



DTPC

Report No. J087/TA
July 2014

**PROPOSED RESIDENTIAL DEVELOPMENT
WADDOW VIEW, LAND OFF
WADDINGTON ROAD, CLITHEROE**

TRANSPORT ASSESSMENT

**PROPOSED RESIDENTIAL DEVELOPMENT
WADDOW VIEW, LAND OFF
WADDINGTON ROAD, CLITHEROE

TRANSPORT ASSESSMENT**

CONTROLLED DOCUMENT

<i>DTPC No:</i>		J087/TA	
<i>Status:</i>	Final	<i>Copy No:</i>	
	<i>Name</i>	<i>Signature</i>	<i>Date</i>
<i>Approved:</i>	Alan Davies	AD	2 July 2014

<i>Revision Record</i>		
<i>Rev.</i>	<i>Date</i>	<i>Summary of Changes</i>
A	-	

**PROPOSED RESIDENTIAL DEVELOPMENT
WADDOW VIEW, LAND OFF WADDINGTON ROAD, CLITHEROE
TRANSPORT ASSESSMENT**

C O N T E N T S

	Page
1. INTRODUCTION.....	2
2. SITE DESCRIPTION AND ACCESSIBILITY	3
Site location context	3
Local Highway Provision	4
Accessibility	7
Amenities.....	7
Walking.....	8
Cycling.....	9
Travel by public transport.....	10
Proposed Buses Only Road for the Waddow View site	10
Rail	11
Summary	12
3. MILTON AVENUE DEVELOPMENT	14
Development Proposals	14
Layout.....	14
4. APPEAL DECISION NOTICE.....	15
Introduction.....	15
5. WADDOW VIEW DEVELOPMENT ACCESS STRATEGY AND PROPOSALS.....	18
Development Proposals and access.....	18
Waddington road.....	19
Back Common.....	21
6. SCOPING AND TRIP REVIEW	22
Background	22
Trip Rate Review.....	22
Trip/Unit comparison based in revised rates.....	24
Initial conclusion/way forward	25
Final review based on 275 units	26
Waddington Road / Site Access Ghost Island Junction.....	28
Railway View Road / Waddington Road Priority T Junction	28
Shawbridge Street / Waterloo Road	29
7. SUMMARY	30
Policy	30
Existing network review.....	30
Sustainability	30
Assessment Summary	30
Mitigation.....	31
Congestion	31
Safety	31

Appendix A TRICS.

1. INTRODUCTION

DTPC has been appointed by Ingham and York on behalf of **'The Huntroyde Estate; Clitheroe Auction Mart Co Ltd; Mr J Taylor, Ms Sarah Howard & Ms Samantha Howard'** to provide transport and highway advice for the traffic and transportation implications associated with their planning application submission at the Waddow View area on land off Waddington Road, Clitheroe.

The submission follows a previous refusal by Ribble Valley and subsequent dismissed appeal. In both cases LCC the highway authority had no objections to the scheme. The appeal inspector found that the Bawdlands/Castle View junction was not capable of accommodating additional flows in/out from the scheme without affecting safety levels and thus refused the appeal.

The scheme set out no longer uses the Kirkmoor/Castle View route and thus removes the inspectors concerns. All trips will use the Waddington Road corridor.

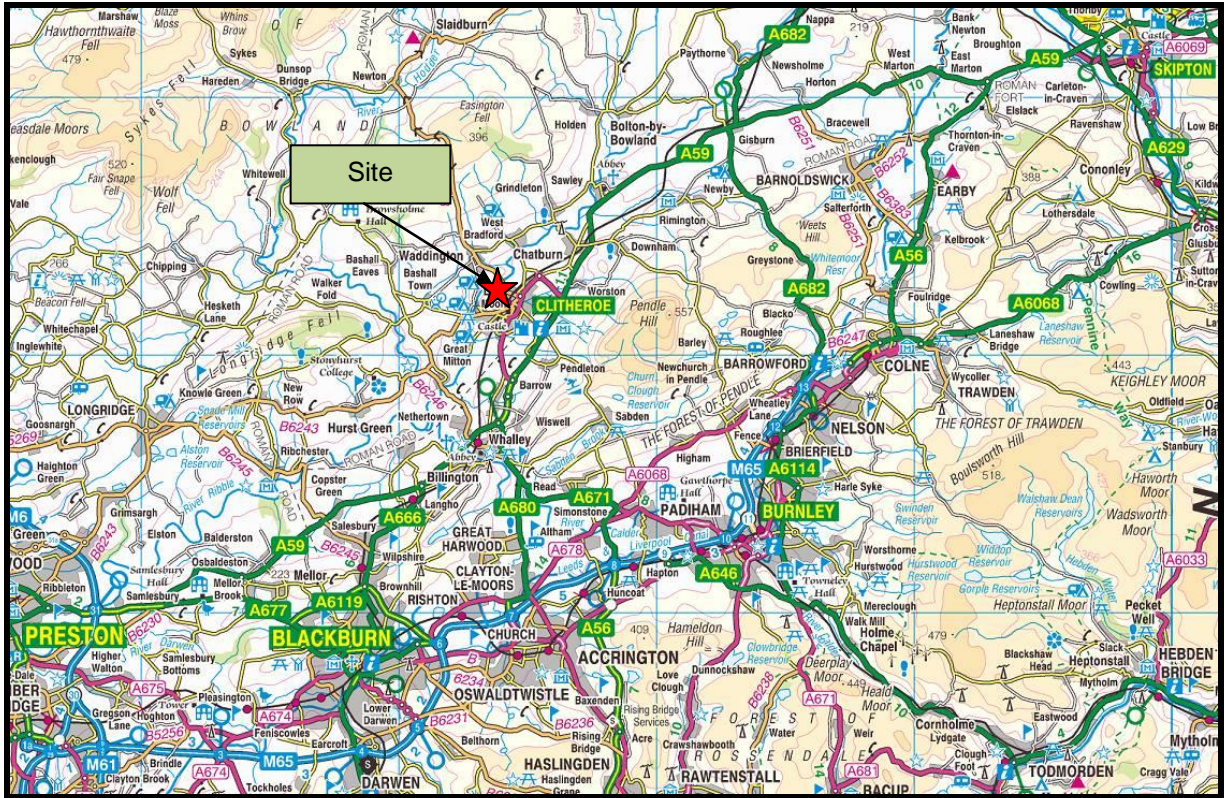
The following report sets out the inspectors report outcomes on all other highway matters, scoping discussions with LCC and the outcomes of the trip review and offsite mitigation.

This report has been prepared solely in connection with the proposed development as stated above. As such, no responsibility is accepted to any third party for all or any part of this report, or in connection with any other development

2. SITE DESCRIPTION AND ACCESSIBILITY

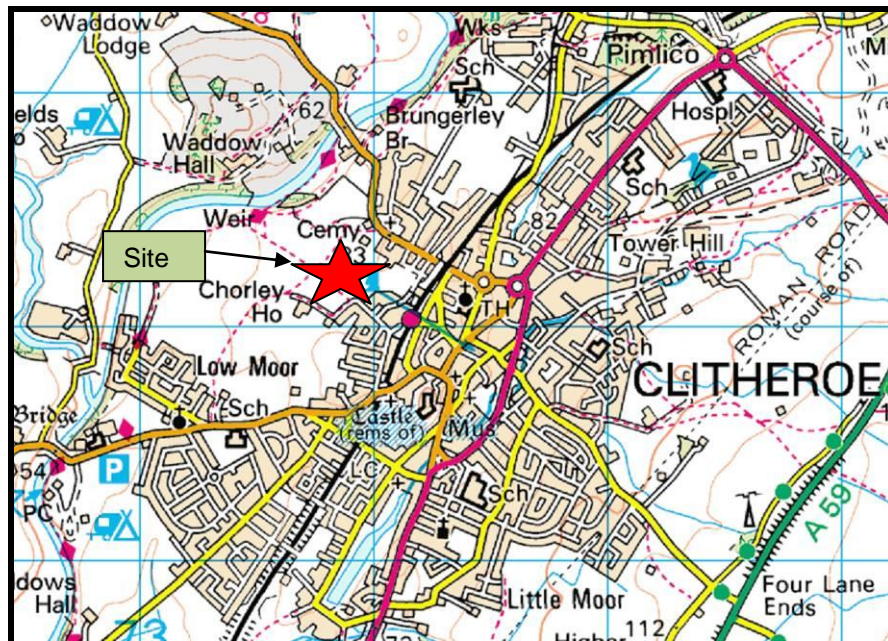
Site location context

The site lies to the north of the main Clitheroe area which lies along the A59 corridor linking Preston to Skipton and beyond.



Site location plan in relation to neighbouring settlements (Not to scale)

The location of the site in a local setting is shown below; it is bounded by residential areas with the town centre some 450m to the south.



