provide improved width, surfacing, lighting and upgraded to bridleway status to facilitate active travel links to the existing Kingsfold community;
- Footpath 7-9-FP46 connection retained between Bramble Court and Moss Lane to facilitate pedestrian links to the Kingsfold community;
- Footpath 7-9-FP49 connection retained between Queens Court Avenue and Bee Lane to facilitate pedestrian links to the Kingsfold community; and
- Footpath 7-9-FP52 connection retained between Sumpter Croft and Bee Lane to facilitate pedestrian links to the Kingsfold community.

2.4.6. It is also proposed that there will be the provision of a new bus service to enter and exit the site via Penwortham Way to provide a connection to Preston City Centre and Preston Railway Station. Based on the information currently provided it is envisaged that two buses would operate a fast and direct service every half hour between the site and Preston City Centre (including the station). It is stated that early negotiations have been held with local bus operators. Further information is needed to demonstrate its validity and how it will be operated and services secured over the long term.

2.4.7. It is also proposed that a mobility hub will be provided on site which would include cycle hire, e-scooters, carshare, EV charging, shared / DRT transport, WiFi, and be linked to active travel routes.

2.5 *PARKING*

2.5.1. It is proposed that the full parking provision will be determined at the reserved matters stage and be prepared in accordance with local guidance. It is also stated that electric vehicle charging points will be provided to encourage the use of more environmentally friendly vehicles.

2.6 *TRANSPORT AND MOBILITY STRATEGY*

2.6.1. The TA outlines the Transport and Mobility Strategy (TMS) for the site. The TMS is outlined to have four stages which are intended to help create a sustainable development. The four stages are:

- Design: Creating communities where the automatic reaction is not upon leaving home to jump into a car.
- Choice: Providing the infrastructure and facilities to minimise reliance on any single option of transport.

- Behaviour: Educating people on the options and consequences of mobility.
- Network Management: Managing the road network in accordance with national and local policy with walking at the top of the pyramid followed by cycling, public transport and car.

2.6.2. The overall objective of the TMS is stated to be to not follow a predict and provide approach to delivering more road capacity to the detriment of investment for other modes of travel choice.

KEY POINTS

- The following is recommended:
- That local junction modelling is carried out for the proposed site accesses using industry standard software such as LinSig/Junctions 9 software where appropriate.
- Further information is provided on consultations carried out with the local bus operators in regard to the public transport strategy for the site.
- That consultation is held with SRBC and LCC regarding the proposed active travel route improvements and also how they may be sustained over the longer term.

3 POLICY AND GUIDANCE

3.1.1. The TA includes a planning policy section which seeks to align the proposed development with National, Regional and Local planning policy and guidance. The documents reviewed are as follows:

- National Planning Policy Framework (2019)
- National Planning Practice Guidance (2014)
- Manual for Streets and Manual for Streets 2
- Highways England – The Strategic Road Network: Planning for the Future (2015)
- Highways England – The Strategic Road Network and the Delivery of Sustainable Development (2013)
- Lancashire County Council Local Transport Plan (LTP3)
- Central Lancashire Core Strategy (2012)
- Central Lancashire Highways and Transport masterplan (2013)
- South Ribble Local Plan (2012-2026)
- Penwortham Town Neighbourhood Development Plan (2016-2026)

4 TRIP GENERATION AND DISTRIBUTION

4.1 *INTRODUCTION*

4.1.1. The trip generation and distribution has been undertaken to consider both the proposed development delivery of 1,100 residential units and the 1,350 residential units which are included within the overall site allocation.

4.1.2. It is stated that a number of the trips will be internal within the local community and the existing communities within which the development sits alongside the proposed development's provision of retail, third place working environment and education facilities. It is stated that for this trip

generation exercise any land use apart from the residential land-use have been assumed to be ancillary land- uses with no additional traffic demand assumed on the wider road network.

4.2 *METHODOLOGY – 1,100 DWELLINGS*

4.2.1. To determine the potential demand from the proposed development the TRICS database has been interrogated by Vectos to extract all person trip rates for the residential element of the development selecting the following parameters:

- Main Land Use – 03 Residential, Sub Land Use – A houses privately owned
- Number of dwellings – 100 to 1820
- Excluding Greater London and Ireland
- Selected locations: edge of town and residential zone locations

4.2.2. The person trip rates and associated trips generated are shown in Table 4-1.

Table 4-1 - Trip Rates and Trips Generated (1,100 dwellings) (Taken from the TA)

Time	Trip Rate (per dwelling)			Trips (1,100 dwellings)		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
07:00 - 08:00	0.106	0.496	0.602	117	546	662
08:00 - 09:00	0.210	0.767	0.977	231	844	1075
09:00 - 10:00	0.208	0.281	0.489	229	309	538
10:00 - 11:00	0.177	0.235	0.412	195	259	453
11:00 - 12:00	0.183	0.208	0.391	201	229	430
12:00 - 13:00	0.226	0.215	0.441	249	237	485
13:00 - 14:00	0.225	0.213	0.438	248	234	482
14:00 - 15:00	0.259	0.270	0.529	285	297	582
15:00 - 16:00	0.512	0.281	0.793	563	309	872
16:00 - 17:00	0.515	0.264	0.779	567	290	857
17:00 - 18:00	0.582	0.252	0.834	640	277	917
18:00 - 19:00	0.531	0.292	0.823	584	321	905

