

Response to Local Highway Authority Comments

Land South of Mortimers Lane, Fair Oak

Application No. P24/S2764/O

1.0 Introduction

- 1.1 This Report has been prepared by Glanville Consultants on behalf of Bloor Homes Southern (the Applicant) to address a consultation response provided by Hampshire County Council (HCC), acting in its role as Local Highway Authority (LHA), in relation to an Outline planning application (ref. P24/S2764/O) with all matters reserved except means of access, at Land South of Mortimers Lane, Fair Oak. The application description is:

"up to 245 dwellings (Use Class C3) and up to 350sqm multi-functional building (Use Class E - commercial, business or service or Use Class F2 - Community), with associated open space and play area, landscaping, SuDS, infrastructure, mobility hub and vehicular access off Mortimers Lane".

- 1.2 The LHA provided a consultation response to the above application, dated 25 February 2025, requesting further details in order to remove its objection. The LHA's comments are provided in full at Appendix A and are categorised under the following subheadings:

1. Accessibility

- a. A concept masterplan should be prepared showing where existing deficiencies – as identified by the WCHAR – are located, along with an associated drawing for each improvement.
- b. The exact use of the multi-modal mobility hub should be clarified.

2. Access

- a. Repositioning of the splitter island and any vegetation clearance can be addressed at S278 stage.
- b. Visibility splays should be provided for pedestrian crossings.

3. Off-Site Highway Works

- a. Justification should be provided for the 1.9m footway width by the bus stop on the northern side of Mortimers Lane, as well as consideration of measures to stop pedestrians falling into the ditch.
- b. Specialised materials may be required for the design of the footway / cycleway along Mortimers Lane, given its proximity to existing trees.
- c. LTN1/20 and TG10 should be reviewed in relation to the cycle markings on Knowle Lane.
- d. Clarification is required as to why the shared use path on Knowle Lane is not being taken forward.

4. Winchester Road / Stubbington Way / Botley Road / Eastleigh Road Signalised Crossroads and Associated Shared Use Path

- a. There is a need to balance active travel improvements against junction capacity at the signalised crossroads and therefore careful consideration is required of the design of the shared use path on Botley Road.
- b. The shared use path along Botley Road should be fully dimensioned, with any dimensions less than those set out in HCC's Technical Guidance 10 (TG10) will require a Departure from Standards (DfS).
- c. The shared use path's interaction with existing street furniture and services should be clarified, as well as removal of street furniture if necessary.

5. Trip Generation and Impact

- a. The use of turning counts at the Pembers Farm Avenue junction is acceptable, but the use of this should be confirmed in the flow diagrams.
- b. Clarification should be provided of the trips that appear to be 'lost' between Junctions 6 and 7.
- c. The modelling of the Winchester Road / Mortimers Lane priority junction is questionable, as the traffic flows surveyed at this junction are significantly lower than previous surveys undertaken as part of the Pembers Farm or One Horton Heath applications.
- d. Modelling of the junction should be calibrated with the queue surveys.

6. Road Safety Audit

- a. A Stage 1 Road Safety Audit will be required of all off-site highway works, along with an associated Designer's Response.

7. Travel Plan

- a. Various comments raised in relation to the Travel Plan, which are set out in detail at Appendix A. The Travel Plan has been updated and submitted as a separate document so is not referred to in this report.

- 1.3 A Teams meeting was subsequently held with the LHA on 7 March to discuss their consultation response and agree the further work that would need to be undertaken to address their comments.
- 1.4 A further Teams meeting was held on 4 April to discuss the modelling of the Stubbington Way signalised junction and Winchester Road / Mortimers Lane junction, as well as the other associated off-site highway works.
- 1.5 The points set out under paragraph 1.2 are responded to in the respective subheadings below.

2.0 Accessibility

WCHAR Concept Plan

- 2.1 The LHA requested that a concept plan is provided showing all works proposed as a result of the WCHAR, along with detailed drawings of all improvements. Drawing 8230679/6105 at Appendix B has been updated to show all the agreed off-site highway works, along with specific drawings prepared for each improvement.

Mobility Hub

- 2.2 The LHA requested further details regarding what the mobility hub will include and how this will be delivered. It was confirmed at the meeting with the LHA in March that the mobility hub will include infrastructure such as EV charging points, covered cycle parking, and potential for future multi-functional use.
- 2.3 As the application is Outline only, the full details of what will be delivered will be determined at Reserved Matters stage once an operator has been found. However, it is agreed that a strategy for conditioning and marketing the hub will be further developed as part of the planning obligations to ensure that an appropriate operator will be appointed.

3.0 Access

Splitter Island

- 3.1 Although the LHA commented that the repositioning of the splitter island by the site access on Mortimers Lane could be considered at S278 stage, the drawings at Appendix B have nonetheless been updated to move the splitter island out of the right-turn lane.

Visibility

- 3.2 Visibility splays have been shown at all new pedestrian crossings, as shown in the drawings at Appendix B. These are provided in accordance with either recorded speeds on Mortimers Lane or based on design speeds and guidance set out in TG3.
- 3.3 Any vegetation clearance to achieve either the vehicle or pedestrian visibility splays will be determined at S278 stage but no vegetation that are higher than 600mm when fully grown or a canopy height of less than 2.0m will be provided within the visibility spay envelopes as per guidance in TG3.

4.0 Off-Site Highway Works

Footway by Northern Bus Stop

- 4.1 The development proposes the delivery of a new eastbound bus stop on Mortimers Lane (drawing 8230679/6106) along with associated footways. The footway to the east of the bus stop is slightly below the 2.0m minimum standard set out in HCC's TG10 'Pedestrian and Cycle Facilities', although TG10 also notes that "*Subject to the approval of the Highway Authority, this width may be reduced to 1.8 or 1.5m*".
- 4.2 The LHA commented that widening the footway to 2.0m should be considered, along with potential safety features to prevent pedestrians from falling into the ditch on the northern side of the footway.
- 4.3 Due to the ditch, a fence has been proposed along the back edge of the footway. Because of this and the kerbline on Mortimers Lane, which cannot be altered due to the adjacent bus stop and splitter island, there is a short 14m section where the footway would measure 1.9m, slightly less than the 2.0m typical footway width.
- 4.4 The width of the footway is therefore the maximum that can be provided in this location given the physical constraints along this section and the need to deliver pedestrian safety features.
- 4.5 The LHA confirmed in the meeting on 4 April that the width of this footway was acceptable in principle and that no Departure from Standard would be required for this section of footway.

Footway / Cycleway Materials

- 4.6 In respect of the surfacing of the footway / cycleway along Mortimers Lane, the LHA commented that "*given the proximity of trees to the new proposed 3m shared use path, specialised materials (permeable surface course and binder) may be required, and if so, this would require the approval by HCC asset management team*".

- 4.7 It was subsequently agreed at the meeting on 7 March that this is a matter for detailed design (S278) stage rather than a matter for determination now.

Knowle Lane Shared Use Path

- 4.8 The LHA requested that justification be provided for why a shared-use facility on Knowle Lane is not proposed as part of the application.
- 4.9 Drawing 8230679/6123, included at Appendix C, shows the highway boundary overlaid on OS mapping. This interpretation has been confirmed by HCC's Highway Records team in email correspondence dated 20 August 2024, also included in Appendix C.
- 4.10 Drawing 8230679/6123 shows that the width between the highway boundary and the carriageway on Knowle Lane narrows to just 0.9–1.5 metres near the access to East Horton Business Park. On either side of this point, the verge widens slightly, ranging between 2.0 and 2.7 metres, with typical carriageway widths of 5.4 to 5.9 metres.
- 4.11 The verge land under the control of the LHA is not wide enough to accommodate southbound cycle movements within the adopted highway. Even where sufficient width exists to cross cyclists, the overall space remains too constrained to deliver a continuous shared-use path.
- 4.12 For this reason, a shared-use path cannot be delivered on Knowle Lane without relying on third-party land and is therefore not proposed as part of this planning application.
- 4.13 With regard to the on-carriageway mitigation measures proposed on Knowle Lane, it is acknowledged that LTN 1/20 does not typically support such measures on routes of this nature. However, their inclusion within the off-site highway works package has been reviewed as part of the Stage 1 Road Safety Audit (see section 7.0) which raised no highway safety concerns with their inclusion.

5.0 Stubbington Way Signalised Crossroads Junction

Preamble

- 5.1 The development includes a package of active travel improvements across Fair Oak, with the most extensive works proposed at the signalised crossroads of Winchester Road, Stubbington Way, Botley Road, and Eastleigh Road. A shared-use footway/cycleway is proposed along the southern side of Stubbington Way and continuing south along Botley Road to connect with nearby schools.
- 5.2 The proposals, as set out in the Transport Assessment, aim to deliver a high-quality shared-use path by building out the southern side of Stubbington Way and the western side of Botley Road. The existing Pelican crossing on the southern arm of the junction would also be upgraded to a Toucan crossing to support this route.
- 5.3 While the LHA supported the principle of improved active travel links, their consultation response raised concerns about the potential impact on junction capacity and queuing. It was agreed at the March Teams meeting that further analysis would be undertaken, and the scheme amended where necessary to strike a balance between delivering active travel infrastructure and maintaining operational efficiency at the junction.

Base and Future Year Junction Capacity

- 5.4 As part of the Transport Assessment, a robust scenario was initially tested at the signalised crossroads using a cycle time of 108 seconds for the Base AM scenario and 120 seconds for all other assessment scenarios. In these tests, the pedestrian crossing phase was assumed to run during every cycle.
- 5.5 This approach was applied to both the Base (existing) and Future + Committed development scenarios, which include HCC's proposed pedestrian and cycle connectivity improvements at the junction.
- 5.6 However, further analysis of video survey footage, supported by discussions with HCC's Intelligent Transport Systems team, confirmed that the junction actually operates with a 180-second cycle time during both the AM and PM peak periods.
- 5.7 The video surveys also revealed that the pedestrian phase is typically called once per cycle during the AM peak, and approximately once every two cycles during the PM peak.
- 5.8 Accordingly, the Base and Future + Committed development scenarios have been updated to reflect the revised cycle time and pedestrian staging. The results—presented in terms of Practical Reserve Capacity (PRC), Degree of Saturation (DoS), and Total Delay (measured in Passenger Car Units per hour)—are summarised in Table 1. Full Linsig outputs are provided at Appendix D.

Table 1: Base (Existing) and Future + Committed (with HCC Mitigation)

Junction Layout	Traffic Flow Scenario			
	Base		Future + Committed	
	AM	PM	AM	PM
PRC (%)	29.0%	27.6%	0.4%	6.5%
DoS (%)	69.8%	70.5%	89.6%	84.5%
Total Delay (pcuHr)	23.83	24.05	35.22	35.91

Proposed Junction Capacity

- 5.9 Taking into account the revised signal timings and the need to balance active travel improvements with the operational capacity of the signalised crossroads, two design options have been set out in this report.

Option 1 – Shared Use Route on West Side of Botley Road

- 5.10 Drawing 8230679/6107_F, included at Appendix E, presents an updated version of the footway/cycleway arrangement originally submitted in the Transport Assessment. It incorporates comments from the LHA's consultation response, including the need to relocate northbound ahead movements to the left-hand lane to avoid conflict with opposing southbound traffic.
- 5.11 The drawing also includes additional dimensions and hatching along the shared-use route to clearly indicate where the width falls below the 3.0-metre minimum set out in HCC's Technical Guidance TG10.
- 5.12 As part of the revisions, the length of the right-turn lane has been reduced to approximately 23 metres, reflecting its limited use—serving no more than 24 right-turning vehicles into Stubbington Way during any peak hour.

- 5.13 To facilitate the improved arrangement, the existing footway on Stubbington Way would be widened into the carriageway, and the current splitter island would be removed. On the Botley Road arm, the existing Pelican crossing would be upgraded to a Toucan crossing, and the footway on the western side would be widened—also requiring removal of the existing splitter island.
- 5.14 As shown on the drawing at Appendix E, the shared-use route generally achieves the 3.0-metre minimum width, with only a few localised pinch points falling below this standard.
- 5.15 Based on this revised layout, junction capacity modelling has been updated, and the results are summarised in Table 2 and detailed in the Linsig outputs at Appendix E. As agreed with the LHA, an additional scenario has also been tested incorporating a 10% mode shift in development traffic, reflecting the likely impact of the proposed active travel infrastructure.

Table 2: Glanville Proposal – Footway / Cycleway West Side

Junction Layout	Traffic Flow Scenario			
	Future + Committed + Development		Future + Committed + Development (Mode Shift)	
	AM	PM	AM	PM
PRC (%)	-20.4%	-12.5%	-18.1%	-11.6%
DoS (%)	108.3%	101.3%	106.3%	100.4%
Total Delay (pcuHr)	91.34	62.00	111.86	60.50

- 5.16 Although development traffic would result in the junction operating with a negative Practical Reserve Capacity (PRC), the Degree of Saturation (DoS) be just over 100% in all scenarios, although when accounting for mode shift, the PRC and DoS would reduce.
- 5.17 On this basis, the traffic impact of the development at the junction can be considered mitigated to a degree that it would not constitute a severe impact, particularly in light of the reasonable and robust scenario testing undertaken.
- 5.18 In addition, this option delivers high-quality active travel links to local amenities and facilities, benefitting not only future residents of the development but also the wider Fair Oak community. As such, the proposed works align with the objectives of Hampshire County Council's Local Transport Plan 4 (LTP4), which prioritises active travel over private car use.

Option 2 – Shared Use Route on East Side of Botley Road

- 5.19 In response to the LHA's consultation comments regarding the capacity of the signalised crossroads, an alternative design option for the shared-use route has been developed.
- 5.20 This option, shown on Drawing 8230679/6119_A at Appendix F, retains the proposed works on the Stubbington Way arm but relocates the shared-use path to the eastern side of Botley Road. A Toucan crossing approximately 120 metres south of the junction – adjacent to the existing pedestrian route from Stubbington Way – then connects users to the western side of Botley Road.
- 5.21 While this arrangement results in a greater proportion of the shared-use path falling below the 3.0-metre minimum width recommended in HCC's TG10 guidance, it allows for retention of the splitter island on the southern arm of the junction and enables the northbound ahead movement to remain in the right-hand lane.

- 5.22 This configuration provides greater junction capacity by avoiding the mixing of northbound ahead and left-turning traffic. The resulting capacity assessment is summarised in Table 3, with full Linsig outputs included at Appendix F.

Table 3: Glanville Proposal – Footway / Cycleway East Side

Junction Layout	Traffic Flow Scenario			
	Future + Committed + Development		Future + Committed + Development (Mode Shift)	
	AM	PM	AM	PM
PRC (%)	-5.3%	2.5%	-5.1%	3.0%
DoS (%)	94.7%	87.8%	94.6%	87.4%
Total Delay (pcuHr)	42.21	34.82	41.62	34.41

- 5.23 As shown above, in the PM peak, the junction would operate with ample spare capacity—only around 4% lower than in the Future + Committed scenario presented in Table 1. Although the junction would exceed capacity in the AM peak, this exceedance is marginal, with capacity only around 5% lower than in Table 1. Importantly, even in the worst-case scenario (without modal shift), queue lengths would increase by no more than approximately 10-20 seconds depending on the scenario.
- 5.24 Moreover, a comparison of Table 3 and Table 2 demonstrates that Option 2 provides significantly greater junction capacity across all tested scenarios.

Table 4: Comparison of Option 1 Capacity vs Option 2

Junction Layout	Net Difference in Capacity (Option 1 – Option 2)			
	Future + Committed + Development		Future + Committed + Development (Mode Shift)	
	AM	PM	AM	PM
PRC (%)	-15.10%	-15.00%	-13.00%	-14.60%
DoS (%)	+13.60%	+13.50%	+11.70%	+13.00%
Total Delay (pcuHr)	+49.13	+27.18	+70.24	+26.09

- 5.25 In summary, Option 1 would result in a significant decrease in capacity and an increase in delay at the junction, when compared to Option 2.

Summary

- 5.26 As set out above, it is considered that the proposed development, with proportionate mitigation measures in place, would not give rise to a severe impact on the operation of the signalised crossroads in any of the reasonable scenarios tested, in line with paragraph 115 of the NPPF.
- 5.27 Option 1 would reduce junction capacity but deliver a wider shared-use footway/cycleway along Botley Road, aligning more closely with the objectives of HCC's Local Transport Plan 4 (LTP4). In contrast, Option 2 would restore additional capacity at the junction but would result in a longer section of the shared-use route falling below HCC's minimum width standards.
- 5.28 In essence, the two options present different approaches to balancing improved active travel provision with the operational requirements of the highway network.

- 5.29 It is considered that Option 2 presents the best option in terms of balancing network capacity against the need to improve active travel infrastructure, retaining sufficient capacity at the junction so that queuing and delay is not severe, whilst continuing to provide improved footway and cycleway connections to key amenities and facilities.
- 5.30 Hampshire County Council, in its role as Local Highway Authority, is therefore invited to confirm its preferred option—balancing active travel infrastructure improvements with the efficient operation of the local highway network.

6.0 Trip Generation and Impact

Traffic Survey vs TRICS

- 6.1 The LHA noted that the use of traffic survey data from the Pembers Farm Avenue access to inform trip rates for the proposed development is acceptable. However, clarification was requested regarding the flow diagrams, which referenced TRICS data rather than the survey.
- 6.2 To clarify, all trip generation for the proposed development has been based on the traffic surveys carried out at the Pembers Farm Avenue access. While TRICS has been used for the employment development associated with the land east of Knowle Lane (Application No. F/23/94668), this applies only to that committed scheme. The reference to TRICS in the development traffic flow diagrams was an error and has now been corrected, as shown in Appendix G.

Traffic Flows

- 6.3 The LHA requested clarification on the traffic distribution shown in the flow diagrams, stating:
- "These stick diagrams appear to have some missing information through junctions J7 and J9, with 30 trips inexplicably lost. The distribution should be checked and amended, with modelling inputs and percentage impact of development traffic updated if necessary; it may be that Junction 7 requires modelling."*
- 6.4 They also noted:
- "There seem to be some discrepancies between the AM and PM peak; for example, in the AM peak 30 trips route south through J6 and in the PM peak, only 4 trips route north."*
- 6.5 For clarity, the 'lost' trips between Junctions 6 and 7 represent movements associated with the primary school, Wyvern College, and Lapstone Playing Fields. These destinations generate a higher volume of southbound trips in the AM peak, but far fewer return trips in the PM peak, as most school-related journeys do not occur within the traditional PM peak period. The flow diagrams have been updated to reflect this pattern more clearly.
- 6.6 These clarifications do not affect the overall development traffic flows, and therefore no additional modelling of Junction 7 is considered necessary.

Winchester Road / Mortimers Lane Junction

- 6.7 The modelling undertaken for the Winchester Road / Mortimers Lane junction in the submitted Transport Assessment was based on traffic surveys undertaken in 2023. The Transport Assessment identified that the junction operated with sufficient capacity to accommodate development traffic without requiring any mitigation measures.
- 6.8 However, the LHA questioned the modelling results given historic applications¹, and their associated traffic surveys, showed significantly more traffic and higher RFCs in their 'base year' modelling scenarios.
- 6.9 As agreed with the LHA, a further traffic survey was undertaken during w/c 10 March 2025 to validate whether the traffic surveys undertaken in 2023 were accurate. A copy of the 2025 traffic surveys – and a spreadsheet comparing the traffic to the 2023 surveys undertaken as part of this application, the 2020 surveys undertaken for One Horton Heath and the 2018 surveys undertaken as part of the Pembers Farm application – is provided at Appendix H.
- 6.10 The surveys identify that the flows heading north out of Fair Oak in the AM and returning into Fair Oak in the PM remain lower than the 2018 or 2020 surveys. However, when compared to the 2023 survey, the traffic flows are significantly higher, with an almost 100% increase in traffic on the right-out movement from Mortimers Lane for example and increases of 10-20% on most other arms.

Existing Arrangement

- 6.11 The junction has therefore been modelled again, accounting for the 2025 surveyed flows. Furthermore, as agreed with the LHA, a scenario has been modelled where a 10% modal shift for development traffic is applied. A copy of the Junctions 11 output is provided at Appendix I and the results are summarised in Table 5, along with drawings showing the junction geometry inputs.

Table 5: Winchester Road / Mortimers Lane Junction Modelling Results

Movement	AM		PM	
	Queue (PCU)	RFC	Queue (PCU)	RFC
	- Base			
Mortimers Lane Left Right	3.0	0.76	4.7	0.84
Winchester Road Straight Ahead Right	1.9	0.58	2.1	0.61
	- Future + Committed			
Mortimers Lane Left Right	6.3	0.89	14.3	1.00
Winchester Road Straight Ahead Right	3.8	0.71	4.0	0.74
	- Future + Committed + Development			
Mortimers Lane Left Right	29.0	1.09	34.3	1.15
Winchester Road Straight Ahead Right	7.1	0.84	7.6	0.86
	- Future + Committed + Development Mode Shift			
Mortimers Lane Left Right	25.0	1.07	31.8	1.13
Winchester Road Straight Ahead Right	6.4	0.83	7.0	0.85

¹ Pembers Hill (O/15/77190) and One Horton Heath.

- 6.12 The modelling shows that the junction works within capacity in the base, but above capacity in the AM and PM peak with committed development.
- 6.13 When accounting for development traffic, the junction operates above its theoretical capacity with RFCs in excess of 1.00 in both the AM and PM peak hour, on the Mortimers Lane arm. Queues also increase significantly, with queuing more than tripling in some assessed scenarios.
- 6.14 The LHA also considered that queue length surveys should be used to validate the operation of the junction. The queue length surveys have been compared to the respective modelling outputs, as shown in Tables 6 and 7 below. See Transport Assessment for 2023 survey and modelling results.

Table 6: Queue Length Comparison (2023 Survey vs 2023 Base Modelling Scenario)

Period	Queue (average PCU)					
	2023 Survey		2023 Model Outputs		Difference	
	Mortimers Lane	B3354	Mortimers Lane	B3354	Mortimers Lane	B3354
AM Peak (08:00-09:00)	12.3	3.3	1.1	2.2	-11.2	-1.1
PM Peak (17:00-18:00)	7.9	1.3	1.8	1.4	-6.1	+0.1

Table 7: Queue Length Comparison (2025 Survey vs 2025 Base Modelling Scenario)

Period	Queue (average PCU)					
	2025 Survey		2025 Model Outputs		Difference	
	Mortimers Lane	B3354	Mortimers Lane	B3354	Mortimers Lane	B3354
AM Peak (08:00-09:00)	4.4	2.7	3.0	1.9	-1.4	-0.8
PM Peak (17:00-18:00)	7.7	3.2	4.7	2.1	-3.0	-1.1

- 6.15 Whilst the queues do not validate perfectly, it is the case that the Junctions modelling software is only ever a snapshot of the typical operation of the junction and does not take into account factors such as driver behaviour which may impact when a driver turns into or out of a junction, for example. Even so, the queues in the 2025 model are generally within 1-2 vehicles of the surveyed queues.
- 6.16 In any case, the queues identified in the model validate far better against the 2025 surveyed queues compared to the 2023 surveyed queues, giving comfort that the models are more reflective of the real-world traffic conditions.

Mitigation

- 6.17 Given the junction operates above capacity as a result of the development, a mitigation strategy has been derived, which comprises the widening of Mortimers Lane to on approach to the junction to provide a greater flare in which traffic turning out can wait. General arrangement and tracking drawings showing this mitigation are provided at Appendix J, with the results of the mitigation shown in Table 8 and the Junctions outputs at Appendix J.

Table 8: Winchester Road / Mortimers Lane Junction with Mitigation Modelling Results

Movement	AM		PM	
	Queue (PCU)	RFC	Queue (PCU)	RFC
- Future + Committed + Development				
Mortimers Lane Left	2.4	0.71	2.8	0.75
Mortimers Lane Right	1.3	0.59	1.8	0.67
Winchester Road Straight Ahead Right	7.1	0.84	7.7	0.86
- Future + Committed + Development Mode Shift				
Mortimers Lane Left	2.1	0.68	2.5	0.73
Mortimers Lane Right	1.2	0.56	1.7	0.65
Winchester Road Straight Ahead Right	6.5	0.83	7.0	0.85

6.18 Table 8 above shows that with the proposed mitigation measures, the junction would operate with a worst-case RFC of 0.86 in the AM and PM peak hours, which would occur on the Winchester Road arm of the junction, or 0.85 once mode shift is taken into consideration. With modal shift, the RFC on the Winchester Road arm of the junction would be no worse than the Future Year + Committed development scenario assessed in Table 5.

6.19 Furthermore, the mitigation measures would significantly improve capacity on the Mortimers Lane arm of the junction, with the maximum RFC being 0.73, some way below the typical capacity threshold of 0.85.

Summary

6.20 With the implementation of modest mitigation measures, the impact of the proposed development on the Winchester Road / Mortimers Lane junction can be effectively mitigated, ensuring the junction operates within its operational capacity.

7.0 Stage 1 Road Safety Audit

7.1 A Stage 1 Road Safety Audit has been undertaken of all off-site highway works referenced in the paragraphs above. This identified 12 problems, relating to the design of the off-site highway works.

7.2 A Designer's Response has subsequently been prepared, and it is considered that the recommendations set out in the Road Safety Audit have been satisfactorily addressed through the responses to the problems raised and associated drawing updates.

7.3 Both the Road Safety Audit and Designer's Response are provided at Appendix K.

8.0 Summary and Conclusions

8.1 This Report has been prepared by Glanville Consultants on behalf of Bloor Homes Southern to address a consultation response provided by Hampshire County Council, acting in its role as Local Highway Authority, in relation to an Outline planning application (ref. P24/S2764/O) with all matters reserved except means of access, at Land South of Mortimers Lane, Fair Oak.

8.2 The key points of this report are summarised below:

- An overall concept plan has been prepared, showing all off-site highway works associated with the development.
- Amendments have been made to the site access to reposition a splitter island and provide pedestrian visibility splays.
- The footway by the new eastbound bus stop on Mortimers Lane has been widened to 1.9m, with safety features adjacent to the ditch.
- It has been demonstrated that there is insufficient highway width on Knowle Lane to deliver a shared use path along its entire length.
- Two mitigation options have been presented for the Stubbington Way signalised junction, one of which provides a betterment to active travel, but reduced capacity for vehicles and one of which provides active travel infrastructure which is below HCC's standards for a longer distance, but which restores additional capacity at the junction.
- A mitigation scheme has been derived at the Winchester Road / Mortimers Lane junction to widen the Mortimers Lane arm, providing additional flare in which vehicles can queue, which mitigates the traffic impact of the development at this junction.
- A Stage 1 Road Safety Audit has been prepared, covering all off-site highway works set out in this report, along with a Designer's Response has addressed any problems raised in the Road Safety Audit.

8.3 It is concluded that, in accordance with paragraph 115 of the NPPF, the site can deliver sufficient active travel infrastructure to make walking and cycling a realistic mode of choice for residents of the development, whilst any traffic impacts of the development can be effectively mitigated through a vision-led approach.

