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Member of the SNC-Lavalin Group

HMP Garth Wymott 2

Additional Highways Evidence

Mace (On behalf of the Ministry of Justice)

March 2023

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1.0	Draft Highways Evidence	TR	DC	TC	SY	17/02/23
1.2	2nd Draft Highways Evidence	TR	TR	SY	SY	27/02/23
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Client signoff

Client	Mace (On behalf of the Ministry of Justice)
Project	HMP Garth Wymott 2
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1. Introduction

1.1. Background

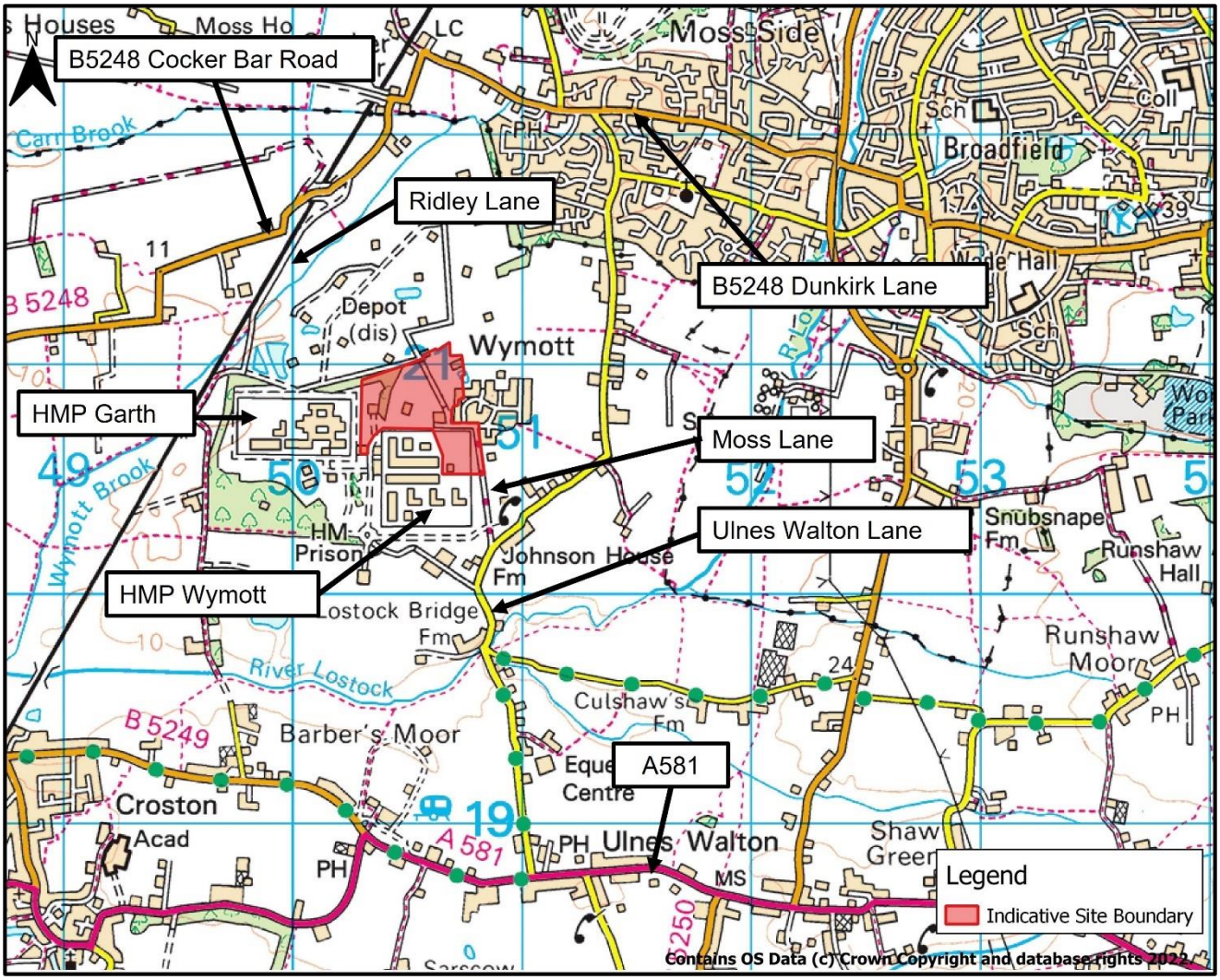
1.1.1. This report has been produced in response to the 'minded to grant' decision made by Lee Rowley MP, the Parliamentary Under Secretary of State for Local Government and Building Safety, on behalf of the Secretary of State. The 'minded to grant' decision was outlined within a letter addressed to Cushman & Wakefield on the 19 January 2023 (APP/D2320/W/22/3295556).

1.1.2. As outlined in Paragraph 4 of the decision letter, the Secretary of State has given the appellant (the Ministry of Justice) and other parties the opportunity to provide further evidence on highways issues, and allow parties to respond to any such evidence, before reaching a final decision on the appeal. Subject to being satisfied that these matters can be satisfactorily addressed, the Secretary of State is minded to allow the appeal and grant planning permission, subject to conditions.

1.2. Summary of Main Issues

1.2.1. A summary of the main highway issues identified by the Secretary of State (within Paragraphs 15 and 16 of the decision letter) is provided in the sections below. Figure 1-1 shows the local highway network in the vicinity of the development site for context.

Figure 1-1 - Local Highway Network - Site Context



Ulnes Walton Lane Carriageway Markings and Traffic Calming

1.2.2. Within the decision letter, the Inspector notes that the Appellant has made reference to reviewing/amending the existing carriageway markings at the Moss Lane/Ulnes Walton Lane junction, and additional measures are proposed. However, there are no drawings or agreements with Lancashire County Council (LCC) as the Local Highway Authority on specific details.

Footway between Ulnes Walton Lane and Moss Lane

1.2.3. Within the decision letter that the Secretary of State agrees with the Inspector, who concludes that without a new footway (between Ulnes Walton Lane and Moss Lane) people would continue to walk in the road or along the verge to access the northbound bus stop. According to the Inspector, this would result in an increased risk of vehicle of pedestrian conflict.

Moss Lane Traffic Calming

1.2.4. Within the decision letter, the Secretary of State agrees with the Inspector who notes that vehicles would still be tempted to speed along the southern section of Moss Lane despite the traffic calming measures proposed.

A581/Ulnes Walton Lane Mitigation

1.2.5. The Secretary of State agrees with the Inspector, that it has not been demonstrated that the proposed works would resolve capacity issues at the A581/Ulnes Walton Lane junction, or that the financial contribution would be sufficient.

Construction Phase Impacts

1.2.6. The Secretary of State agrees with the Inspector who states that the Appellant has not modelled or assessed the forecast construction traffic, neither have they demonstrated that the highway effects of the construction phase can be adequately mitigated.

1.3. Consultation with Lancashire County Council

1.3.1. LCC had no highways objections to the Hybrid Planning Application as outlined within the statutory consultee comments (Core Document B1). The Appellant has continued to engage with LCC during the additional time granted by the Secretary of State. As the Local Highway Authority, LCC has provided comments on the additional highways evidence presented within this report.

1.3.2. A joint statement prepared by LCC and the Appellant is provided in Appendix A of this report.

1.4. Report Structure

1.4.1. This report provides further evidence on the highway issues outlined in Paragraphs 15 and 16 of the decision letter, and is subject to the following structure:

- Chapter 2 provides evidence in relation to the proposed traffic calming measures at the Moss Lane/Ulnes Walton Lane junction and along Ulnes Walton Lane (to the south of the junction with Moss Lane);
- Chapter 3 provides evidence in response to the requirement for a new section of footway between the northbound bus stop along Ulnes Walton Lane and the existing footway on Moss Lane;
- Chapter 4 provides evidence in response to the requirement for additional traffic calming measures to the south of Moss Lane;
- Chapter 5 provides evidence in relation to the proposed off-site highways mitigation at the A581/Ulnes Walton Lane junction;
- Chapter 6 provides evidence in relation to the construction phase, specifically to demonstrate that the effects of the construction phase can be adequately mitigated;
- Chapter 7 provides an update on the scheme costs; and
- Chapter 8 provides a summary and conclusion.

1.4.2. Please note, where appendices have been provided elsewhere, they have not been reprovided to avoid duplication.

2. Ulnes Walton Lane Carriageway Markings and Traffic Calming

2.1. Introduction

2.1.1. This section of the report provides a summary of the highways issue identified by the Inspector at this location, and the additional highway evidence as requested by the Secretary of State. Specifically, it provides a preliminary highways design for the Moss Lane/Ulnes Walton Lane junction which demonstrates the specific measures proposed by the Appellant.

2.2. Background

2.2.1. LCC, as the Local Highway Authority, were consulted on the Transport Assessment (TA) (Core Document A35) and Outline Travel Plan (OTP) (Core Document A36) in advance of the Hybrid Planning Application submission to agree the scope of the assessment. Atkins continued to engage with LCC throughout the Determination Period. These discussions were used to agree the planning obligations and the associated delivery mechanism.

2.2.2. It was agreed with LCC that the Appellant would provide traffic calming measures along the 130m section of Ulnes Walton Lane on the approach to Moss Lane from the south, and review/amend the existing carriageway markings at the Moss Lane/Ulnes Walton Lane junction where necessary.

2.2.3. It was agreed with LCC that a written description would be added to DWG: GARTHULNES-ATK-HGN-DR-D-001 (submitted as part of the Appeal) ahead of the Planning Committee on the 21 December 2021.