4.2.3. We have checked the trip rates and projected trip generation and accept the values shown in Table 4-1.

4.2.4. Furthermore, Vectos have used National Travel Survey (NTS) based on a review of trip start time by trip purpose to derive the modal split of the forecasted trips generated by the housing element of the development, shown in Table 4-2 and Table 4-3. It is noted that these rates are based on pre COVID-19 travel patterns.

Table 4-2 – Trips by Journey Purpose – Commuting, Education and Recreation/Leisure (Taken from the TA)

Time	Commuting	Education	Recreation/Leisure
07:00 - 08:00	53%	20%	27%
08:00 - 09:00	23%	51%	26%
09:00 - 10:00	16%	10%	74%
10:00 - 11:00	9%	2%	89%
11:00 - 12:00	9%	3%	88%
12:00 - 13:00	11%	4%	85%
13:00 - 14:00	15%	3%	82%
14:00 - 15:00	14%	15%	72%
15:00 - 16:00	9%	47%	44%
16:00 - 17:00	26%	11%	63%
17:00 - 18:00	36%	5%	59%
18:00 - 19:00	24%	2%	74%

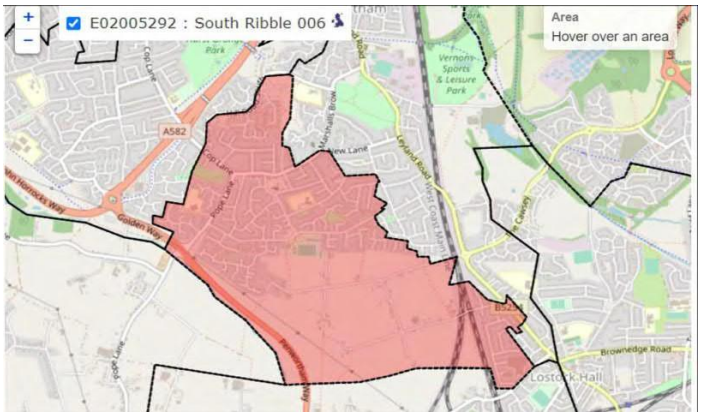
Table 4-3 – Total Trips by Journey Purpose (Taken from the TA)

Time	Commuting		Education		Recreation/Leisure	
	Arrive	Depart	Arrive	Depart	Arrive	Depart
07:00 - 08:00	62	291	23	108	31	147
08:00 - 09:00	53	193	119	434	59	217
09:00 - 10:00	36	49	23	31	170	229
10:00 - 11:00	18	24	4	5	173	230
11:00 - 12:00	18	21	7	8	176	200
12:00 - 13:00	28	26	10	10	211	200
13:00 - 14:00	36	34	8	8	203	192
14:00 - 15:00	39	40	42	44	204	213
15:00 - 16:00	53	29	264	145	245	135
16:00 - 17:00	148	76	63	32	356	182
17:00 - 18:00	228	99	33	14	380	164
18:00 - 19:00	139	76	11	6	434	239

4.2.5. We accept with this approach taken and have checked the values shown. We recommend that Vectos check for rounding errors.

4.2.6. To calculate the modal split for commuting trips, Vectos have used 2011 Census data journey to work data for the South Ribble 006 Middle Super Output Area (MSOA) which as shown in Figure 4-1 includes the development site and residential areas to the north and east of the site.

Figure 4-1 - South Ribble 006 MSOA (Taken from the TA)



4.2.7. It is outlined within the TA that two mode split profiles have been considered due to the number of trips which are anticipated to consist of travelling from the site to Preston and the local area surrounding the site. It is outlined that the modal split therefore considered trips within a 5km radius of the site and those outside a 5km radius of the site.

Table 4-4 - Method of Travel to Work (Taken from the TA)

Method of Travel to Work	Within 5km Radius	Outside 5km Radius
Underground, metro, light rail, tram	0%	0%
Train	0%	1%
Bus, minibus, or coach	16%	11%
Taxi	0%	0%
Motorcycle, scooter or moped	1%	1%
Driving a car or van	61%	70%
Passenger in a car or van	8%	7%
Bicycle	6%	4%

4.2.8. The commuting trip generated for the site, using the number of trips shown in Table 4-3 and the

modal share shown in Table 4-4 is presented in Table 4-5. It is noted that a 5% internalisation factor has been applied to the person trips to take into account trips occurring within the site and people working from home. **We note there is no justification for the use of this 5% factor.**

Table 4-5 - Commuting Multi-Modal Trip Generation (Taken from the TA)