8.4 Through mitigation and appropriate scenario testing it is concluded that the site is in compliance with paragraph 116 of the NPPF, which states that "*Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios*".



Appendix A

LHA Comments

Eastleigh Borough Council
Eastleigh House
Upper Market Street
Eastleigh
SO50 9YN

Hampshire 2050
The Castle
Winchester, Hampshire SO23 8UL
Telephone 0300 555 1375
Fax 01962 847055
www.hants.gov.uk

Enquiries to	Zara Rogers	My reference	055529
Direct Line	N/A	Your reference	O/24/98619
Date	25 February 2025	Email	eastleighdc@hants.gov.uk

For attention of Mrs Martin

Dear Sirs

Re: O/24/98619 At Land South of Mortimers Lane, Fair Oak

Outline application with all matters reserved (apart from access) for the construction of up to 245 dwellings (Use Class C3) and up to 350sqm multi-functional building (Use Class E - commercial, business or service or Use Class F2 - Community), with associated open space and play area, landscaping, SuDS, infrastructure, mobility hub and vehicular access off Mortimers Lane

Thank you for the consultation for the above application. The application seeks to gain outline planning permission for a residential development consisting of 245 dwellings and a multifunctional hub, with a new access of Mortimers Lane. It is noted that HCC have previously engaged with the applicant on this site via HCC pre-application service.

In terms of this application, the applicant has submitted a Transport Assessment (reference 24_8230679_AJ_Transport_Assessment) and associated plan and drawings that looks to embellish on the advice given during pre-app. Upon review, the Highway Authority would like to make the following comments.

Existing situation:

The site is situated on land south of Mortimers Lane, on the eastern edge of Fair Oak. The existing site consists of green fields with an existing gated access onto Mortimers Lane. Mortimers Lane is subject to a 30mph speed limit up to 100m east of the junction of Mortimers Lane and Pembers Farm Avenue, and with the remainder being a derestricted national speed limit.

Site Accessibility:

The Transport Assessment sets out that the majority of the facilities and amenities located in Fair Oak are located within two kilometres from the centre of the site. This consists of the local school, shops, banks and food outlets. It is noted that this is outside of the recommended distance set out by Active Travel England.

Furthermore, Fair Oak Infant School is likely to be slightly over the CIHT recommended preferred maximum walking distance of 2km from the southeastern extent of the site. Most destinations are over 20 minutes' walk from the site and the distance to local facilities is likely to encourage short trips by private car rather than active travel. The distance to amenities is on the cusp of what the LHA consider acceptable for a site of this scale and provision of high-quality active travel links will be essential for the LHA to consider the proposed development sustainably located.

WCHAR (Walking, Cycling and Horse Ridding Assessment)

A WCHAR assessment has been undertaken, reviewing the quality of the routes via sustainable modes to several destination listed above. The following routes have been assessed.

- Route 1 – west to the bus stops on Mortimers Lane;
- Route 2 – west to Fair Oak village centre;
- Route 3 – to Fair Oak Infant and Junior School, Wyvern College, Wyvern Day Nursery and Gym (via Mortiers Lane, residential streets or Knowle Park);
- Route 4 – south to Knowle Park;
- Route 5 – south to Knowle Lane employment area;
- Route 6 – west to Stokewood Surgery and Kings School; and
- Route 7 - north towards Crowdhill and Colden Common.
- Route 8 - south to Hedge End railway station, Chalcroft Business Park;
- Route 9 – west to Eastleigh Town centre.

The WHCAR has identified several deficiencies within these routes and has produced a table for user opportunities highlighting where improvement to these routes should be considered. Whilst the Highway Authority agree with the “green” improvements in principle, a concept masterplan plan to highlight where these deficiencies are within the network, with an associated drawing of each improvement, should be submitted for review to be secured within any future S106 for the applicant to implement via S278.

Bus services:

The closest existing bus stop is located on Mortimers Lane, approximately 730m to the west of the site access. This is served by bus numbers 69 and 649. Bus service 69 provides an hourly service between Winchester and Fareham,

including peak times. Furthermore, additional bus services are available from “the Square” in the centre of Fair Oak (c.1.6km from the centre of the site), which provides an additional service between Eastleigh and Southampton.

As part of the development proposals, the applicant is proposing to introduce a new pair (eastbound and westbound) of bus stops, approximately 400m from the centre of the application site (c.180m from site access), located between Mortimers Lane junction with Knowle Lane and the Pembers Hill residential scheme site access. HCC support the introduction of an additional stop, with further comments on the proposals in the below sections. This additional proposed bus stop is envisaged to be an additional stop on the normal service, providing a bus service to the site within an acceptable distance

Rail:

Both Eastleigh and Hedge End station are within 6km of the application site, which have frequent trains to a range of destinations including, Southampton and London Waterloo.

Multi-use Mobility Hub:

The proposals include a multi-functional hub which will comprise up to 350m², and is proposed to be an ancillary use to the main residential development. The transport assessment highlights that the exact use is still under consideration, but could include vehicle charging points, ATM, or other facilities. However, the TA further explains that the primary use is to serve the residents of the development and to reduce the reliance on private car. While the LHA welcome the principle of this, future details at this stage would be beneficial to give an idea of the potential for this to reduce trips by private car. Details of operators/ongoing maintenance etc should also be considered

PIA (personal injury Accident) Data:

PIA data has been provided as agreed during pre-app. This is therefore acceptable to the Highway Authority. There are no patterns of accidents that require mitigation.

Proposed Development:

The proposed development seeks outline planning permission for up to 245 dwellings, with a new access of Mortimer Lane.

Vehicular Access:

Access to the site is proposed to take the form of a new priority junction, with a ghost island right turn lane. Visibility splays have been provided, with these in accordance with the 85th percentile of measured speeds. It should be noted that during pre-app with the LHA, a departure from standard was agreed in principle to provide a reduced visibility X distance of 2.4m, with the right-hand emerging

visibility achievable to the nearside kerb line and the left hand spay achievable to the centre line. This was deemed as being acceptable due to the proposed splitter island to the west of the access, which would prevent any overtaking manoeuvres along this stretch. The proposed splitter island to the west of the proposed access seems to be positioned in the right turn lane and may need amending to prevent vehicle conflict; this can be addressed during S278 detailed design should the site come forward

Furthermore, the proposals also look to relocate the existing gateway feature and 30mph speed limit signage to the east of the new junction. Whilst there are no objections in principle to this, this is subject to a TRO (traffic regulation order) approval. The applicant is advised that the statutory TRO process can be time-consuming. To begin this process, the applicant should contact Hampshire County Council's Traffic Management team at traffic.management@hants.gov.uk, at the earliest opportunity.

Swept path analysis has been undertaken for a range of vehicle manoeuvres entering and existing the site. These appear acceptable to the Highway Authority.

Whilst an RSA has been undertaken for the proposed access, it should be noted that it is not the responsibility of the safety auditor to mention the maintenance routine of the Highway Authority. The designer appears to have agreed that the visibility splays should be clear via the maintenance routine; however, the access splays will be under the responsibility of the developer from the start of works until adoption. Removal of vegetation may be required to facilitate the visibility splay at the access. This can be addressed during S278 detailed design should the site come forward.

Pedestrian and Cycle Access:

Pedestrian and Cycle Access will be delivered to the site through the provision of 2.0m wide footway either side of the access, connecting to the 1.8m footway delivered by the Mortimer Farm application. A crossing point has been provided at this access to facilitate this east-west connection. However, visibility splays at this crossing point have only been shown for one direction; visibility splays for pedestrians should be provided in all directions, in accordance with HCC TG3 guidance.

Offsite Highway Works:

Several off-site highway works have been put forward as part of these proposals which include:

- Cycle improvements and a new bus stops on Mortimers Lane
- Shared use facility along Botley Road
- Cycling markings Knowle Lane

Upon review, the Highway Authority would like to make the following comments. However, as a general comment, no RSA has been undertaken for these improvements; this is required.

Cycle Improvement and Bus Stop on Mortimers Lane:

These proposals include the introduction of a 3m shared use path from the application site, tying into the HCC shared use scheme along Mortimers Lane. The proposals also look at including two new bus stops, including bus shelters, on both sides of Mortimers Lane, along with litter bins and cycle Sheffield stands. However, upon review, whilst HCC support the proposals in principle, additional consideration to the design is required now as set out below.

It should be noted that given the proximity of trees to the new proposed 3m shared use path, specialised materials (permeable surface course and binder) may be required, and if so, this would require the approval by HCC asset management team. Furthermore, any removal of highway trees will incur a CAVAT fee.

It is advised that the applicants consider the depth of the ditch and the existing lamp column and the potential for pedestrians to fall into the ditch, on the northern side of the proposals. Furthermore, the northern footway is being proposed at 1.9m which is below the standard width of an HCC adoptable footway and therefore increasing this to 2m should be explored.

Botley Road Shared use:

The proposal includes changes to the operation of the Botley Road/ Eastleigh Road / Stubbington Way junction, with the introduction of a shared use path on the western side of the carriageway. A short section of shared use is also proposed on the Stubbington Way arm. Whilst the Highway Authority welcome these proposals as it increases the opportunity to travel via sustainable modes, the following comments are made regarding the design.

Limited dimension details have been provided for the Botley Road shared use facility, and therefore the dimensions/geometry should be provided (both for carriageway width and shared use path). This should highlight where it complies, or does not comply, with HCC technical guidance and justification / mitigation measures should be provided where a departure from standard is required. It is noted that there are multiple pinch points along the Botley Road southern section of the proposed shared use facilities and anything less than the standards set out within TG10 will require a Departure from Standards (DfS). Furthermore, it is not clear how the widening works will interact with the current street furniture and retaining features and this should be clarified. Whilst the designer has identified several existing items of street furniture for removal (pedestrian guardrail), all street furniture, signs etc. should be considered for removal/ relocation to facilitate the shared use facility.

Furthermore, at the junction of Botley Road/ Eastleigh Road / Stubbington Way, although the intervisibility at this junction for both the existing and HCC proposed scheme falls outside the highway boundary, the proposals include further changes to the intervisibility at this junction; this may require a DfS.

In terms of the changes to both the operation and layout of the junction, this has been reviewed by HCC ITS team. It should be noted that as part of this review, three separate layouts have been compared to each other in terms of modelling and feasibility. These include:

- HCC proposed junction layout (removing the Winchester Road north centre island to increase right turn storage)
- Applicant layout proposal (as above plus removal of Botley Road and Stubbington Way centre islands to facilitate off road pedestrian/cycle route plus HCC proposed changes)
- ITS amended Applicant layout proposal (as above but reassignment of Botley Road northbound ahead traffic to nearside lane)

The traffic flows used throughout the assessment for each have been taken from the Transport Assessment.

In terms of the Applicant proposed junction layout, the following comments are made:

- There is no waiting space for vehicles who are gap seeking, turning right into Stubbington Way. As a result, Botley Road northbound traffic is blocked.
- The removal of the island and realignment of Botley Road North Bound causes a direct conflict with vehicles waiting to turn right into Eastleigh Road. As a result, vehicles heading North Bound will need to veer around the waiting vehicles to avoid collision. This manoeuvre complete at higher speeds would increase risk significantly.
- As a result of vehicles veering around waiting vehicles, it imposes risk on vehicles turning left into Eastleigh Road.
- Signal Heads on Stubbington Way Island will be lost as a result of the proposal to remove the refuge island. An offside closely associated secondary will be lost for Stubbington Way. There is an existing visibility issue to the nearside primary on Stubbington Way due to overhanging vegetation. Consideration of where to relocate this signal head will be required.
- The secondary signal head will be lost for the Eastleigh Road approach. Consideration of where to relocate this signal head will be required, most likely to one of the signal poles on Stubbington Way.
- The secondary signal head will be lost for the Botley Road right turn into Eastleigh Road as a result of the proposed removal of the refuge island.
- The offside primary signal head will be lost for Botley Road northbound as a result of the proposed removal of the refuge island. Consideration of where to relocate this signal head will be required

In terms of modelling and capacity through this junction, a comparison between the HCC proposed scheme and the applicant scheme has been undertaken.

The table below indicates the Practical Reserve Capacity (PRC), Degree of Saturation and Total Delay for the HCC proposed junction. 'Current' refers to predicted traffic flows with the HCC Fair Oak NMU scheme, 'Future + Committed' includes predicted traffic flows in the future, and committed developments in the area. Whilst the final scenario 'Future + Committed + Development' also includes the proposed development to land south of Mortimers Lane.

HCC Proposed Junction Layout	Traffic flow scenarios					
	Current		Future + Committed		Future + Committed + Development	
	AM	PM	AM	PM	AM	PM
PRC (%)	8.2	8.5	-5.1	-4.1	-9.6	-10.1
Degree of Sat (%)	83.2	83.0	94.6	93.7	98.6	99.1
Total Delay (pcuHr)	20.54	22.02	33.49	33.15	44.81	46.74

The table below indicates the Practical Reserve Capacity (PRC), Degree of Saturation and Total Delay for the applicant's proposed junction amendments.

Applicant Proposed Layout	Future + Committed + Development	
	AM	PM
PRC (%)	-32.3	-45.1
Degree of Sat (%)	119.1	130.6
Total Delay (pcuHr)	127.1	181.56

As seen by the tables above, the applicant's scheme in terms of the PRC (Practical Reserve Capacity) indicates a negative value of -32.3% in the AM peak and -45.1%, because of oversaturated lanes on Eastleigh Road and Botley Road northbound. This therefore means queues would not clear in one cycle during peak times at the junction, with significant delays in both AM and PM peaks. This proposed scheme therefore has an unacceptable impact.

Subsequently, HCC have taken the proposed junction design (that is, the applicant's scheme) and have made small changes to it. This now avoids the conflict between Botley Road NB and Botley Road SB right turn. On the northbound approach, the ahead traffic has been reassigned to use the nearside lane together with left turning traffic and the offside lane is designated for right turners only. The model has been tested with the 'Future + Committed + Development' traffic flows only. The approaches experiencing the biggest delays include Botley Road northbound (AM Peak 67 seconds & PM peak 51 seconds) and Eastleigh Road (AM Peak & PM peak 33 seconds). This is an improvement on the scenario recommended by the applicant.

ITS amended S278 Mortimers Lane proposed layout	Future + Committed + Development	
	AM	PM
PRC (%)	-25.5	-22.8
Degree of Sat (%)	112.9	110.5
Total Delay (pcuHr)	106.11	115.56

Ultimately, further amendments and discussions are required regarding the design of this junction (and shared use path) before it can be considered acceptable.

Knowle Lane:

The proposals include the provision of cycle markings along the northern section by the junction on Mortimers Lane as well as the Southern section by Botley Road. Upon review the following comments are made.

Through pre-app discussions it was understood that a share-use path along Knowle Lane to Deer Park would be explored, but this has not been taken forward. Instead on road cycle marking are being proposed. Clarity and justification over why these have been provided over amending the existing footway route to a shared-use facilities should be explained. The WCHAR suggest that this is down to Third Party Land Ownership, but this should be presented to the Highway Authority to review as there appears to be adequate highway land available to implement a shared use route. Additionally, it is recommended that LNT1/20 and HCC TG10 guidance is reviewed as these cycle markings do not appear to adhere to this guidance and therefore may not be supported (possibly subject to RSA comments). *“Cyclists must be physically separated and protected from high volumes motor traffic, both at junction and on stretches of road between them”*. Further/ alternative mitigation in this area should be explored.

Trip Generation:

The TA indicated that during pre-app discussions it was agreed that trip generation could either be based on the TRICS database or a survey of the recently constructed development at Pembers Farm Avenue.

As such, the TA has presented data regarding the traffic generation and resultant trip rates from the latter turning count surveys, which would result in 142 AM peak two-way vehicular movement and 105 PM peak two-way vehicular movement. It is noted that the data obtained from the Pembers Hill turning Counts results in a lower forecast trip generation compared to the TRICS trip rate, however this is acceptable.

Trip Distribution:

Distribution has been calculated by the trip purpose. This is acceptable to the Highway Authority. However, for clarity, the overall development trip distribution

should be clearly presented for review; this is currently titled 'Total Dev Trips – AM/PM TRICs', however, appears to be based on the Pembers Hill traffic survey trip rates (not TRICs). Clarification should be provided. Furthermore, these stick diagrams appear to have some missing information through junctions J7 and J9, with 30 trips inexplicably lost. The distribution should be checked and amended, with modelling inputs and percentage impact of development traffic updated if necessary; it may be that Junction 7 requires modelling.

Finally, there seem to be some discrepancies between the AM and PM peak; for example, in the AM peak 30 trips route south through J6 and in the PM peak, only 4 trips route north.

Assignment:

The trip assignment method has not been stated and this should be clarified.

Modelling:

The following scenarios have been used for modelling which include:

- Base Year.
- Future Year + Committed Development Flows.
- Future Year + Committed Development + Development Flows.

TEMPro has been used to grow the baseline traffic with committed developments added separately. This is acceptable to the Highway Authority. However, as above it is not clear whether the trips are associated with the TRICS database or Pembers Hill traffic surveys have been used within the modelling; this should be clarified.

The following junctions have been modelled, with the study area agreed during pre-app. It was suggested that only junctions that are subject to an increase in traffic by 5% due to the development should be modelled. Therefore, the following junctions have been assessed:

- Site Access / Mortimers Lane (new junction);
- Mortimers Lane/ B3354 Winchester Road priority junction;
- B3354 Winchester Road/ B3037 Eastleigh Road/ Botley Road/ Stubbington Way traffic signal-controlled junction;
- Mortimers Lane/ Knowle Lane priority junction;
- Mortimers Lane/ Pembers Farm Avenue priority junction.

The results indicate that the Mortimer's Lane/Winchester Road junction would operate within capacity, currently and in the future year. This finding is considered questionable for two reasons. Firstly, the modelling results for the Pembers Hill application (O/15/77190) show this junction to operate over practical capacity (RFC of 0.85) in the base year (2018) and significantly over capacity in the future year with development. There is a similar situation in the assessment carried out for the One Horton Heath application, with the development well over capacity in the base (2020) and future years. The model

set up has not been reviewed in detail, however, this discrepancy appears to be due to significantly lower surveyed flows. The HA is aware of ongoing works on Mortimers Lane, with signalised one way working, that may have resulted in throttling of traffic, or redistribution, temporarily reducing traffic flows through this junction. As such, the based flows presented are not agreed, and this junction should be resurveyed, ensuring free flow traffic conditions on Mortimers Lane at that time.

Secondly, the traffic CCTV data, shows this junction queuing. While this may, in part, be due to downstream queuing blocking back through this junction, calibration with queue length data should be considered in any revised assessment.

The other junctions including the site access, Mortimers Lane / Knowle Lane, Mortimers Lane/ Pember Farm Avenue junction all operate within capacity within the future years assessment.

Comments regarding the operation of B3354 Winchester Road/ B3037 Eastleigh Road/ Botley Road/ Stubbington Way traffic signal-controlled junction are mentioned above. But in summary, the proposed junction arrangement, with this development, tips the operation of this junction over capacity, with significant increases in queue lengths due to development trips. Careful consideration of improvements at this junction will be required.

Travel Plan:

This Travel Plan has been assessed using Hampshire County Council's (HCC's) evaluation criteria for the assessment of travel plans – "A guide to development related travel plans".

Section 1

Title page

This section should contain the following:

- Date of Submission
- Planning reference

Introduction

This section should contain the following:

- Known applications in the vicinity, likely to impact this proposal
- Purpose of the travel plan

Section 2

This section should contain the following:

Site Audit Existing

- Footways and cycleways, including:
- Walking Isochrone Map

Section 3

This section does not require any further amendments.

Section 4

This section does not require any further amendments.

Section 5

This section should contain the following:

Measures

There are some additional measures which should be considered for inclusion within this FTP. Some of these measures may be applicable only to residents or employees, or to both groups

Walking

- Improvements to (and maintenance of) the walking network and signage
- Coordinate with schools to organise walking to school events

Cycling

- Sustainable travel voucher
- Formation of a Bicycle Users Group (BUG)
- Bike maintenance events e.g. Bike Dr, minimum annually

Public Transport

- Sustainable travel voucher
- Collaboration with local public transport providers to improve services, negotiate discounts and trial initiatives

Marketing and Promotion

- Hold events
- Introduction of a personalised journey planning scheme

Management / TPC role

- A commitment to establish a Steering Group

The travel plan should include a estimated total cost of the TPC based on the time spent on travel plan per week, the number of weeks per year to be working on the travel plan and the measures / actions accolated to the TPC.

Section 6

This section should contain the following:

Monitoring

- Monitoring timetable as laid out below:

	Baseline (Year 1)	Year 2	Year 3	Year 4	Year 5
Level of report	To be submitted one year after occupation. This will include the baseline survey results found in the updated Full Travel Plan and a monitoring report.	Monitoring Report	Full Surveys - Monitoring Report	Monitoring Report	Full Surveys - Monitoring Report

- Snapshot surveys to be conducted for years where a full survey will not be carried out.
- Recognition that HCC requires a 35% response rate for questionnaire surveys.
- Measures to ensure that this response rate is met, e.g., a voucher for supermarket or online retailer.
- Alternative method of survey if 35% response rate not achieved, e.g., ATCs/TRICS.
- Keep records of participation in sustainable travel scheme and incentives

The travel plan is missing a number of important sections without which it cannot be approved. These have been outlined below.

Guidance

The travel plan should include a list and description of the national and local policy documents that are relevant to the site. These may include, but are not limited to:

National

- National Planning Policy Framework (2021)
- Planning Practice Guidance 'Travel Plans, Transport Assessments and Statements' (2014)
- CIHT's 'Guidelines Planning for Walking' (2015)
- CIHT's 'Buses in Urban Developments' (2018)
- DfT's Manual for Streets (2007)
- LTN 1/20 Cycle infrastructure design

Regional

- Hampshire's Local Transport Plan 2011-2031 (2013)
- Hampshire County Council's 'A Guide to Development Related Travel Plans' (2019)

Local (where applicable)

- LPA Parking SPD
- LPA Clean Air Policy
- LPA Local Plan
- LPA Electric Vehicle SPD
- Neighbourhood Plans

Site Audit Proposal

The travel plan should include the details of the proposed development.

- Site quantum
- Site boundary
- Class use
- Plan
- Car parking, including:
- LPA/LHA SPD guidelines (including electric vehicles)

- Quantum
 - Location
 - Type
- Cycling parking, including:
 - LPA/SPD guidelines
 - Quantum
 - Location
 - Type
- Internal highway design, including:
 - Roads
 - Footways
 - Cycleways
 - Guidelines used to inform them
- Accesses, if they're changing, including:
 - The impact on sustainable travel
- Transport contributions affecting the site (where applicable)

Delivery and Enforcement

The needs to be a section relevant to enforcement should include the following detail:

- Paragraph explaining the role of the Section 106 agreement including the value of the Travel Plan Cash Deposit (where applicable)
- Commitment to pay HCC's monitoring and approval fees
- Commitment to provide a Travel Plan Cash Deposit of equal value to travel plan measures
- Sanctions in the event of non-compliance

Conclusion

A final paragraph should conclude the travel plan summarising the key points from each section.

The FTP will require further amendments as set out above before it can be considered acceptable for submission in conjunction with the proposed site.

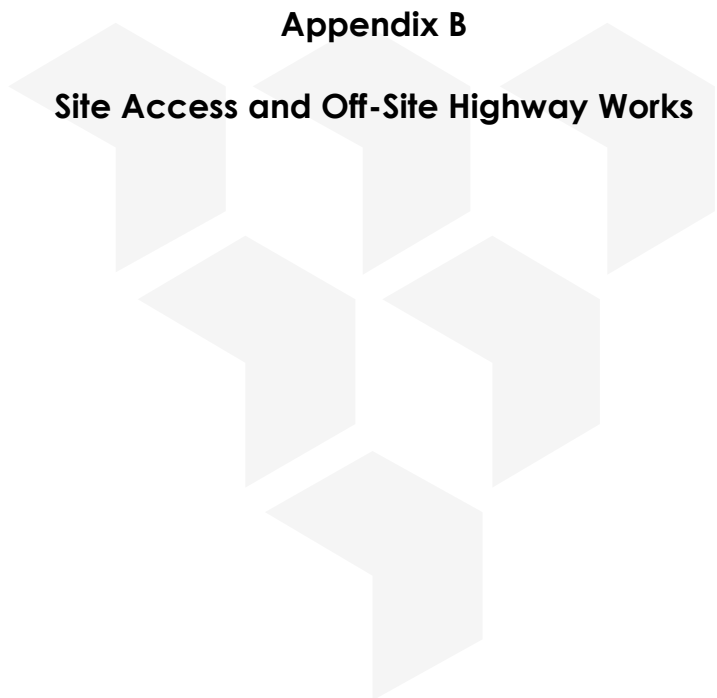
Recommendations:

Further information as mentioned above is required before the Highway Authority can provide a formal recommendation.