2.3. Highways Issue

2.3.1. Within the decision letter, the Inspector notes that the Appellant has made reference to reviewing/amending the existing carriageway markings at the Moss Lane/Ulnes Walton Lane junction, and additional measures are proposed. However, there are no drawings or agreements with LCC as the local Highway Authority on specific details. Additional evidence is provided in the next section.

2.4. Additional Evidence

2.4.1. Atkins has produced a preliminary highway design for the Moss Lane/Ulnes Walton Lane junction which demonstrates the specific measures proposed by the Appellant (see DWG: GARTH_ATK_HGN_MOSS_DR_D_0003 in Appendix B). These measures include:

- 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.

2.4.2. It has been agreed with LCC that the above highways works would be delivered via a Section 278 (s278) Agreement with LCC. Therefore, the additional highways measures proposed would be subject to detailed design and the associated Road Safety Audits (RSA) required at each appropriate stage of the design.

2.5. Stage 1 RSA

2.5.1. The Appellant has commissioned two independent Stage 1 RSA to be undertaken in relation to the additional highways evidence presented within this report:

- Hydrock - 21/02/23 (see Appendix C); and
- VIA East Midlands Ltd - 20/02/23 (see Appendix D).

2.5.2. Atkins has produced an RSA Designers Response to each of the Stage 1 RSA commissioned. The RSA Designers Response provides the responses from the design organisation (Atkins) to the items raised in the Stage 1 RSA:

- RSA Designers Response to Hydrock (see Appendix E); and
- RSA Designers Response to VIA East Midlands Ltd (see Appendix F).

Hydrock Stage 1 RSA

2.5.3. A Stage 1 RSA was produced by Hydrock on 21 February 2023 (see Appendix C). The Stage 1 RSA reviewed the proposed highway layout at the Moss Lane/Ulnes Walton Lane junction (DWG: GARTH_ATK_HGN_MOSS_DR_D_0003) and did not identify any RSA problems with the proposed scheme.

VIA East Midlands Ltd Stage 1 RSA

2.5.4. A Stage 1 RSA was produced by VIA East Midlands Ltd on 20 February 2023 (see Appendix D). The Stage 1 RSA reviewed the proposed highway layout at the Moss Lane/Ulnes Walton Lane junction (DWG: GARTH_ATK_HGN_MOSS_DR_D_0003) and identified three RSA problems (see Table 2-1).

Table 2-1 - Stage 1 RSA Problem Summary - Moss Lane/Ulnes Walton Lane Junction

ID	Location	RSA Problem	RSA Recommendation
4.1	Moss Lane/Ulnes Walton Lane Junction	Junction warning sign obscured, leading to accidents at Moss Lane junction.	When finalising the on-site location of the sign, ensure that approaching drivers have an unrestricted view of it, which will not be compromised by future foliage growth. It may be appropriate to relocate the sign slightly further south.
4.2	Moss Lane/Ulnes Walton Lane Junction	Chevron signs' orientation leads to accidents at bend.	Adjust the orientation of both proposed chevrons to face approaching drivers. If this is not achievable without blocking footways, visibility splays, etc. it may be appropriate to employ a short line of yellow backed 'single stick' chevrons instead.
4.3	Moss Lane/Ulnes Walton Lane Junction	Potential for bend accidents due to insufficient surface skidding resistance.	Ensure the surface has a suitably high skidding resistance and polished stone value. A 'high friction surfacing' / 'anti-skid' material may be an appropriate choice.

2.5.5. Atkins has produced an RSA Designers Response which provides the responses from the design organisation (Atkins) to the items raised in the Stage 1 RSA produced by VIA (see Appendix F). The Appellant (the Ministry of Justice) agrees with the RSA and has confirmed that the exact location of the proposed signage, and the specification of the carriageway surfacing will be confirmed during the detailed design stage.

2.6. Lancashire County Council

2.6.1. As per Section 1.3 of this report, the Appellant has continued to engage with LCC during the additional time granted by the Secretary of State, to ensure that as the Local Highway Authority they agree with the further highways evidence presented within this report. LCC has reviewed the additional highways evidence (including the two Stage 1 RSA's) at the Moss Lane/Ulnes Walton Lane junction, and they are satisfied with the proposals (see joint statement in Appendix A).

3. Footway between Ulnes Walton Lane and Moss Lane

3.1. Introduction

3.1.1. This section of the report provides a summary of the highways issue identified by the Inspector at this location, and the additional highway evidence as requested by the Secretary of State. Specifically, it provides a preliminary highway design for a new section of footway between Ulnes Walton Lane and Moss Lane.

3.2. Background

3.2.1. LCC, as the Local Highway Authority, were consulted on the TA (Core Document A35) and OTP (Core Document A36) in advance of the Hybrid Planning Application submission to agree the scope of the assessment. Atkins continued to engage with LCC throughout the Determination Period.

3.2.2. During the determination period, LCC requested a pedestrian footway from the existing access junction for HMP Garth and HMP Wymott along Moss Lane to the existing northbound bus stop on Ulnes Walton Lane. Atkins provided a response to this request within the Technical Addendum (Core Document A37) which stated that the Appellant did not consider this request necessary to make the development proposals acceptable in planning terms.

3.3. Highways Issue

3.3.1. It is acknowledged within the decision letter that the Secretary of State agrees with the Inspector, who concludes that without a new footway people would continue to walk in the road or along the verge to access the northbound bus stop. According to the Inspector, this would result in an increased risk of vehicle of pedestrian conflict.

3.4. Additional Evidence

3.4.1. Atkins has produced a preliminary highways design for the Moss Lane/Ulnes Walton Lane junction which demonstrates the specific measures proposed by the Appellant at this location (see DWG: GARTH_ATK_HGN_MOSS_DR_D_0003 in Appendix B).

3.4.2. In addition to the proposed traffic calming measures outlined in Section 2.4 it is proposed to provide 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).

3.4.3. It is also proposed to provide 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 (see DWG: GARTH_ATK_HGN_MOSS_DR_D_0002_P3 in Appendix G). The new footway is proposed to be delivered within the existing highway boundary. The design of the tactile paving accords with Guidance on the Use of Tactile Paving Surfaces (DfT, 2021) included in Appendix U.

3.4.4. It has been agreed with LCC that the above highways works would be delivered via a s278 Agreement with LCC. 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.

3.4.5. Please note, the Appellant has already agreed to carry out improvements to the existing northbound bus stop on Ulnes Walton Lane to provide a high quality, disability compliant bus stop including a raised kerb, boarding platform, new shelter, and the required carriageway markings. It was agreed that the bus stop improvements would also be delivered via a s278 Agreement with LCC.

3.5. Stage 1 RSA

Hydrock Stage 1 RSA

3.5.1. A Stage 1 RSA was produced by Hydrock on 21 February 2023 (see Appendix C). The Stage 1 RSA reviewed the proposed footway between Ulnes Walton Lane and Moss Lane and did not identify any RSA problems in relation to the proposed scheme.

VIA East Midlands Ltd Stage 1 RSA

3.5.2. A Stage 1 RSA was produced by VIA East Midlands Ltd on 20 February 2023 (see Appendix D). The Stage 1 RSA reviewed the proposed footway between Ulnes Walton Lane and Moss Lane and did not identify any RSA problems in relation to the proposed scheme.

3.6. Lancashire County Council

3.6.1. As per Section 1.3 of this report, the Appellant has continued to engage with LCC during the additional time granted by the Secretary of State, to ensure that as the Local Highway Authority they agree with the further highways evidence presented within this report. LCC has reviewed the additional highways evidence (including the two Stage 1 RSA's) in relation to the proposed section of footway (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 they are satisfied with the proposals (see joint statement in Appendix A).

4. Moss Lane Traffic Calming

4.1. Introduction

4.1.1. This section of the report provides a summary of the highways issue identified by the Inspector at this location, and the additional highway evidence as requested by the Secretary of State. Specifically, it provides a preliminary highways design for an enhanced traffic calming scheme along Moss Lane which demonstrates the specific measures proposed by the Appellant.

4.2. Background

4.2.1. LCC, as the Local Highway Authority, were consulted on the TA (Core Document A35) and OTP (Core Document A36) in advance of the Hybrid Planning Application submission to agree the scope of the assessment. Atkins continued to engage with LCC throughout the Determination Period.

4.2.2. During the Determination Period, it was agreed with LCC that the Appellant would provide traffic calming measures on Moss Lane as shown on DWG: GARTHMOSS-DR-D-0002_P2 (submitted as part of the Technical Addendum, Core Document A37).

4.3. Highways Issue

4.3.1. Within the decision letter, the Secretary of State agrees with the Inspector who notes that vehicles would still be tempted to speed along the southern section of Moss Lane despite the proposed traffic calming measures outlined on DWG: GARTHMOSS-DR-D-0002_P2.

4.4. Additional Evidence

4.4.1. To satisfy the concerns of both the Secretary of State and the Inspector, Atkins has produced a revision to DWG: GARTHMOSS-DR-D-0002_P2 outlining an enhanced traffic calming scheme along the entire length of Moss Lane (see DWG: GARTH_ATK_HGN_MOSS_DR_D_0002_P3 in Appendix G). These measures include:

- '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).

4.4.2. 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.

4.4.3. It has been agreed with LCC that the above highways works would be delivered via a s278 Agreement with LCC. 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.