Time	Drive		Passenger/Taxi		Walk		Cycle		Public Transport	
	Arrive	Depart	Arrive	Depart	Arrive	Depart	Arrive	Depart	Arrive	Depart
07:00 - 08:00	39	185	4	20	4	18	3	14	24	43
08:00 - 09:00	34	123	4	14	3	12	2	9	17	29
09:00 - 10:00	23	31	3	3	2	3	2	2	6	9
10:00 - 11:00	11	15	1	2	1	1	1	1	3	4
11:00 - 12:00	12	13	1	1	1	1	1	1	3	4
12:00 - 13:00	18	17	2	2	2	2	1	1	4	5
13:00 - 14:00	23	22	3	2	2	2	2	2	5	7
14:00 - 15:00	25	26	3	3	2	2	2	2	5	8
15:00 - 16:00	34	19	4	2	3	2	2	1	5	8
16:00 - 17:00	94	48	10	5	9	5	7	4	14	20
17:00 - 18:00	144	63	16	7	14	6	11	5	21	29
18:00 - 19:00	88	48	10	5	9	5	6	4	14	20

4.2.9. It is outlined within the TA that education trips have been split using the NTS 0614 database providing education mode split by journey distance for students aged 5-10 and 11-16. It is stated that there are three primary schools within one mile of the site and two primary schools and five high schools outside of one mile of the site. It is explained that therefore two mode profiles have been considered, the modal splits for which are shown in Table 4-6:

- Mode split for 5-10-year olds within one mile of the site
- Mode split for 5-16-year olds outside of one mile but within five miles of the site

Table 4-6 - Education Mode Split (Taken from the TA)

Method of Travel to Education	Within 1 mile	Outside 1 mile
Walk	80%	20%
Bicycle	1%	4%
Car / van	18%	56%
Private bus	0%	0%
Local bus	1%	19%
Surface rail	0%	0%
Other transport	0%	2%

4.2.10. Using the forecast number of trips shown in Table 4-3 and the mode split shown in Table 4-6 the resultant number of trips are shown in Table 4-7 and Table 4-8. It is outlined in the TA that Vectos have assumed an even split of trips between the two mode profiles, therefore assuming 30% of education trips being within one mile of the site and 70% being outside of one mile of the site.

4.2.11. It is noted that the proposed development includes a two-form primary school however, as the school is not proposed to be delivered until a later phase of the development all trips were considered to be external to the site.

Table 4-7 - Education Multi-Modal Trip Demand (Schools within one mile of the Site) (Taken from the TA)

Time	Drive		Walk		Cycle		Public Transport	
	Arrive	Depart	Arrive	Depart	Arrive	Depart	Arrive	Depart
07:00 - 08:00	1	6	6	26	0	0	0	0
08:00 - 09:00	7	24	29	105	0	1	0	1
09:00 - 10:00	1	2	5	7	0	0	0	0
10:00 - 11:00	0	0	1	1	0	0	0	0
11:00 - 12:00	0	0	2	2	0	0	0	0
12:00 - 13:00	1	1	2	2	0	0	0	0
13:00 - 14:00	0	0	2	2	0	0	0	0
14:00 - 15:00	2	2	10	11	0	0	0	0
15:00 - 16:00	15	8	64	35	0	0	1	0
16:00 - 17:00	4	2	15	8	0	0	0	0
17:00 - 18:00	2	1	8	3	0	0	0	0
18:00 - 19:00	1	0	3	2	0	0	0	0

Table 4-8 - Education Multi-Modal Trip Demand (Schools outside of one mile but within five miles of the Site) (Taken from the TA)

Time	Drive		Walk		Cycle		Public Transport	
	Arrive	Depart	Arrive	Depart	Arrive	Depart	Arrive	Depart
07:00 - 08:00	9	42	3	15	1	3	3	16
08:00 - 09:00	46	169	16	60	3	11	3	64
09:00 - 10:00	9	12	3	4	1	1	3	5
10:00 - 11:00	2	2	1	1	0	0	3	1
11:00 - 12:00	3	3	1	1	0	0	3	1
12:00 - 13:00	4	4	1	1	0	0	3	1
13:00 - 14:00	3	3	1	1	0	0	3	1
14:00 - 15:00	17	17	6	6	1	1	3	6
15:00 - 16:00	103	57	37	20	6	4	3	21
16:00 - 17:00	25	13	9	4	2	1	3	5
17:00 - 18:00	13	6	5	2	1	0	3	2
18:00 - 19:00	4	2	2	1	0	0	3	1

4.2.12. For recreation/leisure trips, as outlined in Table 4-2, during the AM peak, 26% of all journeys are undertaken for the purpose of recreation/leisure), rising to 85% of all trips during the interpeak and 59% in the PM peak. It is noted that as the development proposals include a Local Centre (containing retail and community facilities) it is likely that a number of these trips are internalised. Therefore, it has been assumed that 50% of all leisure trips will be internalised (remain within the site) and 50% will be trips external to the site. The same modal split for the commuting trips greater than 5km has been applied to these external trips as it is stated that there is no NTS database for this type of trip purpose.