Yours faithfully,

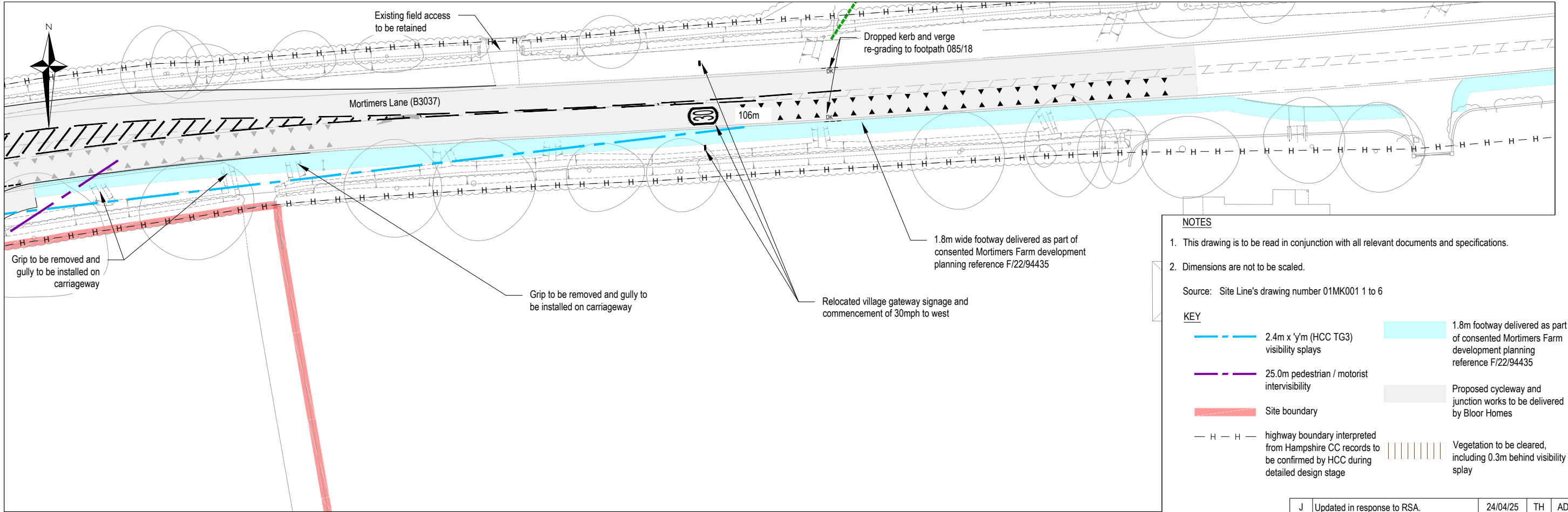
Zara Rogers

Transport Planner - Highway Development Planning
Hampshire 2050



Appendix B

Site Access and Off-Site Highway Works



NOTES

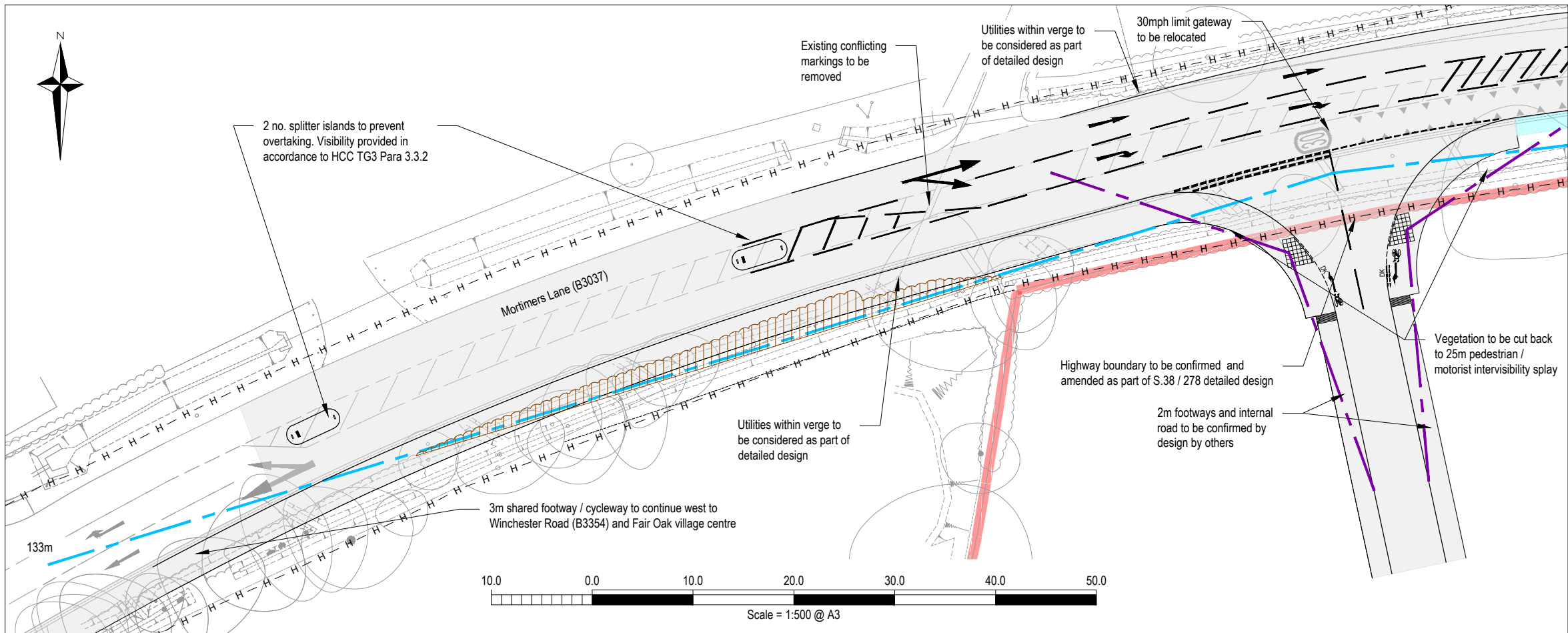
1. This drawing is to be read in conjunction with all relevant documents and specifications.
2. Dimensions are not to be scaled.

Source: Site Line's drawing number 01MK001 1 to 6

KEY

- 2.4m x 'y'm (HCC TG3) visibility splays
- 25.0m pedestrian / motorist intervisibility
- Site boundary
- highway boundary interpreted from Hampshire CC records to be confirmed by HCC during detailed design stage
- 1.8m footway delivered as part of consented Mortimers Farm development planning reference F/22/94435
- Proposed cycleway and junction works to be delivered by Bloor Homes
- Vegetation to be cleared, including 0.3m behind visibility splay

J	Updated in response to RSA.	24/04/25	TH	AD
I	Splitter Island location revised. Visibility splays revised.	07/04/25	TH	AD
H	Westbound bus stop removed. Visibility splays revised.	11/10/24	TH	AD
G	Bus stop details amended.	19/09/24	AH	AJ
F	Bus stop and footway to golf course added.	17/09/24	AH	AJ
E	Highway boundary updated.	21/08/24	AH	AJ
Rev.	Description	Date	By	Chkd

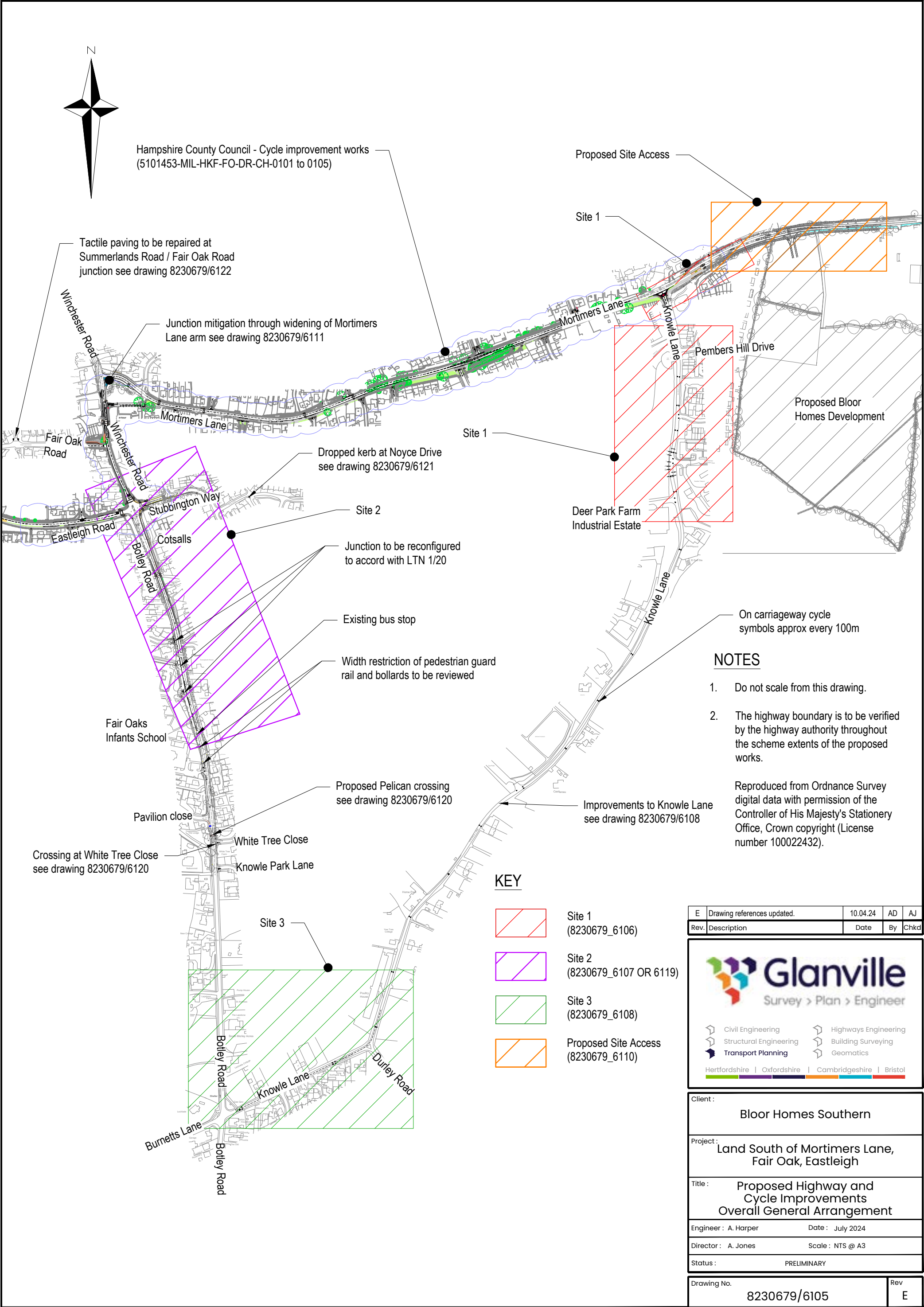


Glanville
Survey > Plan > Engineer

- Civil Engineering
- Structural Engineering
- Transport Planning
- Highways Engineering
- Building Surveying
- Geomatics

Hertfordshire | Oxfordshire | Cambridgeshire | Bristol

Client :	Bloor Homes Southern		
Project :	Land South of Mortimers Lane, Fair Oak, Eastleigh		
Title :	Site Access Visibility Splays		
Engineer : T. Hart	Date : November 2023		
Director : A. Jones	Scale : 1:500 @ A3		
Status :	PRELIMINARY		
Drawing No.	8230679/6103	Rev	J



Hampshire County Council - Cycle improvement works
(5101453-MIL-HKF-FO-DR-CH-0101 to 0105)

Tactile paving to be repaired at
Summerlands Road / Fair Oak Road
junction see drawing 8230679/6122

Junction mitigation through widening of Mortimers
Lane arm see drawing 8230679/6111

Dropped kerb at Noyce Drive
see drawing 8230679/6121

Junction to be reconfigured
to accord with LTN 1/20

Existing bus stop

Width restriction of pedestrian guard
rail and bollards to be reviewed

Proposed Pelican crossing
see drawing 8230679/6120

Crossing at White Tree Close
see drawing 8230679/6120

Improvements to Knowle Lane
see drawing 8230679/6108

On carriageway cycle
symbols approx every 100m

NOTES

- 1. Do not scale from this drawing.
- 2. The highway boundary is to be verified by the highway authority throughout the scheme extents of the proposed works.

Reproduced from Ordnance Survey digital data with permission of the Controller of His Majesty's Stationery Office, Crown copyright (License number 100022432).

KEY

- Site 1
(8230679_6106)
- Site 2
(8230679_6107 OR 6119)
- Site 3
(8230679_6108)
- Proposed Site Access
(8230679_6110)

E	Drawing references updated.	10.04.24	AD	AJ
Rev.	Description	Date	By	Chkd



Survey > Plan > Engineer

 Civil Engineering

 Structural Engineering

 Transport Planning

 Highways Engineering

 Building Surveying

 Geomatics

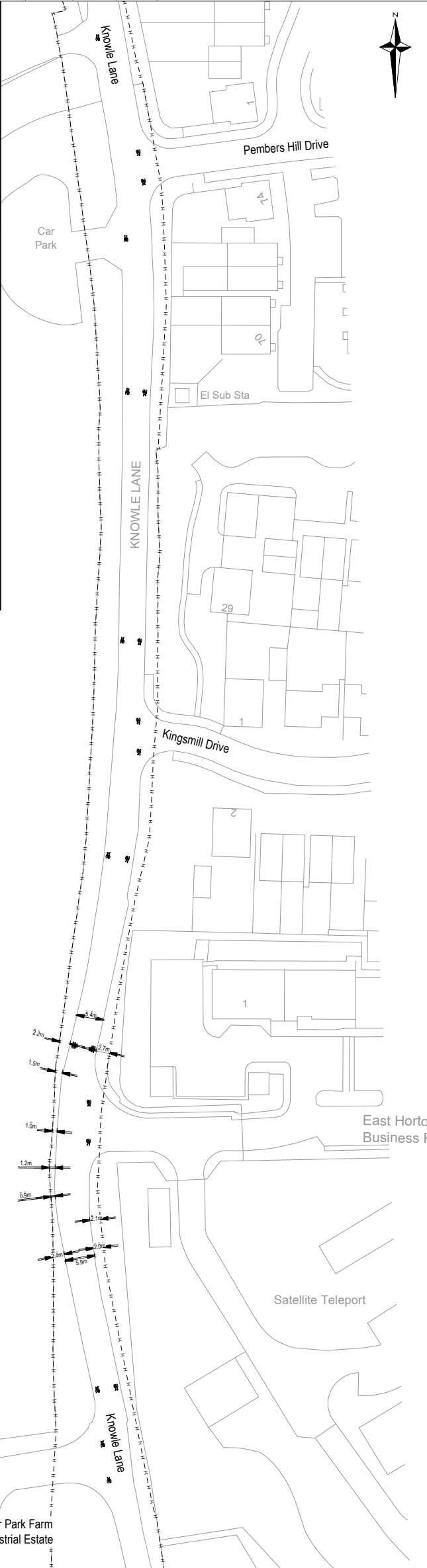
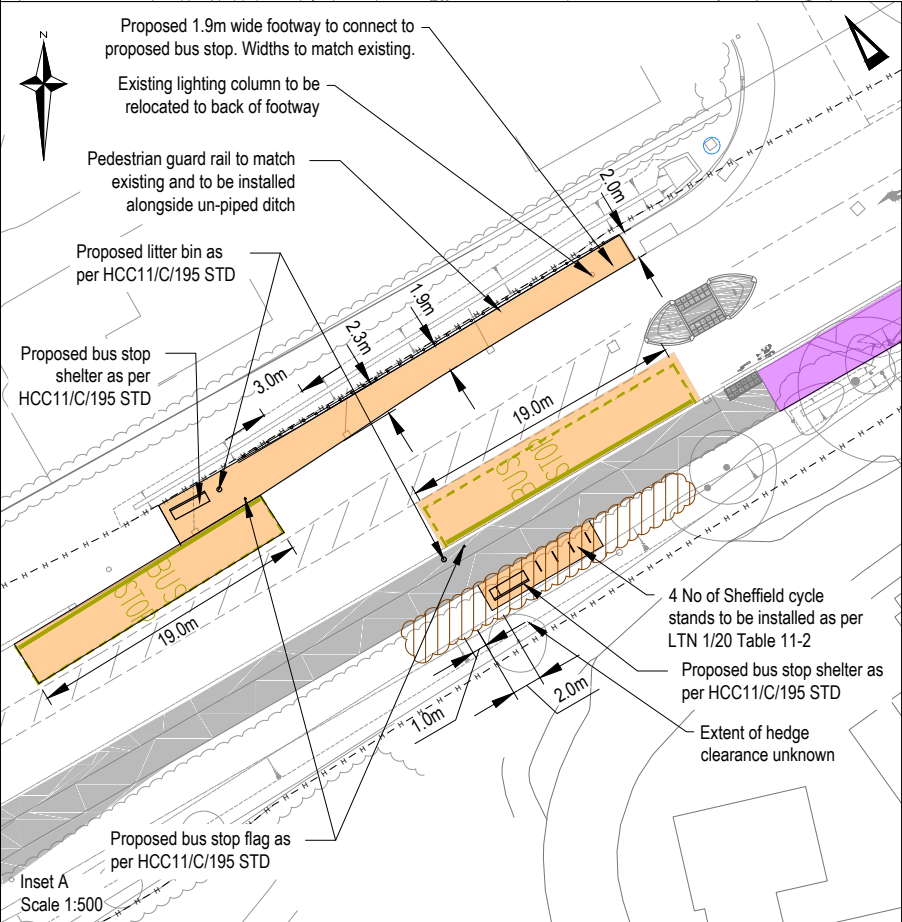
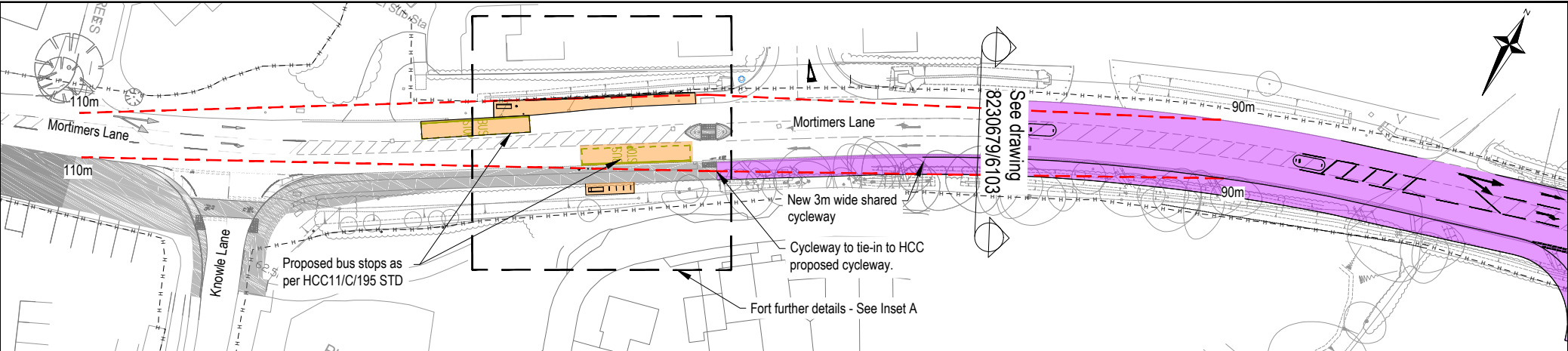
 Hertfordshire

 Oxfordshire

 Cambridgeshire

 Bristol

Client :	Bloor Homes Southern		
Project :	Land South of Mortimers Lane, Fair Oak, Eastleigh		
Title :	Proposed Highway and Cycle Improvements Overall General Arrangement		
Engineer :	A. Harper	Date :	July 2024
Director :	A. Jones	Scale :	NTS @ A3
Status :	PRELIMINARY		
Drawing No.	8230679/6105		Rev E



KEY

Proposed cycleway and junction works to be delivered by Bloor Homes

Proposed bus stop works to be delivered by Bloor Homes

Cycle improvement scheme to be delivered by HCC

Existing vegetation to be cut back / removed to facilitate bus stop waiting area

1.5m x 'y'm Pedestrian visibility splays

NOTES

1.

Do not scale from this drawing.

2.

The highway boundary is to be verified by the highway authority throughout the scheme extents of the proposed works.

Reproduced from Ordnance Survey digital data with permission of the Controller of His Majesty's Stationery Office, Crown copyright (License number 100022432).

F	Updated in response to RSA.	23.04.25	TH	AD
E	Updated in accordance with HCC comments.	18.03.25	AH	AJ
D	Updated in accordance with HCC comments.	23.10.24	AH	AJ
C	Bus stops added on Mortimers Lane	17.09.24	AH	AJ
B	HCC scheme extents added.	22.08.24	AH	AJ
Rev.	Description	Date	By	Chkd

Glanville

Survey > Plan > Engineer

Civil Engineering

Structural Engineering

Transport Planning

Highways Engineering

Building Surveying

Geomatics

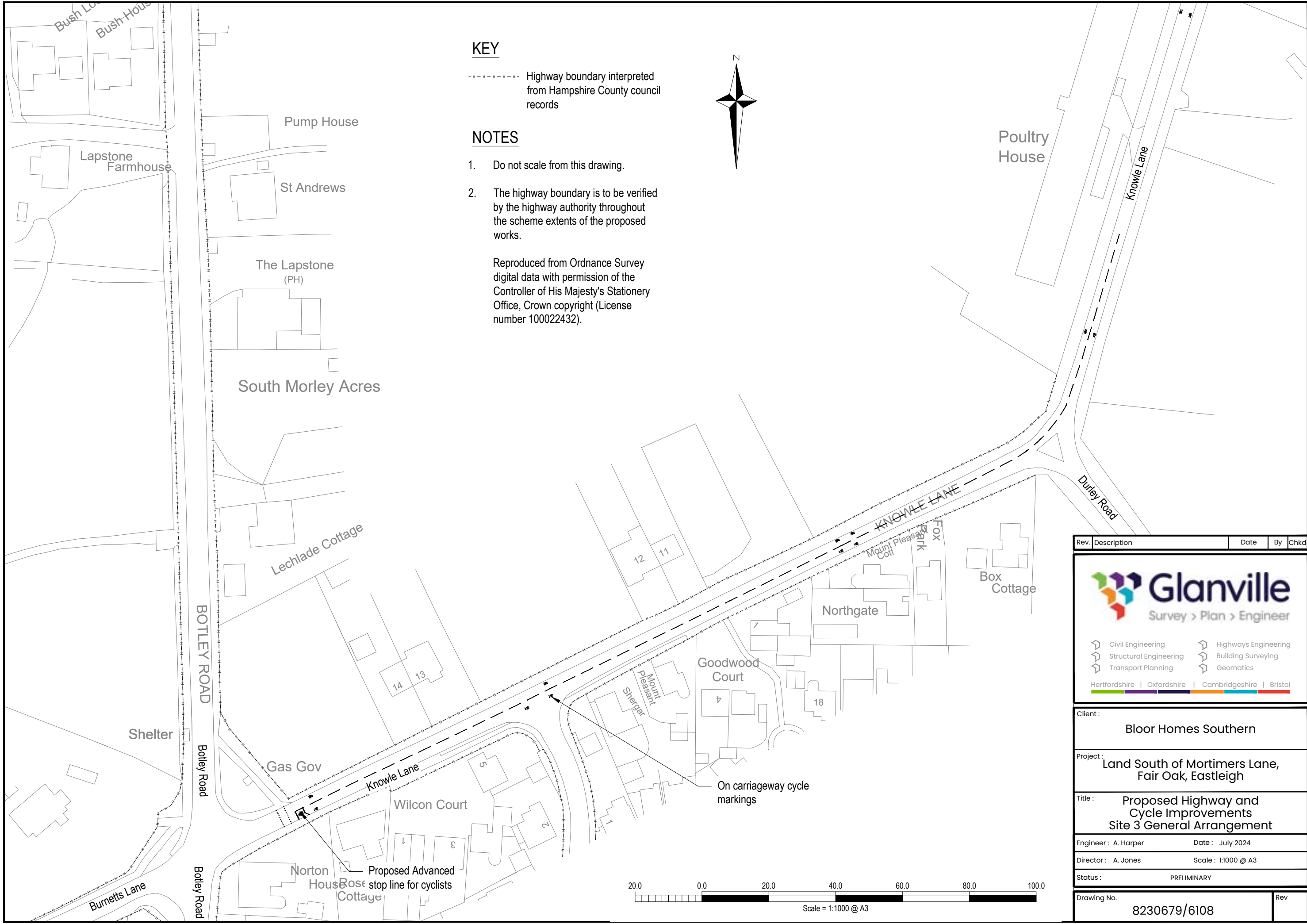
Hertfordshire

Oxfordshire

Cambridgeshire

Bristol

Client :	Bloor Homes Southern		
Project :	Land South of Mortimers Lane, Fair Oak, Eastleigh		
Title :	Proposed Highway and Cycle Improvements Site 1 General Arrangement		
Engineer : A. Harper	Date : July 2024		
Director : A. Jones	Scale : 1:1000 @ A3		
Status :	PRELIMINARY		
Drawing No.	8230679/6106	Rev	F



KEY

----- Highway boundary interpreted from Hampshire County council records

NOTES

- 1. Do not scale from this drawing.
- 2. The highway boundary is to be verified by the highway authority throughout the scheme extents of the proposed works.

Reproduced from Ordnance Survey digital data with permission of the Controller of His Majesty's Stationery Office, Crown copyright (License number 100022432).

