

LAND ADJACENT TO HMP GARTH AND HMP WYMOTT, LEYLAND, LANCASHIRE APPLICATION REF: 21/01028/OUTMAJ

Technical Note

Review of Atkins Additional Evidence on behalf of Chorley Council





LAND ADJACENT TO HMP GARTH AND HMP WYMOTT, LEYLAND, LANCASHIRE APPLICATION REF: 21/01028/OUTMAJ

Technical Note

Review of Atkins Additional Evidence on behalf of Chorley Council

Type of document (version) Public

Project no. 70097769

Our Ref. No. 70097769-TN1

Date: March 2023

WSP

8 First Street Manchester M15 4RP

Phone: +44 161 200 5000

WSP.com



Quality control

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Remarks	Final	-	-	-
Date	08.03.22	-	-	-
Prepared by	AM	-	-	-
Checked by	KR	-	-	-
Authorised by	KR	-	-	-



Contents

1	Introduction	1
	Background	1
2	Ulnes Walton Lane Carriageway Markings and Traffic Calming	2
3	Footway between Ulnes Walton Lane and Moss Lane	5
4	Moss Lane Traffic Calming	6
5	A581/Ulnes Walton Lane Mitigation	8
6	Construction Phase Impacts	15
7	Scheme Costings	18
8	Summary and Conclusion	19

Tables

No table of figures entries found.

Figures

No table of figures entries found.

Appendices

No table of contents entries found.

1

Introduction





1 Introduction

Background

- 1.1.1. This technical note has been produced in response to the additional highway evidence submitted by Atkins in relation to the HMP Garth Wymott 2 planning appeal.
- 1.1.2. This note has been prepared by WSP, as Chorley Council's highway experts, to advise on the highway matters. WSP were only given seven calendar days in which to respond to the additional highway evidence (these timescales being from receipt of the Council of information to the submission date set) which came to 374 pages of technical evidence prepared over six weeks. This Note therefore sets out the most striking high level points that emerge from Atkins evidence.
- 1.1.3. For clarity and ease of review, the note follows the same format as the Atkins report:
 - Chapter 2 Ulnes Walton Lane Carriageway Markings and Traffic Calming;
 - Chapter 3 Footway between Ulnes Walton Lane and Moss Lane;
 - Chapter 4 Moss Lane Traffic Calming;
 - Chapter 5 A581/Ulnes Walton Lane Mitigation;
 - Chapter 6 Construction Phase Impacts;
 - Chapter 7 Scheme Costings; and
 - Chapter 8 Summary and Conclusion.



2 Ulnes Walton Lane Carriageway Markings and Traffic Calming

- 2.1.1. As set out by the Council's highway witness at the Inquiry, there was no evidence before the Inquiry of a scheme that would mitigate the road safety impacts on Ulnes Walton Lane south of its junction with Moss Lane, despite the numerous safety issues with the road including:
 - The Ulnes Walton Lane/Moss Lane junction has a sweeping radius on the north-western side which promotes fast speeds for left-turning traffic form Ulnes Walton Lane south into Moss Lane.
 - The curvature of Ulnes Walton Lane on this section results in poor forward visibility for right-turning traffic from Ulnes Walton Lane north to Moss Lane.
 - A post box is located on the north-western side of Ulnes Walton Lane at the junction with Moss Lane, a bus stop is located on the north-eastern side and another stop located to the south of the junction.
 - Ulnes Walton Lane is a two-way, single carriageway road with residential and farm accesses along its length.
 - There are multiple Public Rights of Way (PRoW) that intersect with Ulnes Walton Lane;
 - Ulnes Walton Lane is part of the Lancashire Cycleway, and is signed as such, although it is not LTN1/20 compliant.
 - There is no formal footway provision.
 - Pedestrians, cyclists and equestrians are all on road along this section and will be exposed to increased risk of accidents due to the increase in development traffic.
 - Whilst there are narrow grass verges and drainage ditches adjacent to the carriageway, these are not suitable for pedestrians walking.
 - There are no formal crossing facilities for pedestrians, cyclists nor equestrians.
 - The carriageway has multiple bends in the road with poor forward visibility in places.
 - The road is lined with dense hedges, which are overhanging in places.
 - Ulnes Walton Lane is subject to a 40mph speed restriction from the A581 until The Oaks bus stop where a 30mph speed restriction starts.
 - There were 3 Personal Injury Accidents (PIA)s recorded on the southern section of Ulnes Walton Lane from Moss Lane to the A581 and a further 2 PIA at the junction with the A581 over the five-year period assessed in the original TA (2016 to 2020).
- 2.1.2. At the time of the Inquiry, the mitigation on Ulnes Walton Lane was limited to the section north of Moss Lane, with no scheme at the junction with Moss Lane nor on Ulnes Walton Lane to the south, despite a significant volume of traffic generated by the proposed scheme routing along this section towards the A581 a total of 744 total vehicles per day.
- 2.1.3. The Inspector also noted the absence of a mitigation scheme in the decision letter.