4.5. Stage 1 RSA

Hydrock Stage 1 RSA

4.5.1. A Stage 1 RSA was produced by Hydrock on 21 February 2023 (see Appendix C). The Stage 1 RSA reviewed the proposed highway layout along Moss Lane (DWG: GARTH_ATK_HGN_MOSS_DR_D_0002_P3) and identified one RSA problem in relation to the existing surface condition of the carriageway (see Table 4-1).

Table 4-1 - Stage 1 RSA Problem Summary - Moss Lane

ID	Location	RSA Problem	RSA Recommendation
2.1	Moss Lane	Poor road surface condition could reduce longevity of proposed road markings and reducing their effectiveness	It is recommended that the road surface is improved before any road markings or high friction surfacing are applied

4.5.2. Atkins has produced an RSA Designers Response which provides the responses from the design organisation (Atkins) to the items raised in the Stage 1 RSA produced by Hydrock (see Appendix E).

4.5.3. The RSA Designers Response agrees to the recommendation and the Appellant (the Ministry of Justice) has agreed to re-surface Moss Lane (from the Moss Lane/Willow Road junction to the Moss Lane/Ulnes Walton Lane junction) before delivering the measures outlined on DWG: GARTH_ATK_HGN_MOSS_DR_D_0002_P3. It is proposed to deliver the carriageway resurfacing works via a s278 Agreement with LCC.

VIA East Midlands Ltd Stage 1 RSA

4.5.4. A Stage 1 RSA was produced by VIA East Midlands Ltd on 20 February 2023 (see Appendix D). The Stage 1 RSA reviewed the proposed highway layout along Moss Lane and did not identify any RSA problems in relation to the proposed scheme.

4.6. Acoustic Statement

4.6.1. Hydrock produced a Noise and Vibration Impact Assessment (Core Document A22) as part of the Hybrid Planning Application. In response to the enhanced traffic calming scheme along Moss Lane, Hydrock has produced an Acoustic Statement (see Appendix H). The Acoustic Statement confirms that the implementation of the enhanced traffic calming scheme along Moss Lane (see DWG: GARTH_ATK_HGN_MOSS_DR_D_0002_P3 in Appendix G) would not change the conclusions of the Noise and Vibration Impact Assessment submitted.

4.7. Lancashire County Council

4.7.1. As per Section 1.3 of this report, the Appellant has continued to engage with LCC during the additional time granted by the Secretary of State, to ensure that as the Local Highway Authority they agree with the further highways evidence presented within this report. LCC has reviewed the additional highways evidence (including the two Stage 1 RSA's) in relation to the enhanced traffic calming scheme along Moss Lane, and they are satisfied with the proposals (see joint statement in Appendix A).

5. A581/Ulnes Walton Lane Mitigation

5.1. Introduction

5.1.1. This section of the report provides a summary of the highways issue identified by the Inspector at this location, and the additional highway evidence as requested by the Secretary of State. Specifically, it provides a preliminary highway design for the proposed mini roundabout, consultation with LCC, standalone junction capacity modelling, and a summary of the Stage 1 RSA undertaken.

5.2. Background

5.2.1. As per Section 7.3.6 in the TA (Core Document A35), the A581/Ulnes Walton Lane junction is forecast to operate over acceptable thresholds of capacity in 2025 in the AM Peak during the '2025 Opening Year without Development' scenario with a maximum RFC[1] of 0.90. The additional traffic generated by the development proposals increase the RFC to 1.10 in the '2025 Opening Year with Development' scenario. Therefore, it was concluded that mitigation is required at this location.

5.2.2. In response to the analysis contained within the TA (Core Document A35), LCC requested a s106 contribution to support the development of a wider corridor scheme along the A581 to be delivered by LCC. As outlined within LCC's funding application to the Department for Transport (see Appendix I), the wider corridor scheme along the A581 included the introduction of a mini roundabout at the A581/Ulnes Walton Lane junction to be delivered within the current extents of the highway (see Section B2 - The Strategic Case in Appendix I). The aim of the mini roundabout was to improve safety and redistribute traffic queues at the A581/Ulnes Walton Lane junction.

5.3. Highways Issue

5.3.1. Within the decision letter, the Inspector notes that the requested s106 contribution towards the A581/Ulnes Walton Lane junction cannot be considered without the provision of the following information:

- A design for the mini roundabout; and
- Traffic modelling to demonstrate the effects with the development in place.

5.3.2. The Secretary of State agrees that it has not been demonstrated that the proposed works would resolve capacity issues at the A581/Ulnes Walton Lane junction, or that the financial contribution would be sufficient.

[1] An RFC (Ratio of Flow to Capacity) of below 0.85 (for roundabout and priority junctions) indicates that a junction operates within acceptable capacity thresholds for the assessed flows. An RFC of over 1.0 indicates that a junction is operating over capacity.

5.4. Preliminary Highways Design

5.4.1. Atkins has produced a preliminary highways design for the A581/Ulnes Walton Lane junction (see DWG: GARTH_ATK_HGN_A581_DR_D_0005_P3 in Appendix J).

5.4.2. The preliminary highways design for the A581/Ulnes Walton Lane junction includes several measures to reduce vehicle speeds on the approach to the A581/Ulnes Walton Lane junction and support the wider corridor scheme along the A581. These measures include:

- 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.

5.4.3. LCC has reviewed the additional evidence/proposals in relation to the A581/Ulnes Walton Lane scheme, and they have confirmed that the mini roundabout could be delivered under a s278 agreement (see joint statement in Appendix A). 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.

5.5. Standalone Junction Capacity Assessment

Assessment Software

5.5.1. Junctions 10 software has been used to undertake a standalone junction capacity assessment of the revised preliminary highway design at the A581/Ulnes Walton Lane junction (GARTH_ATK_HGN_A581_DR_D_0005_P3). Junctions 10 is the latest version of the internationally recognised software application for predicting capacities, queue lengths and delays (both queueing and geometric) at non-signalised roundabouts and priority intersections.

Geometries

5.5.2. The geometries used to inform the standalone junction capacity assessment have been derived from DWG: GARTH_ATK_HGN_A581_DR_D_0005_P3 (in Appendix J) using AutoCAD.

Traffic Flows

5.5.3. The traffic flows outlined in Table 7-10 of the TA (see Section 7.3.6.1 within Core Document A35) have been used to inform the standalone junction capacity assessment.

Junctions 10 Outputs

5.5.4. Table 5-1 presents the result of the standalone junction capacity assessment for the A581/Ulnes Walton Lane junction. The full outputs are provided in Appendix K.

Table 5-1 - Model Outputs – A581/Ulnes Walton Road Junction – Mini Roundabout

Approach Arm	AM Peak (07:00-08:00)			PM Peak (17:00-18:00)		
	Queue (PCU)	Delay (S)	RFC	Queue (PCU)	Delay (S)	RFC
2025 Opening Year with Development						
A581 Southport Road (W)	6.1	39.56	0.87	1.1	8.80	0.51
Ulnes Walton Lane	0.3	8.08	0.21	2.2	18.59	0.69
A581 Southport Road (E)	3.8	17.87	0.79	2.7	14.52	0.73
2026 with Development						
A581 Southport Road (W)	6.6	42.38	0.88	1.1	8.88	0.52
Ulnes Walton Lane	0.3	8.14	0.21	2.3	18.99	0.70
A581 Southport Road (E)	3.9	18.34	0.80	2.7	14.88	0.73

5.5.5. For comparison, Table 7-11 within the TA (Core Document A35) has been reprovided in Table 5-2.

Table 5-2 - A Copy of Table 7-11 from the TA (Core Document A35)

Approach Arm	AM Peak (07:00-08:00)			PM Peak (17:00-18:00)		
	Queue (PCU)	Delay (S)	RFC	Queue (PCU)	Delay (S)	RFC
2021 Baseline						
Ulnes Walton Lane to A581 Southport Road (E)	0.2	8.64	0.17	0.7	11.84	0.41
Ulnes Walton Lane to A581 Southport Road (W)	0.1	19.98	0.06	0.3	19.95	0.25
A581 Southport Road (E)	6.5	31.84	0.84	0.8	5.77	0.29
2025 Opening Year without Development						
Ulnes Walton Lane to A581 Southport Road (E)	0.2	8.86	0.19	0.8	12.60	0.43
Ulnes Walton Lane to A581 Southport Road (W)	0.1	21.46	0.07	0.4	21.51	0.28
A581 Southport Road (E)	9.5	45.36	0.90	0.9	5.86	0.31
2025 Opening Year with Development						
Ulnes Walton Lane to A581 Southport Road (E)	0.3	9.29	0.20	3.1	37.11	0.78
Ulnes Walton Lane to A581 Southport Road (W)	0.1	29.28	0.12	1.7	58.16	0.66
A581 Southport Road (E)	46.4	198.02	1.10	0.9	5.86	0.31
2026 with Development						
Ulnes Walton Lane to A581 Southport Road (E)	0.3	9.36	0.21	3.3	39.46	0.79
Ulnes Walton Lane to A581 Southport Road (W)	0.1	30.13	0.12	1.9	62.23	0.68
A581 Southport Road (E)	49.7	210.49	1.11	0.9	5.88	0.32

5.5.6. When comparing the results in Table 5-1 to the results contained within Table 5-2, the analysis demonstrates that the proposed mitigation scheme (with development traffic) would operate better than the existing junction layout (without development traffic). The standalone junction capacity assessment therefore demonstrates that the introduction of the proposed mitigation scheme at the A581/Ulnes Walton Lane junction would mitigate the impact of the development at this location to an acceptable degree (in line with Paragraph 110(d) in the National Planning Policy Framework).