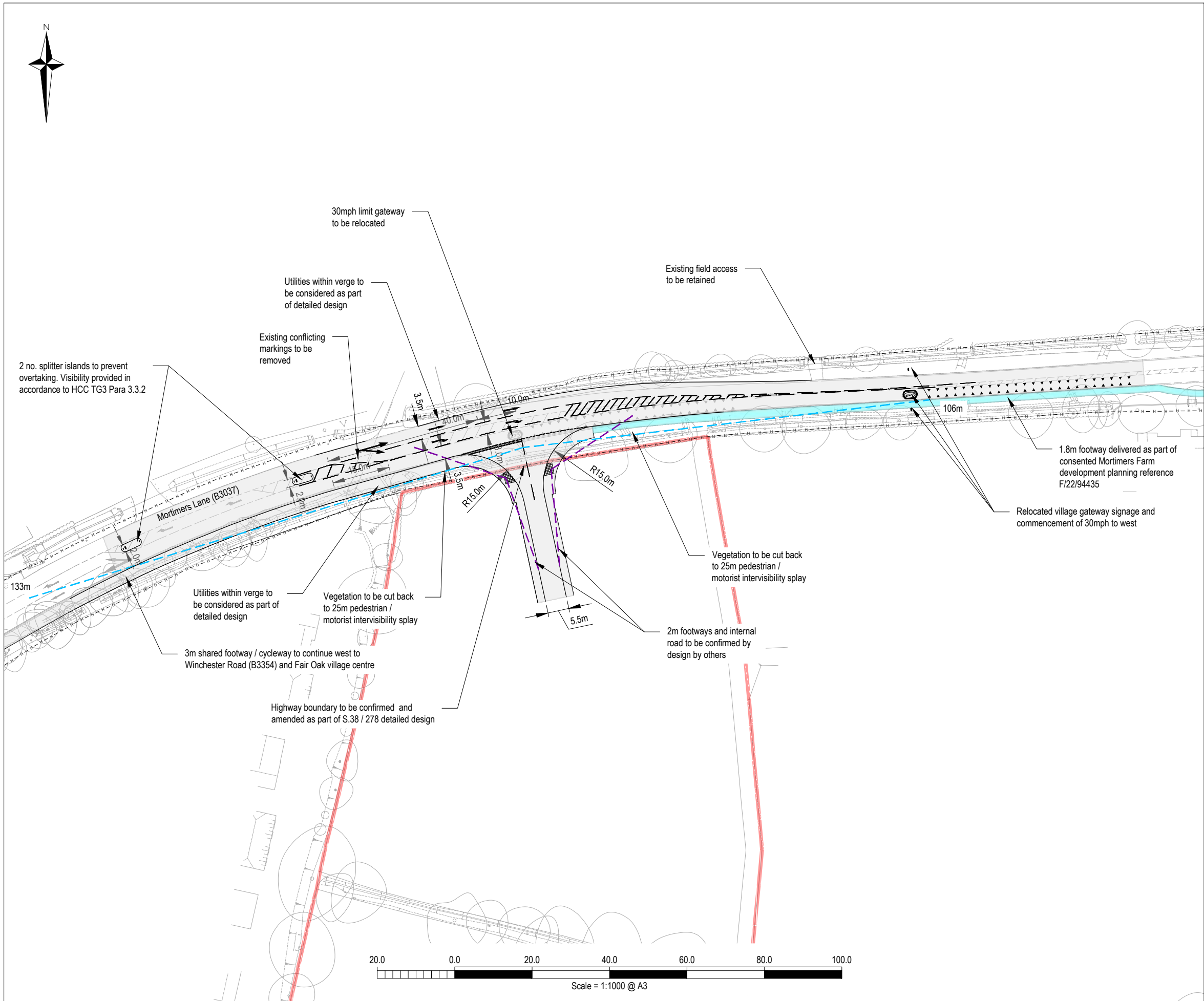
Rev.	Description	Date	By	Chkd
------	-------------	------	----	------



- Civil Engineering
- Structural Engineering
- Transport Planning
- Highways Engineering
- Building Surveying
- Geomatics

Hertfordshire | Oxfordshire | Cambridgeshire | Bristol

Client :	Bloor Homes Southern		
Project :	Land South of Mortimers Lane, Fair Oak, Eastleigh		
Title :	Proposed Highway and Cycle Improvements Site 3 General Arrangement		
Engineer :	A. Harper	Date :	July 2024
Director :	A. Jones	Scale :	1:1000 @ A3
Status :	PRELIMINARY		
Drawing No.	8230679/6108		Rev



- NOTES**
1. This drawing is to be read in conjunction with all relevant documents and specifications.
 2. Dimensions are not to be scaled.
- Source: Site Line's drawing number 01MK001 1 to 6
- KEY**
- 2.4m x 'y'm (HCC TG3) visibility splays
 - 25.0m pedestrian / motorist intervisibility
 - Site boundary
 - highway boundary interpreted from Hampshire CC records to be confirmed by HCC during detailed design stage
 - 1.8m footway delivered as part of consented Mortimers Farm development planning reference F/22/94435

B	Splitter island location updated.	10/04/25	TH	AD
A	Design updated.	28/10/24	AH	AJ
Rev.	Description	Date	By	Chkd



Survey > Plan > Engineer

 Civil Engineering

 Structural Engineering

 Transport Planning

 Highways Engineering

 Building Surveying

 Geomatics

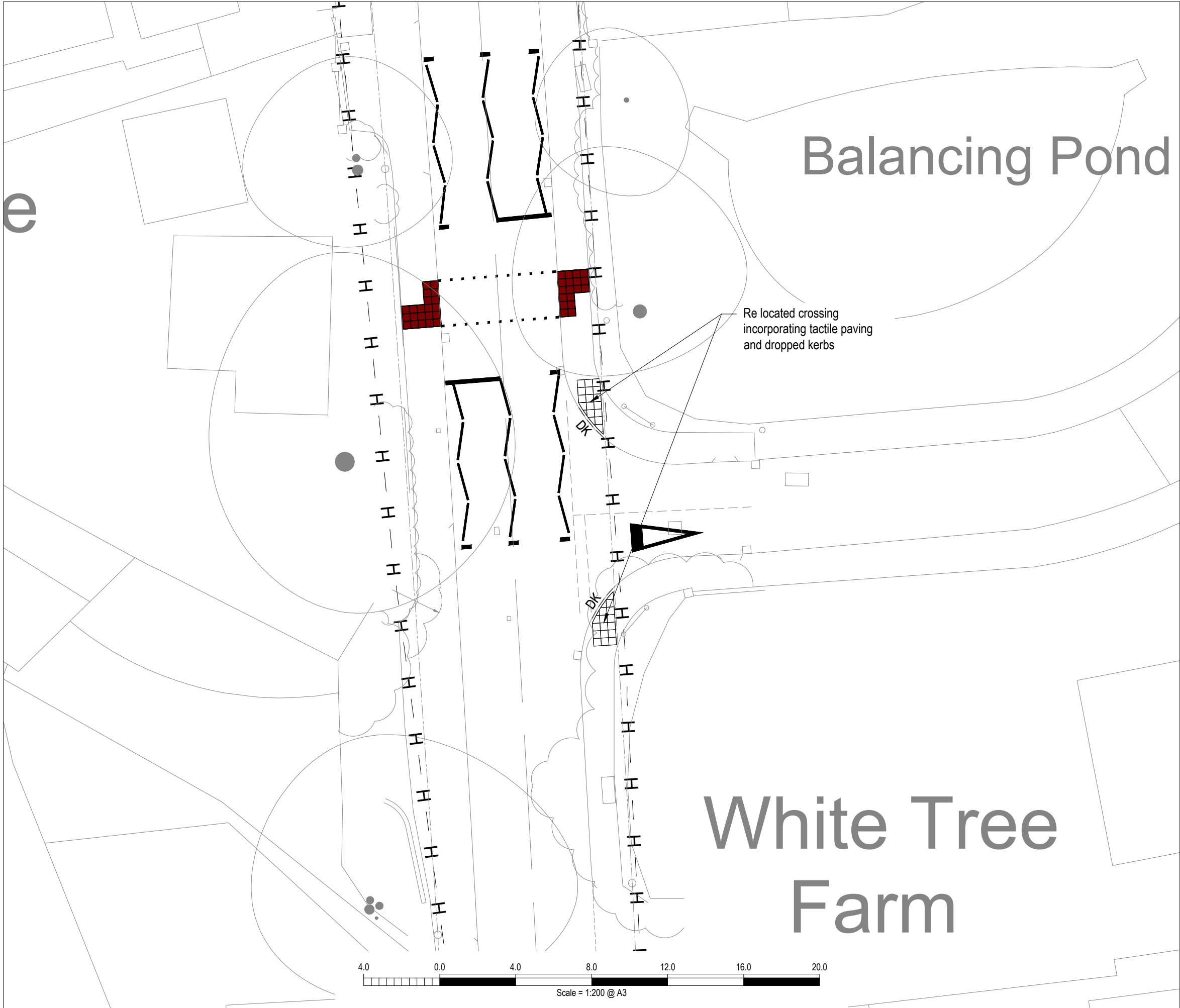
Hertfordshire

Oxfordshire

Cambridgeshire

Bristol

Client :	Bloor Homes Southern		
Project :	Land South of Mortimers Lane, Fair Oak, Eastleigh		
Title :	Site Access General Arrangement		
Engineer : A. Harper	Date : August 2024		
Director : A. Jones	Scale : 1:1000 @ A3		
Status :	PRELIMINARY		
Drawing No.	8230679/6110	Rev	B



- NOTES**
1. This drawing is to be read in conjunction with all relevant documents and specifications.
 2. Dimensions are not to be scaled.
- © Crown copyright and database rights 2024 OS 100018363.

KEY

— H — Highway boundary interpreted from HCC records.



Rev.	Description	Date	By	Chkd
------	-------------	------	----	------



Survey > Plan > Engineer

 Civil Engineering

 Structural Engineering

 Transport Planning

 Highways Engineering

 Building Surveying

 Geomatics

Hertfordshire

Oxfordshire

Cambridgeshire

Bristol

Client :	Bloor Homes Southern		
Project :	Land South of Mortimers Lane, Fair Oak, Eastleigh		
Title :	Relocated Crossing at White Tree Close		
Engineer :	T. Hart	Date :	March 2025
Director :	A. Jones	Scale :	1:200 @ A3
Status :	PRELIMINARY		
Drawing No.	8230679/6120		Rev



- NOTES**
1. This drawing is to be read in conjunction with all relevant documents and specifications.
 2. Dimensions are not to be scaled.
- © Crown copyright and database rights 2024 OS 100018363.

KEY

— H — Highway boundary interpreted from HCC records.



Rev.	Description	Date	By	Chkd
------	-------------	------	----	------



Survey > Plan > Engineer

 Civil Engineering

 Structural Engineering

 Transport Planning

 Highways Engineering

 Building Surveying

 Geomatics

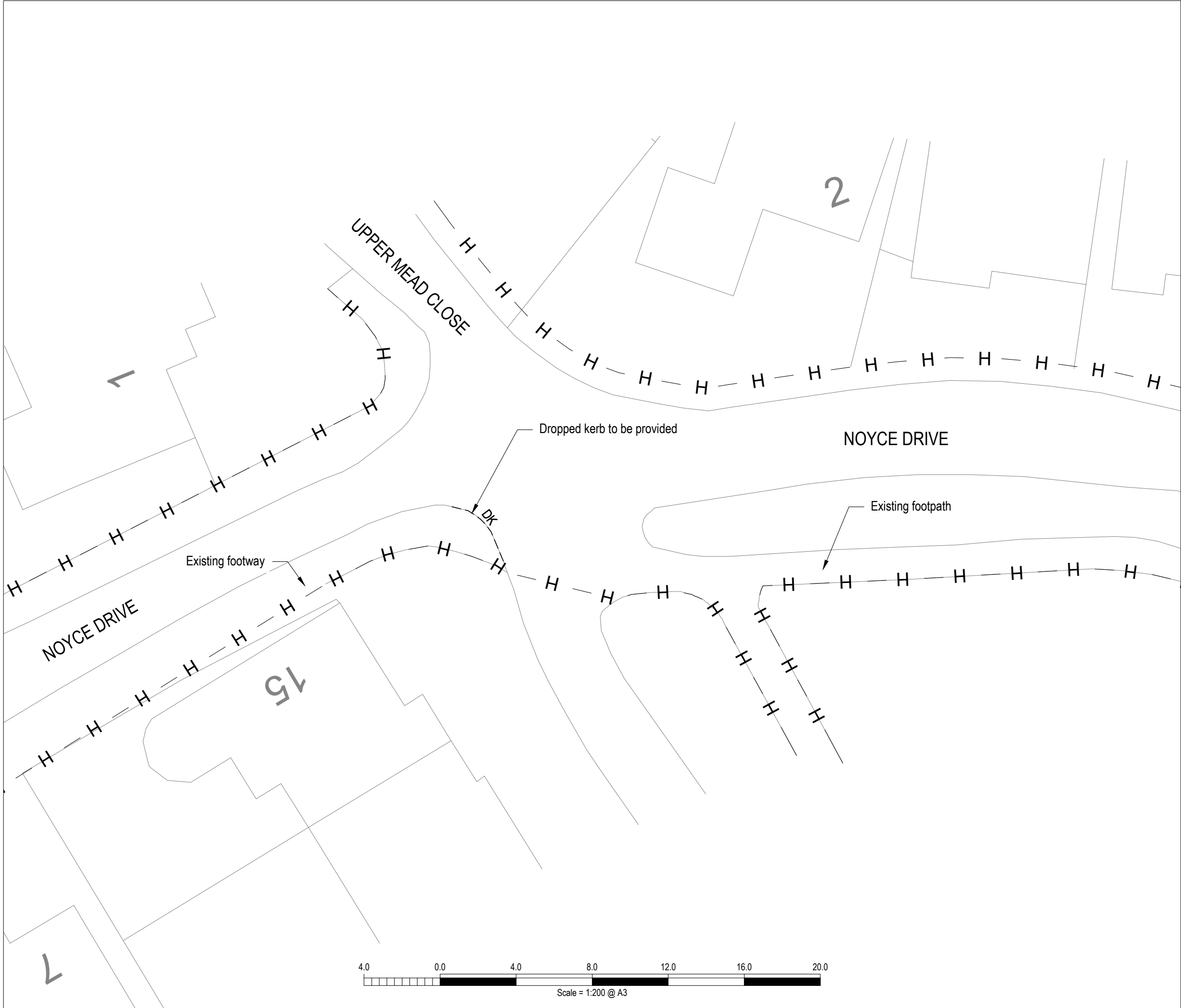
Hertfordshire

Oxfordshire

Cambridgeshire

Bristol

Client :	Bloor Homes Southern		
Project :	Land South of Mortimers Lane, Fair Oak, Eastleigh		
Title :	Crossing at Summerlands Road / Fair Oak Road Junction		
Engineer :	T. Hart	Date :	March 2025
Director :	A. Jones	Scale :	1:200 @ A3
Status :	PRELIMINARY		
Drawing No.	8230679/6121		Rev



- NOTES
1. This drawing is to be read in conjunction with all relevant documents and specifications.
 2. Dimensions are not to be scaled.
- © Crown copyright and database rights 2024 OS 100018363.

KEY

— H — Highway boundary interpreted from HCC records.



Rev.	Description	Date	By	Chkd
------	-------------	------	----	------



Survey > Plan > Engineer

 Civil Engineering

 Structural Engineering

 Transport Planning

 Highways Engineering

 Building Surveying

 Geomatics

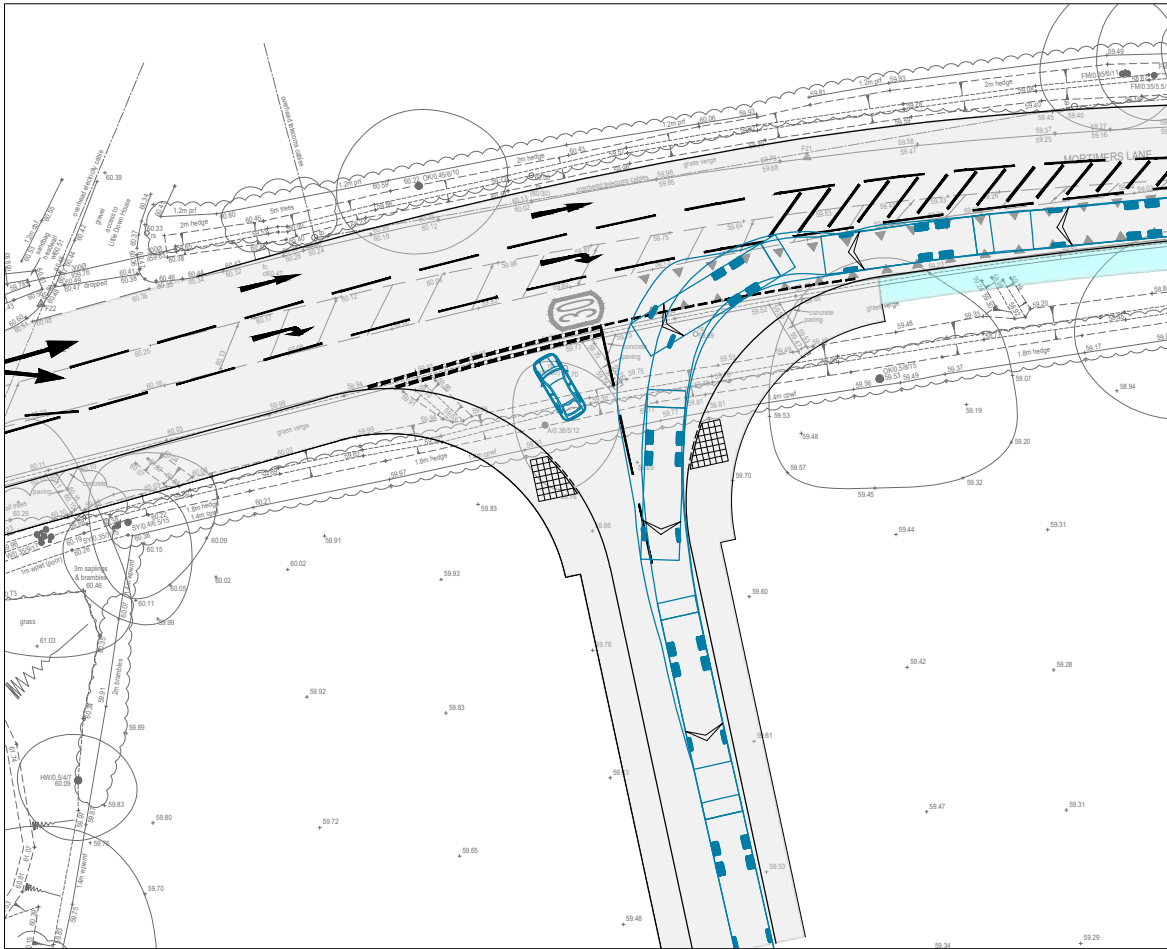
Hertfordshire

Oxfordshire

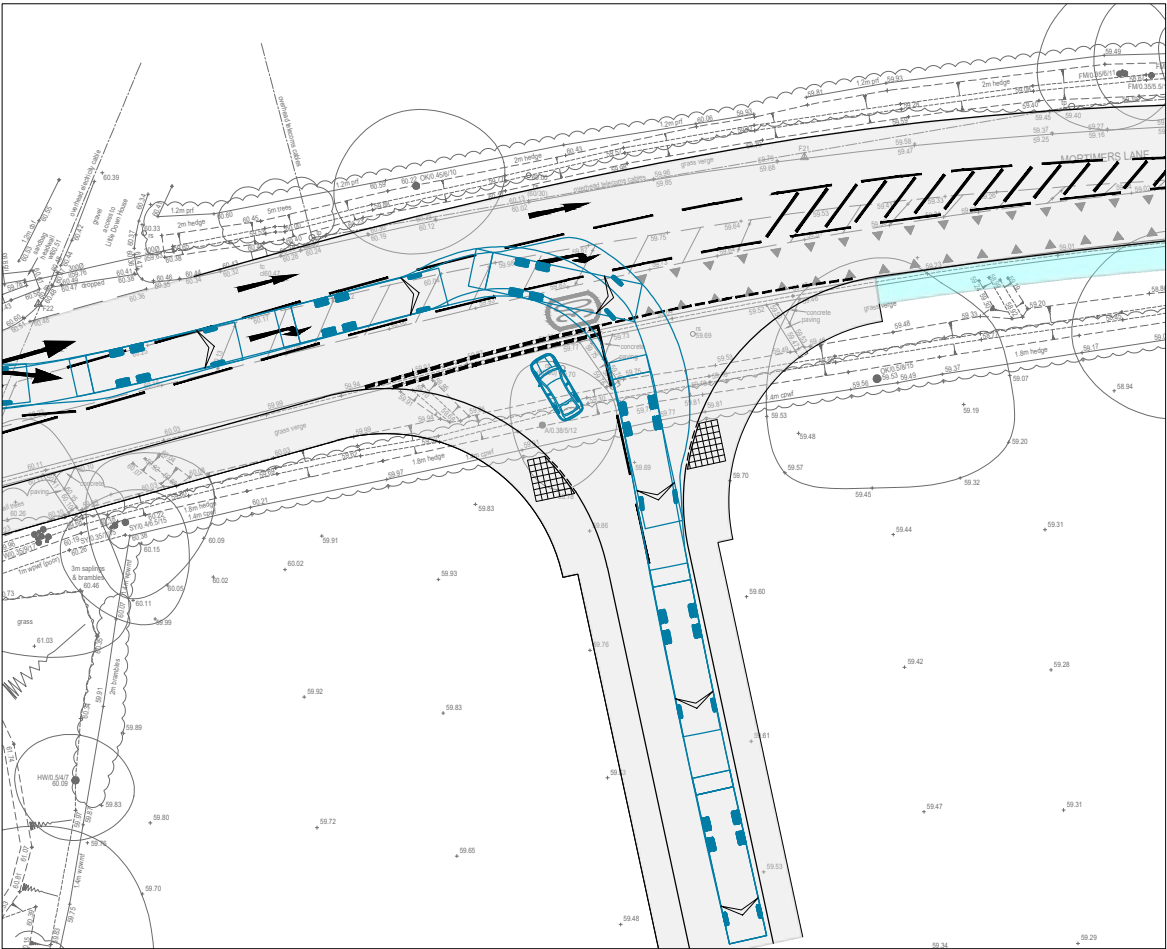
Cambridgeshire

Bristol

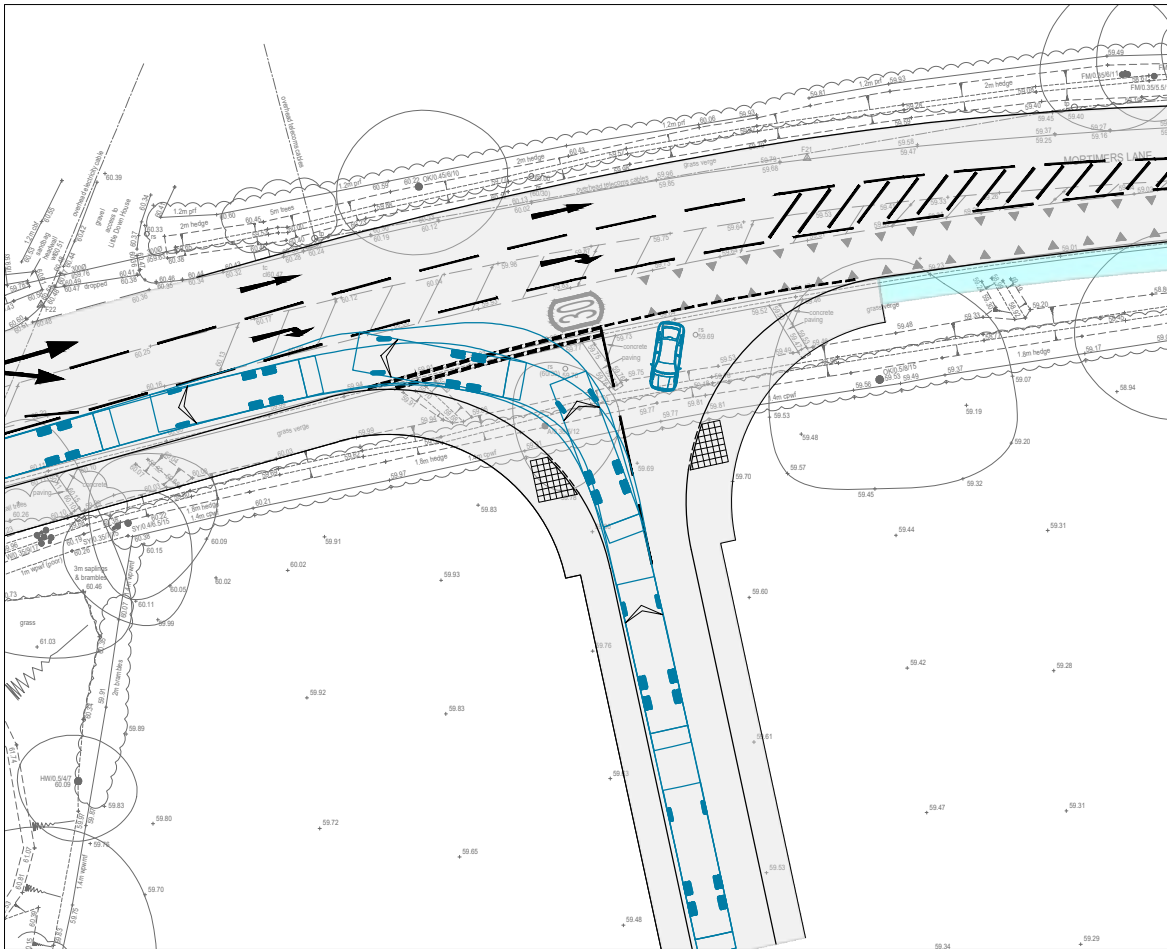
Client :	Bloor Homes Southern		
Project :	Land South of Mortimers Lane, Fair Oak, Eastleigh		
Title :	Dropped Kerb at Noyce Drive		
Engineer :	T. Hart	Date :	March 2025
Director :	A. Jones	Scale :	1:200 @ A3
Status :	PRELIMINARY		
Drawing No.	8230679/6122		Rev



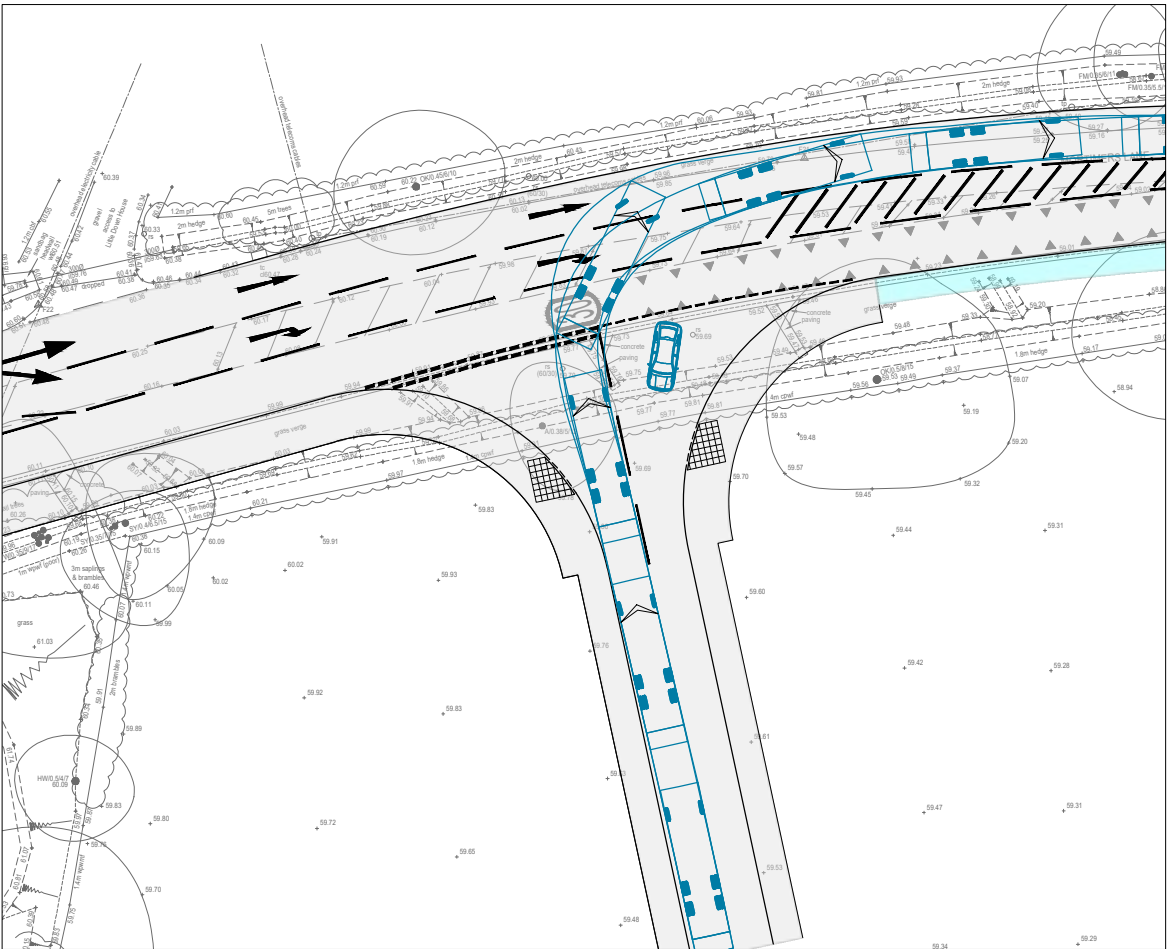
LEFT-TURN - ENTRY



RIGHT-TURN - ENTRY



LEFT-TURN - EXIT



RIGHT-TURN - EXIT

NOTES

- 1. This drawing is to be read in conjunction with all relevant documents and specifications.
- 2. Dimensions are not to be scaled.