4.2.13. The forecast trips generated for recreation/leisure split by mode are summarised in Table 4-9.

Table 4-9 - Recreation/Leisure Multi-Modal Trip Demand (Taken from the TA)

Time	Drive		Passenger/Taxi		Walk		Cycle		Public Transport	
	Arrive	Depart	Arrive	Depart	Arrive	Depart	Arrive	Depart	Arrive	Depart
07:00 - 08:00	5	26	31	1	3	3	0	2	2	0
08:00 - 09:00	10	38	48	1	4	5	1	3	3	1
09:00 - 10:00	30	40	70	3	4	7	2	3	5	2
10:00 - 11:00	30	40	70	3	4	7	2	3	5	2
11:00 - 12:00	31	35	66	3	4	7	2	3	5	2
12:00 - 13:00	37	35	72	4	4	7	3	3	5	2
13:00 - 14:00	36	34	69	4	3	7	3	2	5	2
14:00 - 15:00	36	37	73	4	4	7	3	3	5	2
15:00 - 16:00	43	24	67	4	2	7	3	2	5	2
16:00 - 17:00	62	32	94	6	3	9	4	2	7	4
17:00 - 18:00	66	29	95	7	3	10	5	2	7	4
18:00 - 19:00	76	42	118	8	4	12	5	3	8	4

KEY POINTS

- We request a high-level site plan for the development is provided for review in order to us to understand how the development traffic will distribute onto the network
- It should be noted that no trip rates nor trip rate methodology were agreed with National Highways before the TA was submitted for review
- It is requested that further information is provided regarding the assumptions made for the amount of internal trips and the proportions of trips to each school nearby. This additional information will allow us to assess if the trip rates provided are appropriate.
- It is recommended that more details on phasing and reasoning on late stage the school is opened is provided

4.3 *TRIP DISTRIBUTION METHODOLOGY*

4.3.1. The TA outlines that the development trips have been assigned to the local road network depending on the trip purpose – commuting, education and recreation/leisure. The TA also outlines that for all scenarios the trips have been assigned to modal zones contained within the micro-simulation Vectos MicroSim Paramics model explained in Section 5.

COMMUTING DISTRIBUTION

4.3.2. The trip distribution for commuting trips has been undertaken using Census 2011 Journey to Work (JTW) data, the model zone data, MapInfo Pro version 2019.3 and Routefinder version 6.03. JTW data is stated to have been extracted for those living in South Ribble 006 MSOA. It is stated that Routefinder (within MapInfo) was used to provide the most direct routes to/from the South Ribble 006 MSOA to all MSOAs within a 60-minute drive time of the site. The TA concludes that this catchment represents a reasonable maximum journey time for all commuting trips. The distribution is shown in Table 4-10.

4.3.3. The TA sets out that that these were further adjusted to consider which zones commuters would travel to within the study area, excluding residential-led land use zones 0-199. It is stated that for the

MSOAs which had more than one zone within them, a proportion of Census 2011 trips were assigned to each zone based on their size and employment uses, with the resulting trip distribution shown in Table 4-10.

Table 4-10 - Commuting Trip Distribution (Zones 900-999) (Taken from the TA)

Zone	Arrive		Depart	
	%	12 hour Trips	%	12 Hour Trips
900	10.955%	60	10.047%	61
901	0.545%	3	0.545%	3
902	3.389%	18	3.389%	21
903	0.000%	0	0.000%	0
904	0.424%	2	0.424%	3
905	0.000%	0	0.000%	0
906	8.352%	45	9.139%	56
907	2.118%	12	4.237%	26
908	1.997%	11	0.000%	0
909	28.265%	154	39.341%	239
910	9.502%	52	0.000%	0
911	1.211%	7	1.211%	7
912	1.816%	10	1.029%	6
913	0.000%	0	0.787%	5
914	0.000%	0	0.000%	0
915	12.166%	66	10.592%	64

Table 4-11 - Commuting Trip Distribution (Zones 200-499) (Taken from the TA)

Zone	Arrive		Depart	
	%	12 hour Trips	%	12 hour Trips
200	0.393%	2	0.393%	2
201	0.309%	2	0.309%	2
202	0.224%	1	0.224%	1
203	0.672%	4	0.672%	4
204	2.978%	16	2.978%	18
205	0.496%	3	0.496%	3
206	0.744%	4	0.744%	5
207	0.629%	3	0.629%	4
300	1.059%	6	1.059%	6
301	0.678%	4	0.678%	4
302	0.339%	2	0.339%	2
303	1.059%	6	1.059%	6
304	0.079%	0	0.079%	0
305	0.309%	2	0.309%	2
306	0.079%	0	0.079%	0
307	0.139%	1	0.139%	1
308	0.209%	1	0.209%	1
309	0.139%	1	0.139%	1
400	0.393%	2	0.393%	2
401	1.235%	7	1.235%	8
402	0.209%	1	0.209%	1
403	0.209%	1	0.209%	1
404	0.209%	1	0.209%	1
405	0.278%	2	0.278%	2
407	0.744%	4	0.744%	5
408	0.678%	4	0.678%	4
409	0.224%	1	0.224%	1
410	1.634%	9	1.634%	10
411	2.911%	16	2.911%	18

EDUCATION DISTRIBUTION

4.3.4 A 'first principals' approach has been undertaken to consider the distribution of education trips with a separate profile developed by Vectos for school trips within one mile and school trips outside of one mile. It is stated that the zones used are those which the specific schools used for this exercise are contained within. The TA sets out that these trips are distributed evenly across the zones, with the trip distribution shown in Table 4-12.