5.5.7. In addition, the measures proposed would contribute towards the objectives of the A581 Rufford to Euxton Safety Improvement scheme through the introduction of physical traffic calming measures along the A581.

5.6. Departure from Standards

5.6.1. DWG: GARTH_ATK_HGN_A581_DR_D_0005_P3 would require the Appellant to agree a departure from standards with LCC as part of the proposed s278 Agreement. The departure would be in relation to Paragraph 5.20 in CD 116 (Geometric design of roundabouts) which states that a minimum visibility distance to the right shall be provided in accordance with Table 5.20 (see CD 116 in Appendix L).

5.6.2. It should be noted that the minimum visibility distance is a requirement of the overseeing organisation as depicted by the use of the verb ‘shall’. Requirements with this verb can be varied through a departure or in limited situations as relaxations (see ‘Verbal Forms’ GG 101 in Appendix M).

5.6.3. Table 5-3 provides a summary of the proposed visibility (to the right) and the standards contained within CD 116.

Table 5-3 - DWG: GARTH_ATK_HGN_A581_DR_D_0005_P3 – Visibility Summary

Approach Arm	Proposed Visibility (to Right)	CD 116 Standard (Table 5.20)
A581 (East)	9m x 17.8m	9m x 35m
Ulnes Walton Lane	9m x 16.6m	9m x 35m

5.6.4. The Appellant has discussed the required departures and the findings of both RSA’s with LCC. LCC has noted the contents of the two RSA’s and the designer’s response and have confirmed that the mini roundabout as presented is entirely within the adopted highway and could be delivered under a s278 agreement. The effects of the departures are considered to be mitigated for the following reasons:

- The Appellant is proposing to provide physical traffic calming, advanced warning signage and additional lighting columns. These measures would reduce vehicle speeds on the approach to the junction; and
- The scheme provides additional highway capacity which reduces vehicle queues and driver delay. This reduces the risk of driver frustration which has associated safety benefits.

5.7. Stage 1 RSA

Hydrock Stage 1 RSA

5.7.1. A Stage 1 RSA was produced by Hydrock on 21 February 2023 (see Appendix C). The Stage 1 RSA reviewed the proposed highway layout at the A581/Ulnes Walton Lane junction (GARTH_ATK_HGN_A581_DR_D_0005_P3) and identified three RSA problems (see Table 5-4).

Table 5-4 - Stage 1 RSA Problem Summary – A581/Ulnes Walton Lane

ID	Location	RSA Problem	RSA Recommendation
2.2	A581/Ulnes Walton Lane	Lack of available road space could increase the risk of collisions at the new mini roundabout	It is recommended that an alternative junction solution such as a sheltered right lane is provided at this location
2.3	A581/Ulnes Walton Lane	Long vehicles could become unbalanced when turning left from Ulnes Walton Road	It is recommended that an appropriate ramp profile is chosen, and the ramp set back far enough from the roundabout to fully accommodate a large vehicle.
2.4	A581/Ulnes Walton Lane	Lack of kerb definition could lead to overrunning of private driveway/ footway	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.

5.7.2. Atkins has produced an RSA Designers Response which provides the responses from the design organisation (Atkins) to the items raised in the Stage 1 RSA produced by Hydrock (see Appendix E).

5.7.3. The Designers Response does not agree with Problem 2.2 for the following reasons:

- The proposed form of junction has been selected to address the specific capacity concerns raised by the standalone junction capacity analysis;
- Vehicle tracking demonstrates that the proposed highway layout provides a betterment compared to other alternative forms of junction (see Appendix F within the Designers Response provided in Appendix E); and
- 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.

5.7.4. Regarding Problem 2.3 and Problem 2.4, the Appellant (the Ministry of Justice) has confirmed that the appropriate ramp profile and the exact height of the kerb upstand will be accommodated and confirmed during the detailed design stage as part of the proposed s278 agreement.

VIA East Midlands Ltd Stage 1 RSA

5.7.5. A Stage 1 RSA was produced by VIA East Midlands Ltd on 20 February 2023 (see Appendix D). The Stage 1 RSA reviewed the proposed highway layout at the A581/Ulnes Walton Lane junction (GARTH_ATK_HGN_A581_DR_D_0005_P3) and identified three RSA problems (see Table 5-5).

Table 5-5 - Stage 1 RSA Problem Summary – A581/Ulnes Walton Lane

ID	Location	RSA Problem	RSA Recommendation
4.1	A581/Ulnes Walton Lane	Emerging side road vehicles collide with A581 traffic due to restricted visibility.	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, preferably on both sides of the junction. 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.
4.2	A581/Ulnes Walton Lane	A581 westbound traffic collides with emerging side road vehicles.	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.
4.3	A581/Ulnes Walton Lane	A range of potential issues, dependent on the detailed design of traffic calming.	It is recommended that extreme care is taken in the detailed design of the cushion features. They should also be made as visible as possible, and the street lighting assessed to ensure they remain prominent at night. Forward visibility to the first encountered feature in each direction is particularly important and should be assessed in relation to the measured road speeds.

5.7.6. Atkins has produced an RSA Designers Response which provides the responses from the design organisation (Atkins) to the items raised in the Stage 1 RSA produced by VIA (see Appendix F).

5.7.7. The Designers Response does not agree with Problem 4.1 and Problem 4.2 for the following reasons:

- It is considered that the proposed speed reduction measures are likely to reduce 85% percentile speeds to below 25mph, and that the reductions in speeds will in turn reduce the visibility requirements which are based on vehicle speeds;
- The proposed scheme design achieves Stopping Sight Distance (SSD);
- A departure from standards would be agreed with LCC as part of a proposed s278 agreement;
- The proposed form of junction has been selected to address the specific capacity concerns raised by the standalone junction capacity analysis;

- Good Practice Guidance from the DfT states that mini roundabouts can provide safety benefits over other forms of junction and they have a lower severity rate;
- The visibility requirements based on design standards at the existing junction layout are not currently achieved within the highway boundary, and there is no evidence to indicate that there are pre-existing safety concerns at this location; and
- There is an existing mini roundabout on the A581 corridor which also appears to have restricted visibility to the right, but there is no evidence to indicate that there are existing safety concerns at this location.

5.7.8. The Designers Response agrees with Problem 4.3 and extreme care will be taken in the detailed design of the traffic calming features, noting the potential issues raised in the Stage 1 RSA.

5.8. Summary

5.8.1. Within the decision letter, the Secretary of State agrees with the Inspector that it has not been demonstrated that the proposed works would resolve capacity issues at the A581/Ulnes Walton Lane junction, or that the financial contribution would be sufficient.

5.8.2. In response, the Appellant has provided additional highways evidence which demonstrates:

- A junction improvement scheme (in the form of a mini roundabout) could be delivered at the A581/Ulnes Walton Lane junction in line with LCC's funding application to the Department for Transport (see DWG: GARTH_ATK_HGN_A581_DR_D_0005_P3 in Appendix J).
- The preliminary highways design for the A581/Ulnes Walton Lane junction would support the wider corridor scheme (promoted by LCC) along the A581 through the introduction of several traffic calming measures including a raised table, speed cushions, new lighting columns, relocated speed limit signs, a reduced ICD, and dragons teeth.
- The Local Highway Authority (LCC) has confirmed that the preliminary highways design for the A581/Ulnes Walton Lane junction could be delivered via a s278 agreement (subject to detailed design and the associated RSA's required at each appropriate stage of the design).
- The preliminary highways design for the A581/Ulnes Walton Lane junction (with development traffic) would operate better than the existing junction layout (without development traffic). This would reduce vehicle queues and delay which would reduce the risk of driver frustration. Therefore, the proposed mitigation scheme would mitigate the impact of the development at this location to an acceptable degree (in line with Paragraph 110(d) in the National Planning Policy Framework).
- DWG: GARTH_ATK_HGN_A581_DR_D_0005_P3 would require the Appellant to agree a departure from standards with LCC as part of the proposed s278 Agreement (Paragraph 5.20 in CD 116 Geometric design of roundabouts).

- The Appellant has commissioned two independent Stage 1 RSA in relation to the preliminary highways design for the A581/Ulnes Walton Lane junction. The Stage 1 RSA produced by Hydrock (see Appendix C) raised concerns in relation to HGVs turning left out of Ulnes Walton Lane (see RSA Problem 2.2), long vehicles becoming unbalanced (see RSA Problem 2.3), and vehicles overrunning the footway (see SA Problem 2.3). Atkins has produced a Designers Response which confirms:
    - The proposed highway layout provides a betterment compared to other alternative forms of junction with regards to HGVs turning left out of Ulnes Walton Lane (see Appendix F within the Designers Response provided in Appendix E); and
    - The ramp profile and the exact height of the kerb upstand will be confirmed during the detailed design stage as part of the proposed s278 agreement.
- The Stage 1 RSA produced by VIA East Midlands Ltd (see Appendix D) raised concerns in relation to the proposed visibility for vehicles emerging from Ulnes Walton Lane and vehicles travelling along the A581 (westbound). It also raised concerns in relation to the detailed design of the proposed traffic calming. Atkins has produced a Designers Response which confirms:
    - The proposed speed reduction measures are likely to reduce 85% percentile speeds to below 25mph;
    - The proposed scheme design achieves Stopping Sight Distance (SSD);
    - A departure from standards would be agreed with LCC as part of a proposed s278 agreement;
    - The proposed form of junction has been selected to address the specific capacity concerns raised by the standalone junction capacity analysis;
    - Good Practice Guidance from the DfT states that mini roundabouts can provide safety benefits over other forms of junction and they have a lower severity rate;
    - The visibility requirements based on design standards at the existing junction layout are not currently achieved within the highway boundary, and there is no evidence to indicate that there are pre-existing safety concerns at this location;
    - There is an existing mini roundabout on the A581 corridor which appears to have restricted visibility to the right, but there is no evidence to indicate that there are existing safety concerns at this location; and
    - Extreme care will be taken in the detailed design of the traffic calming features, noting the potential issues raised in the Stage 1 RSA. Please note that the proposed traffic calming features are subject to detailed design and the associated RSA's required at each appropriate stage of the design).