Source: Site Line's drawing number 01MK001 1 to 6

KEY



11.2m refuse vehicle - forward gear



B	Westbound bus stop option 2 removed.	11/10/24	TH	AD
A	Footway revised.	15/01/24	TH	AJ
Rev.	Description	Date	By	Chkd



Survey > Plan > Engineer

 Civil Engineering

 Structural Engineering

 Transport Planning

 Highways Engineering

 Building Surveying

 Geomatics

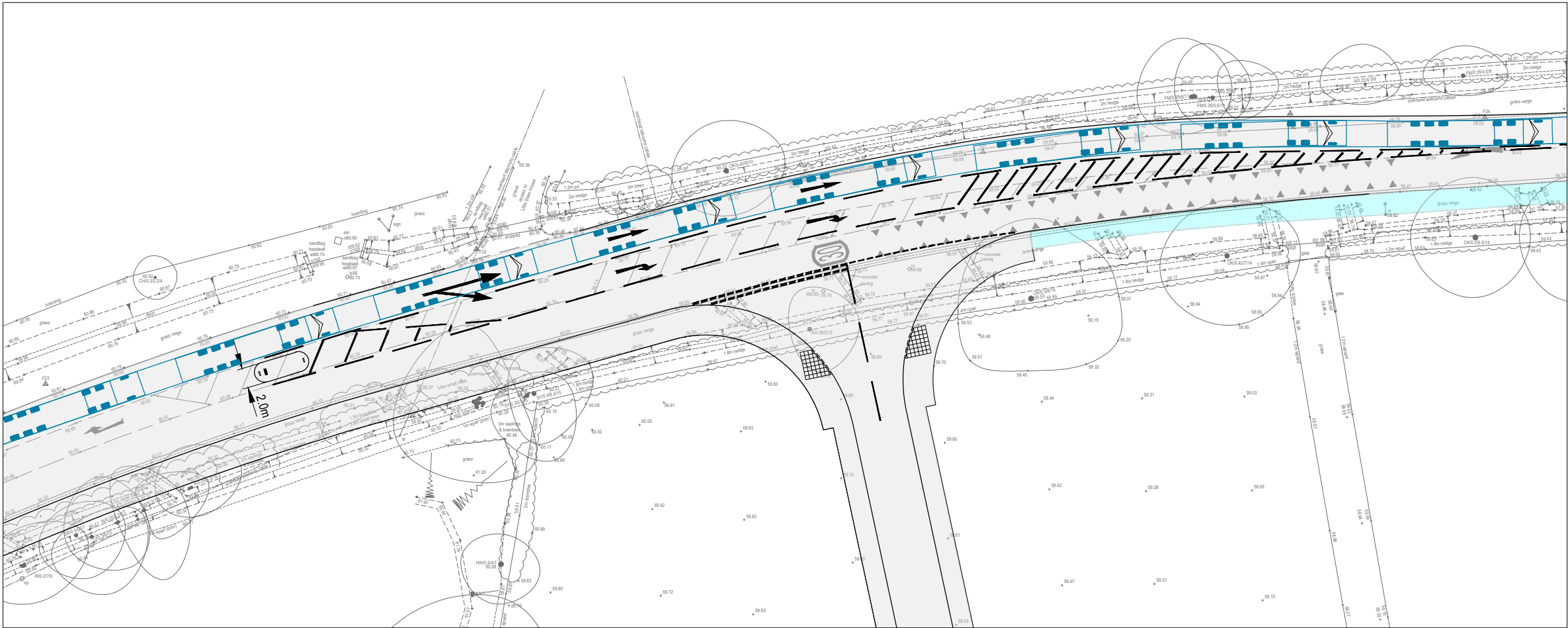
Hertfordshire

Oxfordshire

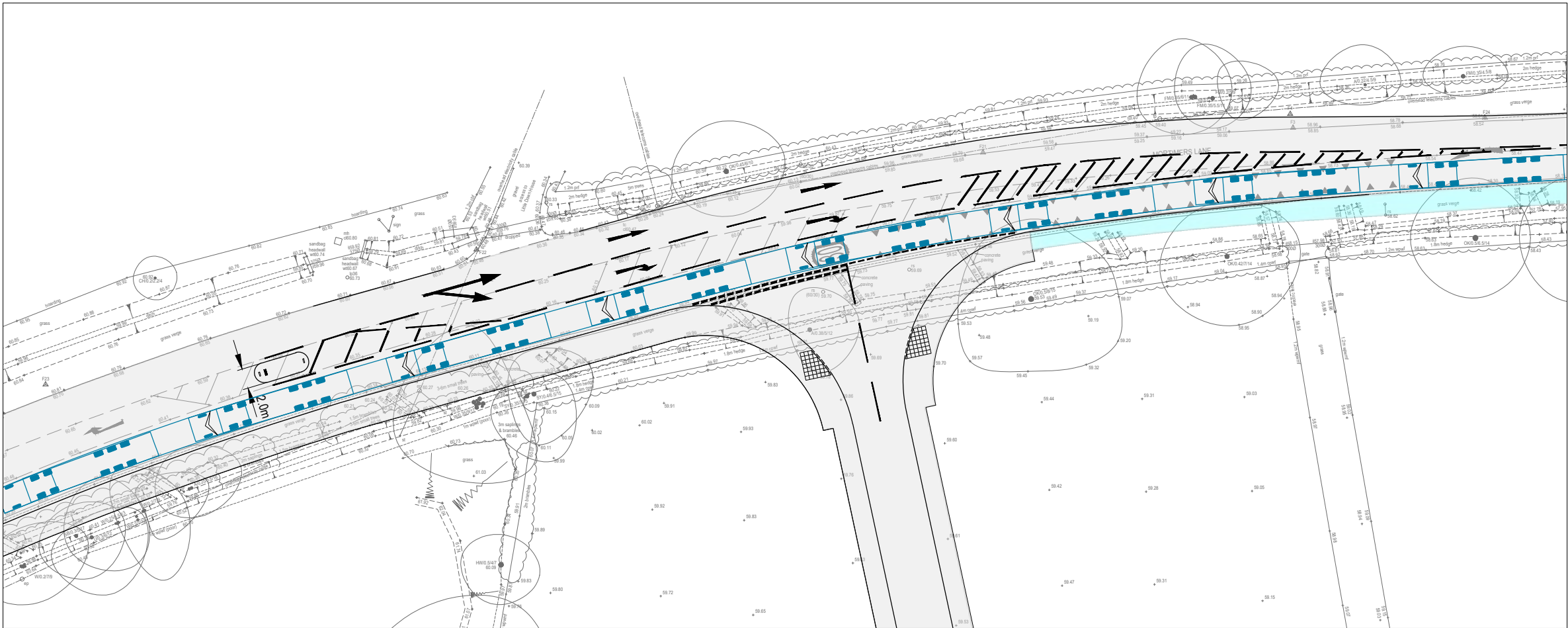
Cambridgeshire

Bristol

Client :	Bloor Homes Southern		
Project :	Land South of Mortimers Lane, Fair Oak, Eastleigh		
Title :	Swept Path Analysis 11.2m Refuse Vehicle		
Engineer : T. Hart	Date : November 2023		
Director : A. Jones	Scale : 1:500 @ A3		
Status :	PRELIMINARY		
Drawing No.	8230679/6201		Rev B



EASTBOUND



WESTBOUND

- NOTES
- 1. This drawing is to be read in conjunction with all relevant documents and specifications.
 - 2. Dimensions are not to be scaled.
- Source: Site Line's drawing number 01MK001 1 to 6

KEY

16.5m articulated vehicle - forward gear



B	Westbound bus stop option 2 removed.	11/10/24	TH	AD
A	Footway revised.	15/01/24	TH	AJ
Rev.	Description	Date	By	Chkd



Survey > Plan > Engineer

 Civil Engineering

 Structural Engineering

 Transport Planning

 Highways Engineering

 Building Surveying

 Geomatics

Hertfordshire

Oxfordshire

Cambridgeshire

Bristol

Client :	Bloor Homes Southern		
Project :	Land South of Mortimers Lane, Fair Oak, Eastleigh		
Title :	Swept Path Analysis 16.5m Articulated Vehicle		
Engineer :	T. Hart	Date :	November 2023
Director :	A. Jones	Scale :	1:500 @ A3
Status :	PRELIMINARY		
Drawing No.	8230679/6202		Rev B

NOTES

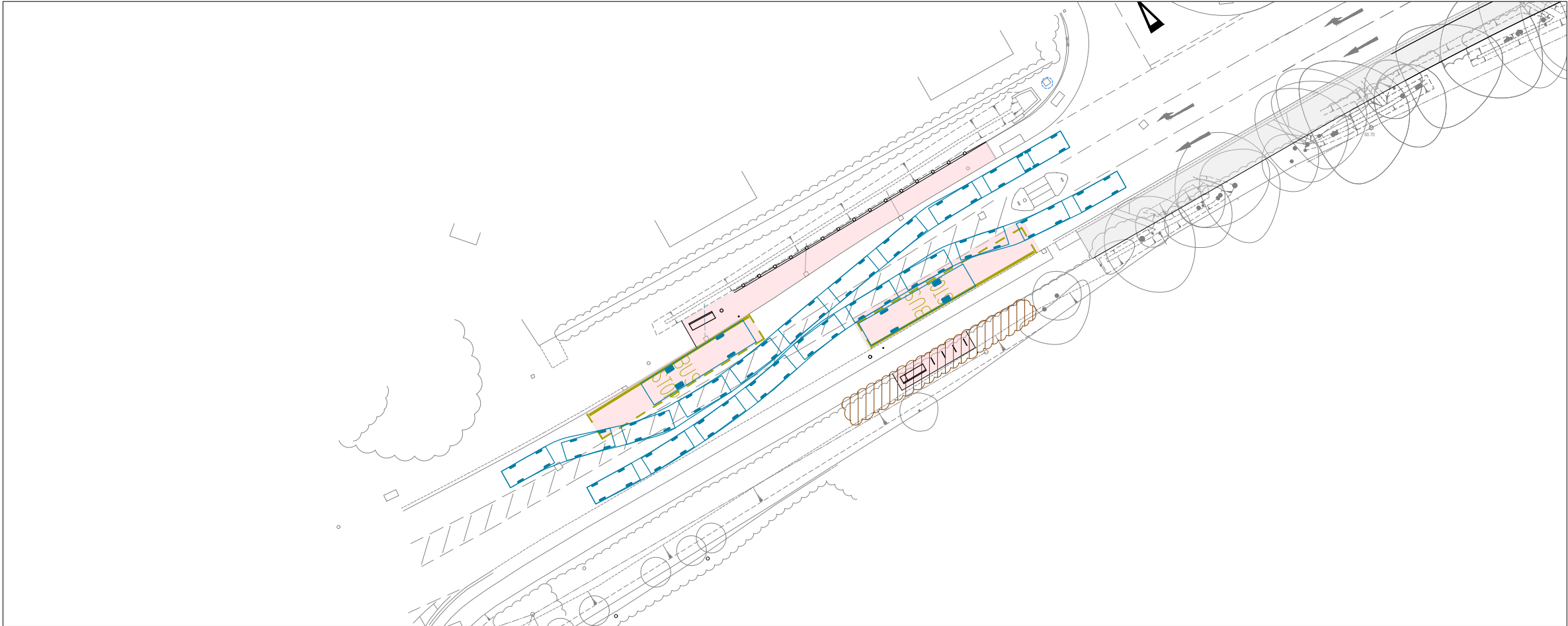
- 1. This drawing is to be read in conjunction with all relevant documents and specifications.
- 2. Dimensions are not to be scaled.

Source: Site Line's drawing number
01MK001 1 to 6

KEY



Large car - forward gear



Rev.	Description	Date	By	Chkd
------	-------------	------	----	------



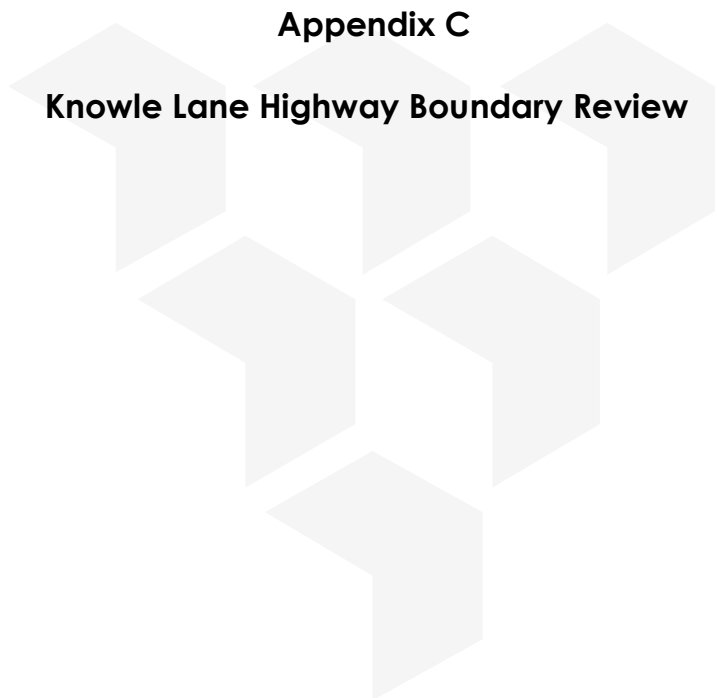
- Civil Engineering
- Structural Engineering
- Transport Planning
- Highways Engineering
- Building Surveying
- Geomatics

Hertfordshire | Oxfordshire | Cambridgeshire | Bristol

Client :	Bloor Homes Southern
Project :	Land South of Mortimers Lane, Fair Oak, Eastleigh
Title :	Swept Path Analysis - Bus Stop Large Car
Engineer : T. Hart	Date : April 2025
Director : A. Jones	Scale : 1:500 @ A3
Status :	PRELIMINARY
Drawing No.	8230679/6210
Rev	

Appendix C

Knowle Lane Highway Boundary Review



From: [Wright, Mark](#)
To: [Anthony Jones](#)
Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508
Date: 20 August 2024 14:59:15
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[image009.png](#)
[image010.png](#)
[image011.png](#)
[image012.png](#)
[image013.png](#)
[image014.png](#)
[image015.png](#)
[image016.png](#)
[image017.png](#)

CAUTION: This email originated from outside of the organisation. Do not click or open attachments, if you suspect the content may not be safe.

Hi Tony

Thank you for your email.

Our highway boundary plans represent the extent of the publicly maintained highway under the responsibility of Hampshire County Council acting as the Highway Authority.

We are instructed to advise that all highway infrastructure obligations/intentions associated with new developments should be referred to the developer concerned who remains fully responsible for these unless/until these highways have been formally adopted.

Kind regards

Mark Wright
Highways Asset Information Supervisor
Highways
Universal Services
Hampshire County Council
Trafalgar House North
Trafalgar Street
Winchester, Hampshire, SO23 9DH
mark.wright@hants.gov.uk
[//www.hants.gov.uk/roads](http://www.hants.gov.uk/roads)



From: Anthony Jones <AJones@glanvillegroup.com>
Sent: Tuesday, August 20, 2024 2:40 PM
To: Wright, Mark <Mark.Wright@hants.gov.uk>
Cc: Alex Harper <AHarper@glanvillegroup.com>; Alex Harper <AHarper@glanvillegroup.com>; Gammer, Nick <Nick.Gammer@hants.gov.uk>; Housby, Mark <mark.housby@hants.gov.uk>
Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

Caution: This is an external email and could contain malicious content. Do not open any links or attachments if you were not expecting them. If the e-mail looks suspicious, please report via the 'Report Phishing' Button found on your toolbar.

Hi Mark

Thanks for the email and appreciate that you can only confirm what is adopted highway based on your records. However, in my view there are clearly discrepancies between what these record and what is provided on the ground as per photos with consideration to fence lines / delineation features etc.

To this end, can you please advise who is the most appropriate person to obtain the S278 / S38 agreements / plan for the developments located to the east of Knowle Lane in this location, which may assist with our query?

Your continued assistance will be most helpful.

Kind Regards

Tony

Regards

Anthony Jones BSC MCIHT
Technical Director
A.Jones@glanvillegroup.com
www.glanvillegroup.com
0117 4524038
[07939 348552](tel:07939348552)



Glanville

Survey > Plan > Engineer



Hertfordshire | Oxfordshire | Cambridgeshire | Bristol



Glanville Consultants Limited is registered in England and Wales under company number 1912317. The registered address is 3 Grovelands Business Centre, Boundary Way, Hemel Hempstead, Hertfordshire, HP2 7TE. This email contains confidential information intended solely for the addressee. If you are not the intended recipient of this email, you are asked to report it to postbox@glanvillegroup.com. Consider the environment - do you really need to print this email?

From: Wright, Mark <mark.wright@hants.gov.uk>

>

Sent: Tuesday, August 20, 2024 1:14 PM

To: Alex Harper <mark.housby@hants.gov.uk>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

CAUTION: This email originated from outside of the organisation. Do not click or open attachments, if you suspect the content may not be safe.

Dear Alex

Mark Housby is unwell at the moment and has asked me to reply. However, he has reviewed the highway boundary plans previously supplied for Knowle Lane in the context of the queries raised. He has confirmed that the highway extents shown are in accord with our historic sources, and with the Land Registry titles for the adjacent land to the east.

We shall always be pleased to review possible amendments to our highway boundary determinations, provided these contrary opinions are supported by appropriate documentary evidence.

Kind regards

Mark Wright
Highways Asset Information Supervisor
Highways
Universal Services
Hampshire County Council
Trafalgar House North
Trafalgar Street
Winchester, Hampshire, SO23 9DH
mark.wright@hants.gov.uk

<http://www.hants.gov.uk/roads>



From: Alex Harper <AHarper@glanvillegroup.com>

Sent: Tuesday, August 20, 2024 12:04 PM

To: Malone, Joe <Joe.Malone@hants.gov.uk>; Gammer, Nick <Nick.Gammer@hants.gov.uk>; Housby, Mark <mark.housby@hants.gov.uk>

Cc: Anthony Jones <AJones@glanvillegroup.com>; Wright, Mark <Mark.Wright@hants.gov.uk>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

Caution: This is an external email and could contain malicious content. Do not open any links or attachments if you were not expecting them. If the e-mail looks suspicious, please report via the 'Report Phishing' Button found on your toolbar.

Thanks Joe, for the GA's.

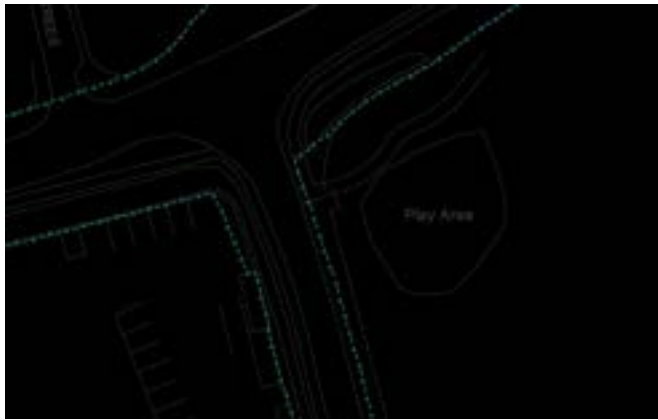
Mark H,

We have the same issues on Knowle Lane where the adopted highway boundary extents are questionable, and we are seeking advice on the exact location of this to determine our works.

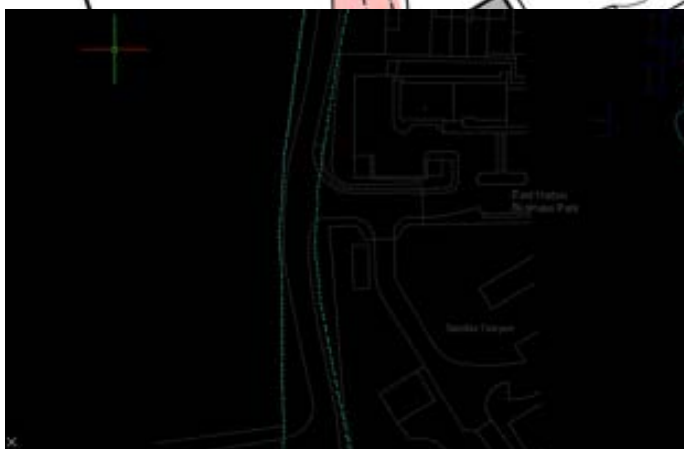
The areas are shown below and we'd be happy to discuss over teams or on site as to what the true highway boundary is.

Area 1





Area 2



Area 3



Regards

Alex Harper EngTech MCIHT
Principal Technician
AHarper@glanvillegroup.com
www.glanvillegroup.com
01235 515550

Glanville Consultants Limited is registered in England and Wales under company number 1912317. The registered address is 3 Grovelands Business Centre, Boundary Way, Hemel Hempstead, Hertfordshire, HP2 7TE. This email contains confidential information intended solely for the addressee. If you are not the intended recipient of this email, you are asked to report it to postbox@glanvillegroup.com. Consider the environment - do you really need to print this email?

From: Malone, Joe <Joe.Malone@hants.gov.uk>

Sent: Tuesday, August 20, 2024 11:38 AM

To: Gammer, Nick <Nick.Gammer@hants.gov.uk>; Alex Harper <AHarper@glanvillegroup.com>; Housby, Mark <mark.housby@hants.gov.uk>

Cc: Anthony Jones <AJones@glanvillegroup.com>; Wright, Mark <Mark.Wright@hants.gov.uk>

Subject: Re: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

CAUTION: This email originated from outside of the organisation. Do not click or open attachments, if you suspect the content may not be safe.

Hi,

The plans (to add shared use) for Mortimers Lane are still being refined but I have attached them anyway.

It looks like there is a similar highway extents issue that we are looking to resolve at knowle lane.

I do not have a dwg.

This should start to be delivered at some point mid to late next year.

Let me know if you have any questions.

Thanks

Joe Malone
Principal Transport Planner/Engineer, Scheme Development

Hampshire 2050

Hampshire County Council,
Tel: 0370 779 8663, E-mail/Teams: joe.malone@hants.gov.uk

From: Gammer, Nick <Nick.Gammer@hants.gov.uk>

Sent: Tuesday, August 20, 2024 11:04

To: Alex Harper <AHarper@glanvillegroup.com>; Malone, Joe <Joe.Malone@hants.gov.uk>; Housby, Mark <mark.housby@hants.gov.uk>

Cc: Anthony Jones <AJones@glanvillegroup.com>; Wright, Mark <Mark.Wright@hants.gov.uk>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

Hi Alex

I've not heard from Joe.

Mark doesn't have anything to add re the highway boundary beyond the plans already supplied I'm afraid. What further details are you looking for exactly on this please?

Best wishes

Nick

Nick Gammer

Principal Transport Engineer – Highways Development Planning

Hampshire 2050

Hampshire County Council, The Castle, Winchester, SO23 8UL

Email: nick.gammer@hants.gov.uk

Web: www.hants.gov.uk



Hampshire County Council operates a pre-application highway advice service for developers.

Hampshire County Council welcomes and encourages discussions before a developer submits a planning application. Please follow this link for further information

<https://www.hants.gov.uk/transport/developers/highwaysdevelopmentplanning>

From: Alex Harper <AHarper@glanvillegroup.com>

Sent: Tuesday, August 20, 2024 10:00 AM

To: Gammer, Nick <Nick.Gammer@hants.gov.uk>; Malone, Joe <Joe.Malone@hants.gov.uk>; Housby, Mark <mark.housby@hants.gov.uk>

Cc: Anthony Jones <AJones@glanvillegroup.com>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

Caution: This is an external email and could contain malicious content. Do not open any links or attachments if you were not expecting them. If the e-mail looks suspicious, please report via the 'Report Phishing' Button found on your toolbar.

Hi all,

Apologies if I may have missed anything that has been sent though but our client is keen to progress our planning application and your help and advice would be much appreciated on my queries below.

Thanks,

Alex

Regards

Alex Harper EngTech MCIHT
Principal Technician
AHarper@glanvillegroup.com
www.glanvillegroup.com
01235 515550



Hertfordshire | Oxfordshire | Cambridgeshire | Bristol

Civil Engineering	Structural Engineering	Transport Planning	Highways Engineering	Building Surveying	Geomatics
-------------------	------------------------	--------------------	----------------------	--------------------	-----------

Glanville Consultants Limited is registered in England and Wales under company number 1912317. The registered address is 3 Grovelands Business Centre, Boundary Way, Hemel Hempstead, Hertfordshire, HP2 7TE. This email contains confidential information intended solely for the addressee. If you are not the intended recipient of this email, you are asked to report it to postbox@glanvillegroup.com. Consider the environment – do you really need to print this email?

From: Gammer, Nick <Nick.Gammer@hants.gov.uk>
Sent: Friday, August 16, 2024 10:47 AM
To: Malone, Joe <Joe.Malone@hants.gov.uk>; Housby, Mark <mark.housby@hants.gov.uk>
Cc: Anthony Jones <AJones@glanvillegroup.com>; Alex Harper <AHarper@glanvillegroup.com>
Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

CAUTION: This email originated from outside of the organisation. Do not click or open attachments, if you suspect the content may not be safe.

Hi Joe, Mark

Could you help Alex out with the below please?

Joe – Not sure if you’ve got any more detailed plans you could share?

Mark – Is there any more info you could provide regarding the highway boundary please?

Many thanks

Nick

Nick Gammer

Principal Transport Engineer – Highways Development Planning

Hampshire 2050

Hampshire County Council, The Castle, Winchester, SO23 8UL
Email: nick.gammer@hants.gov.uk
Web: www.hants.gov.uk



Hampshire County Council operates a pre-application highway advice service for developers.

Hampshire County Council welcomes and encourages discussions before a developer submits a planning application. Please follow this link for further information

<https://www.hants.gov.uk/transport/developers/highwaysdevelopmentplanning>

From: Alex Harper <AHarper@glanvillegroup.com>

Sent: Friday, August 16, 2024 9:21 AM

To: Gammer, Nick <Nick.Gammer@hants.gov.uk>

Cc: Anthony Jones <AJones@glanvillegroup.com>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

Caution: This is an external email and could contain malicious content. Do not open any links or attachments if you were not expecting them. If the e-mail looks suspicious, please report via the 'Report Phishing' Button found on your toolbar.

Hi Nick,

Thank you for your email.

In regards to the plans you mention below, would it be possible to share these with us, preferably a dwg to review alongside our proposals?

As an addition, we've raised a query to your Highway Asset team in relation to the highway boundary on Knowle Lane but have not received a response and I was hoping you may be able to assist.

We are keen to obtain more detailed highway information for some of the extents as shown per below for confirmation of the true highway boundary on site from the historical records. Would you be able to obtain the records and evidence that informed the adopted highway extents for the three areas shown.

We would be happy to meet on site with yourself / the appropriate highway officer to discuss the highway boundary extents if this is considered to be helpful.

Thank you for your assistance but please let me know if you have any queries.