Local plan



Local setting

Local Highway Provision

From local knowledge and site observation the area has a typical traffic flow characteristic associated with an urban area i.e. distinct AM and PM flow periods.

A photographic record of the local access and setting is provided below for future reference



Railway New Rd/Waddington Road junction

Railway New Road has good sight lines in each direction, the bend constrains speeds in the area. .



Waddington Rd to and from town centre

The pedestrian refuge is narrow and is not intended for pedestrians

From Milton Avenue the road falls away to the north leaving the 20 mph zone and bends to the right near to the cemetery.



20 mph zone end



Views on approach to site access location in a southerly direction



Sight lines to left and right from access area.

The adjacent area is largely residential in nature with various sections of highway that eventually connect to the wider network at the Bawdlands/Parson Lane junction.

The majority of the sites southerly boundary is along the Back Commons frontage, this is a single track lane with passing areas giving access to a limited number of residential properties.

It has tarmac surfacing for the first 200 m where it turns through 90 degrees and then becomes an un-surfaced track.



Back Commons unmade and tarmaced sections

As Back Commons approaches the main residential area it curves to the right. The location has the first field gate which gives access to the site and the start of a definitive footpath route that runs across the site.



Back Commons and field access

The route widens as it forms the flank frontage of two properties, it then joins the adopted highway network.



Back Commons/adopted network connection

Accessibility

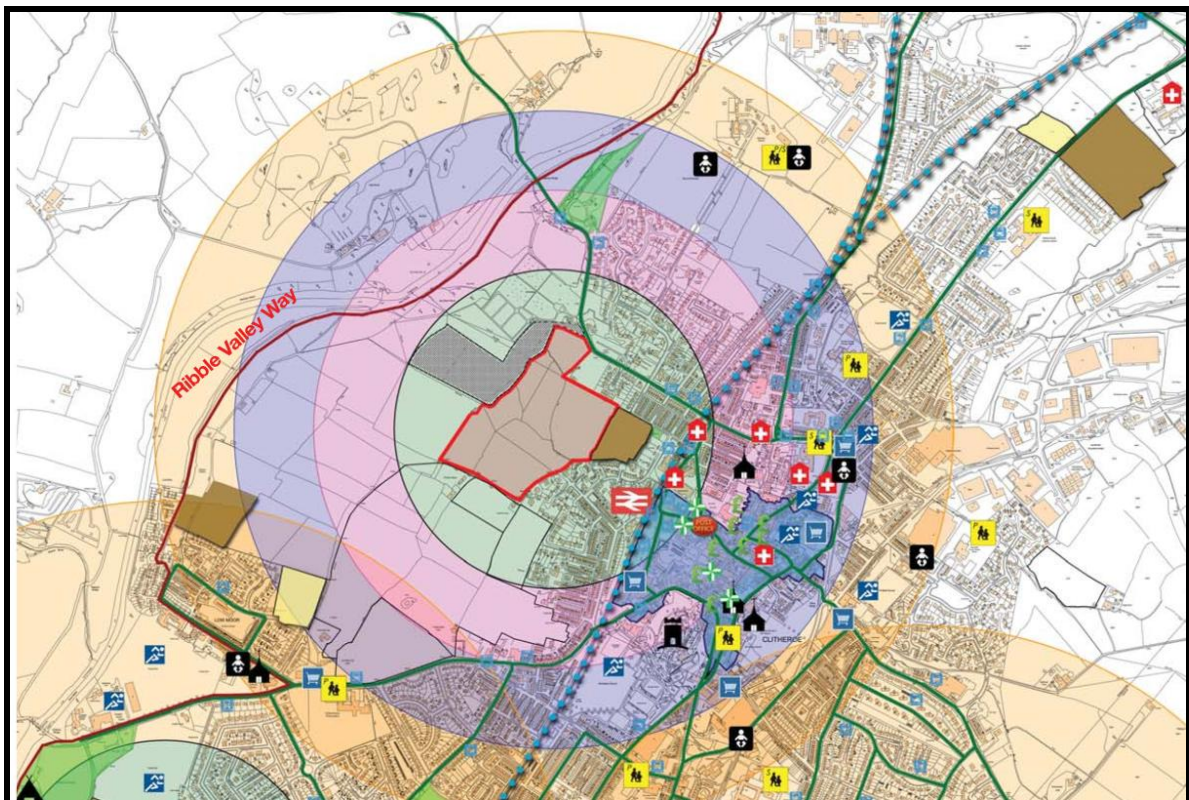
This was set out in full for the previous application and the appeal but a brief overview is provided for reference later in the report.

The accessibility of the proposed development sites by the following modes of transport has, therefore, been considered:

1. Accessibility on foot;
2. Accessibility by cycle;
3. Accessibility by public transport;

Amenities

In addition to the town centre which is located some 5 minute walk away from the site the area also offers, the following is abstracted from the DAS:



Facilities



Walking

The proposed development site is located within an existing urban area with a range of local land uses, services and facilities.

The sites highly sustainable location means that the following amenities and places of employment are located within a maximum 30 minute walk from the site as shown on the diagram.

Zone 1 Green, 400m/5minute walk – this zone has the following attractions bus and rail stations, food store, 2 doctors/dentist/health care and 15% of town centre area.

Zone 2 Pink, 600m/7 minute walk – this zone has the additional attractions to zone 1 of the market, post office, 55% more of the town centre, 8 banks/building societies, place of worship, 3 pharmacies, doctor/dentist/health care

Zone 3 Purple, 800/9.5min walk – this zone has the additional attractions to zone 1 and 2 of 3 doctors/dentist/health care, 2 places of worship, 2 nurseries, 4 sports facilities, 3 food stores, 3 primary schools, 1 senior school, the remainder of the town centre.

Zone 4 Orange, 1000m/15minute walk – this zone has the additional attractions to zone 1 to 3 of 4 nurseries, 1 food store, 3 primary schools, place of worship, senior school, 2 sports facilities

Zone 5 White, 2km/30 minute walk – this zone has the additional attractions to zone 1 to 4 i.e. all of Clitheroe including the employment sites.

The plan overleaf shows the existing adopted and PROW in dotted routes along with the suggested internal routes to show how they integrate.



Walking Routes to and from site

The CIHT report provides guidance about journeys on foot. It does not provide a definitive view on distances, but does suggest a preferred maximum distance of 2000m for walk commuting trips.

This is supported by the now superseded PPG 13 and the National Travel Survey which suggests that most walking distances are within 1.6km thus accepted guidance states that walking is the most important mode of travel at the local level supporting the above statement.

The DfT identify that 78% of walk trips are less than 1km in length, (DfT Transport Statistics GB).

For the key urban areas a 400m desirable distance to bus stops based on urban studies corresponds to a walk time of 5 minutes, based upon typical normal walking speed, the site lies within this distance.

The pedestrian catchment area for the proposed development site extends to cover the neighbouring settlements for the 2km distances.

As set out in the amenities section the 0.8 km walk catchment also extends to cover the town centre and employment zone. There are, therefore, significant opportunities for residents to access a range of shopping, employment, leisure, and service facilities on foot.

Additionally the 800m distance covers the full site connecting to the rail station, this gives the residents the best potential to use the rail network for employment trips rather than a car, this supports the local demographics that the town has approx 39% employment to the west/SW and these areas are accessible by train/walk.

Clearly, there is also potential for walking to form part of a longer journey for residents via the bus services. There are existing pedestrian routes in the vicinity of the site that will assist the accessibility of the site for pedestrians.

Cycling

Historic Guidance and perceived good practice suggests: "Cycling also has potential to substitute for short car trips, particularly those under 5km and to form part of a longer journey by public transport" The CIHT guidance 'Cycle Friendly Infrastructure' (2004) states that: "Most journeys are short. Three quarters of journeys by all modes are less than five miles (8km) and half under two miles (3.2km)

(DOT 1993, table 2a). These are distances that can be cycled comfortably by a reasonably fit person.” (para 2.3)

The National Travel Survey NTS (undertaken annually by the DfT) has identified that bicycle use depends on topography, but a mean distance of between 5 – 10 kilometres is considered a reasonable travel distance between home and workplace. For the purposes of this report the national guidance of 5km has been used.

The 5 km distance covers the whole of Clitheroe and adjacent settlements.

Therefore, there are a wide variety of residential areas, schools, shops, and other leisure and service facilities associated with a rural within the cycle catchment area that can be accessed.

Travel by public transport

An effective public transport system is essential in providing good accessibility for large parts of the population to opportunities for work, education, shopping, leisure and healthcare in the town and beyond.

The CIHT ‘Guidelines for Planning for Public Transport in Developments’ (March 1999) set out that, in considering public transport provision for development, three questions need to be addressed:

“What is the existing situation with respect to public transport provision in and around the development?