- 2.1.4. As set out in section 2.4 and Appendix B of the Atkins report, a new scheme has subsequently been drawn up by the Appellant which includes:
 - New chevron warning signs on yellow backing boards;
 - Additional 40mph repeater signs along Ulnes Walton Lane;
 - New high friction surfacing through the junction; and
 - New advanced warning signage on yellow backing boards.
- 2.1.5. WSP has reviewed this evidence and whilst the Appellant has acknowledged the need to reduce speeds on the bend through improved warning signage and a raised table, there has been no attempt to improve forward visibility for drivers turning right into Moss Lane to access the appeal site, which will remain impaired.
- 2.1.6. The proposals do not provide for pedestrians who are required to cross near or at the junction nor a footway to allow them to walk safely on the southern side of Ulnes Walton Lane. Whilst there are proposals to improve the northbound bus stop and provision of a footway from Moss Lane to the bus stop on Ulnes Walton Lane, there is no provision for the alternative route.
- 2.1.7. Furthermore, the improvements at the Moss Lane junction does not fully address the concerns raised by the Council's highway expert at the Inquiry which were shared by the Inspector. These concerned the the impact of the increased volume of traffic along the entire length of Ulnes Walton Lane from its junction with Moss Lane south to the A581. The scheme put forward by the Appellant does not consider the conditions along Ulnes Walton Lane, nor the increased exposure of existing and future users to increased traffic as a result of the proposals. It is WSP's view that this increased risk for pedestrians, cyclists and equestrians, has not been considered.
- 2.1.8. There are numerous hazards along this section of Ulnes Walton Lane, with vulnerable road users travelling in the road on the Lancashire Cycleway; or needing to cross to access the equestrian centres, PRoW routes, and local services including the post box to the northwest of the Moss Lane junction and the bus stop to the south of the junction. None of these issues have been addressed in the mitigation schemes provided by the Appellant.
- 2.1.9. There is also a significant increase in total vehicles as a result of the construction and operation of the development. The increase in heavy goods vehicles in particular is a concern, with Ulnes Walton Lane identified as the construction traffic route (section 6 of the Atkins report), which means 100% of heavy goods vehicles a total of 64 heavy goods vehicles per day (Table 6.2 of the Atkins report) over the peak of construction (compared to still significant 61 heavy goods vehicles per average construction day Table 6.1 of the Atkins report), are anticipated to use Ulnes Walton Lane south to the A581.
- 2.1.10. According to Figure 6.2 of the Atkins report, this will be occurring over a peak period of at least ten months, with the full construction occurring over five years, for which users will be exposed to an increased hazard.



- 2.1.11. On top of which, a large proportion of construction worker vehicles, cars and vans will also be using Ulnes Walton Lane.
- 2.1.12. This will then continue into the operational phases with similar levels of total vehicles.
- 2.1.13. It is WSP's conclusion that the scheme proposed still does not mitigate the full impact of the development proposals and does not fully address the safety concerns of the Council and Inspector.



3 Footway between Ulnes Walton Lane and Moss Lane

- 3.1.1. As set out by the Council's highway witness at the Inquiry, there was no evidence before the Inquiry of a scheme that would mitigate the road safety impacts for pedestrians travelling to the northbound bus stop on Ulnes Walton Lane which is to be improved (previously through S106 contribution but now as part of a S278 agreement).
- 3.1.2. At the time of the Inquiry, the lack of footway meant users of the improved bus stop would have been required to walk in the live carriageway or adjacent verge.
- 3.1.3. It is noted that Lancashire County Council originally requested a footway be provided but the Appellant did not consider the request necessary at the time of the application (as set out in paragraph 3.2.2 of the Atkins report).
- 3.1.4. The Inspector agreed with the Council's highway witness and noted that without a footway on Moss Lane's eastern side, there would be an increases risk of vehicle-pedestrian conflicts.
- 3.1.5. As set out in section 3.4 and Appendix B of the Atkins report, a new scheme has subsequently been drawn up by the Appellant which includes:
 - "a new 2m wide footway along Ulnes Walton Lane (from the existing northbound bus stop on Ulnes Walton Lane to the existing access junction for HMP Garth and HMP Wymott on Moss Lane"; and
 - "tactile paving and a step free crossing point to allow pedestrians to cross Moss Lane and access the existing footway on the western side of the carriageway."
- 3.1.6. Whilst the tactile paving and step-free crossing point cannot be seen in Appendix B, WSP have reviewed Appendix G which shows the proposals further north on Moss Lane and this has confirmed that these are proposed to the north of the existing access point.
- 3.1.7. It is WSP's view that whilst this mitigates the need for users of the northbound bus stop to walk in the road, this does not fully mitigate the impact for other local users of Ulnes Walton Lane and Moss Lane (as explained in detail previously in section 2), including those travelling to the bus stop to the south of the Moss Lane junction and accessing the postbox on the north-western side of the Moss Lane junction. Both of which will still require pedestrians to walk in the road.