Thanks,

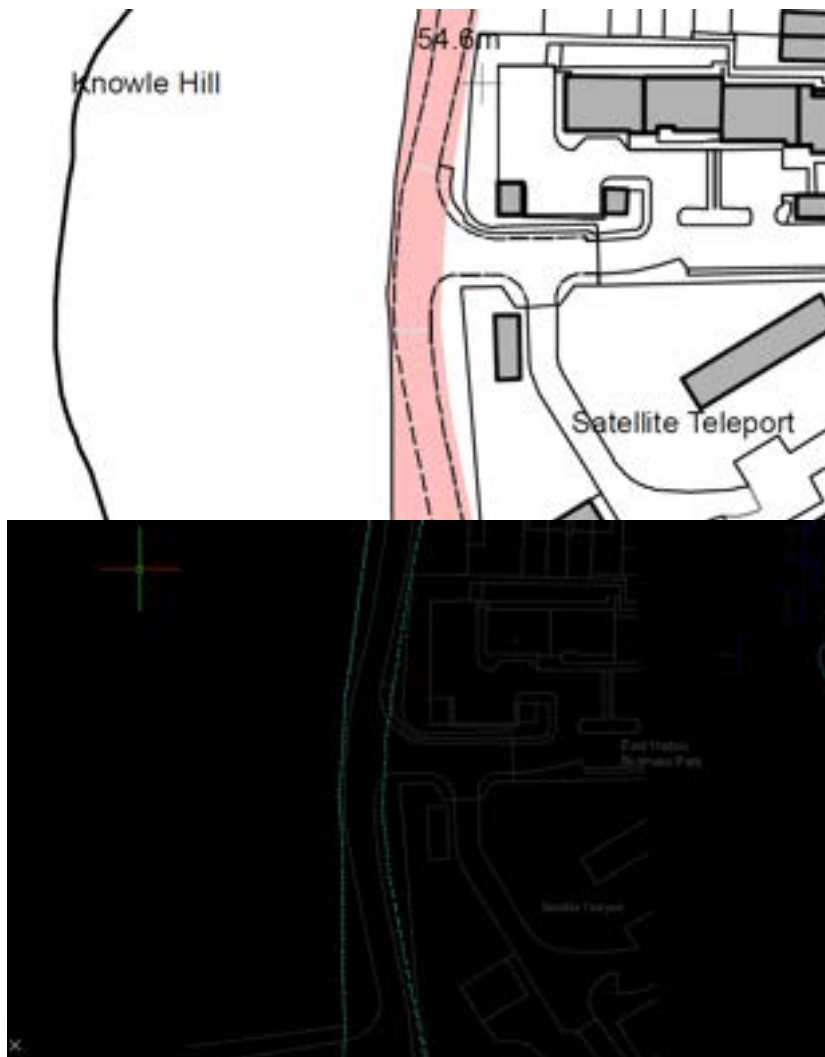
Alex

Area 1



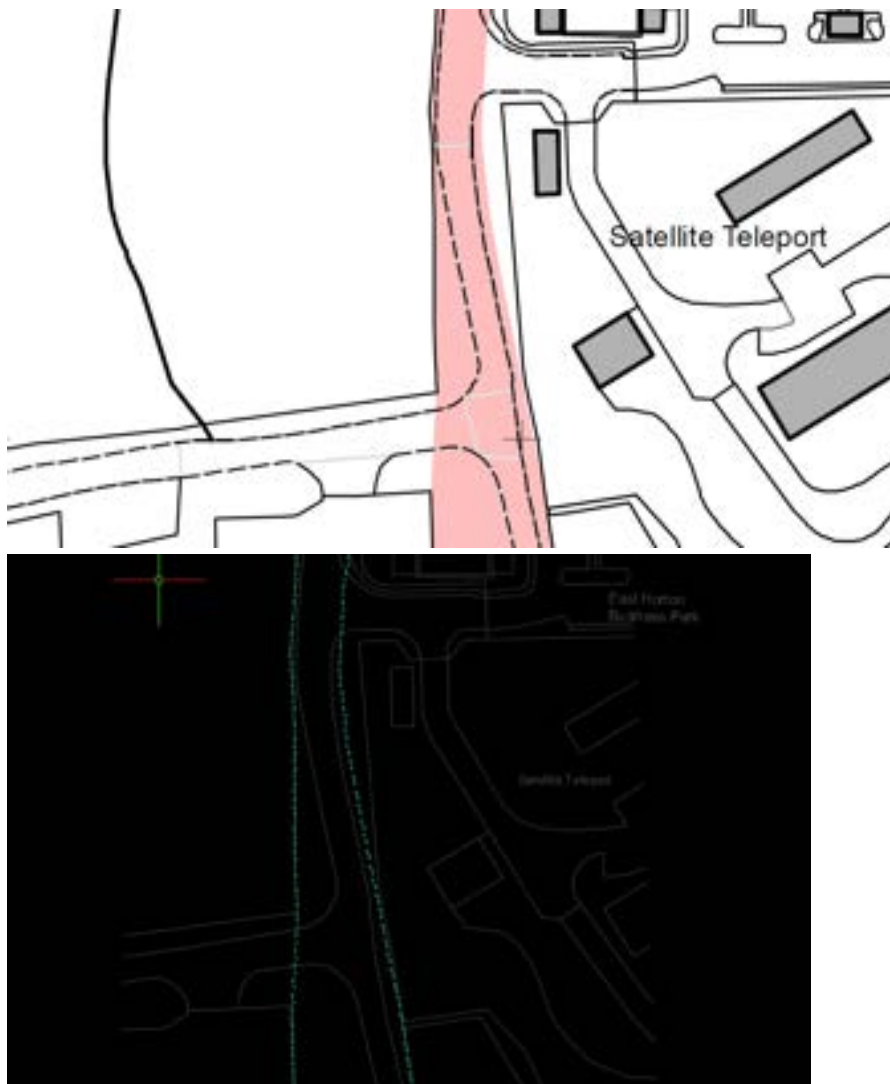
Area 2





Area 3





Regards

Alex Harper EngTech MCIHT
Principal Technician
AHarper@glanvillegroup.com
www.glanvillegroup.com
01235 515550



Hertfordshire | Oxfordshire | Cambridgeshire | Bristol

Civil Engineering

Structural Engineering

Transport Planning

Highways Engineering

Building Surveying

Geomatics

Glanville Consultants Limited is registered in England and Wales under company number 1912317. The registered address is 3 Grovelands Business Centre, Boundary Way, Hemel Hempstead, Hertfordshire, HP2 7TE. This email contains confidential information intended solely for the addressee. If you are not the intended recipient of this email, you are asked to report it to postbox@glanvillegroup.com. Consider the environment - do you really need to print this email?

From: Gammer, Nick <Nick.Gammer@hants.gov.uk>

Sent: Thursday, August 15, 2024 8:46 AM

To: Anthony Jones <AJones@glanvillegroup.com>; Ware, Mandy <mandy.ware@hants.gov.uk>; Malone, Joe <Joe.Malone@hants.gov.uk>

Cc: Huggett, Jon <Jon.Huggett2@hants.gov.uk>; Rogers, Zara <Zara.Rogers@hants.gov.uk>; Grantham, Matt <Matt.Grantham@hants.gov.uk>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

CAUTION: This email originated from outside of the organisation. Do not click or open attachments, if you suspect the content may not be safe.

Hi Tony

I'm not aware of any proposals/ plans to implement traffic calming on Mortimers Lane. I've copied in Mandy from Traffic Management; one of Mandy's team would have dealt with any enquiries of this nature; there may well have been some preciously.

Also, I'm not sure of the final design, but I imagine the crossing points being delivered as part of the below would result in an element of traffic calming (Joe, anything to add please?).

[Mortimers Lane Improvements, Fair Oak | Transport and roads | Hampshire County Council \(hants.gov.uk\)](#)

Best wishes

Nick

Nick Gammer

Principal Transport Engineer – Highways Development Planning

Hampshire 2050

3rd Floor, Ell Court South, The Castle, Winchester, SO23 8UD

Email: nick.gammer@hants.gov.uk

Web: www.hants.gov.uk



Hampshire County Council operates a pre-application highway advice service for developers.

Hampshire County Council welcomes and encourages discussions before a developer submits a planning application. Please follow this link for further information

<https://www.hants.gov.uk/transport/developers/highwaysdevelopmentplanning>

From: Anthony Jones <AJones@glanvillegroup.com>

Sent: Monday, August 5, 2024 12:11 PM

To: Gammer, Nick <Nick.Gammer@hants.gov.uk>

Cc: Huggett, Jon <Jon.Huggett2@hants.gov.uk>; Rogers, Zara <Zara.Rogers@hants.gov.uk>; Grantham, Matt <Matt.Grantham@hants.gov.uk>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

Caution: This is an external email and could contain malicious content. Do not open any links or attachments if you were not expecting them. If the e-mail looks suspicious, please report via the 'Report Phishing' Button found on your toolbar.

Hi Nick

Hope you are well and enjoying your leave.

The Mortimers Lane scheme at Fair Oaks is currently undertaking its public consultation. This has included discussions with local councillors and the Fair Oak and Horton Heath Parish Council. They have commented on proposed access strategy and indicated that they are surprised that as part of our discussions with you at the Highway Authority at Hampshire CC, we are not proposing any traffic calming / speed reduction measures on Mortimers Lane. They have indicated they have had these discussions with the Highway Authority in the past.

When we submit the Transport Assessment as part of the planning application submission, will detail our discussions and agreement in principle of the proposed access and the accepted departure from standard. However, are you able to advise if you have had discussions with the local Councillors and Parish Council with respect to speed reduction measures on Mortimers Lane and if there are any future proposals in this respect?

Many thanks

Tony

Regards

Anthony Jones BSC MCIHT

Technical Director

A.Jones@glanvillegroup.com

www.glanvillegroup.com

0117 4524038

07939 348552



Glanville Consultants Limited is registered in England and Wales under company number 1912317. The registered address is 3 Grovelands Business Centre, Boundary Way, Hemel Hempstead, Hertfordshire, HP2 7TE. This email contains confidential information intended solely for the addressee. If you are not the intended recipient of this email, you are asked to report it to postbox@glanvillegroup.com. Consider the environment - do you really need to print this email?

From: Anthony Jones <A.Jones@glanvillegroup.com>

Sent: Friday, July 19, 2024 3:11 PM

To: Gammer, Nick <Nick.Gammer@hants.gov.uk>

Cc: Huggett, Jon <Jon.Huggett2@hants.gov.uk>; Rogers, Zara <Zara.Rogers@hants.gov.uk>; Grantham, Matt <Matt.Grantham@hants.gov.uk>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

Many thanks Nick

That is really helpful.

Have a good weekend.

Tony

Regards

Anthony Jones BSC MCIHT

Technical Director

AJones@glanvillegroup.com

www.glanvillegroup.com

0117 4524038

07939 348552



Hertfordshire | Oxfordshire | Cambridgeshire | Bristol

Civil Engineering

Structural Engineering

Transport Planning

Highways Engineering

Building Surveying

Geomatics

Glanville Consultants Limited is registered in England and Wales under company number 1912317. The registered address is 3 Grovelands Business Centre, Boundary Way, Hemel Hempstead, Hertfordshire, HP2 7TE. This email contains confidential information intended solely for the addressee. If you are not the intended recipient of this email, you are asked to report it to postbox@glanvillegroup.com. Consider the environment - do you really need to print this email?

From: Gammer, Nick <Nick.Gammer@hants.gov.uk>

Sent: Friday, July 19, 2024 3:00 PM

To: Anthony Jones <AJones@glanvillegroup.com>

Cc: Huggett, Jon <Jon.Huggett2@hants.gov.uk>; Rogers, Zara <Zara.Rogers@hants.gov.uk>; Grantham, Matt <Matt.Grantham@hants.gov.uk>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

CAUTION: This email originated from outside of the organisation. Do not click or open attachments, if you suspect the content may not be safe.

Hi Tony

Ah, ok. Yes, you're correct, there's no requirement for a loop, subject to (as you say) the relevant vehicles being able to get to the relevant locations in an acceptable manor. I would just note that we also usually want confirmation from the emergency services that they're happy the layout is safe/ acceptable; while I can't say what their comments may be, it's rare to get objections in my experience.

Thanks

Nick

Nick Gammer

Principal Transport Engineer – Highways Development Planning

Hampshire 2050

3rd Floor, Ell Court South, The Castle, Winchester, SO23 8UD
Email: nick.gammer@hants.gov.uk
Web: www.hants.gov.uk



Hampshire County Council operates a pre-application highway advice service for developers.

Hampshire County Council welcomes and encourages discussions before a developer submits a planning application.
Please follow this link for further information

<https://www.hants.gov.uk/transport/developers/highwaysdevelopmentplanning>

From: Anthony Jones <AJones@glanvillegroup.com>

Sent: Friday, July 19, 2024 12:30 PM

To: Gammer, Nick <Nick.Gammer@hants.gov.uk>

Cc: Huggett, Jon <Jon.Huggett2@hants.gov.uk>; Rogers, Zara <Zara.Rogers@hants.gov.uk>; Grantham, Matt <Matt.Grantham@hants.gov.uk>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

Caution: This is an external email and could contain malicious content. Do not open any links or attachments if you were not expecting them. If the e-mail looks suspicious, please report via the 'Report Phishing' Button found on your toolbar.

Hi Nick

It's not a discussion on details per say, more general principles.

The scheme only has one point of access and the urban designer is querying if the internal roads need to be looped. I advised that there is no requirement for the internal roads to be looped as long as we can demonstrate fire appliances and refuse vehicles can access, turn, manoeuvres and egress in a forward gear and that the reversing distances, point of collection etc are in accordance with guidance.

It is just a steer in that direction so that the concept plan can be taken forward for future RM applications without needing to apply for a variation to the planning consent etc.

Are you able to respond in Matt's absence.

Cheers

Tony

Regards

Anthony Jones BSC MCIHT
Technical Director
A.Jones@glanvillegroup.com
www.glanvillegroup.com
0117 4524038
07939 348552



Hertfordshire | Oxfordshire | Cambridgeshire | Bristol

Civil Engineering

Structural Engineering

Transport Planning

Highways Engineering

Building Surveying

Geomatics

Glanville Consultants Limited is registered in England and Wales under company number 1912317. The registered address is 3 Grovelands Business Centre, Boundary Way, Hemel Hempstead, Hertfordshire, HP2 7TE. This email contains confidential information intended solely for the addressee. If you are not the intended recipient of this email, you are asked to report it to postbox@glanvillegroup.com. Consider the environment – do you really need to print this email?

From: Gammer, Nick <Nick.Gammer@hants.gov.uk>

Sent: Friday, July 19, 2024 12:25 PM

To: Anthony Jones <A.Jones@glanvillegroup.com>

Cc: Huggett, Jon <Jon.Huggett2@hants.gov.uk>; Rogers, Zara <Zara.Rogers@hants.gov.uk>; Grantham, Matt <Matt.Grantham@hants.gov.uk>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

CAUTION: This email originated from outside of the organisation. Do not click or open attachments, if you suspect the content may not be safe.

Hi Tony

Yes, that's fine, but I'll invite Matt (copied in) along also as he tends to review RM/ internal layout apps in EBC. Matt's on leave currently, returning towards the end of next week. We could do pretty much any time Monday 29th July if that suits you?

Thanks

Nick

Nick Gammer

Principal Transport Engineer – Highways Development Planning

Hampshire 2050

3rd Floor, EII Court South, The Castle, Winchester, SO23 8UD

Email: nick.gammer@hants.gov.uk

Web: www.hants.gov.uk



Hampshire County Council operates a pre-application highway advice service for developers.

Hampshire County Council welcomes and encourages discussions before a developer submits a planning application. Please follow this link for further information

<https://www.hants.gov.uk/transport/developers/highwaysdevelopmentplanning>

From: Anthony Jones <A.Jones@glanvillegroup.com>

Sent: Friday, July 19, 2024 12:14 PM

To: Gammer, Nick <Nick.Gammer@hants.gov.uk>

Cc: Huggett, Jon <Jon.Huggett2@hants.gov.uk>; Rogers, Zara <Zara.Rogers@hants.gov.uk>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

Caution: This is an external email and could contain malicious content. Do not open any links or attachments if you were not expecting them. If the e-mail looks suspicious, please report via the 'Report Phishing' Button found on your toolbar.

Hi Nick

Thanks for the confirmation and we will look to action this and address as part of the planning application.

When convenient, could I please have five minutes of your time to discuss the principles of the internal layout further to some queries raised by the urban designer.

Best wishes

Tony

Regards

Anthony Jones BSC MCIHT

Technical Director

A.Jones@glanvillegroup.com

www.glanvillegroup.com

0117 4524038

07939 348552



Glanville Consultants Limited is registered in England and Wales under company number 1912317. The registered address is 3 Grovelands Business Centre, Boundary Way, Hemel Hempstead, Hertfordshire, HP2 7TE. This email contains confidential information intended solely for the addressee. If you are not the intended recipient of this email, you are asked to report it to postbox@glanvillegroup.com. Consider the environment - do you really need to print this email?

From: Gammer, Nick <Nick.Gammer@hants.gov.uk>

Sent: Monday, July 15, 2024 8:47 AM

To: Anthony Jones <A.Jones@glanvillegroup.com>

Cc: Huggett, Jon <Jon.Huggett2@hants.gov.uk>; Rogers, Zara <Zara.Rogers@hants.gov.uk>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

CAUTION: This email originated from outside of the organisation. Do not click or open attachments, if you suspect the content may not be safe.

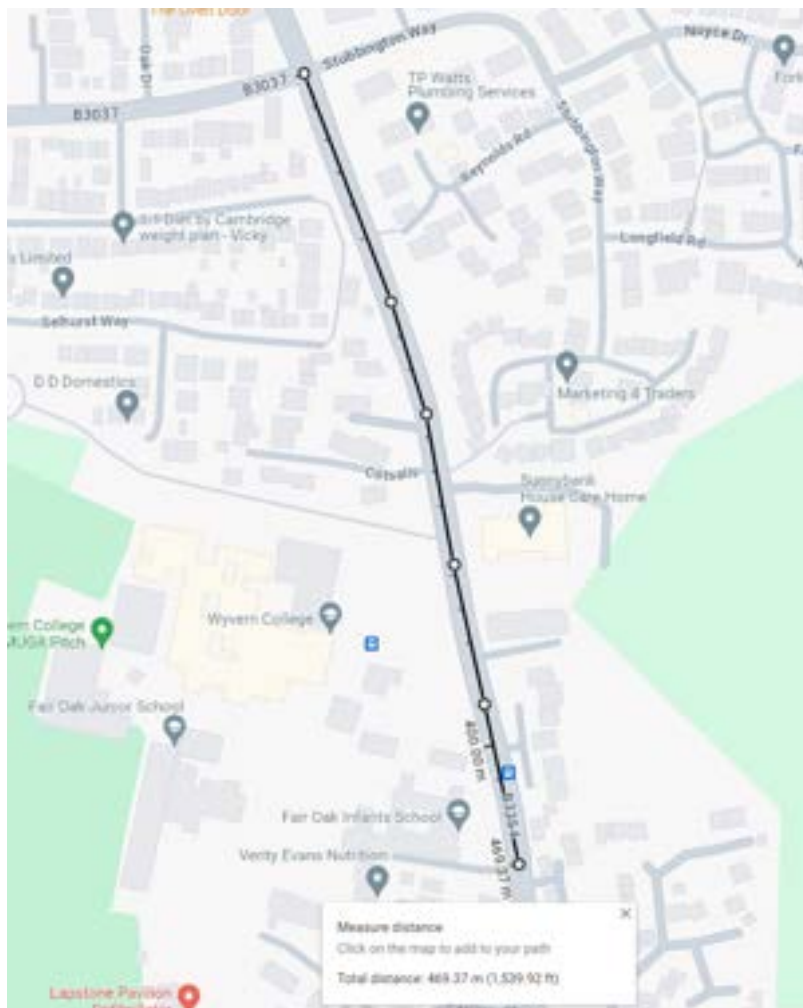
Hi Tony

Not quite. Correct that we're happy with the Glanville response for ref 1 – 6, 8 & 9, 12 & 13 and 15.

Agreeable to ref 7 and 14 from a Highways Development Planning point of view, but would note that HCC's Countryside Services may have comments.

Agreeable to ref 10 and 11, but we'll need to see a design as part of any future application to ensure an in principle scheme is deliverable please.

Also agreeable to 16, but again a design is required please, and I think you've missed the most important upgrade on Botley Road, between Stubbington Way/ B3037/ B3354 crossroads and Fair Oak Infant School (crudely shown below), which will be used more heavily than the route south of the schools by your future residents. Improvements to this link are essential I feel.



Again, happy with 17, but the attached secured drawing under the One Horton Heath permission (F/20/89500) should be noted.

Zara – If I've missed or mis-recalled anything please do just shout.

Best wishes

Nick

Nick Gammer

Principal Transport Engineer – Highways Development Planning

Hampshire 2050

3rd Floor, Ell Court South, The Castle, Winchester, SO23 8UD

Email: nick.gammer@hants.gov.uk

Web: www.hants.gov.uk



Hampshire County Council operates a pre-application highway advice service for developers.

Hampshire County Council welcomes and encourages discussions before a developer submits a planning application. Please follow this link for further information

<https://www.hants.gov.uk/transport/developers/highwaysdevelopmentplanning>

From: Anthony Jones <AJones@glanvillegroup.com>

Sent: Friday, July 12, 2024 11:08 AM

To: Anthony Jones <AJones@glanvillegroup.com>; Gammer, Nick <Nick.Gammer@hants.gov.uk>

Cc: Huggett, Jon <Jon.Huggett2@hants.gov.uk>; Rogers, Zara <Zara.Rogers@hants.gov.uk>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

Caution: This is an external email and could contain malicious content. Do not open any links or attachments if you were not expecting them. If the e-mail looks suspicious, please report via the 'Report Phishing' Button found on your toolbar.

Morning Nick

It was good to catch up earlier this week to discuss the WCHAR and the proposed recommendations and whether this are required to be provided or not.

My recollection is that you are generally content with the Glanville's responses to accept or not accept the proposed recommendations in Table 8 of the WCHAR, but that you considered it would be helpful to have site of a designed scheme on Knowle Lane between Mortimers Lane and the access to the Deer Park Industrial Estate.

If I have missed anything please do let me know.

Best wishes

Tony

Regards

Anthony Jones BSC MCIHT
Technical Director
A.Jones@glanvillegroup.com
www.glanvillegroup.com
0117 4524038
[07939 348552](tel:07939348552)



Glanville
Survey > Plan > Engineer



Hertfordshire | Oxfordshire | Cambridgeshire | Bristol

Civil Engineering

Structural Engineering

Transport Planning

Highways Engineering

Building Surveying

Geomatics

Glanville Consultants Limited is registered in England and Wales under company number 1912317. The registered address is 3 Grovelands Business Centre, Boundary Way, Hemel Hempstead, Hertfordshire, HP2 7TE. This email contains confidential information intended solely for the addressee. If you are not the intended recipient of this email, you are asked to report it to postbox@glanvillegroup.com. Consider the environment – do you really need to print this email?

From: Anthony Jones <A.Jones@glanvillegroup.com>

Sent: Monday, July 8, 2024 11:46 AM

To: Gammer, Nick <Nick.Gammer@hants.gov.uk>

Cc: Huggett, Jon <Jon.Huggett2@hants.gov.uk>; Rogers, Zara <Zara.Rogers@hants.gov.uk>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

Thanks Nick

Shall we try for 1030 tomorrow?

Many thanks

Tony

Regards

Anthony Jones BSC MCIHT
Technical Director
A.Jones@glanvillegroup.com
www.glanvillegroup.com
0117 4524038
[07939 348552](tel:07939348552)



Glanville
Survey > Plan > Engineer



Hertfordshire | Oxfordshire | Cambridgeshire | Bristol

Civil Engineering

Structural Engineering

Transport Planning

Highways Engineering

Building Surveying

Geomatics

From: Gammer, Nick <Nick.Gammer@hants.gov.uk>

Sent: Monday, July 8, 2024 11:32 AM

To: Anthony Jones <AJones@glanvillegroup.com>

Cc: Huggett, Jon <Jon.Huggett2@hants.gov.uk>; Rogers, Zara <Zara.Rogers@hants.gov.uk>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

CAUTION: This email originated from outside of the organisation. Do not click or open attachments, if you suspect the content may not be safe.

Hi Tony

No problem. We're free tomorrow between 10:30 and 4pm, except 2-2:30, and Friday from midday to 4:30.

Thanks

Nick

Nick Gammer

Principal Transport Engineer – Highways Development Planning

Hampshire 2050

3rd Floor, Ell Court South, The Castle, Winchester, SO23 8UD

Email: nick.gammer@hants.gov.uk

Web: www.hants.gov.uk



Hampshire County Council operates a pre-application highway advice service for developers.

Hampshire County Council welcomes and encourages discussions before a developer submits a planning application. Please follow this link for further information

<https://www.hants.gov.uk/transport/developers/highwaysdevelopmentplanning>

From: Anthony Jones <AJones@glanvillegroup.com>

Sent: Monday, July 8, 2024 10:21 AM

To: Gammer, Nick <Nick.Gammer@hants.gov.uk>

Cc: Huggett, Jon <Jon.Huggett2@hants.gov.uk>; Rogers, Zara <Zara.Rogers@hants.gov.uk>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

Caution: This is an external email and could contain malicious content. Do not open any links or attachments if you were not expecting them. If the e-mail looks suspicious, please report via the 'Report Phishing' Button found on your toolbar.

Morning Nick

Apologies for the delay in responding, but is it possible to rearrange for tomorrow or Friday?

Many thanks

Tony

Regards

Anthony Jones BSC MCIHT
Technical Director
A.Jones@glanvillegroup.com
www.glanvillegroup.com
0117 4524038
[07939 348552](tel:07939348552)



Hertfordshire | Oxfordshire | Cambridgeshire | Bristol

Civil Engineering | Structural Engineering | Transport Planning | Highways Engineering | Building Surveying | Geomatics

Glanville Consultants Limited is registered in England and Wales under company number 1912317. The registered address is 3 Grovelands Business Centre, Boundary Way, Hemel Hempstead, Hertfordshire, HP2 7TE. This email contains confidential information intended solely for the addressee. If you are not the intended recipient of this email, you are asked to report it to postbox@glanvillegroup.com. Consider the environment - do you really need to print this email?

From: Gammer, Nick <Nick.Gammer@hants.gov.uk>
Sent: Wednesday, July 3, 2024 2:26 PM
To: Anthony Jones <A.Jones@glanvillegroup.com>
Cc: Huggett, Jon <Jon.Huggett2@hants.gov.uk>; Rogers, Zara <Zara.Rogers@hants.gov.uk>
Subject: Re: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

CAUTION: This email originated from outside of the organisation. Do not click or open attachments, if you suspect the content may not be safe.

Hi Tony

I can't I'm afraid. Monday's currently free, apart from 11:30-12:30 and 2-3pm.

Thanks

Nick

Nick Gammer

Principal Transport Engineer – Highways Development Planning

Hampshire 2050

3rd Floor, Ell Court South, The Castle, Winchester, SO23 8UD

Email: nick.gammer@hants.gov.uk

Web: www.hants.gov.uk



Hampshire County Council operates a pre-application highway advice service for developers.