5.8.3. In summary, the Appellant has demonstrated that a junction improvement scheme (in the form of a mini roundabout) could be delivered at the A581/Ulnes Walton Lane junction via a s278 agreement with LCC (subject to detailed design and the associated RSA's required at each appropriate stage of the design). The preliminary highways design presented would support the wider corridor scheme along the A581 (promoted by LCC) and would provide capacity benefits which would mitigate the impact of the development at this location to an acceptable degree. Therefore, it is considered that the Appellant has addressed the concerns raised by the Inspector and the Secretary of State within the decision letter.

6. Construction Phase Impacts

6.1. Introduction

6.1.1. This section of the report provides a summary of the highways issue identified by the Inspector in relation to the construction phase, and the additional highway evidence as requested by the Secretary of State. Specifically, it provides a summary of the routing assessment undertaken, updated construction forecasts, standalone junction capacity modelling, and a summary of the measures contained within the Working Draft CTMP (Core Document K11).

6.2. Background

6.2.1. LCC, as the Local Highway Authority, recommended a planning condition in relation to the production of a Construction Environment Management Plan (CEMP) or a Construction Traffic Management Plan (CTMP). This condition specifically requested that a CEMP/CTMP should be submitted to and approved in writing by the Local Planning Authority (in consultation with the Local Highway Authority) prior to the commencement of development. The approved CEMP/CTMP should be adhered to throughout the construction period.

6.2.2. During the Determination Period Atkins produced a Working Draft CTMP which was used to inform discussions with LCC regarding potential Construction Access Routes. A copy of the Working Draft CTMP was submitted to the Inspector during the Inquiry (Core Document K11). At the time of writing the Working Draft CTMP, the Contractor appointed to construct HMP Garth Wymott 2 had not been appointed. Therefore, the Working Draft CTMP contained forecasts based on observed construction information from a recent Prison. This information was provided by the Ministry of Justice (see Section 4.4 in Core Document K11).

6.3. Highways Issue

6.3.1. Within the decision letter, the Secretary of State agrees with the Inspector who states that the Appellant has not modelled or assessed the forecast construction traffic, neither have they demonstrated that the highway effects of the construction phase can be adequately mitigated.

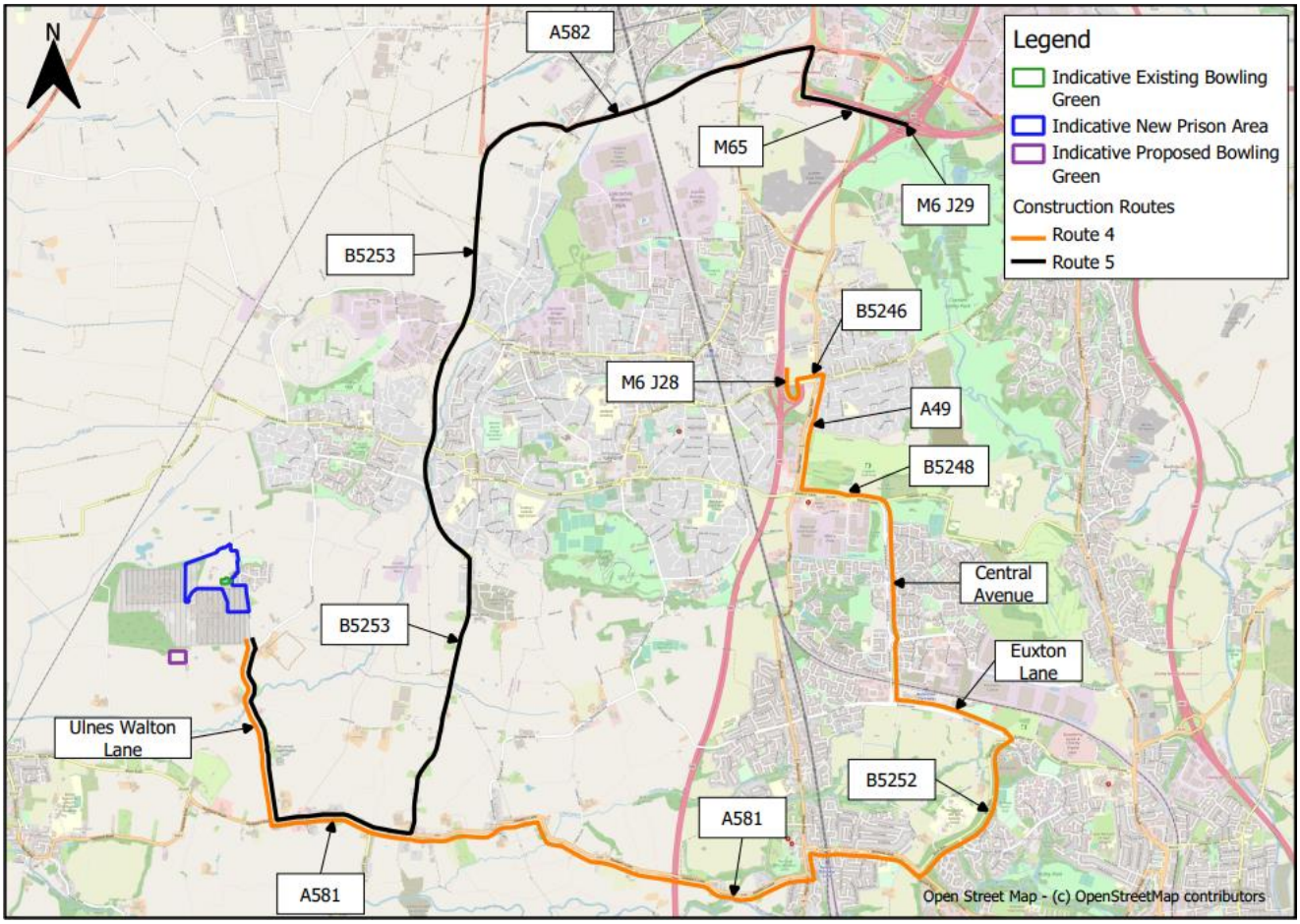
6.4. Additional Evidence

Routing Assessment

6.4.1. The Contractor appointed for HMP Garth Wymott 2, Laing O'Rourke, commissioned a logistics report (see Appendix N). The logistics report provides a summary of the route survey(s) undertaken using an HGV and a 45ft Standard Flat Trailer (with Escort Vehicle). The route survey(s) confirmed that it is possible for an HGV to access the site without impacting or overrunning any existing kerb lines using Route 4 and Route 5 (see Figure 6-1). Both routes approach the site from the south using the A581 before turning right onto Ulnes Walton Lane. In addition, the route survey(s) confirmed that Route 5 would be the preferred route for Abnormal Indivisible Loads (AILs).

6.4.2. This additional evidence demonstrates that it is possible for construction vehicles to access the site using the existing highway network without the requirement for any physical alterations to the existing carriageway, which addresses the concerns raised in IR13.33.

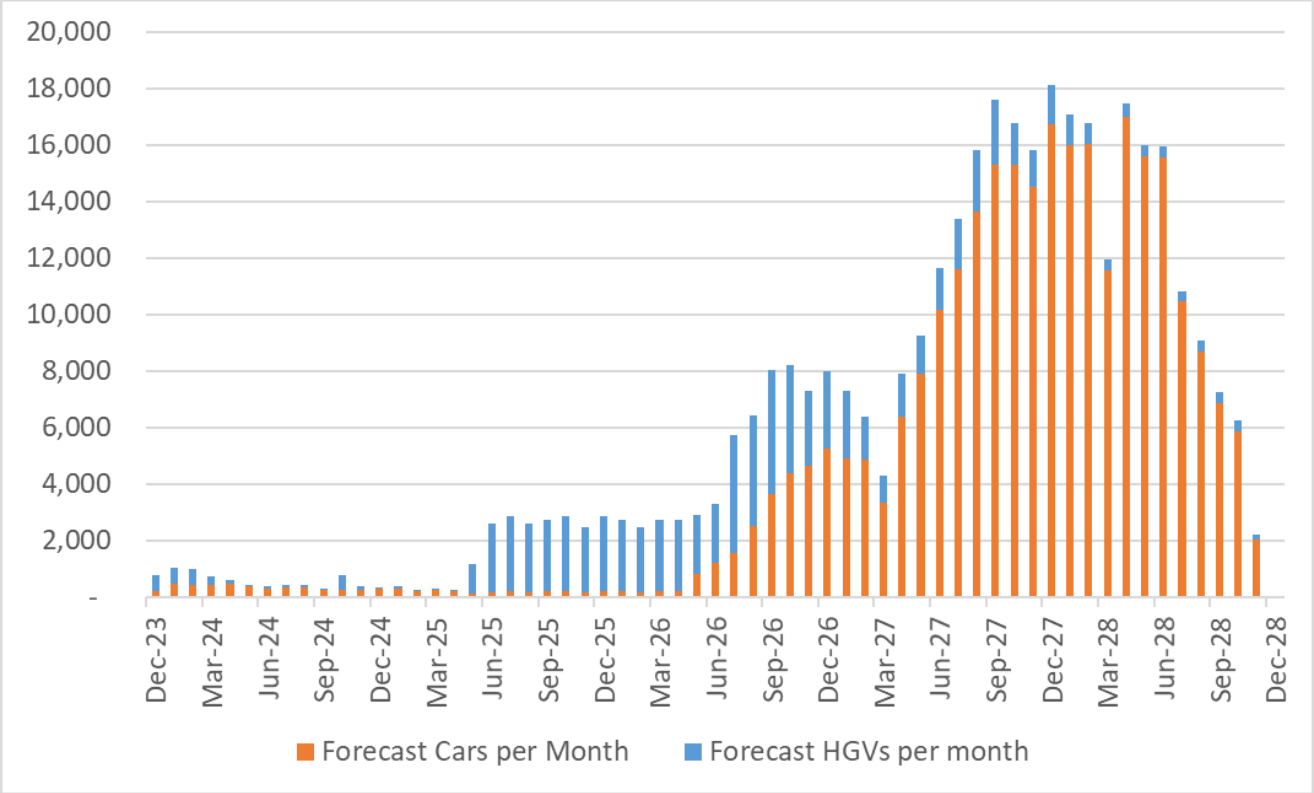
Figure 6-1 - Proposed Construction Routes