Table 4-12 - Education Trip Distribution (Taken from the TA)

Zone	Within 1 Mile (Daily Trips)			Outside 1 Mile (Daily Trips)		
	%	Arrive	Depart	%	Arrive	Depart
5	0.00%	0	0	14.29%	34	47
300	0.00%	0	0	14.29%	34	47
301	0.00%	0	0	14.29%	34	47
304	0.00%	0	0	14.29%	34	47
305	33.33%	11	16	0.00%	0	0
307	0.00%	0	0	14.29%	34	47
308	0.00%	0	0	14.29%	34	47
309	33.33%	11	16	0.00%	0	0
401	33.33%	11	16	0.00%	0	0
913	0.00%	0	0	14.29%	34	47

RECREATION/LEISURE DISTRIBUTION

4.3.5. A 'first principals' approach has been undertaken to consider the distribution of external recreation/leisure trips by Vectos for the proposed development. It is stated within the TA that the exercise focused on locations where there was a defined shopping centre or retail high street, a gym or leisure centre and Preston City Centre. The locations, respective zones and distribution assigned are shown in Table 4-13.

4.3.6. We believe the distribution shown in Table 4-13 looks reasonable.

Table 4-13 - Recreation/Leisure Trip Distribution (Taken from the TA)

Zone	Area/Place	Distribution	Arrive	Depart
909	Preston Town Centre	12.5%	116	103
910	Preston Town Centre	12.5%	116	103
402	Lostock Hall / Tardy Gate	6.7%	62	55
403	Lostock Hall / Tardy Gate	6.7%	62	55
409	Lostock Hall / Tardy Gate	6.7%	62	55
913	Bamber Bridge	15.0%	139	123
1	Penwortham Leisure Centre	12.5%	116	103
411	Places Gym Preston	12.5%	116	103
410	Bamber Bridge Retail Park	15.0%	139	123

LOCAL PLAN SITE ALLOCATION (1,350 DWELLINGS)

4.3.7. The TA sets out that the Local Plan site allocation is for up to 1,350 dwellings. For this scenario it is stated that there are no alternations to the trip generation or trip distribution profiles for the commuting trips or the recreation/leisure trips. However, there are some changes made to the education trip generation and distribution to account for an increase in the number of internalised trips to

account for the construction of the primary school. The trip generation profile is therefore stated to have been amended to account for a new school within the one mile of the site. Therefore, the split of trips is adjusted to 36% of education trips within one mile of the site and 64% of trips to schools outside the one-mile catchment. It is stated this split is based on the same assumptions made for the 1,100 dwelling scenario adjusted to account for the opening of the primary school on site.

4.3.8. It is also stated that similarly the trip distribution profile for education trips has been adjusted to account for an additional school within the one mile distribution, meaning 25% of all trips were assigned to each of the four schools within one mile of the site, with 25% of these trips assigned to no zone to account for one of the schools being on site and therefore the trips are internal not external. **No information is provided to assume why an equal split of trips were made across the schools.**

TOTAL MULTI-MODAL TRIP GENERATION

4.3.9 The total multi-modal trip generation profile for the 1,100 dwellings is shown in Table 4-14, with the total multi-modal trip generation for the 1,350 dwellings shown in Table 4-15

Table 4-14 - Total Multi-Modal Trip Demand (1,100 units) (Taken from the TA)

Time	Drive		Passenger/Taxi		Walk		Cycle		Public Transport	
	Arrive	Depart	Arrive	Depart	Arrive	Depart	Arrive	Depart	Arrive	Depart
07:00 - 08:00	61	284	5	26	13	63	4	19	30	68
08:00 - 09:00	107	392	6	21	50	182	7	25	24	107
09:00 - 10:00	93	125	8	11	15	20	6	8	19	27
10:00 - 11:00	74	98	7	10	7	9	4	6	17	19
11:00 - 12:00	76	87	7	8	8	9	5	5	17	17
12:00 - 13:00	96	91	9	9	11	10	6	5	20	19
13:00 - 14:00	98	93	10	9	10	10	6	6	20	20
14:00 - 15:00	115	120	10	10	24	25	7	7	21	27
15:00 - 16:00	237	130	12	7	110	60	14	8	24	37
16:00 - 17:00	246	126	23	12	42	22	16	8	39	36
17:00 - 18:00	292	126	29	13	36	16	19	8	47	41
18:00 - 19:00	245	135	25	14	24	13	15	8	43	35

4.3.10. **Table 4-15** shows that in the AM peak hour would generate 536 two-way vehicle movements and 507 vehicle movements in the PM peak hour.