What transport provision is required to ensure that the proposed development meets national and local transport policy objectives?

Are the transport features of the development consistent with the transport policy objectives, and if not, can they be changed to enable the policy objectives to be achieved?” (para 4.18).

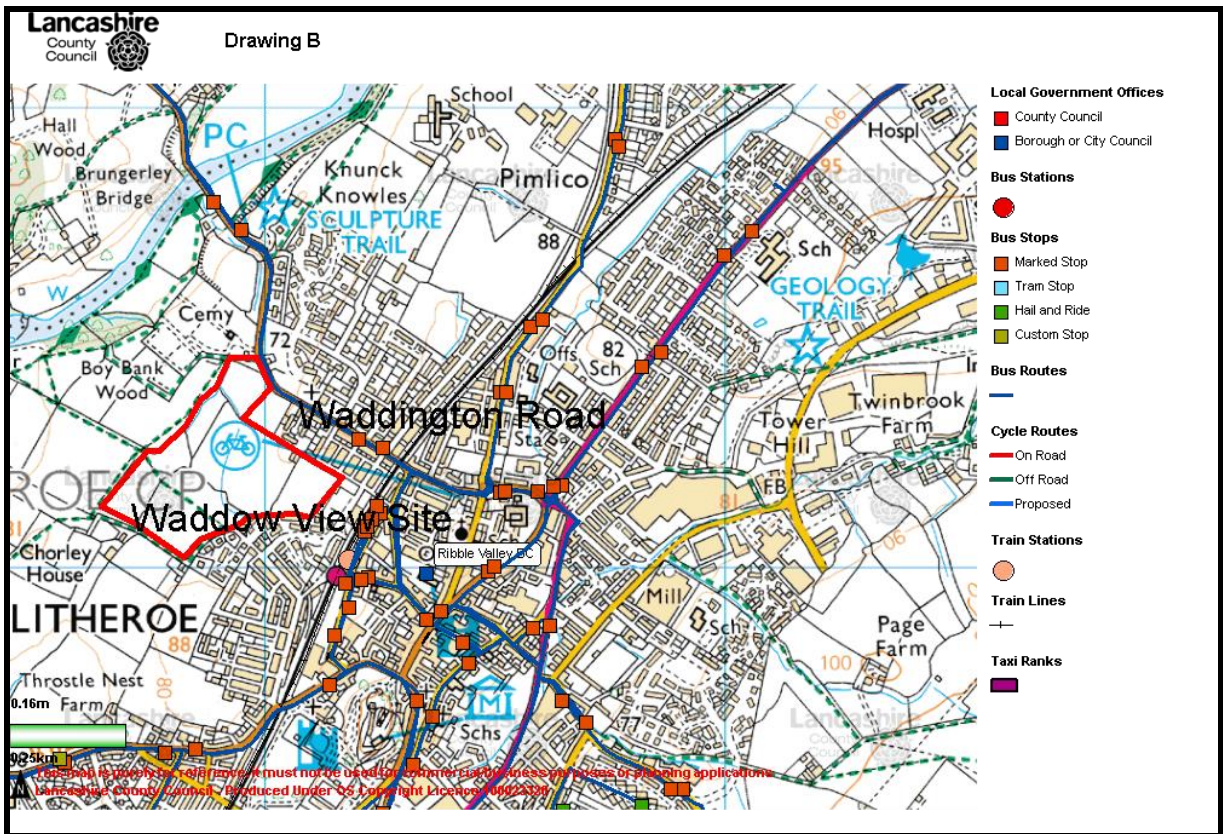
Railway View Road south of the development has the closest bus stops to the site, within the 400m sustainable distances. They have shelters and bus timetable information

Proposed Buses Only Road for the Waddow View site

A road for buses only is proposed to better connect and integrate the Waddow View site to the public transport network in Clitheroe including the Clitheroe Bus/Rail Interchange and the town centre.

The existing bus and local transport network and its location in relation to the Waddow View site can be seen below. This shows the location of bus stops in Clitheroe and roads that are bus routes such as Waddington Road.

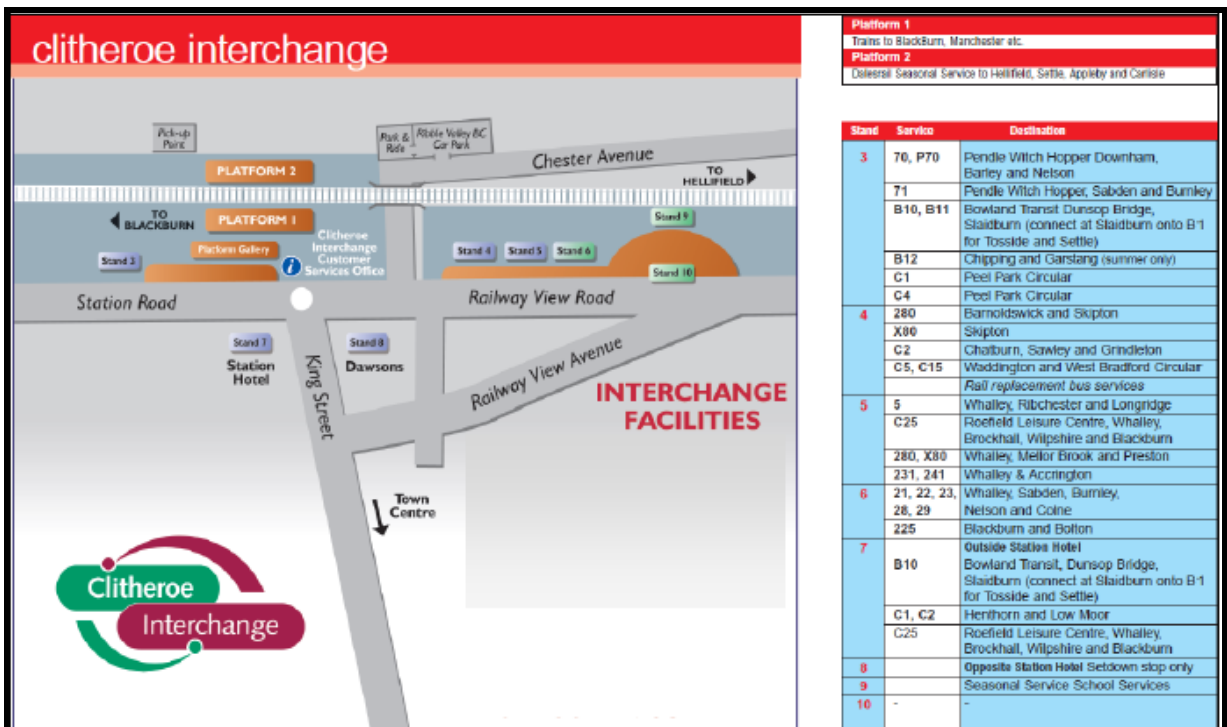
This drawing also shows the close proximity of the Clitheroe Interchange to the Waddow View site.