Updated Construction Forecasts

6.4.3. The Contractor has provided a summary of the forecast number of construction vehicles required during the construction phase of the project (see Figure 6-2 and Appendix O). The forecast number of construction vehicles includes HGVs (deliveries associated with the construction phase) and cars (construction personnel). These forecasts supersede the information contained within the Working Draft CTMP (Core Document K11).

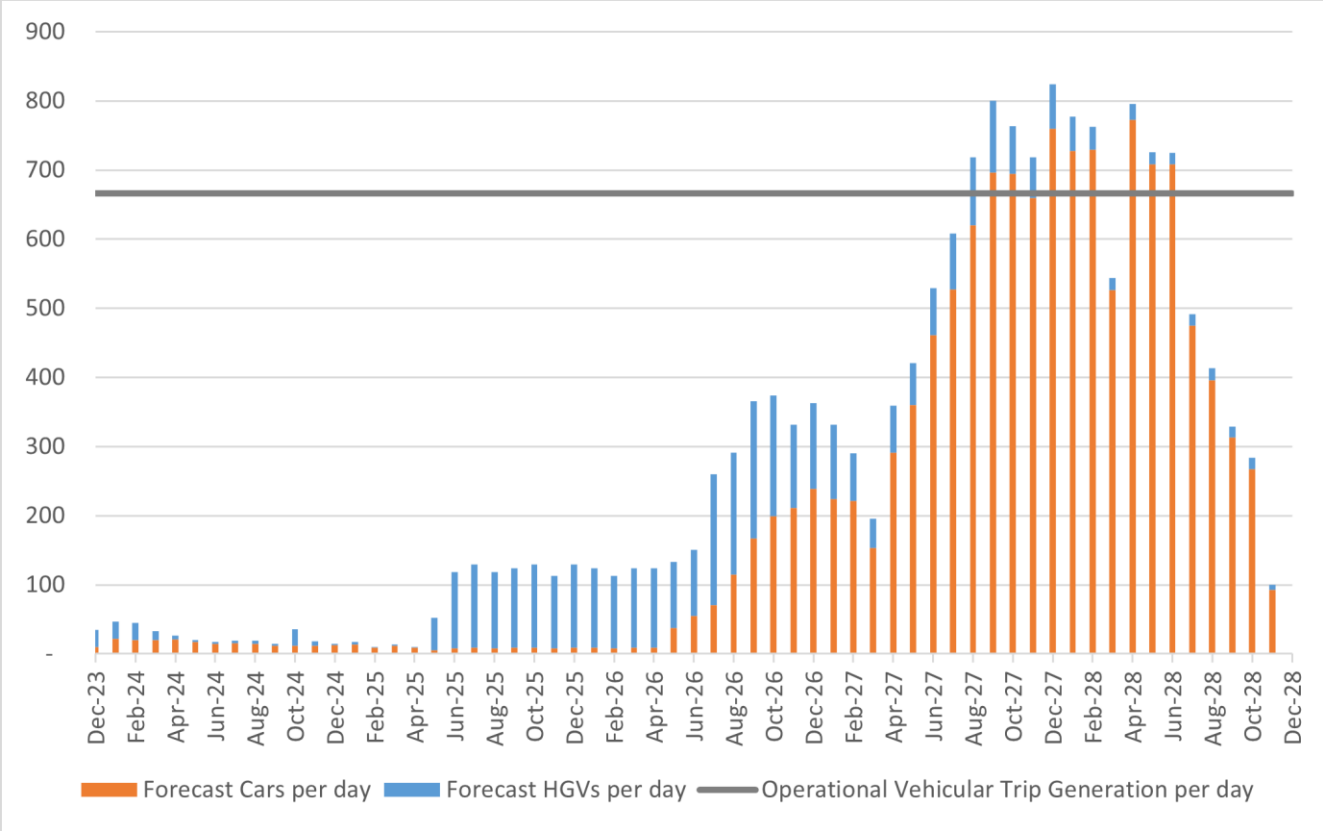
Figure 6-2 - Monthly Forecast Construction Vehicles Across Construction Programme



6.4.4. The revised construction forecasts presented in Figure 6-2 indicate that the number of HGVs required will peak in September 2026 at 4,376 HGVs per month. In contrast, the number of cars (staff/construction personnel) required will peak in April 2028 at 17,006 cars per month. The combined construction peak will occur in December 2027 with 18,132 total construction related vehicles per month.

6.4.5. The Contractor has also provided a summary of the forecast number of construction vehicles required per day during the construction phase of the project (see Figure 6-3). The forecast number of construction vehicles includes HGVs (deliveries associated with the construction phase) and cars (construction personnel). For comparison, the daily number of vehicles associated with the operational phase of the development (666 vehicles per day) has been included on the graph.

Figure 6-3 - Daily Forecast Construction Vehicles Across Construction Programme



6.4.6. Figure 6-3 demonstrates that the number of vehicles associated with the construction phase of the project will exceed the operational phase for a total 10 months during the construction programme. During the combined construction peak (December 2027), the construction phase exceeds the operational phase by a total of 158 vehicles per day.

Average Construction Month

6.4.7. The number of construction related vehicles forecast during an average construction month are outlined in Table 6-1. It is assumed that there are 4 weeks and 22 working days in a month.

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**

Peak Construction Month (December 2027)

6.4.8. The number of construction related vehicles forecast during the combined construction peak (December 2027) are outlined in Table 6-2. It is assumed that there are 4 weeks and 22 working days in a month.

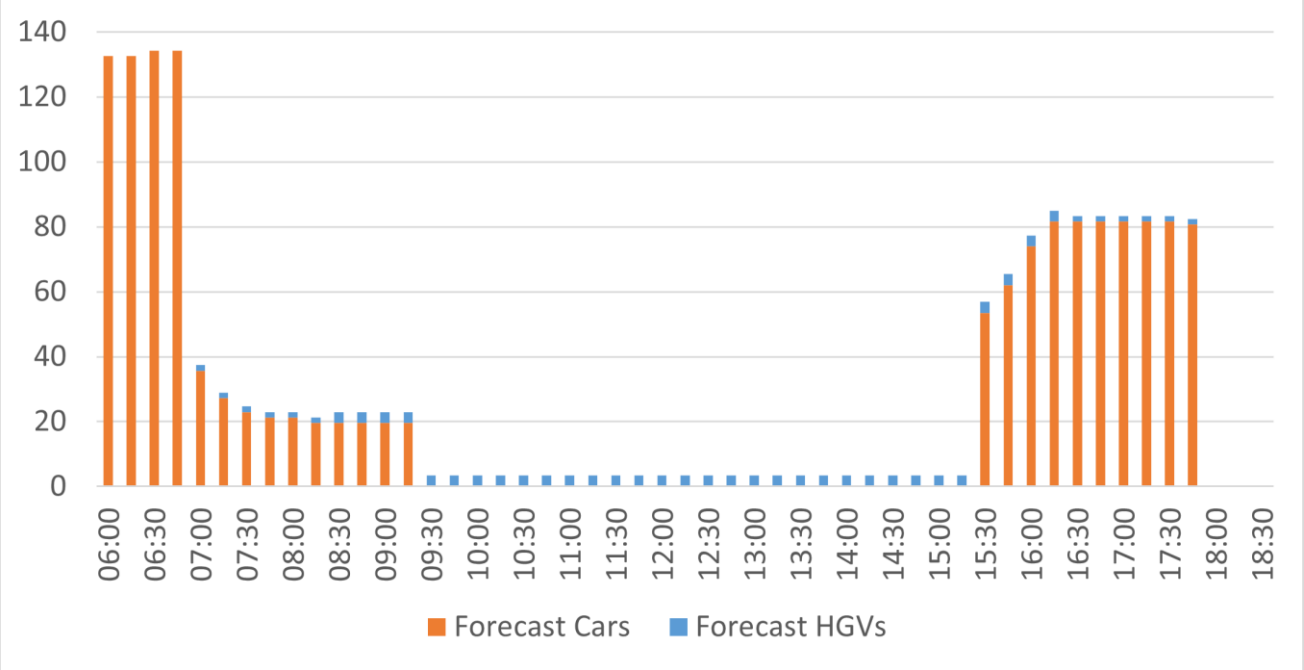
Table 6-2 - Forecast HGVs & Construction Vehicles – Peak Construction Month (One-Way)

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

Daily Construction Profile

6.4.9. Table 6-2 demonstrates the total number of vehicles required during the combined construction peak (December 2027). However, to understand the highway effects of the combined construction peak, the Contractor has provided the daily arrival and departure profile (see Figure 6-4 and Appendix P).