Table 4-15 - Total Multi-Modal Trip Demand (1,350 units) (Taken from the TA)

Time	Drive		Passenger/Taxi		Walk		Cycle		Public Transport	
	Arrive	Depart	Arrive	Depart	Arrive	Depart	Arrive	Depart	Arrive	Depart
07:00 - 08:00	71	334	7	31	17	78	5	23	35	77
08:00 - 09:00	115	421	7	26	62	227	7	26	40	106
09:00 - 10:00	110	149	10	14	19	25	7	9	22	32
10:00 - 11:00	90	119	9	12	9	11	5	7	17	23
11:00 - 12:00	93	105	9	10	10	11	6	6	17	21
12:00 - 13:00	116	111	11	11	13	13	7	7	21	23
13:00 - 14:00	119	112	12	11	13	12	7	7	22	24
14:00 - 15:00	135	141	12	13	29	31	8	9	27	31
15:00 - 16:00	255	140	15	8	137	75	15	8	58	38
16:00 - 17:00	294	150	28	14	52	27	19	10	52	43
17:00 - 18:00	354	153	36	16	45	19	23	10	58	50
18:00 - 19:00	299	165	31	17	29	16	19	10	50	43

KEY POINTS

- It is recommended that the forecast two-way vehicular trips for this development in both the AM and PM peaks are compared to the approved development opposite the site (planning ref: 07/2020/00552/FUL). This exercise should be undertaken using the vehicle trips from the TRICS outputs for both the respective sites.
- Further information is requested to justify the level of forecast non-car users expected to use the site.
-

5 TRAFFIC MODELLING

BASE MODELLING

5.1.1. Traffic modelling completed as part of the TA has been carried out by the applicants consultants Vectos Microsim. The traffic modelling has been completed using the microsimulation modelling package Paramics Discovery. The model has been developed to cover a morning peak, an interpeak and evening peak time periods. This modelling review has included a review of the modelling documentation presented and in order to be completed will need to be revised once the model files, and the models input and outputs, have been provided by the applicant.

5.1.2. **The base traffic model has calibrated to data collected on the 21st April 2021. This is during the easing of Covid-19 restrictions at a time when the work at home if possible order was still in operation therefore the data collected then cannot be considered typical baseline operation without further evidence and thus is not accepted by National Highways as presented.**

5.1.3. A review, for reference, of the modelled 2021 traffic flows at the end of the M65, on approach to the A6 / A582 roundabout, compared to the average neural weekday flows recorded in 2019 (from WebTris) is presented in **Table 5-1**. In all modelled time periods the average demands from 2019 are higher than those modelled, and by proxy, recorded in 2021.

Table 5-1 – 2019 WebTris vs 2021 Paramics Model Flows (Weekday peak periods)

	Southbound				Northbound			
Time starting	2019 Tris	2021 Model	Difference	Percentage Difference	2019 Tris	2021 Model	Difference	Percentage Difference
07:00	1871	1548	323	17%	2235	1607	628	28%
08:00	1606	1498	108	7%	2234	1549	685	31%
09:00	1163	999	164	14%	1725	1216	509	30%

16:00	2097	1526	571	27%	1999	1666	333	17%
17:00	1933	1600	333	17%	2042	1900	142	7%
18:00	1257	1000	257	20%	1482	1107	375	25%

5.1.4. The modelling report does not comment on the data source for SRN mainline traffic demands included within the model, confirmation on the modelling of the SRN will need to be provided.

5.1.5. The model is a wide area model and includes reasonable levels of route choice on the local road network, including choice associated with junction 29 of the M6 and access to the A6. The model development process does not appear to have made use of any surveyed origin destination data in the matrix development, albeit 2011 census data has been used to develop a synthetic sector to sector prior matrix which is considered to be a reasonable approach.

5.1.6. Google journey route data has been used in the matrix development process to assign the 2011 Census data to the network, it is not clear when Google routing data was obtained and it may not be reflective of typical peak conditions, furthermore it would be expected that the routing choices might be different by time period, it is not clear if this has been completed. The matrix development process outlined in the modelling report does not appear to consider none work based trips, the model covers a large area with several supermarkets, large retail stores and schools.

5.1.7. The model release profiles have been developed based on the observed data, **it is noted that the model has 93 zones but only 23 demand profiles.**

5.1.8. The model calibrates well to the 2021 data, **albeit there are some flow miscalibrations at the SRN junctions suggestive of some routeing/zoning issues on the A6 between the M65 terminus and the M6 junction 29 junction with the A6**.