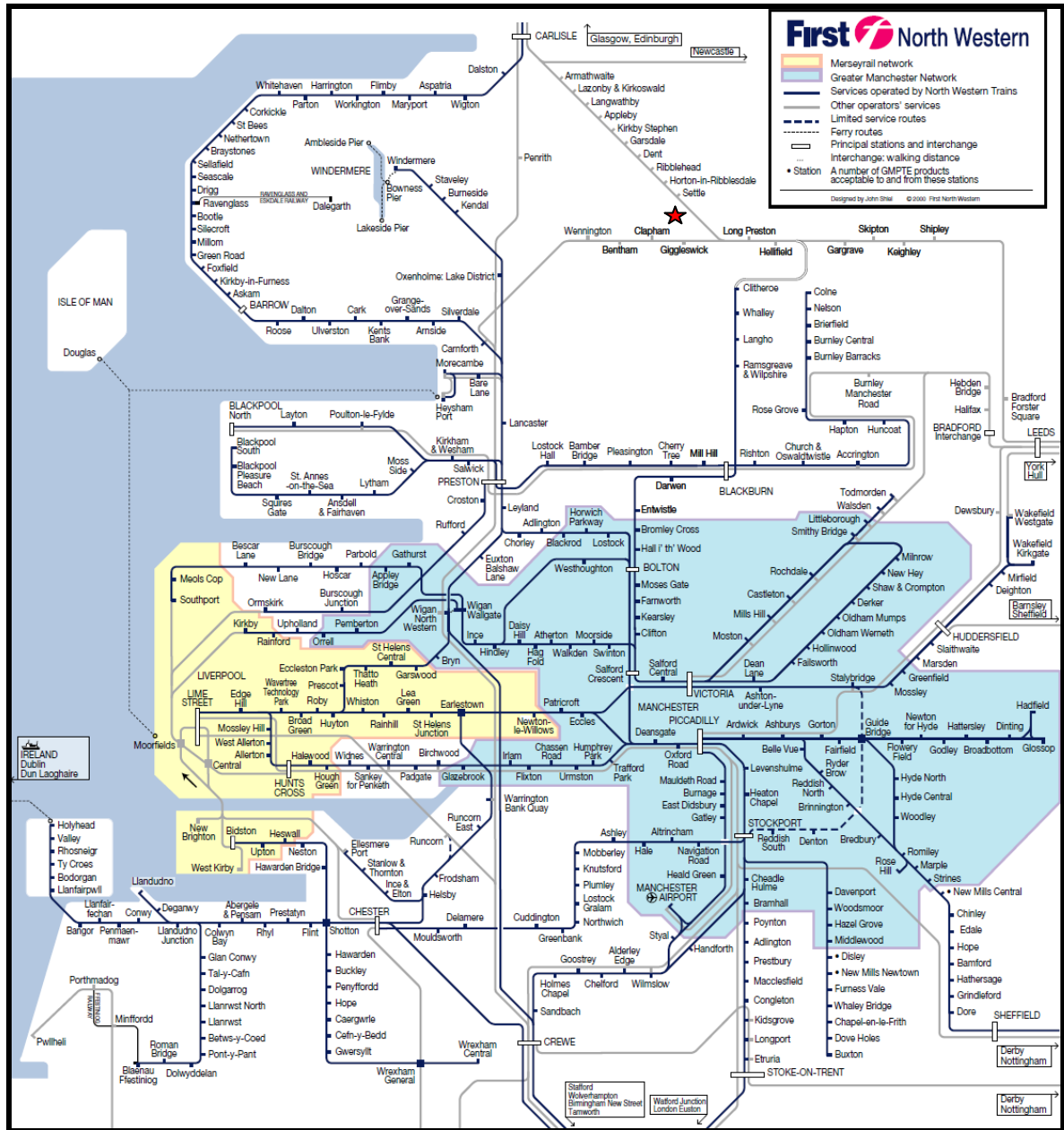
The north westerly side of the Waddow View site, which adjoins an existing cemetery, provides an opportunity to create a highway connection for a buses only route. This has been taken on board as part of the masterplan design.

Rail

The town has a rail station which provides reasonable connections to the local towns and to the wider NW area.



Interchange details



NW rail map

The close proximity of the Waddow View site to the strategically important Clitheroe to Manchester Railway line is of particular significance in terms of underpinning the attractiveness of this site, its potential for residential development and regeneration, and to help establish a coherent station development zone next to the Clitheroe Interchange.

In the case of railway stations, the LCC design guidelines recommend that a minimum walk distance of 800 metres is generally recognised as being acceptable. The PTAL approach however suggests a distance of 960 metres (12 minute walk). The whole site is covered by this distance.

Summary

The site is well located in relation to a wide range of local facilities including the Town Centre itself for the walking mode.

The site has easy access to the local network which is a 20mph area and thus safer for cyclist to use, the site has the ability to connect to the two wider cycle routes for work or leisure uses.

It has easy access to bus service that connected it the wider area another employment and leisure opportunities.

It is also in easy walk of the rail station and thus the much wider employment area of Preston, Blackburn, Bolton, Manchester and Burnley.

3. MILTON AVENUE DEVELOPMENT

Development Proposals

The scheme is proposed to provide approximately 50 residential units accessed from Milton Avenue using a new link extending the street into the site. This was subject of a planning appeal which approved the scheme.

Layout

The site layout is illustrated on below shows the primary vehicular access to the development will be via a normal priority junction.



PLAN

The layout is in the form of a cul de sac with future extension route preserved for phase 2 for walk/cycle etc.

The capacity assessments showed that the site has no issues it is proposed the scheme will provide some mitigation measure which will enhance the local area and assist existing residents in the area to travel by car and non car modes.

Although the capacity assessments show that the site has no issues and the location is highly sustainable.

4. APPEAL DECISION NOTICE

Introduction

A Planning Application was submitted for a total of 345 houses and a 50 place Nursery / Crèche for land off Milton Avenue in Clitheroe. The application was subject to an appeal (Appeal Reference APP/T2350/A/13/2194601) which the Planning Inspectorate rejected in January 2014 based on a severe impact at the Bawdlands Bridge junction and Kirkmoor route for new trips in/out.

The following abstracts are provided to show the level of agreement on other matters.

Waddington Road access

Para 218: At the connection point to Waddington Road the existing speed limit is 30 mph, but it lies just beyond the limits of a recently introduced 20 mph zone. There is a proposal, endorsed by the LHA, to extend the 20 mph further out of Clitheroe Town Centre and this would include the length of Waddington Road beyond the new junction. Having said this, and having regard to the accepted fact that benefits of the 20 mph have not yet been fully realised, the new junction has been designed to 30 mph standards. ***Despite some saying it is on a blind bend, forward visibility is satisfactory for the 30 mph design speed. The junction also includes the provision of a 3 m right turning lane, and two running lanes of similar width.*** It is to be noted that no dedicated assessment of the maximum number of houses that could safely be served by this access was undertaken.

Para 220: ***Minor improvements would be required to the width/alignment of Waddington Road between the appeal site and the Town Centre, but with these in place there should be no undue junction or carriageway capacity problems. Turning onto Waddington Road from the several side roads may involve waiting a little longer, but this is a long way from translating into severe congestion.***

Para 221: The main difficulties with the Waddington Road access are where the route passes under the railway bridge, which has restricted headroom (3.5 m) and then again where it meets Railway View Road. Vehicles that could not pass safely under the bridge, of which there are bound to be some, would be diverted for some 6.5 km (4 miles) to avoid the low bridge.

Para 222: Furthermore, the area of carriageway under the bridge and for some way beyond has a history of flooding. Works have been undertaken to remediate this, but there are still reports of flooding since the works, albeit perhaps not to the same extent. ***On-site observation showed the gulleys seriously blocked and much more maintenance will be needed by the responsible authority in the future to avoid unnecessary blockages.*** Once again a significant diversion is necessary in times of flood. These are definitely negative factors in the balancing equation.

Para 223: The junction of Waddington Road and Railway View Road would also attract additional traffic from the appeal site. ***To accommodate this, the present Give Way would be replaced by a mini-roundabout, accompanied by some waiting restrictions and a new pedestrian facility. The ARCADY run shows that this would work satisfactorily, with a reasonable amount of reserve capacity, even during the peak hours, and including some additional traffic from committed development off Chester Avenue. Once again, this is not to say that there would be no queuing, but delays should be of relatively short duration and certainly not of such significance as to amount to a severe delay. In the off-peak no particular problems are predicted under normal conditions.***

Para 224: As for the proposed new pedestrian crossing on Waddington Road, the ideal position would be near the junction of Waddington Road with Railway View Road. However, this would not be appropriate in highway design and safety terms. ***Thus, it would have to be located on the out of Town side of the railway bridge, which would be less desirable in terms of pedestrian movement, especially as the footways under the bridge are relatively narrow. Even so, it would offer a safer option than doing nothing, albeit it would entail a modest diversion for some.***

Para 225: With regard to the Objector's concerns about the next main junction along, namely that at Waterloo Road/Shawbridge Street (A671), this is again a mini- roundabout. Here there appear to be

unresolved issues. An objective assessment of the junction capacity has been undertaken as part of the TA and this shows that queuing during peak hours can be lengthy. This is confirmed by on-site observations, though off-peak operation shows little or no problem.

Para 226: ***Based on the TA findings, the Appellants' suggestions for this junction include improvements to the approaches in the short term, with a later need for traffic signals, when further development comes forward. The Appellants offered to pay for the initial improvements, with a further commitment to discuss with the LHA about contributions to the traffic signals. Neither point seems to have been taken up by the LHA, and so there would be a do-nothing approach as a part of this project. This would leave significant unnecessary congestion and a moderate to strong reason for resisting this proposal without the phase one improvements.***

Locational and transport sustainability

Para 254: ***Moving on to look at other forms of travel between the appeal site and external attractors, the indicative layout succeeds in presenting a permeable system of footpaths/footways and cycleways. Even from the farthest reaches of the site, walking to the rail and 'bus stations, as well as some shops and the market, is within acceptable limits and this is certainly so for cyclists. However, in the case of cyclists, the route to the stations would require some improvement, as they would utilise a length of footway and this would need to be addressed by condition.***

Para 255: There would also be the provision of a half-hourly service bus service through the site, after the occupation of the 175th dwelling. A Travel Plan would be provided, though at the draft stage this did not include a travel scheme for the crèche or for construction workers. The latest draft conditions address this oversight. Even so, the modal shift would only be expected to be in the region of 10% and no targets were included in the draft Travel Plan.