Figure 6-4 - Daily Arrival and Departure Profile – Construction Vehicles (December 2027)



6.4.10. Figure 6-4 indicates that the majority of construction personnel will arrive on site between 06:00 and 07:00 in the morning and depart between 16:00 and 18:00 in the evening. The AM network peak assessed within the TA is 07:00-08:00 and the PM network peak assessed within the TA is 17:00-18:00 (see Core Document A35).

6.4.11. Table 6-3 presents the forecast trip generation during the combined construction peak (December 2027) for the AM Construction Peak (06:00-07:00), AM Network Peak (07:00-08:00), and PM Construction/Network Peak (17:00-18:00).

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**

Standalone Junction Capacity Assessment

6.4.12. To understand the impact on the local highway network and demonstrate that the effects of the construction phase can be adequately mitigated, standalone junction capacity assessment software has been used to model the combined construction peak (December 2027) at the following locations:

- Moss Lane/Ulnes Walton Lane Junction;
- School Lane/Dunkirk Lane Junction; and
- A581/Ulnes Walton Lane Junction.

Assessment Software

6.4.13. Junctions 10 software has been used to undertake the standalone junction capacity assessment of the daily arrival and departure profile during the combined construction peak (December 2027).

Geometries

6.4.14. The geometries used are the same as those used to inform the standalone junction capacity modelling contained within the TA (see Core Document A35).

Traffic Flows

6.4.15. The 2021 traffic flows used to inform the standalone junction capacity modelling contained within the TA (see Core Document A35) have been used to inform the construction phase assessment. However, it should be noted that traffic growth factors from TEMPro have been applied to establish a 2027 baseline (in line with the combined construction peak).

6.4.16. It has been assumed that all HGVs will arrive/depart the site via Ulnes Walton Lane (south) and the A581 (east) in line with the preferred construction access routes (see Section 6.3.1).

6.4.17. Recognising that construction personnel are likely to arrive from various origins, the construction personnel (cars) have been distributed on to the local highway network using the same trip distribution presented on Figure 5-1 within the TA (see Core Document A35).

Junctions 10 Outputs

Moss Lane/Ulnes Walton Lane Junction

6.4.18. Table 6-4 provides a summary of the vehicular flows (PCUs) used to inform the assessment of the Moss Lane/Ulnes Walton Road Junction.

Table 6-4 - Moss Lane/Ulnes Walton Road Junction – Traffic Flow Summary (PCUs)

Arm (From)	Arm (To)	2027 Baseline			2027 Baseline + Construction		
		06:00-07:00	07:00-08:00	17:00-18:00	06:00-07:00	07:00-08:00	17:00-18:00
Ulnes Walton Lane (S)	Moss Lane	47	246	23	346	313	29
	Ulnes Walton Lane (N)	19	86	109	19	86	109
Moss Lane	Ulnes Walton Lane (N)	28	33	96	28	33	239
	Ulnes Walton Lane (S)	19	23	94	19	30	282
Ulnes Walton Lane (N)	Ulnes Walton Lane (S)	25	72	120	25	72	120
	Moss Lane	46	253	25	281	300	25

6.4.19. Table 6-5 presents the result of the standalone junction capacity assessment for the Moss Lane/Ulnes Walton Lane junction (combined construction peak). The full outputs are provided in Appendix Q.

Table 6-5 - Model Outputs – Moss Lane/Ulnes Walton Road Junction – Combined Construction Peak

Approach Arm	AM Construction Peak (06:00-07:00)			AM Network Peak (07:00-08:00)			PM Construction/Network Peak (17:00-18:00)		
	Queue (PCU)	Delay (S)	RFC	Queue (PCU)	Delay (S)	RFC	Queue (PCU)	Delay (S)	RFC
2027 Baseline									
Moss Lane to Ulnes Walton Lane (N)	0.0	5.36	0.04	0.1	6.01	0.06	0.2	7.14	0.17
Moss Lane to Ulnes Walton Lane (S)	0.0	8.14	0.04	0.1	10.71	0.07	0.3	9.79	0.22
Ulnes Walton Lane (N)	0.1	6.68	0.09	1.5	15.08	0.57	0.1	6.04	0.05
2027 Baseline + Combined Construction Peak									
Moss Lane to Ulnes Walton Lane (N)	0.0	5.68	0.05	0.1	6.27	0.06	2.0	29.24	0.68
Moss Lane to Ulnes Walton Lane (S)	0.1	10.88	0.06	0.1	13.04	0.09	2.9	35.98	0.76
Ulnes Walton Lane (N)	1.7	18.52	0.63	2.5	22.18	0.70	0.1	6.05	0.05

6.4.20. The results from the standalone junction capacity modelling indicate that the Moss Lane/Ulnes Walton Lane junction is forecast to operate within acceptable thresholds of capacity in all the assessment scenarios. Therefore, it has been demonstrated that the construction traffic during the combined peak (December 2027) could be accommodated at this location without the requirement for mitigation.

School Lane/Dunkirk Lane Junction

6.4.21. Table 6-6 provides a summary of the vehicular flows (PCUs) used to inform the assessment of the School Lane/Dunkirk Lane Junction.

Table 6-6 - School Lane/Dunkirk Lane Junction – Traffic Flow Summary (PCUs)

Arm (From)	Arm (To)	2027 Baseline			2027 Baseline + Construction		
		06:00-07:00	07:00-08:00	17:00-18:00	06:00-07:00	07:00-08:00	17:00-18:00
B5248 Dunkirk Lane (E)	School Lane	54	224	101	220	257	101
	B5248 Dunkirk Lane (W)	51	187	268	51	187	268
School Lane	B5248 Dunkirk Lane (E)	28	58	148	28	58	249
	B5248 Dunkirk Lane (W)	26	114	113	26	114	155
B5248 Dunkirk Lane (W)	B5248 Dunkirk Lane (E)	80	235	267	80	235	267
	School Lane	13	113	133	82	127	133

6.4.22. Table 6-7 presents the result of the standalone junction capacity assessment for the School Lane/Dunkirk Lane junction (combined construction peak). The full outputs are provided in Appendix R.

Table 6-7 - Model Outputs – School Lane/Dunkirk Lane Junction – Combined Construction Peak

Approach Arm	AM Construction Peak (06:00-07:00)			AM Network Peak (07:00-08:00)			PM Construction/Network Peak (17:00-18:00)		
	Queue (PCU)	Delay (S)	RFC	Queue (PCU)	Delay (S)	RFC	Queue (PCU)	Delay (S)	RFC
2027 Baseline									
School Lane to B5248 (W)	0.0	5.46	0.04	0.3	7.86	0.21	0.3	10.13	0.26
School Lane to B5248 (E)	0.1	8.20	0.06	0.2	11.80	0.17	0.8	18.93	0.46
B5248 Dunkirk Lane (W)	0.0	5.61	0.02	0.6	7.25	0.28	0.7	7.39	0.33
2027 Baseline + Combined Construction Peak									
School Lane to B5248 (W)	0.0	5.64	0.04	0.3	7.93	0.22	1.7	38.89	0.65
School Lane to B5248 (E)	0.1	9.04	0.07	0.2	12.14	0.17	4.3	60.27	0.84
B5248 Dunkirk Lane (W)	0.2	6.99	0.17	0.7	7.75	0.32	0.7	7.38	0.33

6.4.23. The results from the standalone junction capacity modelling indicate that the School Lane/Dunkirk Lane junction is forecast to operate within acceptable thresholds of capacity in all the assessment scenarios. Therefore, it has been demonstrated that the construction traffic during the combined peak (December 2027) could be accommodated at this location without the requirement for mitigation.

A581/Ulnes Walton Lane Junction

6.4.24. Table 6-8 provides a summary of the vehicular flows (PCUs) used to inform the assessment of the A581/Ulnes Walton Lane Junction.

Table 6-8 - A581/Ulnes Walton Lane Junction – Traffic Flow Summary (PCUs)

Arm (From)	Arm (To)	2027 Baseline			2027 Baseline + Construction		
		06:00-07:00	07:00-08:00	17:00-18:00	06:00-07:00	07:00-08:00	17:00-18:00
A581 Southport Road (W)	Ulnes Walton Lane	18	66	35	117	85	35
	A581 Southport Road (E)	193	442	382	193	442	382
Ulnes Walton Lane	A581 Southport Road (E)	36	90	202	36	97	331
	A581 Southport Road (W)	10	12	59	10	12	119
A581 Southport Road (E)	A581 Southport Road (W)	86	320	521	86	320	521
	Ulnes Walton Lane	60	327	102	261	374	108

6.4.25. Table 6-9 presents the result of the standalone junction capacity assessment for the A581/Ulnes Walton Lane junction (combined construction peak). This assessment is based on the existing highway layout at this location. The full outputs are provided in Appendix S.