Hampshire County Council welcomes and encourages discussions before a developer submits a planning application. Please follow this link for further information

<https://www.hants.gov.uk/transport/developers/highwaysdevelopmentplanning>

From: Anthony Jones <A.Jones@glanvillegroup.com>

Sent: 03 July 2024 06:24

To: Gammer, Nick <Nick.Gammer@hants.gov.uk>

Cc: Huggett, Jon <Jon.Huggett2@hants.gov.uk>; Rogers, Zara <Zara.Rogers@hants.gov.uk>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

Caution: This is an external email and could contain malicious content. Do not open any links or attachments if you were not expecting them. If the e-mail looks suspicious, please report via the 'Report Phishing' Button found on your toolbar.

Hi Nick

Any possibility you can do Friday PM?

Cheers

Tony

Regards

Anthony Jones BSC MCIHT

Technical Director

A.Jones@glanvillegroup.com

www.glanvillegroup.com

0117 4524038

07939 348552



Hertfordshire | Oxfordshire | Cambridgeshire | Bristol

From: Gammer, Nick <Nick.Gammer@hants.gov.uk>
Sent: Wednesday, July 3, 2024 12:52 PM
To: Anthony Jones <AJones@glanvillegroup.com>
Cc: Huggett, Jon <Jon.Huggett2@hants.gov.uk>; Rogers, Zara <Zara.Rogers@hants.gov.uk>
Subject: Re: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

CAUTION: This email originated from outside of the organisation. Do not click or open attachments, if you suspect the content may not be safe.

Hi Tony

Yes, sure. Tomorrow PM is free if that suits you?

Thanks

Nick

Nick Gammer

Principal Transport Engineer – Highways Development Planning

Hampshire 2050

3rd Floor, EII Court South, The Castle, Winchester, SO23 8UD

Email: nick.gammer@hants.gov.uk

Web: www.hants.gov.uk



Hampshire County Council operates a pre-application highway advice service for developers.

Hampshire County Council welcomes and encourages discussions before a developer submits a planning application. Please follow this link for further information

<https://www.hants.gov.uk/transport/developers/highwaysdevelopmentplanning>

From: Anthony Jones <AJones@glanvillegroup.com>
Sent: 03 July 2024 01:20
To: Gammer, Nick <Nick.Gammer@hants.gov.uk>
Cc: Huggett, Jon <Jon.Huggett2@hants.gov.uk>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

Caution: This is an external email and could contain malicious content. Do not open any links or attachments if you were not expecting them. If the e-mail looks suspicious, please report via the 'Report Phishing' Button found on your toolbar.

Morning Nick

Trust that you are well and many thanks for the response and comments on the WCHAR.

I note that you have requested that the WCHAR review the agreed pedestrian and cycle routes in more detail identifying locations where the exiting infrastructure may not be provided in accordance with guidance etc, and to reflect current adopted policy. However, if possible, it would be helpful to obtain a steer / view's on the proposed improvements set out and if the Highway Authority are considering / seeking any additional improvements that the WCHAR has not identified and which we may not be aware of for our consideration.

To this end, would it be possible to arrange a quick team's meeting to discuss this week or early next week please?

Best wishes

Tony

Regards

Anthony Jones BSC MCIHT
Technical Director
A.Jones@glanvillegroup.com
www.glanvillegroup.com
0117 4524038
07939 348552



Glanville Consultants Limited is registered in England and Wales under company number 1912317. The registered address is 3 Grovelands Business Centre, Boundary Way, Hemel Hempstead, Hertfordshire, HP2 7TE. This email contains confidential information intended solely for the addressee. If you are not the intended recipient of this email, you are asked to report it to postbox@glanvillegroup.com. Consider the environment - do you really need to print this email?

From: Gammer, Nick <Nick.Gammer@hants.gov.uk>

Sent: Thursday, June 20, 2024 11:35 AM

To: Anthony Jones <A.Jones@glanvillegroup.com>

Cc: Huggett, Jon <Jon.Huggett2@hants.gov.uk>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

CAUTION: This email originated from outside of the organisation. Do not click or open attachments, if you suspect the content may not be safe.

Hi Tony

Apologies, I've been on leave. Response attached as requested.

Best wishes

Nick

Nick Gammer

Principal Transport Engineer – Highways Development Planning

Hampshire 2050

3rd Floor, Ell Court South, The Castle, Winchester, SO23 8UD

Email: nick.gammer@hants.gov.uk

Web: www.hants.gov.uk



Hampshire County Council operates a pre-application highway advice service for developers.

Hampshire County Council welcomes and encourages discussions before a developer submits a planning application. Please follow this link for further information

<https://www.hants.gov.uk/transport/developers/highwaysdevelopmentplanning>

From: Anthony Jones <AJones@glanvillegroup.com>

Sent: Tuesday, June 18, 2024 9:33 AM

To: Gammer, Nick <Nick.Gammer@hants.gov.uk>

Cc: Huggett, Jon <Jon.Huggett2@hants.gov.uk>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

Caution: This is an external email and could contain malicious content. Do not open any links or attachments if you were not expecting them. If the e-mail looks suspicious, please report via the 'Report Phishing' Button found on your toolbar.

Morning Nick

I trust that you are well.

A quick email to enquire when we may get the pre-app response on the draft WCHAR?

Any queries in relation to the document and its findings, please do let me know.

Many thanks

Tony

Regards

Anthony Jones BSC MCiHT
Technical Director
A.Jones@glanvillegroup.com
www.glanvillegroup.com
0117 4524038
[07939 348552](tel:07939348552)



Glanville Consultants Limited is registered in England and Wales under company number 1912317. The registered address is 3 Grovelands Business Centre, Boundary Way, Hemel Hempstead, Hertfordshire, HP2 7TE. This email contains confidential information intended solely for the addressee. If you are not the intended recipient of this email, you are asked to report it to postbox@glanvillegroup.com. Consider the environment - do you really need to print this email?

From: Gammer, Nick <Nick.Gammer@hants.gov.uk>
Sent: Tuesday, May 21, 2024 8:59 PM
To: Anthony Jones <A.Jones@glanvillegroup.com>
Cc: Huggett, Jon <Jon.Huggett2@hants.gov.uk>
Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

CAUTION: This email originated from outside of the organisation. Do not click or open attachments, if you suspect the content may not be safe.

Hi Tony

Thank you and yes, there's enough money left to cover reviewing the WCHAR. I've got a fair bit on this week and am on leave from Thursday until after half term, so it'll likely be 3 weeks or so if that's ok?

Thanks

Nick

Nick Gammer

Principal Transport Engineer – Highways Development Planning

Hampshire 2050

3rd Floor, EII Court South, The Castle, Winchester, SO23 8UD
Email: nick.gammer@hants.gov.uk
Web: www.hants.gov.uk



Hampshire County Council operates a pre-application highway advice service for developers.

Hampshire County Council welcomes and encourages discussions before a developer submits a planning application. Please follow this link for further information

<https://www.hants.gov.uk/transport/developers/highwaysdevelopmentplanning>

From: Anthony Jones <AJones@glanvillegroup.com>

Sent: Tuesday, May 21, 2024 3:01 PM

To: Gammer, Nick <Nick.Gammer@hants.gov.uk>

Cc: Huggett, Jon <Jon.Huggett2@hants.gov.uk>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

Caution: This is an external email and could contain malicious content. Do not open any links or attachments if you were not expecting them. If the e-mail looks suspicious, please report via the 'Report Phishing' Button found on your toolbar.

Hi Nick

I trust that you are well and we have now prepared and completed our Walking, Cycling and Horse-Riding Assessment and Review (WCHAR) based on the agreed walking and cycling routes. This can be downloaded via this WeTransfer link <https://we.tl/t-g9JV1Hswon>

This document identifies several areas within the agreed walking and cycling routes that could require improvements and our response to these whether they are appropriate commensurate with the impact of the proposed scheme.

Can you please confirm that you can review and comment on this document with the remaining pre-app fees we have in place?

Many thanks

Tony

Regards

Anthony Jones BSC MCIHT

Technical Director

AJones@glanvillegroup.com

www.glanvillegroup.com

0117 4524038

07939 348552



Glanville Consultants Limited is registered in England and Wales under company number 1912317. The registered address is 3 Grovelands Business Centre, Boundary Way, Hemel Hempstead, Hertfordshire, HP2 7TE. This email contains confidential information intended solely for the addressee. If you are not the intended recipient of this email, you are asked to report it to postbox@glanvillegroup.com. Consider the environment - do you really need to print this email?

From: Gammer, Nick <Nick.Gammer@hants.gov.uk>
Sent: Tuesday, April 30, 2024 4:40 PM
To: Anthony Jones <AJones@glanvillegroup.com>
Cc: Rusne Bagdanaviciute <RBagdanaviciute@glanvillegroup.com>; Huggett, Jon <Jon.Huggett2@hants.gov.uk>
Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

CAUTION: This email originated from outside of the organisation. Do not click or open attachments, if you suspect the content may not be safe.

Hi Tony

Please find attached our pre-app response to the latest TN (also attached).

Best wishes

Nick

Nick Gammer

Principal Transport Engineer – Highways Development Planning

Hampshire 2050

3rd Floor, EII Court South, The Castle, Winchester, SO23 8UD
Email: nick.gammer@hants.gov.uk
Web: www.hants.gov.uk



Hampshire County Council operates a pre-application highway advice service for developers.

Hampshire County Council welcomes and encourages discussions before a developer submits a planning application. Please follow this link for further information

<https://www.hants.gov.uk/transport/developers/highwaysdevelopmentplanning>

From: Anthony Jones <AJones@glanvillegroup.com>
Sent: Monday, April 15, 2024 10:46 AM
To: Gammer, Nick <Nick.Gammer@hants.gov.uk>

Cc: Rusne Bagdanaviciute <RBagdanaviciute@glanvillegroup.com>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

Caution: This is an external email and could contain malicious content. Do not open any links or attachments if you were not expecting them. If the e-mail looks suspicious, please report via the 'Report Phishing' Button found on your toolbar.

Morning Nick

Thanks for the confirmation.

Best wishes

Tony

Regards

Anthony Jones BSC MCIHT

Technical Director

AJones@glanvillegroup.com

www.glanvillegroup.com

0117 4524038

[07939 348552](tel:07939348552)



Hertfordshire | Oxfordshire | Cambridgeshire | Bristol

Civil Engineering

Structural Engineering

Transport Planning

Highways Engineering

Building Surveying

Geomatics

Glanville Consultants Limited is registered in England and Wales under company number 1912317. The registered address is 3 Grovelands Business Centre, Boundary Way, Hemel Hempstead, Hertfordshire, HP2 7TE. This email contains confidential information intended solely for the addressee. If you are not the intended recipient of this email, you are asked to report it to postbox@glanvillegroup.com. Consider the environment - do you really need to print this email?

From: Gammer, Nick <Nick.Gammer@hants.gov.uk>

Sent: Monday, April 15, 2024 10:30 AM

To: Anthony Jones <AJones@glanvillegroup.com>

Cc: Rusne Bagdanaviciute <RBagdanaviciute@glanvillegroup.com>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

CAUTION: This email originated from outside of the organisation. Do not click or open attachments, if you suspect the content may not be safe.

Hi Tony

Yes, paid today and I'll get a response to the TN pulled together for you.

Best wishes

Nick

Nick Gammer

Principal Transport Engineer – Highways Development Planning

Hampshire 2050

3rd Floor, Ell Court South, The Castle, Winchester, SO23 8UD

Email: nick.gammer@hants.gov.uk

Web: www.hants.gov.uk



Hampshire County Council operates a pre-application highway advice service for developers.

Hampshire County Council welcomes and encourages discussions before a developer submits a planning application. Please follow this link for further information

<https://www.hants.gov.uk/transport/developers/highwaysdevelopmentplanning>

From: Anthony Jones <AJones@glanvillegroup.com>

Sent: Friday, April 12, 2024 12:04 PM

To: Gammer, Nick <Nick.Gammer@hants.gov.uk>

Cc: Rusne Bagdanaviciute <RBagdanaviciute@glanvillegroup.com>

Subject: RE: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

Caution: This is an external email and could contain malicious content. Do not open any links or attachments if you were not expecting them. If the e-mail looks suspicious, please report via the 'Report Phishing' Button found on your toolbar.

Hi Nick

I trust that you are well.

I understand that the invoice for the additional pre-app fees have now been paid by our accounts department.

Can you confirm that this is your understanding and that you can now proceed with reviewing the TN?

Many thanks and if you have any queries please do let me know.

Best wishes

Tony

Regards

Anthony Jones BSC MCIHT

Technical Director

A.Jones@glanvillegroup.com

www.glanvillegroup.com

0117 4524038

07939 348552



Hertfordshire | Oxfordshire | Cambridgeshire | Bristol

Civil Engineering

Structural Engineering

Transport Planning

Highways Engineering

Building Surveying

Geomatics

Glanville Consultants Limited is registered in England and Wales under company number 1912317. The registered address is 3 Grovelands Business Centre, Boundary Way, Hemel Hempstead, Hertfordshire, HP2 7TE. This email contains confidential information intended solely for the addressee. If you are not the intended recipient of this email, you are asked to report it to postbox@glanvillegroup.com. Consider the environment - do you really need to print this email?

From: Gammer, Nick <Nick.Gammer@hants.gov.uk>

Sent: Thursday, March 28, 2024 8:55 AM

To: Anthony Jones <A.Jones@glanvillegroup.com>

Subject: FW: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

CAUTION: This email originated from outside of the organisation. Do not click or open attachments, if you suspect the content may not be safe.

Hi Tony

FYI attached.

Best wishes

Nick

Nick Gammer

Principal Transport Engineer – Highways Development Planning

Hampshire 2050

3rd Floor, EII Court South, The Castle, Winchester, SO23 8UD

Email: nick.gammer@hants.gov.uk

Web: www.hants.gov.uk



Hampshire County Council operates a pre-application highway advice service for developers.

Hampshire County Council welcomes and encourages discussions before a developer submits a planning application. Please follow this link for further information

<https://www.hants.gov.uk/transport/developers/highwaysdevelopmentplanning>

From: Universal Services FTT <Universalservices.FTT@hants.gov.uk>

Sent: Thursday, March 28, 2024 8:48 AM

To: HES Business Support <HES.BST@hants.gov.uk>

Cc: Rogers, Zara <Zara.Rogers@hants.gov.uk>; Gammer, Nick <Nick.Gammer@hants.gov.uk>

Subject: FW: Pre-app invoice, Land South of Mortimers Lane, Fair Oak - Approved MOD : 27/03/2024 - INV 3611780508

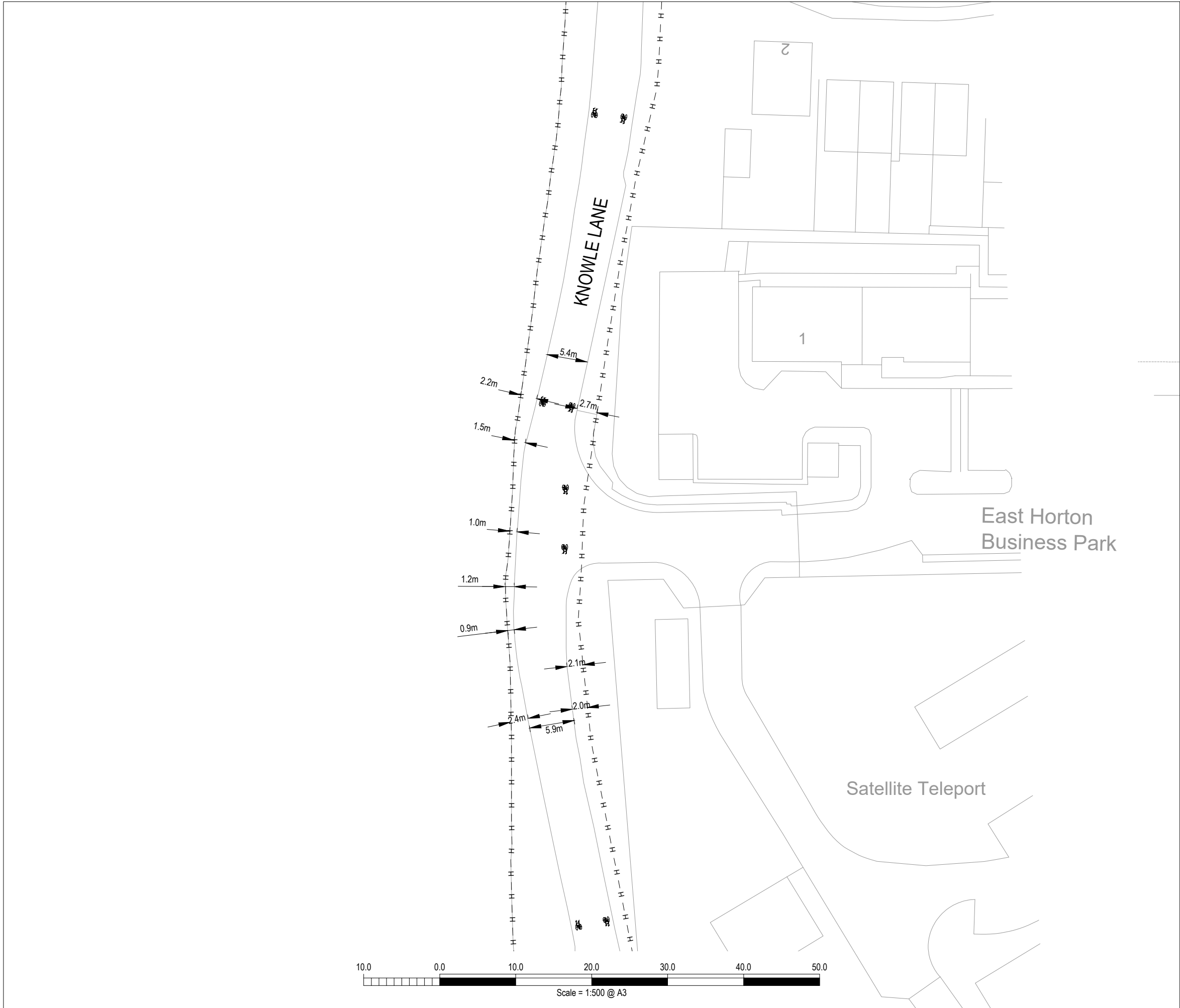
Good morning

Please find attached a copy of invoice no. 3611780508.

Kind regards

Ella Kassapian
Administrative Officer

Transformation and Business Services



- NOTES**
1. This drawing is to be read in conjunction with all relevant documents and specifications.
 2. Dimensions are not to be scaled.
- © Crown copyright and database rights 2025 OS 100018363.

KEY

— H — H — Highway boundary interpreted from HCC records.



Rev.	Description	Date	By	Chkd
------	-------------	------	----	------



Glanville
Survey > Plan > Engineer

 Civil Engineering

 Structural Engineering

 Transport Planning

 Highways Engineering

 Building Surveying

 Geomatics

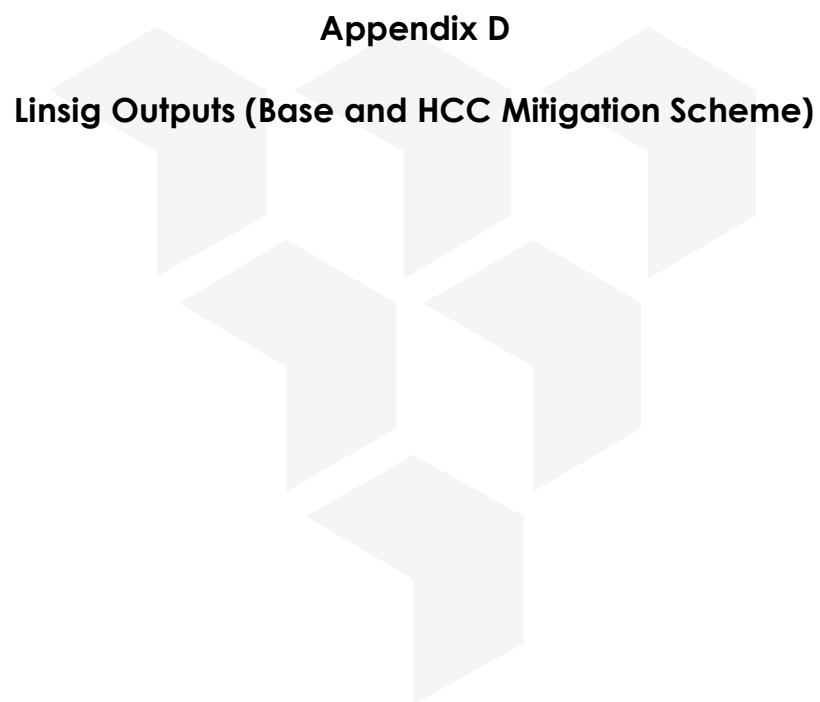
Hertfordshire

Oxfordshire

Cambridgeshire

Bristol

Client :	Bloor Homes Southern		
Project :	Land South of Mortimers Lane, Fair Oak, Eastleigh		
Title :	Knowle Lane Highway Widths		
Engineer : T. Hart	Date : April 2025		
Director : A. Jones	Scale : 1:500 @ A3		
Status :	PRELIMINARY		
Drawing No.	8230679/6123		Rev



Appendix D

Linsig Outputs (Base and HCC Mitigation Scheme)

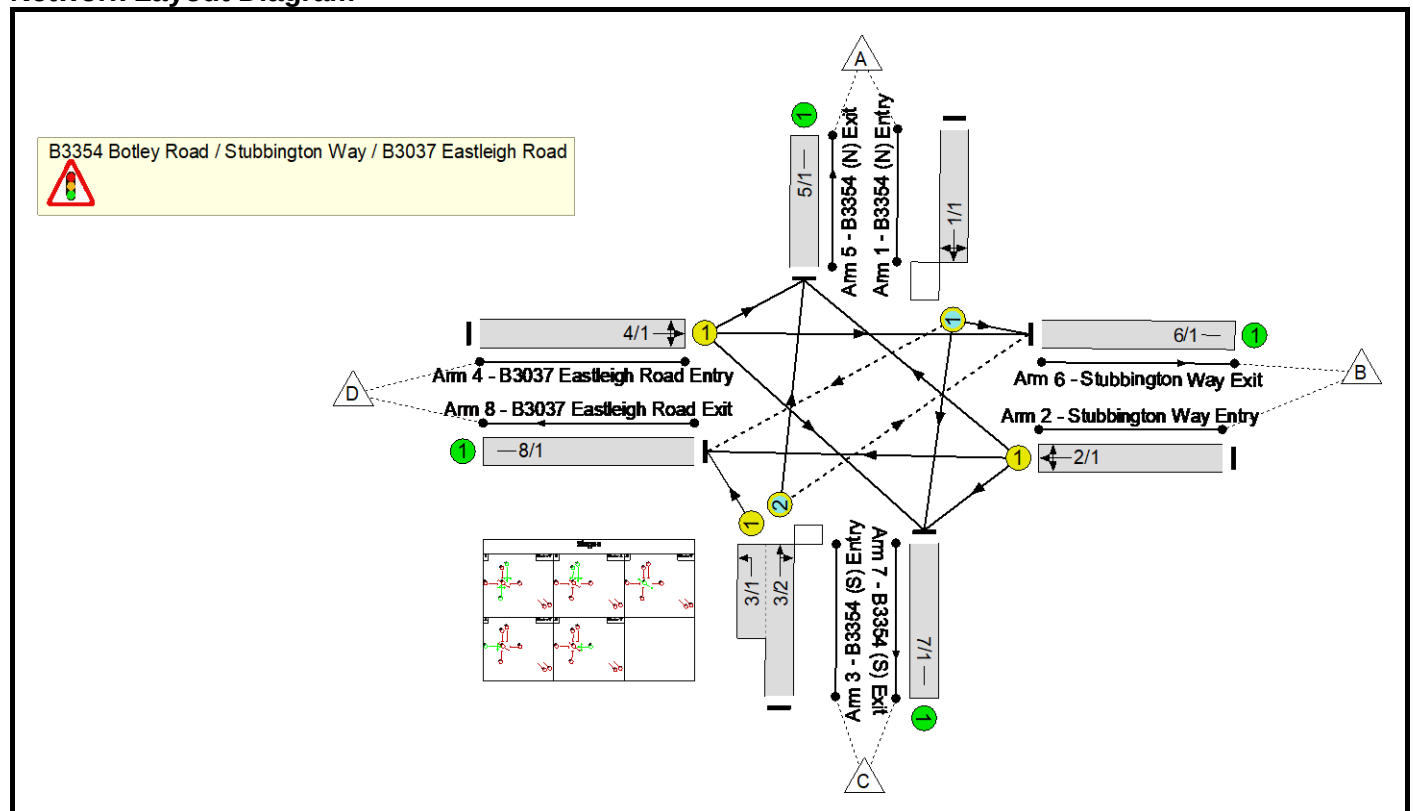
Full Input Data And Results

Full Input Data And Results

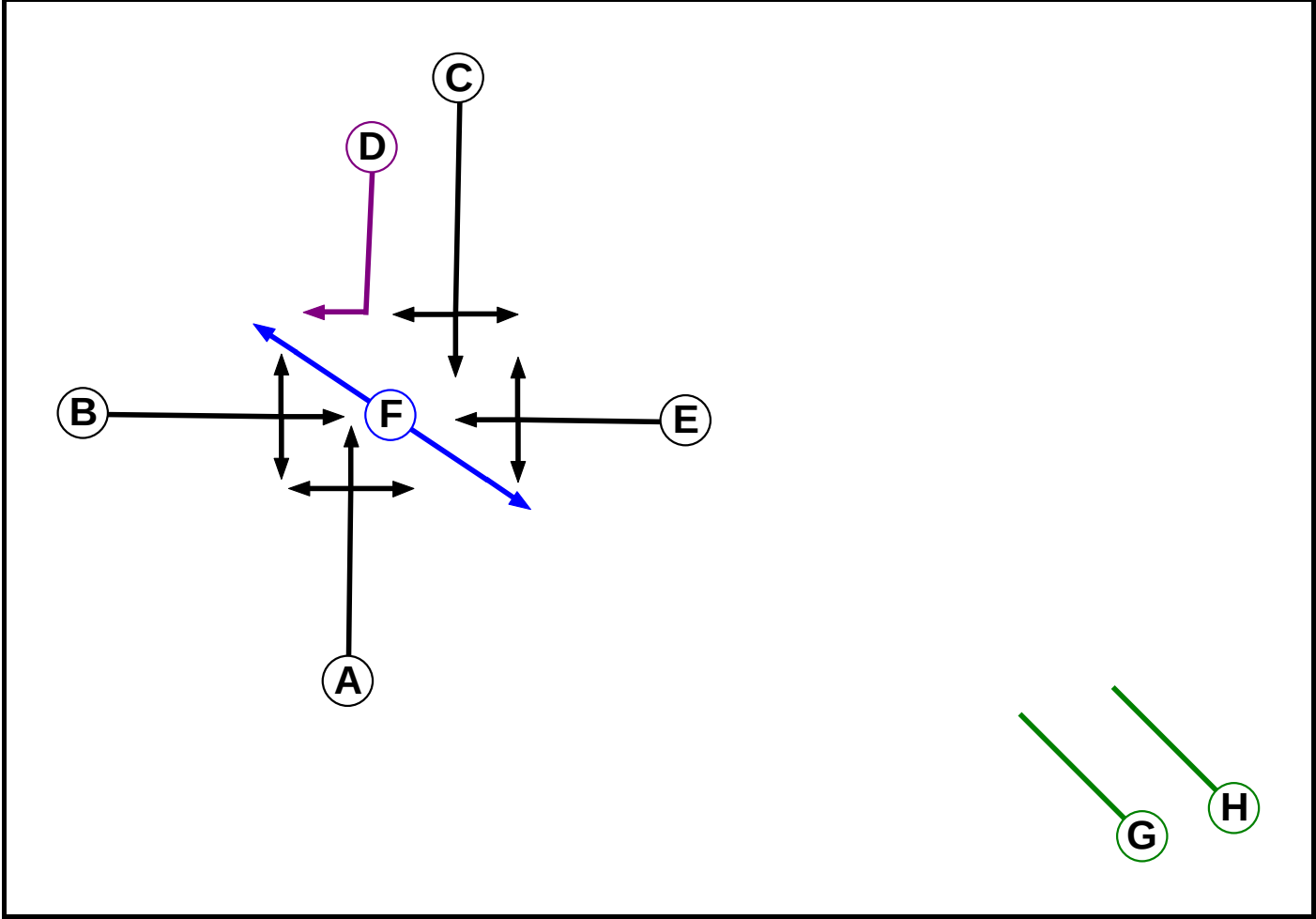
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	B3354 Stubbington Way Base Rev A.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Ind. Arrow	C	4	4
E	Traffic		7	7
F	Pedestrian		7	7
G	Dummy R/A		7	7
H	Dummy R/A		7	7