Para 256: ***On the basis of the information provided it can be concluded firmly that the site is locationally sustainable with ready access to multi-modal travel options. This broadly accords with the Framework and emerging CS Policy DS2, but more could be achieved. Not least that the proposed bus service through the site could be introduced much earlier.*** This would encourage many more to be reliant on travel modes other than the car to access the Town Centre and beyond. It is understandable from a cost perspective why this would be difficult, but, as it stands, the outcome would not be ideal, with half the dwellings occupied before the 'bus service came on stream.

Para 301: The highway objections are, however, in my professional view compelling. Whereas the access to Waddington Road would be acceptable, there are unresolved issues along Waterloo Road.

Para 302: Looking at other matters, there are minor to moderate objections on a number of fronts such as ecology, flooding under the railway bridge and some broader sustainability aspects. However, taken individually or cumulatively they are not sufficient to outweigh the presumption in favour of sustainable development. Even if combined with the landscape harm this would not tip the balance in favour of dismissal. ***This is the most sustainable undeveloped site, immediately outside the present Town boundary of the largest and most sustainable Town in the Borough. As such, common sense dictates that it will almost certainly be developed some time in the future.***

Para 303: In summary, the presumption in favour of sustainable development prevails over all matters except for highways. ***Even then, there is the option to relook at the Waddington Road access to ascertain the level of development on the appeal site that could be served from this single access, with 'bus/emergency access retained to connect to Kirkmoor Road.***

The implications for highway safety and the free flow of traffic

Waddington Road access and Waterloo Road/Shawbridge Street junction

For the reasons given at IR221-222, the Secretary of State agrees with the Inspector that there would be unresolved highway and flooding issues in relation to the Waddington Road access.

For the reasons at IR225-226, he also agrees that significant congestion at Waterloo Road/Shawbridge Street junction would be a moderate to strong reason for resisting this proposal in the absence of highway improvements (IR226).

In terms of flooding in para 23 he states that The Secretary of State acknowledges that there are minor to moderate objections on a number of fronts such as ecology, **flooding under the railway bridge** and some broader sustainability aspects. ***However, taken individually or cumulatively, he does not consider they are sufficient to outweigh the presumption in favour of sustainable development.***

In para 24 - The highway objections are, however, in the Secretary of State's view compelling.

Whereas the access to Waddington Road would be acceptable, there are unresolved issues along Waterloo Road.

Locational and transport sustainability

For the reasons given at IR254-256, the Secretary of state agrees with the Inspector's conclusion that the site is locationally sustainable in terms of transport modes other than the car (IR 256).

Decision options

For the reasons given in IR 264-271, the Secretary of State agrees with the Inspector that on balance, the already severe potential safety and environmental consequences constitute a compelling reason for dismissal (IR 271).

The sustainability of the proposal

The Secretary of State notes the Inspector's assessment of the various matters considered at IR 272-280. However, he does not consider that the sustainability benefits identified would overcome his reasons for dismissing the appeal.

The highway objections are, however, in the Secretary of State's view compelling. Whereas the access to Waddington Road would be acceptable, there are unresolved issues along Waterloo Road. ***Crucially, however, the combination of the geometrically substandard junction of Castle View/Bawdlands Bridge and the heavily parked Castle View and Kirkmoor Road route together with the additional environmental intrusion for local residents living on these roads forge a compelling reason for refusal.*** The residual position would conflict with the 'severe' transport impact criterion in the Framework.

Conclusions

The area is highly sustainable, Waddington Road can provide a safe access to development, earlier routing of buses would be beneficial and the phased improvement of Waterloo Road/Shawbridge should be considered.

It was recognised in the appeal/notice that the site is in a highly accessible location. It was also acknowledged that the trip rates were robust in nature.

An application with no direct connection to Kirkmoor for site traffic other than emergency vehicles and a bus route would answer the outstanding concerns from a highway point of view.

5. WADDOW VIEW DEVELOPMENT ACCESS STRATEGY AND PROPOSALS

Development Proposals and access

The scheme will provide 275 residential units accessed from Waddington Road via a new junction and no units accessed from Castle View/Kirkmoor Road route other than a bus/emergency access route via an extended route/road.

The site will also connect to the proposed 50 unit site accessed from Milton Avenue using a new link extending the street into the site for walk/cycle.

The rationale for the access strategy is based on the review of the local routes and the emerging masterplan to provide an integrated site.



The key principles are to access site from Waddington road as part of the main road network.

The proposed bus gate also forms a key route for emergency services, walking and cycling to integrate the site for non car modes and thus provide a level of control over the car movements.

It will serve both the site and the existing Kirkmoor area which is a large cul de sac a benefit to the local community.

Non car modes are catered for the new routes and in addition separate routes into the town centre.

The illustrative masterplan set out overleaf is based on the context above.

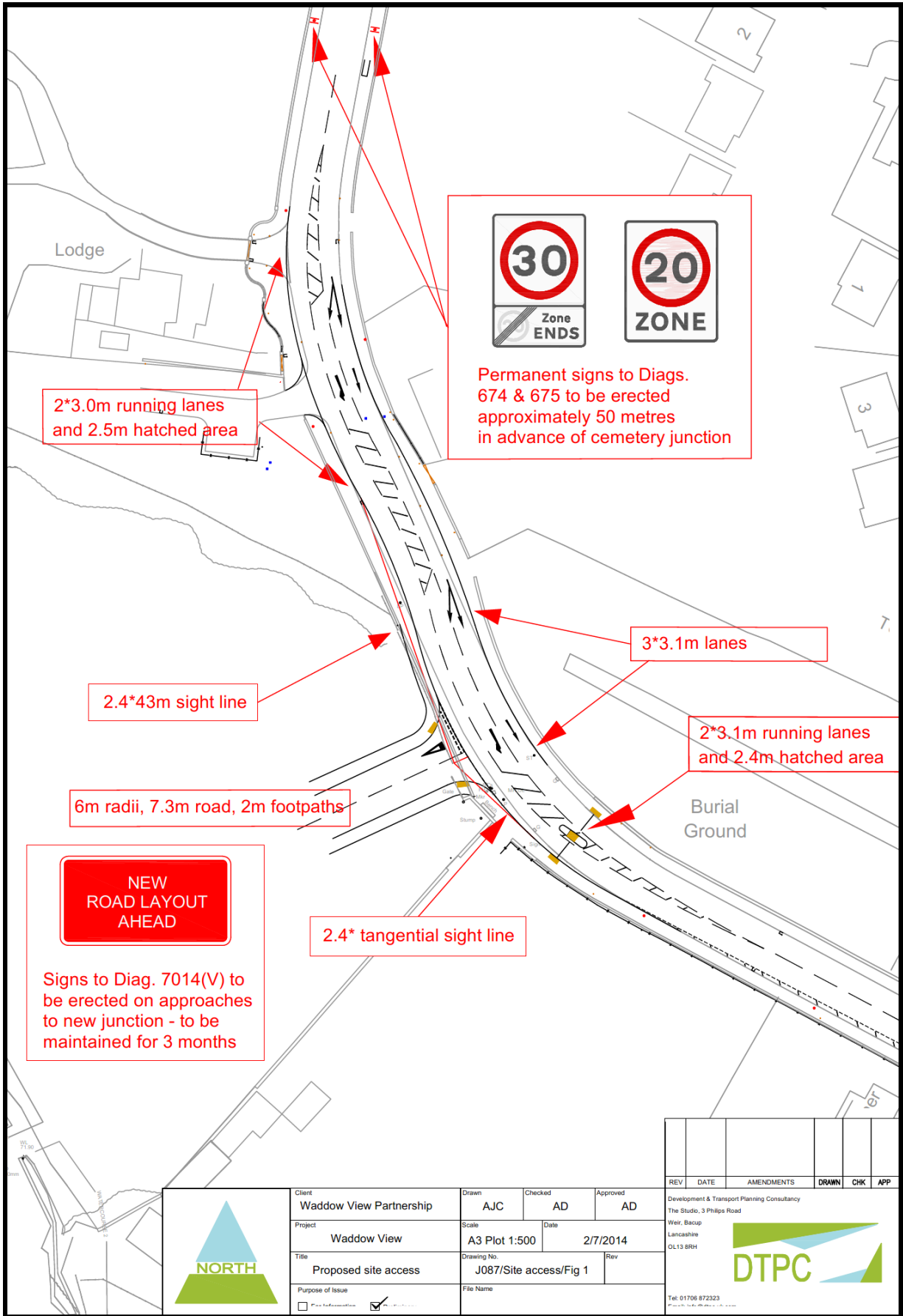
The site access point and bus gate are also provided for reference.



Waddington road

The access will take the form of a priority junction with right turn ghost island to form a gateway into the town.