5.1.9. The model validates well to TomTom journey times data, albeit the journey **time routes are long and do not allow for individual junction approaches to be validated in isolation. Further to this the model has not been validated on all of the approaches around the SRN junctions. The date of the TomTom data is unknown, and its sample size is not presented.**

5.1.10. **The base model has been audited by Systra, although it is not clear if Systra's recommendations have been actioned in the final base model**.

MODELLING FORECASTING

5.1.11. The model has been forecast to a non-specific assessment year accounting for committed developments, listed as follows:

- Croston Road;
- Croston Road North;
- Land at Penwortham Mills;

- Gas Works;
- Cuerden Strategic Site; The development has been included in the assessment based on the assumptions developed in the previous application for the site and not looked at the Cuerden TA works directly
- Aston Way Test Track.

5.1.12. It is not clear if the occupied dwellings at the Gas Works and Croston Road, as of the date of the traffic surveys, have been accounted for in the process. Therefore, further information in required to confirm this information.

5.1.13. The application of the committed development trip generation has been completed using data from Transport Assessments and the TRICS database.

5.1.14. The committed development sites Croston Road North, Land at Penwortham Mills and Gas works have been distributed to the models zoning system using donor zones of a similar nature. On principle this is a reasonable approach.

5.1.15. The Cuerden site has been distributed using information from the sites planning application, which is a reasonable approach.

5.1.16. The Croston Road and Aston Way Test Track sites are outside of the modelled area and have been factored based on Travel to Work data from the 2011 census. **It is not clear how these calculations have factored access to the SRN**.

5.1.17. No wider background traffic growth has been applied to the model; it is stated that this is due to the committed developments trip generation exceeding the predicted growth factors in TEMPRo to 2035 in South Ribble.

5.1.18. The committed developments have been profiled based on the base model profiles for the adopted zones. **Whilst this is a reasonable approach it will need to be reviewed in detail to judge suitability**.

5.1.19. **The reporting does not discuss the modelling of any committed infrastructure either associated with the committed developments or in the wider network**.

5.1.20. Notwithstanding the concerns with the models development highlighted above, **minimal modelled results are presented and it not possible to form a judgement on the predicted highway impacts of the development proposals**.

5.1.21. Modelled flow impacts on the M6 and M65 mainlines are provided in the TA in Table 7.16.

KEY POINTS

- Vectos are requested to demonstrate that the April 2021 data is suitable as a baseline dataset. We have assessed the link counts on the end of the M65 and compared the modelled flows to the 2019 average (neutral Tues/Weds/Thurs) (Table 5-1).
- It is recommended that Vectos provide information on the data source for the SRN mainline traffic demands.
- We will need to view the base matrix development process in more

detail to form a judgement on its suitability.

- A full review on the suitability and application of the demand profiles will need to be carried out to judge the suitability of the model.
- We will need to view the matrix and the models assignment to comment fully on the suitability of the routeing around the SRN junctions.
- Further information is required about the TomTom data used to validate the model.
- An independent model review on behalf of National Highways will be required to review the models coding around the SRN junctions. It is noted that the Systra review has already been carried out on behalf of the applicant and did not raise any concerns with the modelled data sources.
- Confirmation of the distributions used should be provided in more detail within the model reporting.
- Further information is required to confirm if the occupied dwellings at the Gas Works and Croston Road, as of the date of the traffic surveys, have been accounted for in the process.
- The Croston Road and Aston Way Test Track sites are outside of the modelled area and have been factored based on Travel to Work data from the 2011 census. This assumption will need to be reviewed for access to the SRN in mind.
- The application of traffic growth will need to be reviewed in more detail. Whilst the committed development growth may exceed the projected South Ribble growth, in TEMPro, the external to external traffic growth should be reviewed against the forecast within NTM adjusted TEMPRo by road type and region – e.g. the growth applied to the M6 to Preston movements. Following the review of the suitability of the base demands it might be that an uplift in base values will change this assumption.
- The reporting does not discuss the application of growth for freight traffic. It would be expected that the model forecasts be reviewed against the freight forecasts published by the Department for Transport, the latest being RTF18.
- The committed developments have been profiled based on the base model profiles for the adopted zones. Whilst this is a reasonable approach it will need to be reviewed in detail to judge suitability.
- Confirmation on the committed infrastructure included in the model should be provided, it is understood that the Cuerden developed, as committed, includes network revisions. Confirmation on these revisions should be agreed with Lancashire County Council as Highway Authority.
- Full model inputs and outputs, in spreadsheet form, should be supplied for interrogation. Along with the model files for a full review of the assessment work to be concluded.
- This level of information provided for the impacts on the M6 and M65 mainline is not detailed enough to determine the impacts of the development proposals on the SRN. The tables should be expanded to include predicted flow changes by mainline link and slip roads. Further to this the predicted operation of the modelled SRN, and adjacent local road

network, should be presented to demonstrate the predicted development impacts.

6 FRAMEWORK TRAVEL PLAN

6.1 *GENERAL*

6.1.1. We have reviewed the Framework Travel Plan (FTP) which accompanies the TA. The focus of the FTP is to encourage less travel, and where travel does occur, encourage the use of more sustainable modes of transport as opposed to the private car.