Technical Note
Project No.: 70097769 | Our Ref No.: 70097769-TN1
March 2023
LAND ADJACENT TO HMP GARTH AND HMP WYMOTT LEYLAND LANCASHIRE APPLICATION REF

LAND ADJACENT TO HMP GARTH AND HMP WYMOTT, LEYLAND, LANCASHIRE APPLICATION REF: 21/01028/OUTMAJ Page 5 of 20



4 Moss Lane Traffic Calming

- 4.1.1. As set out by the Council's highway witness at the Inquiry, there was no evidence before the Inquiry of a scheme that would mitigate the impact of increased vehicle traffic on Moss Lane, despite the numerous safety issues with the road including:
 - Moss Lane is a two-way, single carriageway road without road markings.
 - The road surface is poor and it has not been maintained, with cracks and potholes forming.
 - No provision of pedestrian drop curbs nor tactile paving.
 - There is only a footway along the western side of Moss Lane and only between the existing HMP Wymott and Garth access junction and Willow Road. The footway is also poorly maintained, it is uneven, with cracks and potholes forming.
 - Moss lane is subject to a 30mph speed restriction. However, it is a wide, straight section of road with the potential for drivers to gain speed.
 - The Automatic Traffic Count (ATC) survey undertaken by the appellant in March 2021, indicates an 85th percentile speed of 39.0mph northbound and 41.4mph southbound (section 3.3.1 of the TA).
 - It is likely that these recorded speeds are suppressed by the poor road condition, and that if the road surface was improved, speeds would be higher. There are signs on Moss Lane on the approach to the residential area to the north signalling to drivers to "watch your speed" and "children at play".
- 4.1.2. Whilst there was a mitigation scheme proposed by the Appellant at the time, this was basic "SLOW" road markings in the vicinity of the proposed new access, with no physical alterations nor deterrents for speeding.
- 4.1.3. The Inspector agreed with the Council's highway witness and noted that vehicles would still be tempted to speed along Moss Lane.
- 4.1.4. As set out in section 4.4 and Appendix G of the Atkins report, a new scheme has subsequently been drawn up by the Appellant which includes:
 - 'Dragons Teeth' markings to indicate vehicles are entering a traffic calmed area;
 - A raised table at the existing access to HMP Garth and HMP Wymott; and
 - Traffic calming features with hatching to narrow carriageway (four in total).
- 4.1.5. It is noted that paragraph 4.4.2 of the Atkins report also states:

"The purpose of the enhanced traffic calming scheme is to reduce vehicle speeds along the entire length of Moss Lane and create a gateway feature at either end to make it apparent that vehicles are entering a traffic calming corridor."

4.1.6. It is noted that the Appellant has commissioned two independent Road Safety Audits (RSA) which are appended to the Atkins report in Appendix C and D.



- 4.1.7. One of the RSAs identified that the poor road surface condition could reduce the longevity of the proposed road markings.
- 4.1.8. Whilst it is noted in the RSA Designer's Response (by Atkins) that the carriageway will be resurfaced, it is evident that the RSA identified an issue highlighted by the Council's highways witness during the Inquiry, which was that the current road condition is poor.
- 4.1.9. It was the Council highway expert's view at the time of the Inquiry, and indeed remains, that the existing speeding issues on Moss Lane with an 85th percentile speed of 39.0mph northbound and 41.4mph southbound (significantly above the posted speed limit of 30mph) were in fact suppressed due to the nature of the poor road surface, with drivers wanting to avoid discomfort or damage to vehicles.
- 4.1.10. Whilst this conclusion was drawn on the scheme proposed at the Inquiry, which was simply SLOW markings, it is WSP's view that this could still be the case, as there is still the ability to pick up speed travelling both north and south of Moss Lane. The only physically restrictive feature being the raised table at the most southern point of Moss Lane at the junction with the existing prison access.
- 4.1.11. This would leave a more than 315m straight section of road where drivers travelling to and from the existing Wymott Village (approximately 225m section for visitors and employees of the new prison) could easily pick up speed on the approach to and from the raised table shown on the plans in Appendix G, which is the only physical deterrent.
- 4.1.12. It is WSP's conclusion that this scheme has not changed much from the initial proposal put before the Inquiry, it still does not address the safety concerns of the Inspector and it still does not fully mitigate the impact of the proposals at this location.