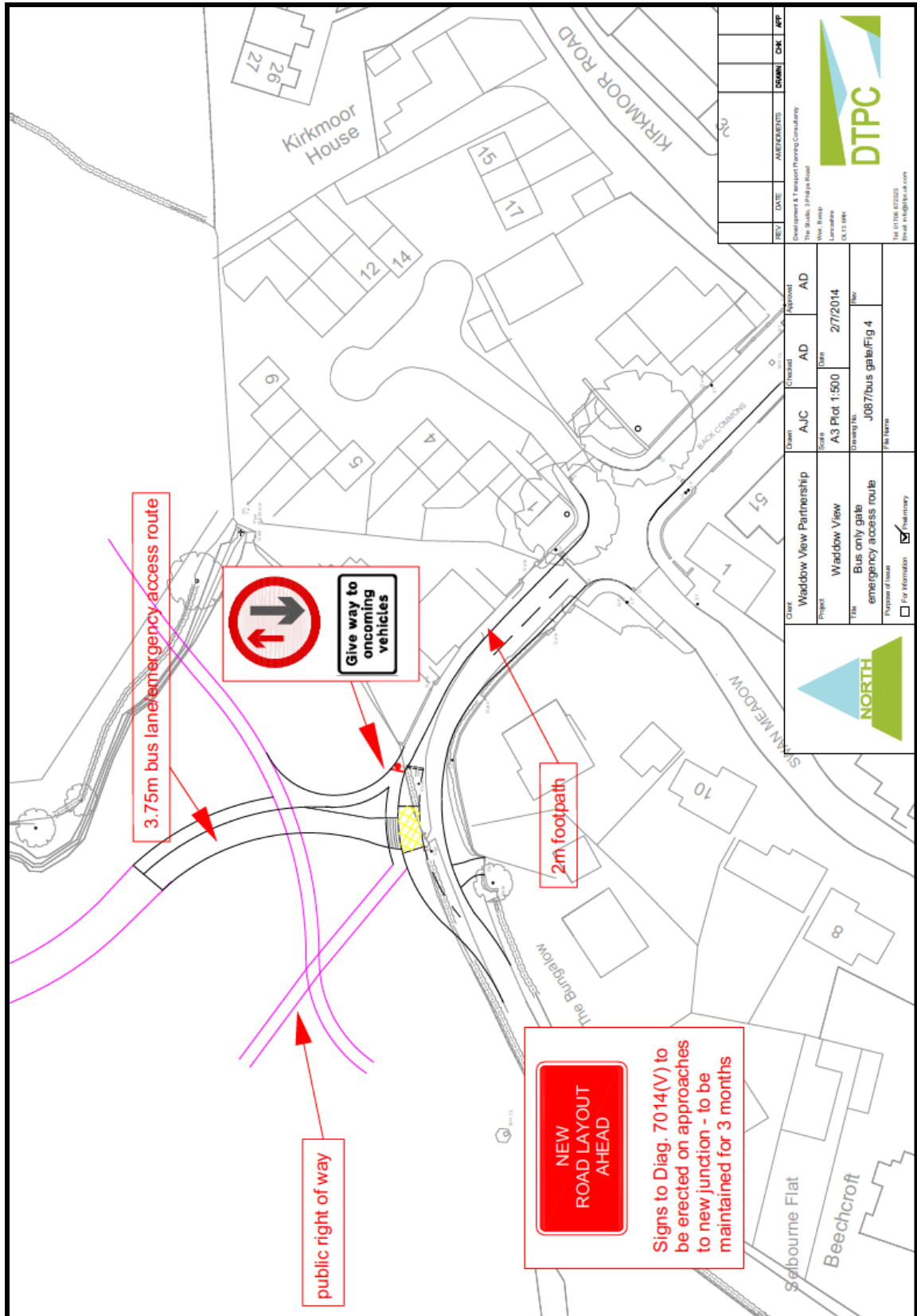
The 20mph zone will be extended passed the access to cover the cemetery area as well. Sight lines are set out for a 20mph road but the 43m needed for a 30mph speed can also be easily achieved.



The route will also be calmed by the provision of road markings/narrowing to reinforce the 20mph speed limit to the benefit of the wider community.

Back Common

The connection into the site for buses and emergency vehicles would be along the narrow section of the route. A shuttle arrangement with the exiting vehicles from the Back Commons area having to give way has been designed; this enables a footpath to be provided on the east side for the full length of the route. The unmade track is connected by an improved junction arrangement.



6. SCOPING AND TRIP REVIEW

Background

The DTPC Transport Assessment prepared in support of the development and the subsequent analysis work undertaken in support of the appeal utilised accepted trip rates that were first used in support of the Gladman Developments Ltd (Gladman) residential development located off Henthorn Road, Clitheroe. As part of the assessment of the Milton Avenue development it was a requirement to take account of committed development in the area, i.e. the Gladman development. To avoid any issues that may be raised, in regard to trip generation, it was decided unilaterally to adopt these trip rates to provide a consistent and robust assessment methodology.

The table below details the aforementioned trip rates used in both the assessment for the Gladman development and those undertaken in support of the Land off Milton Avenue appeal.

Peak Period	Arr	Dep	Tot
AM	0.14	0.445	0.585
PM	0.437	0.226	0.663

Table 1: Agreed Residential Trip Rates

These were higher than the locally derived rates in red which do not benefit from a travel plan etc.

Peak Period	Arr	Dep	Tot
AM	(0.173)	(0.331)	(0.504)
PM	(0.363)	(0.261)	(0.624)

Trips agreed for the assessments using Waddington Road route.

Development	Access	Trips					
		AM Peak		Two way	PM Peak		Two way
		Arr	Dep		Arr	Dep	
220 Residential Dwellings	Waddington Road	31	98	129	96	50	146
50 Place Nursery	Waddington Road	14	12	26	11	12	23
Totals		45	110	155	107	63	170

Trip Rate Review

The Gladman site is located nearly 2km from the Clitheroe railway station and bus interchange facility where as the Milton Avenue site is located less than 400m walking distance. It is concluded therefore that the trip rates used in support of the Gladman site do not adequately reflect the clearly highly accessible travel characteristics of the Milton Avenue site and therefore a trip rate review has been undertaken using TRICS.

The TRICS database provides site details of all surveys contained within its database. Within the database out of the 518 Residential Private House sites there are 43 sites where the site is located within 1km of a rail station as a proxy for the interchange. The table below details the aforementioned 43 sites.

ID	Site Ref	Description	Town/City	DWELLS
1	AG-03-A-01	BUNGALOWS/DET.	ARBROATH	7
2	BN-03-A-01	SEMI DETACHED	COCKFOSTERS	10
3	BT-03-A-01	SEMI DETACHED	BRENT	82
4	CA-03-A-02	MIXED HOUSES	PETERBOROUGH	363
5	CF-03-A-01	MIXED HOUSES	CARDIFF	222

6	CF-03-A-03	DETACHED	CARDIFF	29
7	CH-03-A-06	SEMI-DET./BUNGALOWS	CREWE	129
8	CS-03-A-01	TERRACED	SLIGO	46
9	CS-03-A-02	DETACHED	SLIGO	35
10	CW-03-A-02	SEMI D./DETACHED	TRURO	73
11	DL-03-A-03	TERRACED/SEMI-DET.	DUBLIN	206
12	DL-03-A-07	SEMI DET./TERRACED	DUBLIN	56
13	DL-03-A-08	VARIOUS HOUSES	DUBLIN	36
14	DS-03-A-01	SEMI D./TERRACED	DRONFIELD	20
15	EA-03-A-02	DETACHED	STEWARTON	65
16	FA-03-A-01	SEMI-DETACHED/TERRACED	FALKIRK	37
17	FA-03-A-02	MIXED HOUSES	FALKIRK	161
18	GA-03-A-02	TERRACED	GALWAY	185
19	GA-03-A-04	SEMI DET. & BUNGALOWS	ATHENRY	21
20	GC-03-A-05	MIXED HOUSES	GLASGOW	56
21	HC-03-A-13	MIXED HOUSES/FLATS	FLEET	747
22	HF-03-A-01	MIXED HOUSES	WELWYN GARDEN CITY	53
23	KD-03-A-02	TERRACED/SEMI-D.	NEWBRIDGE	71
24	KI-03-A-01	DETACHED	KINGSTON UPON THAMES	12
25	KI-03-A-02	DETACHED	KINGSTON UPON THAMES	20
26	KK-03-A-04	TERRACED	KILKENNY	30
27	KN-03-A-01	TERRACED	NORTH KENSINGTON	24
28	LC-03-A-30	SEMI-DETACHED	BLACKPOOL	24
29	MA-03-A-01	SEMI-DET. & TERRACED	BALLINA	74
30	MS-03-A-03	DETACHED	LIVERPOOL	15
31	NT-03-A-01	BUNGALOWS	COLLINGHAM	125
32	NY-03-A-01	MIXED HOUSES	NORTHALLERTON	52
33	PK-03-A-01	DETAC. & BUNGALOWS	PERTH	36
34	RO-03-A-01	MIXED HOUSES	ROSCOMMON	80
35	SH-03-A-04	TERRACED	SHREWSBURY	108
36	SK-03-A-01	SEMI DET. & TERRACED	CANADA WATER	15
37	WE-03-A-01	PRINCES MEWS	NOTTING HILL	18
38	WF-03-A-01	TERRACED	WALTHAMSTOW	53
39	WM-03-A-02	DETACHED & SEMI DET.	STOURBRIDGE	12
40	WO-03-A-01	DETACHED	BROMSGROVE	10
41	WO-03-A-02	SEMI DETACHED	REDDITCH	48
42	WO-03-A-06	DET./TERRACED	BROMSGROVE	232
43	WR-03-A-01	SEMI DETACHED	WREXHAM	82

Private Residential Housing Sites Within 1km of a Rail Station

In addition a review of the site also highlights an additional 13 sites which are in close proximity to frequent bus public transport system which are detailed in the table below.