Table 6-9 - Model Outputs – A581/UWL Junction – Combined Construction Peak - Existing

Approach Arm	AM Construction Peak (06:00-07:00)			AM Network Peak (07:00-08:00)			PM Construction/Network Peak (17:00-18:00)		
	Queue (PCU)	Delay (S)	RFC	Queue (PCU)	Delay (S)	RFC	Queue (PCU)	Delay (S)	RFC
2027 Baseline									
UWL to A581 Southport Road (E)	0.1	6.92	0.07	0.2	8.93	0.19	0.8	12.87	0.44
UWL to A581 Southport Road (W)	0.0	10.72	0.03	0.1	22.00	0.07	0.4	22.00	0.28
A581 Southport Road (E)	0.2	6.59	0.12	11.2	52.70	0.92	0.9	5.91	0.32
2027 Baseline + Combined Construction Peak									
UWL to A581 Southport Road (E)	0.1	7.07	0.07	0.3	9.52	0.20	12.4	123.86	1.00
UWL to A581 Southport Road (W)	0.0	13.45	0.04	0.1	25.91	0.08	6.3	183.86	0.95
A581 Southport Road (E)	1.4	13.47	0.56	30.9	137.13	1.04	1.0	6.15	0.34

6.4.26. The results from the standalone junction capacity modelling indicate that the A581/Ulnes Walton Lane junction is forecast to operate over acceptable thresholds of capacity in the AM Peak (07:00-08:00) and the PM Peak (17:00-18:00) in the '2027 Baseline + Construction' scenario. Therefore, the traffic flows associated with the combined construction peak (December 2027) have been tested using the proposed highways layout at this location (DWG: GARTH_ATK_HGN_A581_DR_D_0005_P3).

6.4.27. Table 6-10 presents the result of the standalone junction capacity assessment for the A581/Ulnes Walton Lane junction (combined construction peak). This assessment is based on the proposed highway layout at this location. The full outputs are provided in Appendix T.

Table 6-10 - Model Outputs – A581/UWL Junction – Combined Construction Peak - Proposed

Approach Arm	AM Construction Peak (06:00-07:00)			AM Network Peak (07:00-08:00)			PM Construction/Network Peak (17:00-18:00)		
	Queue (PCU)	Delay (S)	RFC	Queue (PCU)	Delay (S)	RFC	Queue (PCU)	Delay (S)	RFC
2027 Baseline + Combined Construction Peak									
A581 Southport Road (W)	0.8	8.76	0.44	4.8	31.34	0.83	1.1	9.08	0.53
Ulnes Walton Lane	0.1	5.56	0.07	0.3	8.38	0.20	3.5	26.77	0.79
A581 Southport Road (E)	0.6	5.99	0.38	3.3	16.11	0.77	3.0	16.22	0.75

6.4.28. The proposed highways layout at the A581/Ulnes Walton Lane junction would ensure that the junction does not operate over capacity during the construction phase of the project, and that the local highway network could accommodate the additional construction traffic during the combined construction peak (December 2027). Therefore, it is recommended that the proposed highway improvements at this location are delivered prior to the start of construction. This would be secured via Condition 4B to ensure that the impacts of construction can be adequately mitigated.

Construction Traffic Management Plan

6.4.29. The standalone junction capacity assessment presented demonstrates that the highway effects of the construction phase can be adequately mitigated. However, it is acknowledged that the construction phase will generate additional traffic on the local highway network and therefore the measures contained within the Working Draft CTMP (Core Document K11) will ensure that the temporary residual impact is further mitigated. Table 6-11 provides a summary of the measures proposed within the Working Draft CTMP and the associated impacts.

Table 6-11 - Working Draft CTMP Proposed Measures

CTMP Measure Proposed	Resulting Impact
Provide appropriate loading/unloading and parking areas for construction vehicles and for workers, contractors, or suppliers. No loading/unloading/parking shall take place on the local highway network without prior permission from the Highway Authority.	This will ensure that construction vehicles do not park on the local highway network.
Construction traffic is to follow the following road safety requirements: • No delivery vehicles are to reverse without the direction of a PVM on the construction site; • Delivery drivers to site will abide by highway laws; • Special consideration should be taken to avoid U-turns and three-point turns in the highway; • Flashing beacons or Hazard lights must always be in use; • Where fitted and appropriate, audible reversing alarms to be used; • Seat belts must always be worn on and off site; and • The mandatory PPE must be worn when alighting the vehicle.	This will help reduce conflict between construction vehicles and general traffic/ Non-Motorised Users (NMUs).
HGV drivers and any other visitors to the construction site will be required to attend an induction upon their first visit.	This will ensure that HGV drivers and any other site visitors understand their roles and responsibilities.
Construction traffic access will be limited to pre-defined routes when travelling on the external highway to the construction site.	This will ensure that appropriate routes have been agreed with the Local Highway Authority which consider sensitive receptors (e.g., Schools).

Appropriate signage will be erected on the local highway network to direct delivery drivers to the site.	This will ensure that delivery vehicles use the pre-defined construction routes and other highway users are aware of the increased number of construction vehicles during the construction phase.
Signage on the road, such as temporary speed limit restrictions, diversion routes, and construction warning signs will be placed at an appropriate height and distance from the kerb to be seen within a driver's line of sight.	This will help ensure that construction personnel have advance warning of the relevant highway signage.
A wheel washing station will be used to clean vehicle tyres before leaving the site, a road sweeper will be in use and vehicle mudflaps will be inspected before vehicles leave the site.	This will ensure that no mud or debris is tracked onto the local highway network from the construction site.
All vehicle parking areas will be constructed on hard surfaces.	This will ensure that vehicles do not enter/exit the site on worn surfaces prone to mud/debris accumulation which could be tracked onto the highway network.
Deliveries on-site will be controlled by a trained Plant & Vehicle Marshal (PVM) between the vehicle arriving on site to its designated parking area, and its departure back onto the highway network.	This will ensure that deliveries are co-ordinated in a safe manner on-site and ensure that vehicles enter/exit the site safely.
Loading and unloading of freight will be undertaken via a self-contained lorry lifting device, and no loading or unloading will take place on the public highway without pre-agreement from the Highway Authority	This will ensure that delivery vehicles are loaded/unloaded in a safe manner.
The construction contractor will establish a line of communication with the Highway Authority and continuously monitor traffic conditions on the nearby external road network.	This will ensure that relevant stakeholders can be kept informed of any potential issues on the Local Highway Network.
Deliveries on-site will be recorded by the contractor.	This will ensure that the number of construction vehicle movements to/from the site is carefully monitored to ensure that the highway effects of the construction phase are adequately mitigated.
The contractor will retain records of all road incidents. Incidents include near-misses such as speeding, exceeding driver hours, construction workers not parking in designated areas/overspilling onto the public highway, construction HGVs not adhering to the agreed routes/times. Incidents will be reported to the relevant highway authority and reporting systems.	This will help ensure that the measures contained within the Working Draft CTMP will be adhered to and that the local highway authority can be kept up to date with any highway issues.

7. Scheme Costings

7.1.1. The highways works presented within this report would be delivered via a s278 Agreement with LCC. 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.

7.1.2. The scheme cost estimates for the additional highways work have been assessed and the Appellant can confirm that the additional scheme costs associated with the revised mitigation package do not adversely impact on the delivery of the overall development.

8. Summary and Conclusion

8.1. Summary

8.1.1. This report has been produced in response to the 'minded to grant' decision made by Lee Rowley MP, the Parliamentary Under Secretary of State for Local Government and Building Safety, on behalf of the Secretary of State. As outlined in Paragraph 4 of the decision letter, the Secretary of State has decided to give the appellant (the Ministry of Justice) and other parties the opportunity to provide further evidence on highways issues, and allow parties to respond to any such evidence, before reaching a final decision on the appeal. Subject to being satisfied that these matters can be satisfactorily addressed, the Secretary of State is minded to allow the appeal and grant planning permission, subject to conditions.

8.1.2. Table 8-1 provides a summary of the main highway issues identified by the Inspector and the Secretary of State (within Paragraphs 15 and 16 of the decision letter), and the additional highways evidence provided within this report.

Table 8-1 - Summary of Additional Evidence Provided

Highways Issue	Additional Evidence
Ulnes Walton Lane Carriageway Markings and Traffic Calming	• DWG: GARTH_ATK_HGN_MOSS_DR_D_0003
Footway between Ulnes Walton Lane and Moss Lane	• DWG: GARTH_ATK_HGN_MOSS_DR_D_0003 • DWG: GARTH_ATK_HGN_MOSS_DR_D_0002_P3
Moss Lane Traffic Calming	• DWG: GARTH_ATK_HGN_MOSS_DR_D_0002_P3
A581/Ulnes Walton Lane Mitigation	• DWG: GARTH_ATK_HGN_A581_DR_D_0005_P3 • Standalone Junction Capacity Analysis • Stage 1 RSA
Construction Phase Impacts	• Construction Routing Assessment • Revised Construction Forecasts • Standalone Junction Capacity Analysis • Summary of Working Draft CTMP Measures

8.2. Conclusion

8.2.1. This report has provided further evidence on the highway issues outlined in Paragraphs 15 and 16 of the decision letter, specifically the highways issues in relation to the Moss Lane/Ulnes Walton Lane junction, the A581/Ulnes Walton Lane junction, and the construction phase of the development.

8.2.2. Taking into consideration the further evidence provided within in this report, it has been demonstrated that the highways issues identified within the decision letter can be satisfactorily addressed. The evidence demonstrates that there would not be an unacceptable impact on highway safety, and that the residual cumulative impacts on the road network would not be severe.