5 A581/Ulnes Walton Lane Mitigation

- 5.1.1. As set out by the Council's highway witness at the Inquiry, there was no evidence before the Inquiry of a scheme that would mitigate the agreed unacceptable (if unmitigated) impact of increased vehicle traffic generated by the development at the A581/Ulnes Walton Lane junction. The Appellant originally proposed a S106 contribution towards a wider corridor scheme on the A581 and suggested it could be spent on a signalised junction improvement scheme.
- 5.1.2. The scheme was a preliminary signal design with no assessment in terms of capacity nor safety.
- 5.1.3. It was also unclear as to whether the scheme could be delivered due to the presence of three private driveways on the southern side of the A581, opposite Ulnes Walton Lane, which were not fully considered in the signal design despite being part of the junction.
- 5.1.4. However, there was no assessment of the proposed scheme in capacity nor safety terms at the time of the Inquiry.
- 5.1.5. The Inspector agreed with the Council's highway witness and noted that a S106 contribution could not be considered without the provision of a design (which could be costed) and supporting traffic modelling to demonstrate that it would mitigate the capacity impacts.
- 5.1.6. It is noted that the Appellant is now seeking to deliver a mini-roundabout junction as mitigation, which will be delivered through a S278 Agreement.
- 5.1.7. It is understood that the mini-roundabout design originated from LCC (as part of a wider funding application shown in Appendix I) but has been progressed by Atkins.
- 5.1.8. As set out in section 5.4 and Appendix J of the Atkins report, the new scheme includes:
 - The provision of a raised table;
 - The provision of speed cushions along the A581;
 - Three new lighting columns on the Ulnes Walton Lane approach;
 - Relocated speed limit signs along Ulnes Walton Lane to extend the existing 30mph zone;
 - A reduced Inscribed Central Diameter (ICD); and
 - Dragons Teeth on all approach arms.
- 5.1.9. Whilst it is noted that the scheme has been designed with capacity in mind, it is WSP's view that this cannot be done at the expense of safety.
- 5.1.10. There are numerous issues with the current junction including:
 - Poor visibility for traffic turning out of Ulnes Walton Lane due to the presence of overgrown vegetation and hedgerows.
 - The existing carriageway is narrow and vehicles turning right into Ulnes Walton Lane from the A581 east block the ahead movements (the A581 east to A581 west) resulting in



- vehicles forcing around stationary vehicles and mounting the footway due to the presence of dropped kerbs.
- The A581 provides direct access to residential properties and businesses, including a pub and a petrol station, and bus stops, in the vicinity of the junction with Ulnes Walton Lane.
- There is only a narrow footway on the south side of the A581 Southport Road on the approaches to the junction with Ulnes Walton Lane, and as set out previously, there are no footways on Ulnes Walton Lane.
- There are three private driveways within the junction itself accessed on the southern side opposite Ulnes Walton Lane.
- There is an existing access (for Barlow Moor Trailers) located just east of the junction.
- The tight turning radii and narrow road widths for the existing junction requires larger vehicles to cross onto the opposite side of the road to make manoeuvres.
- 5.1.11. Firstly, it is noted that the scheme does not consider pedestrians, cyclists (despite being part of the Lancashire Cycleway), or equestrians.
- 5.1.12. These vulnerable road users would be exposed to increased risk from the additional vehicles generated by the proposals, but also the increased risk from more vehicles making unsafe manoeuvres (as set out in the following sections). Including, the ability for vehicles to mount the footway on the southern side of the A581.
- 5.1.13. The Hydrock RSA (Appendix C) highlights this as a safety issue:

"Under the proposals the roundabout will be raised there are private driveways incorporating dropped kerbs on the south side of the junction and it is unclear how these could tie in with a raised surface. If the carriageway is at the same level, there is a risk that drivers may inadvertently overrun the footway or driveway."

"It is recommended that an appropriate kerb upstand is provided, and other measures introduced to ensure the kerb is conspicuous to road users entering the roundabout."

- 5.1.14. However, a continuous upstand cannot be provided within the current highway extents and has not been considered in the mini roundabout design, because access needs to be maintained for the three driveway entrances.
- 5.1.15. WSP note that Atkins have undertaken vehicle tracking to demonstrate the swept paths of different vehicles using the proposed junction in Appendix J.
- 5.1.16. The vehicle tracking clearly identifies multiple issues with the current design. There are also omissions of common movements that also need to be considered when designing a junction.
- 5.1.17. Firstly, the vehicle tracking shows heavy goods vehicles overrun the central markings and into the opposite direction of traffic. This means vehicles waiting at the give-way line on

Technical Note

Public | WSP
Project No.: 70097769 | Our Ref No.: 70097769-TN1

March 2023

LAND AD IACENT TO HMP GARTH AND HMP WYMOTT LEYLAND LANCASHIRE APPLICATION REF.

LAND ADJACENT TO HMP GARTH AND HMP WYMOTT, LEYLAND, LANCASHIRE APPLICATION REF: 21/01028/OUTMAJ Page 9 of 20



each approach will be in potential conflict with vehicles making this manoeuvre and it is WSP's view that this is not an acceptable safe design of a new junction.

5.1.18. This is identified in the RSAs. In the Hydrock RSA (Appendix C):

"From the drawings provided and site visit it is not clear how the necessary road space will be obtained for the mini roundabout. Currently large vehicles turning left from Ulnes Walton Lane on to the A581 overrun the opposing lane and the provided swept path analysis provided shows this will also happen with the proposed solution. This could increase the risk of collisions between large vehicles turning left from Ulnes Walton Road and vehicles travelling west on the A581." (Hydrock RSA section 2.2 – Atkins Appendix C)

- 5.1.19. As shown in the vehicle tracking, the bottom left shows that the articulated vehicle swept path travelling from the A581 west and turning left crosses the Ulnes Walton Approach give way markings, which is unsafe, and the frequency of which will be increased by the development proposals with an increase in vehicles (including heavy vehicles) on all approaches Ulnes Walton Lane and turning into Ulnes Walton Lane from each direction on the A581.
- 5.1.20. It is noted that Atkins have made reference to designing the junction in line with the standards set out in DMRB CD 116 which is appropriate for a road of this nature. However, paragraph 5.27 of CD116 states that:

"Where the swept path of the largest design vehicle using the junction crosses the inscribed circle, the give way markings for the affected arms shall be moved back such that they are not crossed by the outside edge of the swept path."