ID	Site Ref	Description	Town/City	DWELLS
1	CH-03-A-08	DETACHED	CHESTER	11
2	DL-03-A-01	SEMI DETACHED	DUBLIN	208
3	DL-03-A-02	SEMI DETACHED	DUBLIN	437
4	DL-03-A-05	MIXED HOUSES	DUBLIN	234
5	DL-03-A-06	DETACHED	DUBLIN	147
6	DL-03-A-09	TERRACED	DUBLIN	8
7	GA-03-A-03	SEMI DET./TERRACED	GALWAY	24
8	NF-03-A-01	SEMI DET. & BUNGALOWS	CAISTER-ON-SEA	27
9	NF-03-A-02	HOUSES & FLATS	NORWICH	98
10	SF-03-A-04	DETACHED & BUNGALOWS	LOWESTOFT	7
11	SR-03-A-01	DETACHED	STIRLING	115
12	WK-03-A-01	TERRACED/SEMI/DET.	LEAMINGTON SPA	6
13	WM-03-A-01	TERRACED	COVENTRY	79

Private Residential Housing Sites With a Frequent Bus Public Transport System Nearby

It is recognised that some of these sites cannot and should not be used to represent the site off Milton Avenue. Therefore a further refinement has been undertaken excluding the sites with the following criteria:

- Weekday Surveys Only
- Sites located within large cities, i.e. Greater London and Dublin
- Sites with a population of less than 1000 persons within a mile
- Site with 50 dwellings or less

- Site HC-03-A-13 was specifically excluded as it had a high proportion of flats with houses within its development content.

The resultant average trip rates are detailed in the table below:

Peak Period	Arr	Dep	Tot
AM	0.118	0.322	0.440
PM	0.325	0.205	0.530

Vehicle Trip Rates for a Highly Accessible to Public Transport Site

Appendix A contains the resultant TRICS output along with an audit trail identification number which will allow the Highway Authority to review the generated TRICS report directly through TRICS software programme.

The trip rates derived are lower than those used in the TA and lower than the locally derived trips rates but do equate well to the local rates with a 10% travel plan target reduction agreed. This would require the non car mitigation to be delivered early in the development phasing to ensure they are delivered. This would also benefit the local community who would have access to an improved bus service etc and thus reduce the background flows.

Trip/Unit comparison based in revised rates.

Peak Period	Arr	Dep	Tot
AM	0.118	0.322	0.440
PM	0.325	0.205	0.530

Development	Trips					
	AM Peak		Two way	PM Peak		Two way
	Arr	Dep		Arr	Dep	
Totals	45	110	155	107	63	170

The revised trip rates above have been used to divide into the agreed trips set out for the Waddington Road access in the TA.

Development	Units					
	AM Peak		Two way	PM Peak		Two way
	Arr	Dep		Arr	Dep	
Totals	381	342	352	329	307	321

Based on the above the average unit number would be 340 from the access which would compare well with the level of trips set out in the TA for the route. It should be noted that this is not the maximum trips from the access.

It should also be noted that site is likely to have in the region of 100 affordable residential dwellings. Affordable dwellings have historically generated less vehicle trips than their privately owned counterparts. Using the TRICS database again and maintaining the geographical areas which were defined previously a brief review of "Houses for Rent" vehicle trip rates has been undertaken. The table below details the resultant trip rates.

Peak Period	Arr	Dep	Tot
AM	0.106	0.175	0.281
PM	0.256	0.182	0.438

Vehicle Trip Rates for a House for Rent TRICS Category

If the trip rates took account of the relative proportions of privately owned to rented dwellings then this would effectively decrease the trip rate as follows:

Peak Period	Arr	Dep	Tot
AM	$((0.118 * 245) + (0.106 * 100)) / 345 = 0.115$	$((0.322 * 245) + (0.175 * 100)) / 345 = 0.279$	0.394
PM	$((0.325 * 245) + (0.256 * 100)) / 345 = 0.305$	$((0.205 * 245) + (0.182 * 100)) / 345 = 0.198$	0.503

Table 5: Adjusted Trip Rates taking Account Of Affordable Housing Content

Appendix A contains the "Houses for Rent" TRICS trip rates.

Using the same method above to divide and obtain the units the following table is derived.

Development	Trips					
	AM Peak		Two way	PM Peak		Two way
	Arr	Dep		Arr	Dep	
Totals	45	110	155	107	63	170

The revised trip rates above have been used to divide into the agreed trips set out for the Waddington Road access in the TA.

Development	Units					
	AM Peak		Two way	PM Peak		Two way
	Arr	Dep		Arr	Dep	
Totals	391	394	393	351	318	338

Based on the above the average unit number would be 363 from the access which is higher than the previously applied overall figures of 345 plus creche.

Initial conclusion/way forward

Based on the above review the site was proposed to deliver some 345 units, no crèche with access only of Waddington Road.

The trip rates to be used are those derived for the location near an interchange and the further reduction of the affordable units lower trips rates not use to ensure the scheme is again robustly tested but now taking the agreed sustainability credential into account.

The outcome is shown overleaf, previous tested trip levels in red.

Peak Period	Arr	Dep	Tot
AM	0.118	0.322	0.440
PM	0.325	0.205	0.530

Development	Trips for 345 units					
	AM Peak		Two way	PM Peak		Two way
	Arr	Dep		Arr	Dep	
Totals	41 (45)	111 (111)	151 (155)	112 (107)	70 (63)	183 (170)

Clearly in the AM the changes are de minimus in nature, the PM flows are slightly higher but well within the daily variation of 10%.

Notwithstanding the above comment the site access, Waddington Road/Railway View and Waterloo Road/Shawbridge junctions will be tested for comparison purposes.

Agreed conditions which would be taken forward again with comments of potential matters to review in red.

1. A visibility splay at the junction of the site access on to Waddington Road shall be provided in accordance with the details shown on Drawing Number JO87/W V /SOCG/Fig1REVA. This shall be constructed and maintained at footway/verge level in accordance with a scheme and timing to be agreed by the Local Planning Authority. **This will be updated following extension of the topo survey to take on board the changes at the cemetery access.**
2. No phase or part of the development hereby approved shall be occupied or opened for trading until all the off-site highway works and works required for improved access to the phase or part (as set out on drawings JO87/ W V SOCG Figs 1A, 2, 3, 4, 5 and 6) have been constructed in accordance with a scheme which shall be submitted to and approved by the Local Planning Authority in consultation with the Local Highway Authority. **Drawings would take on board no car need for Kirkmoor but provide no waiting at the Bawdlands junction to prevent parking near the junction and improve safety – this will accommodate the agreed bus route. Add fig for the Shaw bridge mini improvement.**
3. No phase or part of the development hereby approved shall commence until a scheme for the improvement of cycle and pedestrian facilities (cycle tracks and foot paths) related to the phasing of the development of the site has been submitted to, and approved in writing by the Local Planning Authority. Thereafter, the development shall be carried out in accordance with the approved details. **Potential additional for widening the south westerly footpath at the SW rail bridge along with raised areas on each side to give pedestrians/cyclist improved facilities.**
4. Prior to the commencement of development a Framework Travel Plan for the whole development shall be submitted to and approved in writing by the Local Planning Authority. Thereafter, prior to the commencement of development on any phase or portion of the development, a separate Travel Plan (or up-dated information for the Framework Travel Plan) for each phase (including the crèche) shall also be submitted to and approved in writing by the Planning Authority as set out in the Highways Statement of Common Ground to include targets. The Travel Plan shall be implemented, audited and updated within the timescale set out in the approved plan.
5. Prior to the commencement of development hereby approved, precise details of the means of preventing the use of the 'bus lane within the development by vehicles other than authorised 'buses and emergency vehicles shall be submitted to and approved in writing by the Local Planning Authority. The approved scheme shall be implemented in accordance with the approved details.