6.1.2. The FTP provides some background on the needs for a travel plan, outlining the benefits of implementing and operating an FTP in accordance with national and local sustainable development policies.

6.2 *TRAVEL PLAN INITIATIVES*

6.2.1. The FTP provides a list of initiatives to achieve the objectives of the FTP. These include flexible planning, development provision for sustainable travel modes, provision of information, personalised travel planning, a travel pack, mode specific travel initiatives, a mobility hub and incentives. The measures are split up into those achievable in the construction phase, sales phase, short term and the medium term.

KEY POINTS

- We consider the potential measures included within the FTP to be acceptable and likely to cause travel behaviour change

6.3 *TRAVEL PLAN CO-ORDINATOR*

6.3.1. Section 6 of the FTP outlines that a Travel Plan Coordinator (TPC) will be appointed prior to construction and will remain in post for the lifetime of the plan. The FTP states that the TPC will:

- Operate and monitor the plan
- Maintain a database of existing travel information
- Preparation of subsequent updated TPs for submission to the Local Authority
- Liaison with the Local Authority Travel Plan Coordinator (where appropriate)
- Liaison with the Public Transport Providers (where appropriate)
- Promotion of the Travel Plan
- Promotion of travel events

6.4 *BASELINE TRAVEL SURVEY*

6.4.1. It is proposed that an initial travel survey will be undertaken within three months of first occupation by households and residents on site. The survey will be used to inform and update the content of the subsequent updated TPs. After the initial baseline survey, surveys will be carried out on a yearly basis for the

lifetime of the TP which is stated to be 10 years.

6.4.2. The results of the survey will be sent to the Local Authority within three months of completion of each of the monitoring surveys.

6.5 ***TRAVEL PLAN OBJECTIVES***

6.5.1. The following objectives are outlined by Vectos as the framework for this FTP:

- Reduce reliance of single occupancy car journeys
- Encourage less travel in general
- Encouraging use of sustainable travel modes (which includes all non-single car occupancy modes)
- Promoting healthy lifestyles within the community
- Enabling residents to identify their travel choices
- Promoting sustainability as a key factor of the development by raising awareness of environmental damage
- Give weight to advocating means of travel that are beneficial to the health of those living or visiting the site

6.6 ***TRAVEL PLAN TARGETS***

6.6.1. An initial target has been set at a 10% reduction in single occupancy vehicle trips over the life of the Travel Plan (first ten years from first occupation).

KEY POINTS

- It is not stated within the FTP what this 10% reduction is based on – i.e NTS levels shown in the TA or 10% below the levels stated in the baseline surveys. For clarity, any future TP should contain details of what this 10% reduction is based upon.
- Increased modal share for car sharing and public transport use to and from the development is likely to make the key difference in terms of reducing the impact of the development on the SRN. It is noted that car sharing is proposed within the FTP, therefore, increased targets for car sharing are encouraged for future revisions of the TP.

6.7 ***MONITORING AND REVIEW***

6.7.1. It is outlined within the FTP that monitoring and review of the TP will be the responsibility of the TPC over a ten-year period, commencing prior to construction of the proposed development. The annual reviews will be conducted by the TPC and used to review the set of accurate targets against the surveyed data to ensure the achievable mode share can be met. If agreed with SRBC the targets may be revised to ensure the travel plan targets remain realistic and achievable.

6.8 ***SUMMARY***

6.8.1. We have reviewed the FTP and consider it to be reasonable. However, we have identified the following with regards to the proposed measures set out within the FTP which can help ensure the effectiveness of the TP measures and ultimately achieve the key objective in minimising the level of single occupancy vehicle travel generated by the proposals:

- It is not stated within the FTP what this 10% reduction is based on – i.e NTS levels shown in the TA or 10% below the levels stated in the baseline surveys. For clarity, any future TP should contain details of what this 10% reduction is based upon.
- Increased modal share for car sharing and public transport use to and from the development is likely to make the key difference in terms of reducing the impact of the development on the SRN. It is noted that car sharing is proposed within the FTP, therefore, increased targets for car sharing are encouraged for future revisions of the TP.
- We would welcome more information around implementation of the TP

National Highways conclusion and formal recommendation

Taylor Wimpey and Homes England are proposing to submit outline planning applications with all matters reserved, except for the principal means of access, to South Ribble Borough Council (SRBC) for residential-led mixed-use developments in Penwortham. The proposed development is for up to 1,100 dwellings, a local centre (including retail, employment, community uses, mobility hub and third place working environment space – Land Use Class E and sui generis), a two-form entry primary school (Land Use Class F1), green spaces and associated infrastructure.

The findings of this review are as follows:

- No scoping exercise was carried out to inform the TA or TP for this application
- Further information is requested in several areas, including but not limited to, the trip generation, modelling work and aspirations to sustainable travel
- In light of the points above, we would welcome a meeting with the applicant's transport consultant, Vectos, to discuss the points raised above.