- 5.1.21. Atkins have not adhered to this and have presented manoeuvres which are clearly unsafe.
- 5.1.22. Paragraph 5.7.3 of the Atkins report, in the response to the RSA findings, states that the conclusions reached by the RSA are not valid and includes several reasons, including at bullet three:
 - "There is a 7.5t weight restriction along Ulnes Walton Lane (except for access). The RSA specifically makes reference to HGVs turning out of Ulnes Walton Lane, however the number of HGVs making this movement is restricted."
- 5.1.23. Firstly, a 7.5t weight limit is not an indication of vehicle length.
- 5.1.24. Secondly, large heavy goods vehicles do currently make these movements and currently struggle to make these movements safely. As shown by an image captured at the junction in the RSA:

Technical Note Public | WSP Project No.: 70097769 | Our Ref No.: 70097769-TN1 March 2023 LAND ADJACENT TO HMP GARTH AND HMP WYMOTT, LEYLAND, LANCASHIRE APPLICATION REF:

LAND ADJACENT TO HMP GARTH AND HMP WYMOTT, LEYLAND, LANCASHIRE APPLICATION REF: 21/01028/OUTMAJ Page 10 of 20





- 5.1.25. These movements will increase as a result of additional heavy goods vehicles generated by the proposed development, particularly during construction (as set out in section 6 of this note).
- 5.1.26. The tracking only demonstrates three vehicle types and does not account for all vehicles using this road currently or in the future. Including, refuse vehicles, buses and horseboxes (Ulnes Walton Lane has a number of equestrian centres on it). It should be noted that some rigid vehicles of lesser length can have different and often more intrusive turning circles than an articulated 16.5m vehicle. Had these vehicles been tracked it could indicate more issues than those already shown in Appendix J.
- 5.1.27. The tracking also fails to demonstrate the movement of heavy goods vehicles negotiating the ahead movement from the A581 east to the A581 west where Atkins have proposed to build out the kerbline, and where the RSA identified a potential issue of the kerb being overrun by vehicles.
- 5.1.28. As the information is not provided it is not possible to consider in detail, but it would seem a realistic assumption that the tracking line, had it been provided, would be a mirror-image of the opposite direction (A581 west to A581 east), which curves northwards. This leads WSP to conclude that the footway to the south of the A581 would be overrun by a heavy vehicle, which would be a safety issue for pedestrians on the footway or vehicles accessing the driveways.
- 5.1.29. In addition, the vehicle tracking for a large car accessing the three driveways to the junction has not been demonstrated for every movement that could be made by those vehicles. The vehicle tracking should, but fails to, demonstrate that a safe manoeuvre for left, right and



- ahead can be undertaken at the junction. Instead, the tracking demonstrates a single movement for each driveway.
- 5.1.30. The tracking which is shown is also unrealistic. The second vehicle tracking of a large car appears to suggest that a left-turning vehicle from the middle driveway would need to U-turn rather than turn straight left.
- 5.1.31. The third vehicle track then appears to show a right-turning vehicle from the most western driveway needing to overrun the central road markings at the entry to the roundabout. This is a particularly unsafe manoeuvre that would lead to conflicts with vehicles approaching from the west on the A581.
- 5.1.32. Alternatively, drivers could be tempted to force their way out into traffic and potentially sit in the carriageway at 90 degrees to the flow of movements on the A581 waiting for a space to enter the roundabout. Worse still, drivers could be tempted to cut through the centre of the roundabout. Both of which would be unsafe and increase the risk of accidents and neither are considered acceptable practice.
- 5.1.33. On this basis alone, WSP conclude that the proposed junction does not meet the necessary standard to mitigate the road safety impacts and this situation will be exacerbated by an increased number of vehicles generated by the proposals, particularly HGVs.
- 5.1.34. Furthermore, the visibility for the proposed mini roundabout is significantly below the standards set out in DMRB CD116 paragraph 5.20. This is recognised in the Atkins report at section 5.6 but the severity of such a breach of standards is not addressed.
- 5.1.35. The relevant extract from DMRB is shown below for reference:



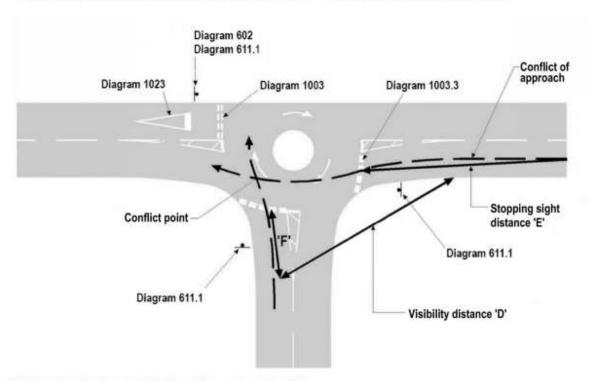


Figure 5.20 Mini-roundabout visibility distance 'D' and stopping sight distance 'F'

Table 5.20 Minimum visibility distance to the right

OFth research a second of arm to	'D' distance (m)			
85 th percentile speed of arm to the right (mph)	For a gap acceptance time of two seconds	For a gap acceptance time of three seconds		
35	40	55		
30	35	50		
25	25	40		

- 5.1.36. It should be noted that Atkins have assumed an 85th percentile speed of 30mph at this junction. There is no evidence to support that the existing 85th percentile speeds on the approaches to the junction are 30mph. A current speed survey would have been able to establish this but does not seem to have been undertaken.
- 5.1.37. There is also no evidence that a reduction in 85th percentile speed to 25mph would be achievable with the proposals.
- 5.1.38. As such, the minimum visibility distance 'D' on each approach that should be considered based on the 85th percentile speed of 30mph as indicated by Atkins, is 35m.

Approach direction	CD 116 Visibility Requirement ('F' X 'D')	Designed Visibility ('F' X 'D')	Meets standards?
--------------------	---	------------------------------------	------------------

Technical Note Public | WSP Project No.: 70097769 | Our Ref No.: 70097769-TN1 March 2023

LAND ADJACENT TO HMP GARTH AND HMP WYMOTT, LEYLAND, LANCASHIRE APPLICATION REF: 21/01028/OUTMAJ Page 13 of 20



A581 west	9m x 35m	9m x 17.8m	No = Only 50.8% of requirement
Ulnes Walton Lane	9m x 35m	9m x 16.6m	No - Only 47.4% of requirement

5.1.39. It should be noted that the VIA East Midlands RSA (Appendix D) notes the visibility as a safety issue and makes the following recommendation:

"It is recommended that the visibility is improved by acquisition of a portion of the adjacent land, to allow the highway boundary to be set back. Should this not be possible, a redesigned layout may be required, or failing that, an alternative method of junction control may need to be explored."

5.1.40. Similarly, the Hydrock RSA (Appendix C) recommends a different junction layout at this location:

"It is recommended that an alternative junction solution such as a sheltered right lane is provided at this location."

- 5.1.41. WSP are in agreement with these recommendations given the apparent deficiencies in the current design:
 - the increased risk to vulnerable road users at the junction (in particular the potential to overrun the footway on the southern side of the A581);
 - the unsafe heavy goods vehicle manoeuvres as presented in the vehicle tracking;
 - the unsafe manoeuvres for the private driveways within the junction as presented in the vehicle tracking;
 - the omission of some of the vehicle tracking for common movements; and
 - the reduced visibility to below standard.
- 5.1.42. In conclusion, the design that has been submitted does not address the concerns raised by Chorley Council, their Expert Witness, nor the Inspector, and on that basis the refusal reason with regard to road safety has not been effectively mitigated.
- 5.1.43. In fact, the Council's position is now stronger than the inquiry. The issue at the inquiry was that the Appellant had failed to provide any detail about the required mitigation scheme at the A581/Ulnes Walton Lane junction and the Council's concern was that the vague details of the Appellant's proposal (a mini roundabout) could not be delivered.
- 5.1.44. Now that the Appellant has provided some detail of the scheme it has confirmed the Council's concerns shared by two third party RSAs that the Appellant's scheme is unsuitable and unsafe.

Technical Note
Project No.: 70097769 | Our Ref No.: 70097769-TN1

March 2023

LAND AD LACENT TO HMD CARTH AND HMD WYMOTT LEVI AND LANCASHIBE ADDITION REF:

LAND ADJACENT TO HMP GARTH AND HMP WYMOTT, LEYLAND, LANCASHIRE APPLICATION REF: 21/01028/OUTMAJ Page 14 of 20



6 Construction Phase Impacts

- 6.1.1. As set out by the Council's highway witness at the Inquiry, there was no assessment of the construction phase impacts of the scheme.
- 6.1.2. The Inspector agreed with the Council's highway witness and noted that the Appellant had not modelled or assessed the forecast construction traffic, nor demonstrated that the highway effects of the construction phase can be adequately mitigated.
- 6.1.3. It is noted in section 6.4 of the Atkins report the routes for construction traffic are set out as travelling to/from the site via the southern section of Ulnes Walton Lane and east on the A581 (as shown in Atkins Figure 6-1):