The UU would need to be updated to reflect the timing of earlier delivery of the bus route, trigger to be agreed to change the 175 unit originally set out.

Final review based on 275 units

A review the numbers for the application to take forward has now been agreed as 275 units. This makes a significant difference the trips etc. As such the following update sets out the trips for the new application.

As set out above the table below details the aforementioned trip rates used in both the assessment for the Gladman development and those undertaken in support of the Land off Milton Avenue appeal and the refused application, agreed as robust.

Peak Period	Arr	Dep	Tot
AM	0.14	0.445	0.585
PM	0.437	0.226	0.663

Table 1: Agreed Residential Trip Rates

These were higher than the locally derived rates in red which do not benefit from a travel plan etc.

Peak Period	Arr	Dep	Tot
AM	(0.173)	(0.331)	(0.504)
PM	(0.363)	(0.261)	(0.624)

Trips agreed for the assessments using Waddington Road route.

Development	Access	Trips					
		AM Peak		Two way	PM Peak		Two way
		Arr	Dep		Arr	Dep	
220 Residential Dwellings	Waddington Road	31	98	129	96	50	146
50 Place Nursery	Waddington Road	14	12	26	11	12	23
Totals		45	110	155	107	63	170

The new 275 proposed would generate the following trips based on the agreed private house trip rates.

Development	Access	Trips					
		AM Peak		Two way	PM Peak		Two way
		Arr	Dep		Arr	Dep	
275 Residential Dwellings	Waddington Road	39	122	161	120	62	182

Just using the agreed rates/units the trip outcome is 6 additional two way trips in the AM and 12 in the PM, these would not make any meaningful difference to the assessments undertaken and already agreed as acceptable.

To give further confidence the site is to have car and non car mitigation including a new bus route as such can be considered further enhanced as such the trip rates as set out in the scope could be considered high.

The trips rates for a highly accessible site based on the inspectors view etc as set out are shown and in this case to be robust only use them for 50% of the units i.e. when the mitigation is in place and the bus route service operational.

Peak Period	Arr	Dep	Tot
AM	0.118	0.322	0.440
PM	0.325	0.205	0.530

Thus the new trips would be

Development	Access	Trips					
		AM Peak		Two way	PM Peak		Two way
		Arr	Dep		Arr	Dep	
138 Residential Dwellings	Waddington Road	20	61	81	60	31	91
137 Residential Dwellings with travel plan	Waddington Road	16	44	60	44	28	72
Totals		36	105	141	104	59	163

The mitigation would reduce the trips to less than those previously accepted could access from Waddington Road giving capacity back into the network i.e. 20 less in the AM and 19 less in the PM.

As such the assessments are confined to the site access, Railway View/Waddington junction and the Waterloo rd/Shawbridge junctions.

The results from the previous assessment based on similar flows are set out to show that the junctions as agreed will accommodate the site flows.

Waddington Road / Site Access Ghost Island Junction

The results summarises the PICADY results for the Waddington Road / Site Access Ghost Island junction. Arm A is Waddington Road E, Arm B is Site Access, Arm C is Waddington Road W and Arm D is Eastham Street.

Arm	2017 AM Base + Dev		2017 PM Base + Dev	
	RFC	Queue	RFC	Queue
B-AC	0.286	0	0.18	0
C-B	0.009	0	0.023	0

Waddington Road / Site Access Ghost Island Junction

As it can be seen from the above table the junction is predicted to be able to accommodate the proposed development with ample spare capacity.

Railway View Road / Waddington Road Priority T Junction

The results summarises the PICADY results for the Railway View Road / Waddington Road priority T junction. Arm A is Railway View Road S, Arm B is Waddington Road and Arm C is Railway View Road N.

It is proposed to upgrade the junction into a mini roundabout. The results summarises the ARCADY results for the proposed improvement.

Arm	2017 AM Base + Dev		2017 PM Base + Dev	
	RFC	Queue	RFC	Queue
A	0.717	3	0.935	10
B	0.792	4	0.778	3
C	0.728	3	0.957	13

Railway View Road / Waddington Road Mini Roundabout Junction

As it can be seen from the above table the junction is predicted to be able to accommodate the proposed development, alleviating the operational issues of the priority T junction and whilst maximising the ability to accommodate fluctuating demand patterns.

It should also be noted that this junction is likely to operate better than predicted since the proposed development sites are located in very close proximity to the railway station and town centre which will maximise the likelihood that persons will walk instead of using their cars.

Shawbridge Street / Waterloo Road

The previous application was supported by a test of the junction, this is set out below and shows a minor change is needed to the layout.

Taking due cognisance of the flows noted above, two sets of assessments have been undertaken taking account of the proposed junction improvements by each development. The Phase 2 development junction improvements promote the widening of all approaches whilst the Pendle Road development junction improvements promote the widening of Waterloo Road north and Shawbridge Street only.

Arm A is Shawbridge Street, Arm B is Waterloo Road south and Arm C is Waterloo Road north, with the existing situation results.

Arm	2017 AM Base		2017 PM Base	
	RFC	Q	RFC	Q
A	0.858	5	0.917	8
B	0.331	1	0.307	0
C	0.948	12	1.112	58

Arm	2017 AM Base + Dev With Improvements			2017 PM Base + Dev with Improvements		
	RFC	Q	Delay	RFC	Q	Delay
A	0.75	3	0.4	0.76	3	0.42
B	0.42	1	0.09	0.39	1	0.08
C	0.93	10	0.72	1.05	38	2.15

Waterloo Road / Shawbridge Street Mini Roundabout Junction – With Improvements

It has been demonstrated that the new improvements would accommodate the development trips and answer the concerns raised by the inspector.

7. SUMMARY

Policy

The overriding theme of national policy is approval other than if the **residual impacts are deemed severe.**

That developments must be accessible by sustainable means of transport and accessible to all members of the local community. Local policy echoes the sustainability sentiment of national policy and provides more detail in terms of deliverables.

In answer to the Inspectors report the proposed development will incorporate uses with good linkages to local facilities and infrastructure which will promote sustainability by reducing the number of car trips to local facilities and appropriate mitigation measures.

Furthermore there are:

Pedestrian and cycle linkages to a number of locations and facilities are available, frequent public transport services to other major centres and interchanges, and agreed parking provision all ensure that this development is as sustainable, as required in local and national policy.

The assessment shows that the scheme clearly does not give rise to any issues that can be deemed severe and from a transport point of view be approved.

Existing network review

The assessment of the existing situation shows that the local network functions well within any capacity constraints, no inherent safety issues are present, indeed it is agreed that the area has a low accident record of less than 1 per year.

Parking does occur as would be expected for an area with terraced properties but observations show that on a random inspection basis that there are gaps along the road to allow passing of vehicles or even accommodate additional parking as needed.

Sustainability

The site is well located in relation to a wide range of local facilities including the Town Centre itself for the walking mode.

The site has easy access to the local network which is a 20mph area and thus safer for cyclist to use, the site has the ability to connect to the two wider cycle routes for work or leisure uses.

It has easy access to bus service that connected it the wider area another employment and leisure opportunities.

It is also in easy walk of the rail station and thus the much wider employment area of Preston, Blackburn and Burnley.

In summary, therefore, the application site is agreed as being highly accessible by public transport, walking and cycling in accordance with planning policy guidance.

Assessment Summary

The network has been robustly assessed with and without the development and has been shown to operate with spare capacity at all junctions assessed across the network with the mitigation proposed.

Private house ownership has the potential for reduced car dependency if walking and public transport modes are accessible from day one.

Mitigation

The capacity assessments show that the site access have no capacity issues and the location is highly sustainable it is proposed to provide some mitigation measure which will enhance the local area and assist existing residents in the area to travel by car and non car modes.

The wider network assessment shows some need for minor scale improvements to accommodate the development flows but these are also able to accommodate the exiting committed and approved schemes that have not considered or offered any mitigation.

Congestion

The mitigation either provides a status quo or reduces the queues on the local network thus it is considered that there are no congestion issues on the local network

Safety

The local network has no trends or local safety concerns that would require mitigation as part of a local safety scheme.

The new 20 mph change has improved the safety aspects of the local network and will be extended to the benefit of the wider area.

The flows from the new development are can be accommodated on the network.

There are pedestrian routes to the town centre that are along routes with low flows and have good crossing provision

The area locally has low speeds that are conducive to cycle uses.

There are no residual impacts that would give rise to safety concerns.

As such it is considered that there are no reasons why the scheme as set out should not be approved from a transportation point of view.