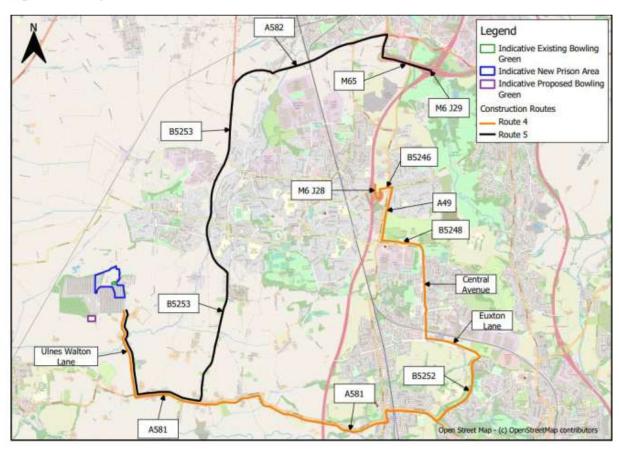


Figure 6-1 - Proposed Construction Routes

- 6.1.4. The figure clearly illustrates that construction heavy goods vehicles will route south despite the 7.5t weight restriction on Ulnes Walton Lane. This will result in an increase of large vehicles making the left-turn from Ulnes Walton Lane to the A581 east and an increase on the right-turn into Ulnes Walton Lane from the A581 east.
- 6.1.5. As set out in section 5, the vehicle tracking provided by Atkins in Appendix J illustrates that those turns cannot safely be made by large heavy goods vehicles, and the conclusion from Atkins that this will not be made by large vehicles due to a weight limit is simply incorrect



- based on their own construction traffic routing and given that vehicles to and from the site are likely to be heavier than this.
- 6.1.6. It is noted that a "Construction Route Assessment" has been undertaken by Explore Transport and has been appended to the Atkins report at Appendix N.
- 6.1.7. The analysis of routes appears to be high-level commentary from the appeal site to the Strategic Road Network with little acknowledgement of the local routes which were the focus of the Inquiry and where road safety is a concern.
- 6.1.8. The analysis also appears to be deficient as no reference is made to the current restrictions on Ulnes Walton Lane of 7.5t. It is likely that a construction vehicle has the potential to weigh greater than 7.5t especially with full loads. Commentary on route 5 in Appendix N states that Ulnes Walton Lane would also be the preferred route for abnormal loads, which presumably would be significantly more than 7.5t.
- 6.1.9. Given the frequency of vehicles, Ulnes Walton Lane is likely to suffer degradation from this continuous level of traffic over several months and notably there is no commentary on this issue from Atkins on how the Appellant expects to deal with this.
- 6.1.10. In addition, the conclusion that "no kerb lines will be overrun" seems to have been simply based on visual inspection rather than using appropriate tracking software as it is noted at page 10 of Appendix N that "no additional swept path analysis carried out for in gauge HGV loads".
- 6.1.11. However, based on the tracking provided by Atkins in Appendix J, there are serious deficiencies at the proposed A581/Ulnes Walton Lane junction with overrunning into the opposite carriageway as set out previously in section 5, which is a significant safety hazard.
- 6.1.12. It is also noted that this issue will not be constrained to the junction itself and could occur along Ulnes Walton Lane where vehicles need to pass, as set out in the summary of Appendix N (page 11):
 - "Approaching site from the A581 is deemed the more suitable route due to lesser residential areas and a shorter distance to the main road.

HGVs should pass with care during two way traffic on Walton Ulnes Lane although is suitable.

An alternate consideration would be to make exiting HGVs travel north along Walton Ulnes Ln to the B5248.

Larger plant vehicles moving rigs/ cranes should consider TM (provided by site) as the size of the loads may take up majority of the road during travel. There are a couple of passing laybys but would need to be managed accordingly."

6.1.13. It is unclear whether the issues identified by Atkins vehicle tracking in Appendix J could also occur on Moss Lane, or the wider routes and therefore the potential safety issue could be much wider on multiple roads and at multiple junctions.

Technical Note Public | WSP Project No.: 70097769 | Our Ref No.: 70097769-TN1 March 2023 LAND ADJACENT TO HMP GARTH AND HMP WYMOTT, LEYLAND, LANCASHIRE APPLICATION REF:

21/01028/OUTMAJ Page 16 of 20



6.1.14. As set out in section 6 of the Atkins report, there will be significant volumes of construction traffic for a significant period of time, with 61 heavy goods vehicles per day in an average month, and 64 heavy goods vehicles per day in the peak of construction:

Table 6-1 - Forecast HGVs & Construction Vehicles - Average Construction Month (One-Way)

Vehicle	Per Day	Per Week	Per Month
Cars	210	1,157	4,628
HGVs	61	338	1,350
Total	272	1,494	5,978

Table 6-2 - Forecast HGVs & Construction Vehicles - Peak Construction Month (One-Way)

Vehicle	Per Day	Per Week	Per Month
Cars	760	4,179	16,717
HGVs	64	354	1,414
Total	824	4,533	18,132

Table 6-3 - Forecast Trip Generation - Combined Construction Peak (December 2027)

Vehicle	06:00-07:00	07:00-08:00	17:00-18:00
Cars	534	107	326
HGVs	0	7	7
Total	534	114	333

6.1.15. This is a significant increase in traffic for which this note has set out numerous safety issues that have not been fully mitigated by the Appellant. The combination of which increases the exposure to these risks with the result being a potential increase in conflicts (vehicle-vehicle, vehicle-pedestrian / cyclist / equestrian).

Technical Note Public | WSP Project No.: 70097769 | Our Ref No.: 70097769-TN1 March 2023 LAND ADJACENT TO HMP GARTH AND HMP WYMOTT, LEYLAND, LANCASHIRE APPLICATION REF:

LAND ADJACENT TO HMP GARTH AND HMP WYMOTT, LEYLAND, LANCASHIRE APPLICATION REF: 21/01028/OUTMAJ Page 17 of 20



7 Scheme Costings

- 7.1.1. It is understood that the Appellant has agreed with LCC that the proposed mitigation works would be delivered through S278 Agreement.
- 7.1.2. Whilst WSP have no specific comments to make at this stage on this, it is noted in paragraph 7.1.1 of the Atkins report:
 - "Therefore, the additional highways measures proposed would be subject to detailed design and the associated RSA's required at each appropriate stage of the design."
- 7.1.3. It is WSP's conclusion that the current stage 1 RSAs have highlighted numerous deficiencies in the current designs which will increase the risk of accidents and this risk will be further increased by the additional traffic associated with the proposals during both construction and operation.
- 7.1.4. With particular regard to the A581/Ulnes Walton Lane mini-roundabout proposal, it is also WSP's view that these deficiencies cannot simply be designed out (or mitigated) at the next stage of the design process without a completely different junction layout being put forward by the Appellant that has been assessed both in terms of capacity and safety.

Technical Note Public | WSP Project No.: 70097769 | Our Ref No.: 70097769-TN1 March 2023 LAND ADJACENT TO HMP GARTH AND HMP WYMOTT, LEYLAND, LANCASHIRE APPLICATION REF:

21/01028/OUTMAJ Page 18 of 20



8 Summary and Conclusion

- 8.1.1. With regard to the additional evidence provided by Atkins, it is WSP's conclusion that:
 - Ulnes Walton Lane carriageway markings and traffic calming this does not mitigate the full impact of the development proposals and does not fully address the safety concerns raised by the Council.
 - The proposed footway between Ulnes Walton Lane and Moss Lane whilst this does address part of the safety concerns raised by the Council by providing access to the northbound bus stop, it does not address the impact for other local users of Ulnes Walton Lane and Moss Lane (as explained in detail previously in section 2), including those travelling to the bus stop to the south of the Moss Lane junction and accessing the postbox on the north-western side of the Moss Lane junction. Both of which will still require pedestrians to walk in the road.
 - Moss Lane traffic calming has not changed much from the initial proposal put before the Inquiry, it does not address the safety concerns and it does not fully mitigate the impact of the proposals at this location.
 - A581/Ulnes Walton Lane Mitigation there are clear deficiencies in the current design and the concerns raised by the Council, their Expert Witness, and the Inspector have not been effectively mitigated. It is WSP's view that these issues cannot simply be designed out in subsequent stages of the design when the recommendations reached by both RSAs are that a new junction design needs to be explored. The evidence suggests the design is unsuitable and unsafe a fundamental flaw given the accepted necessity of mitigation at this junction.
 - Construction traffic routing the assessment of construction traffic routes is flawed and does not take into account weight restrictions on Ulnes Walton Lane nor does it provide supporting vehicle tracking demonstrating safe access for construction vehicles. Notwithstanding, the volume of traffic is significant, particularly the volume of heavy goods vehicles, which increases the risk of accidents at the A581/Ulnes Walton Lane junction for which some tracking (although not complete) has been undertaken and has shown to be deficient.
- 8.1.2. There are clear deficiencies highlighted by WSP's review of the additional information provided by Atkins, which are also highlighted in the two independent RSAs.
- 8.1.3. WSP also highlight that while some measures are proposed there is virtually no commentary or definition of what the impacts and benefits to road safety of these measures would be if implemented and why they have been proposed against specific issues of safety concern. There is no justification that the measures provided are the correct measures that will mitigate concerns.
- **8.1.4.** On that basis, it is WSP's view that the proposed mitigation put forward by Atkins has not been properly developed, nor does it fully address the original concerns raised by Chorley

Technical Note Public | WSP Project No.: 70097769 | Our Ref No.: 70097769-TN1 March 2023 LAND ADJACENT TO HMP GARTH AND HMP WYMOTT, LEYLAND, LANCASHIRE APPLICATION REF:

Page 19 of 20

21/01028/OUTMAJ



Council, their Expert Witness, and the Inspector. These concerns will be set out and expanded upon through the submission of detailed evidence at a re-opened public inquiry.



8 First Street Manchester M15 4RP

wsp.com

WSP UK Limited makes no warranties or guarantees, actual or implied, in relation to this report, or the ultimate commercial, technical, economic, or financial effect on the project to which it relates, and bears no responsibility or liability related to its use other than as set out in the contract under which it was supplied.