Full Input Data And Results

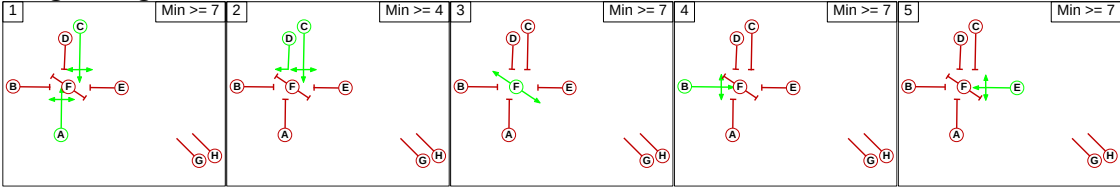
Phase Intergreens Matrix

Terminating Phase	Starting Phase								
		A	B	C	D	E	F	G	H
	A		7	-	6	7	8	3	3
	B	7		7	7	7	8	3	3
	C	-	7		-	7	8	3	3
	D	6	7	-		7	8	3	3
	E	7	7	7	7		8	3	3
	F	0	0	0	0	0		3	3
	G	2	2	2	2	2	2		3
	H	2	2	2	2	2	2	2	

Phases in Stage

Stage No.	Phases in Stage
1	A C
2	C D
3	F
4	B
5	E

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage	To Stage				
	1	2	3	4	5
	1		6	8	7
	2	6		8	7
	3	2	X		2
	4	7	7		7
	5	7	7	8	

Full Input Data And Results

Give-Way Lane Input Data

Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/1 (B3354 (N) Entry)	8/1 (Right)	1439	0	3/2	1.09	To 5/1 (Ahead)	2.00	2.00	0.50	2	2.00
				3/1	1.09	All					
3/2 (B3354 (S) Entry)	6/1 (Right)	1439	0	1/1	1.09	All	1.00	1.00	0.50	1	1.00

Lane Input Data

Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road												
Lane	Lane Type	Phases	Start Disp. (s)	End Disp. (s)	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient (%)	Nearside Lane	Turns	Turning Radius (m)
1/1 (B3354 (N) Entry)	O	C D	2	3	60.0	Geom	-	5.00	0.00	Y	Arm 6 Left	17.00
2/1 (Stubbington Way Entry)	U	E	2	3	60.0	Geom	-	3.87	0.00	Y	Arm 7 Ahead	Inf
											Arm 8 Right	17.00
											Arm 5 Right	14.00
											Arm 7 Left	9.00
											Arm 8 Ahead	Inf
3/1 (B3354 (S) Entry)	U	A	2	3	5.0	Geom	-	3.00	0.00	Y	Arm 8 Left	12.00
3/2 (B3354 (S) Entry)	O	A	2	3	60.0	Geom	-	2.90	0.00	N	Arm 5 Ahead	Inf
											Arm 6 Right	10.00
4/1 (B3037 Eastleigh Road Entry)	U	B	2	3	60.0	Geom	-	3.68	0.00	Y	Arm 5 Left	9.00
											Arm 6 Ahead	Inf
											Arm 7 Right	43.00
5/1 (B3354 (N) Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Stubbington Way Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (B3354 (S) Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (B3037 Eastleigh Road Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Base AM'	08:00	09:00	01:00	
2: 'Base PM'	17:00	18:00	01:00	

Scenario 1: 'Base AM' (FG1: 'Base AM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow :

	Destination					
Origin	A	0	34	350	80	464
	B	43	0	30	37	110
	C	367	9	0	245	621
	D	54	18	276	0	348
	Tot.	464	61	656	362	1543

Traffic Lane Flows

Lane	Scenario 1: Base AM
Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	
1/1	464
2/1	110
3/1 (short)	245
3/2 (with short)	621(In) 376(Out)
4/1	348
5/1	464
6/1	61
7/1	656
8/1	362

Lane Saturation Flows

Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B3354 (N) Entry)	5.00	0.00	Y	Arm 6 Left	17.00	7.3 %	2070	2070
				Arm 7 Ahead	Inf	75.4 %		
				Arm 8 Right	17.00	17.2 %		
2/1 (Stubbington Way Entry)	3.87	0.00	Y	Arm 5 Right	14.00	39.1 %	1841	1841
				Arm 7 Left	9.00	27.3 %		
				Arm 8 Ahead	Inf	33.6 %		
3/1 (B3354 (S) Entry)	3.00	0.00	Y	Arm 8 Left	12.00	100.0 %	1702	1702
3/2 (B3354 (S) Entry)	2.90	0.00	N	Arm 5 Ahead	Inf	97.6 %	2038	2038
				Arm 6 Right	10.00	2.4 %		
				Arm 5 Left	9.00	15.5 %		
4/1 (B3037 Eastleigh Road Entry)	3.68	0.00	Y	Arm 6 Ahead	Inf	5.2 %	1882	1882
				Arm 7 Right	43.00	79.3 %		
5/1 (B3354 (N) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Stubbington Way Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (B3354 (S) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (B3037 Eastleigh Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'Base PM' (FG2: 'Base PM', Plan 2: 'Network Control Plan 2')**Traffic Flows, Desired****Desired Flow :**

Origin	Destination					
		A	B	C	D	Tot.
	A	0	30	408	123	561
	B	20	0	17	45	82
	C	386	24	0	320	730
	D	58	33	232	0	323
	Tot.	464	87	657	488	1696

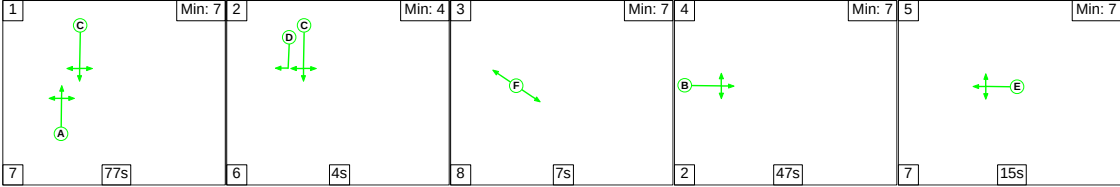
Lane Saturation Flows

Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B3354 (N) Entry)	5.00	0.00	Y	Arm 6 Left Arm 7 Ahead Arm 8 Right	17.00 Inf 17.00	5.3 % 72.7 % 21.9 %	2065	2065
2/1 (Stubbington Way Entry)	3.87	0.00	Y	Arm 5 Right Arm 7 Left Arm 8 Ahead	14.00 9.00 Inf	24.4 % 20.7 % 54.9 %	1887	1887
3/1 (B3354 (S) Entry)	3.00	0.00	Y	Arm 8 Left	12.00	100.0 %	1702	1702
3/2 (B3354 (S) Entry)	2.90	0.00	N	Arm 5 Ahead Arm 6 Right Arm 5 Left	Inf 10.00 9.00	94.1 % 5.9 % 18.0 %	2027	2027
4/1 (B3037 Eastleigh Road Entry)	3.68	0.00	Y	Arm 6 Ahead Arm 7 Right	Inf 43.00	10.2 % 71.8 %	1880	1880
5/1 (B3354 (N) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Stubbington Way Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (B3354 (S) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (B3037 Eastleigh Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 1: 'Base AM' (FG1: 'Base AM', Plan 1: 'Network Control Plan 1')

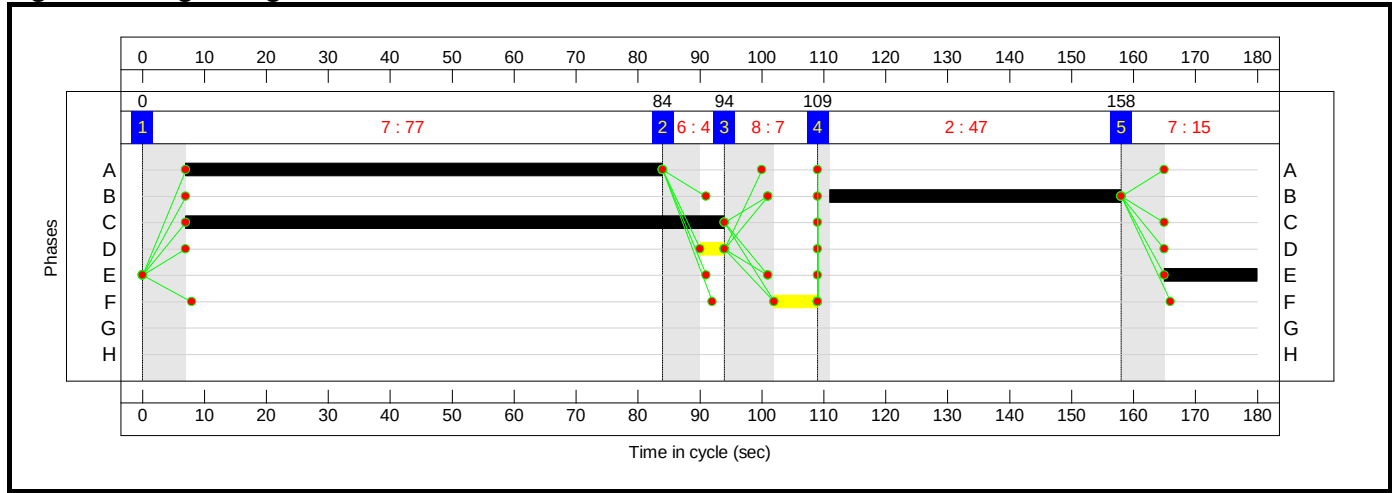
Stage Sequence Diagram



Stage Timings

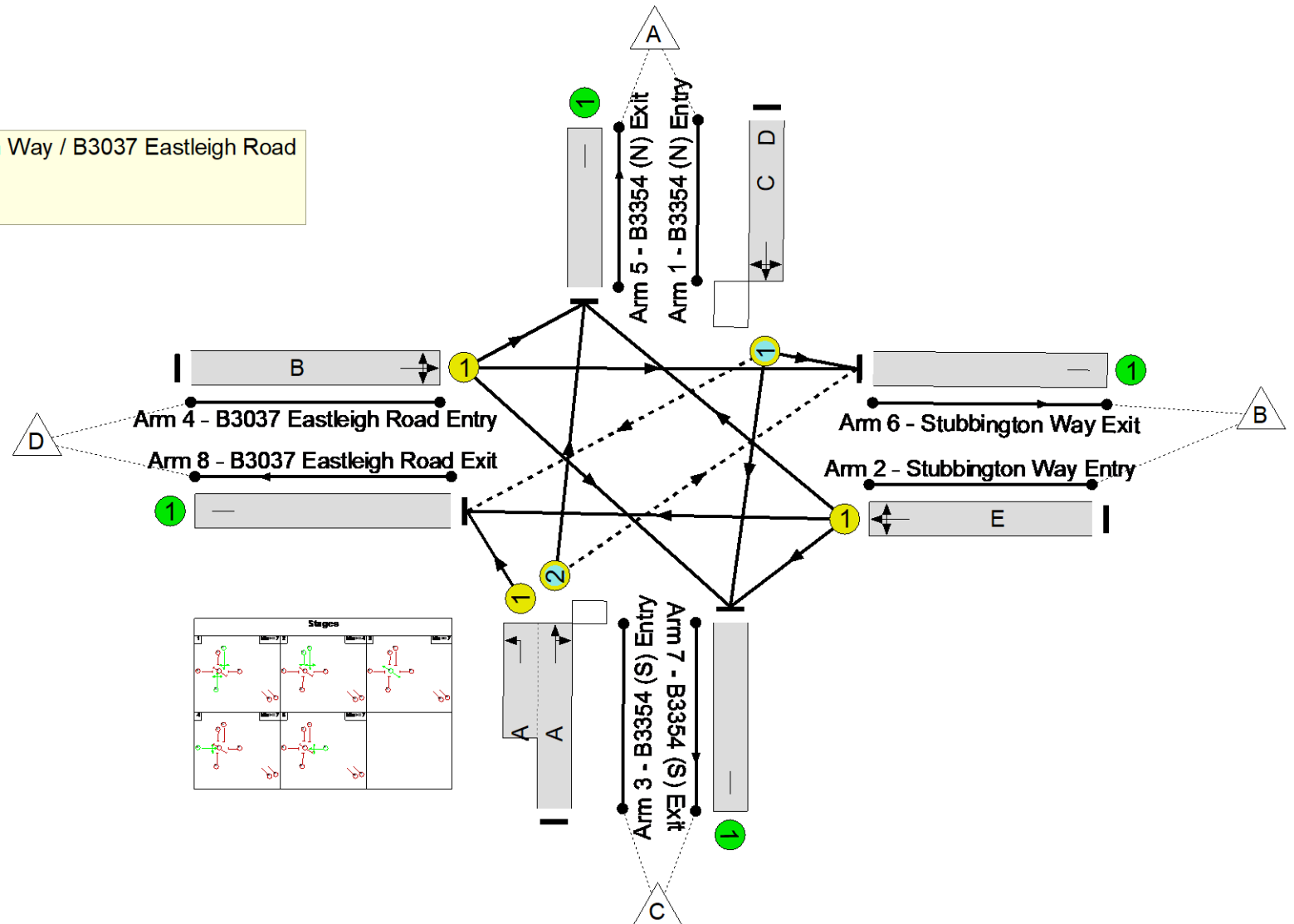
Stage	1	2	3	4	5
Duration	77	4	7	47	15
Change Point	0	84	94	109	158

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road
 PRC: 29.0 %
 Total Traffic Delay: 23.8 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	69.8%
B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	-	-	N/A	-	-		-	-	-	-	-	-	69.8%
1/1	B3354 (N) Entry Left Ahead Right	O	N/A	N/A	C	D	1	87	4	464	2070	751	61.8%
2/1	Stubbington Way Entry Right Left Ahead	U	N/A	N/A	E		1	15	-	110	1841	164	67.2%
3/2+3/1	B3354 (S) Entry Ahead Right Left	O+U	N/A	N/A	A		1	77	-	621	2038:1702	539+351	69.8 : 69.8%
4/1	B3037 Eastleigh Road Entry Left Ahead Right	U	N/A	N/A	B		1	47	-	348	1882	502	69.3%
5/1	B3354 (N) Exit	U	N/A	N/A	-		-	-	-	464	Inf	Inf	0.0%
6/1	Stubbington Way Exit	U	N/A	N/A	-		-	-	-	61	Inf	Inf	0.0%
7/1	B3354 (S) Exit	U	N/A	N/A	-		-	-	-	656	Inf	Inf	0.0%
8/1	B3037 Eastleigh Road Exit	U	N/A	N/A	-		-	-	-	362	Inf	Inf	0.0%

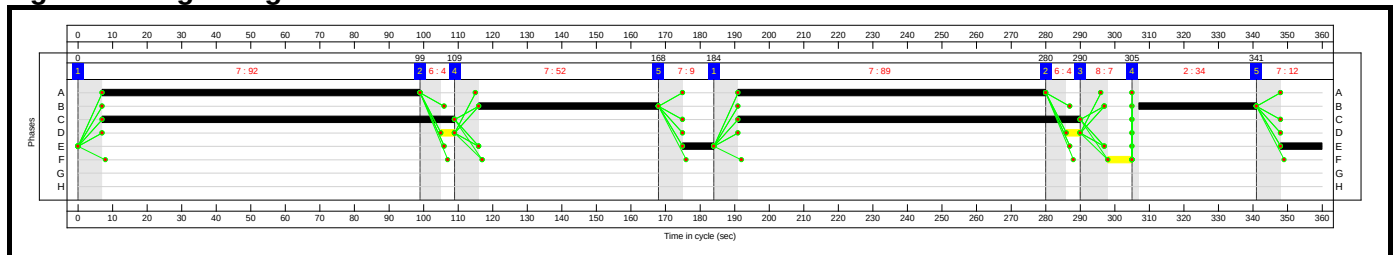
Full Input Data And Results

[illegible]

Stage Sequence Diagram



Signal Timings Diagram

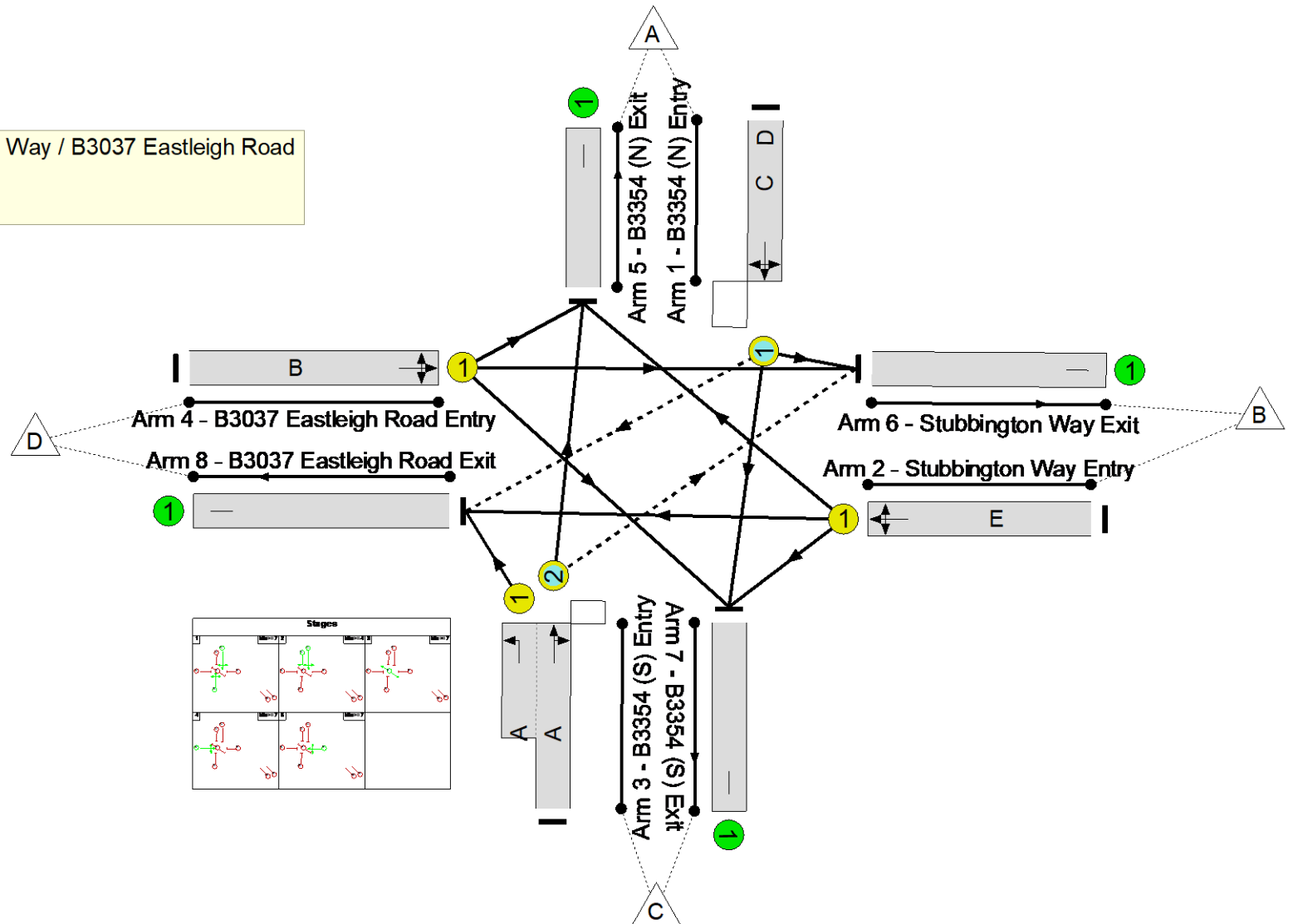


Full Input Data And Results
Network Layout Diagram

B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road

PRC: 27.6 %

Total Traffic Delay: 24.1 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	70.5%
B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	-	-	N/A	-	-		-	-	-	-	-	-	70.5%
1/1	B3354 (N) Entry Left Ahead Right	O	N/A	N/A	C	D	2	201	8	561	2065	816	68.8%
2/1	Stubbington Way Entry Right Left Ahead	U	N/A	N/A	E		2	21	-	82	1887	121	68.0%
3/2+3/1	B3354 (S) Entry Ahead Right Left	O+U	N/A	N/A	A		2	181	-	730	2027:1702	581+454	70.5 : 70.5%
4/1	B3037 Eastleigh Road Entry Left Ahead Right	U	N/A	N/A	B		2	86	-	323	1880	460	70.3%
5/1	B3354 (N) Exit	U	N/A	N/A	-		-	-	-	464	Inf	Inf	0.0%
6/1	Stubbington Way Exit	U	N/A	N/A	-		-	-	-	87	Inf	Inf	0.0%
7/1	B3354 (S) Exit	U	N/A	N/A	-		-	-	-	657	Inf	Inf	0.0%
8/1	B3037 Eastleigh Road Exit	U	N/A	N/A	-		-	-	-	488	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	140	5	1	19.0	4.5	0.6	24.1	-	-	-	-
B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	-	-	140	5	1	19.0	4.5	0.6	24.1	-	-	-	-
1/1	561	561	116	5	1	5.4	1.1	0.5	7.0	44.9	24.2	1.1	25.2
2/1	82	82	-	-	-	1.9	1.0	-	2.9	126.9	4.1	1.0	5.1
3/2+3/1	730	730	24	0	0	6.2	1.2	0.0	7.4	36.7	23.5	1.2	24.7
4/1	323	323	-	-	-	5.6	1.2	-	6.7	75.0	14.9	1.2	16.1
5/1	464	464	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	87	87	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	657	657	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	488	488	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 27.6 Total Delay for Signalled Lanes (pcuHr): 24.05 Cycle Time (s): 360 PRC Over All Lanes (%): 27.6 Total Delay Over All Lanes(pcuHr): 24.05													

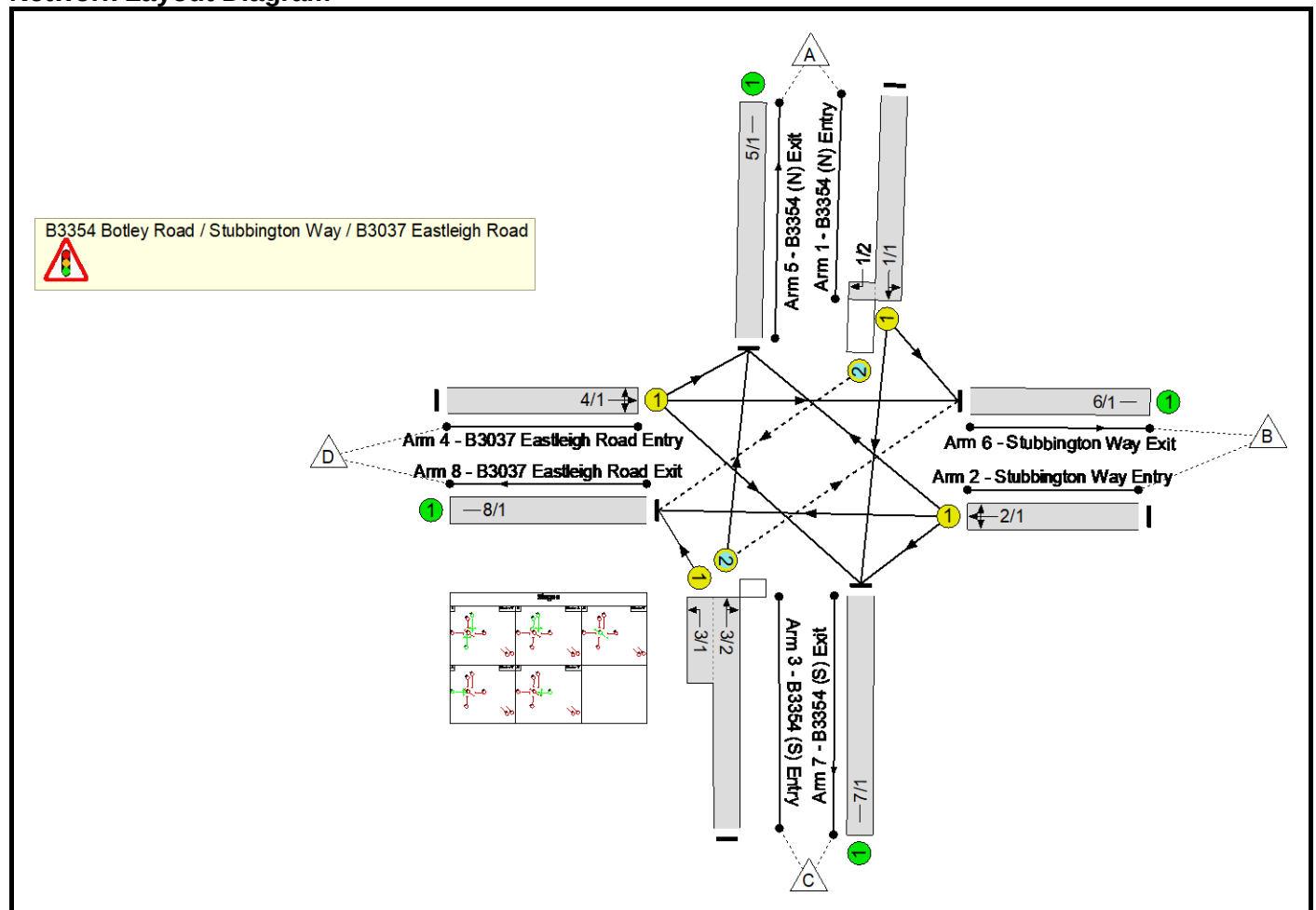
Full Input Data And Results

Full Input Data And Results

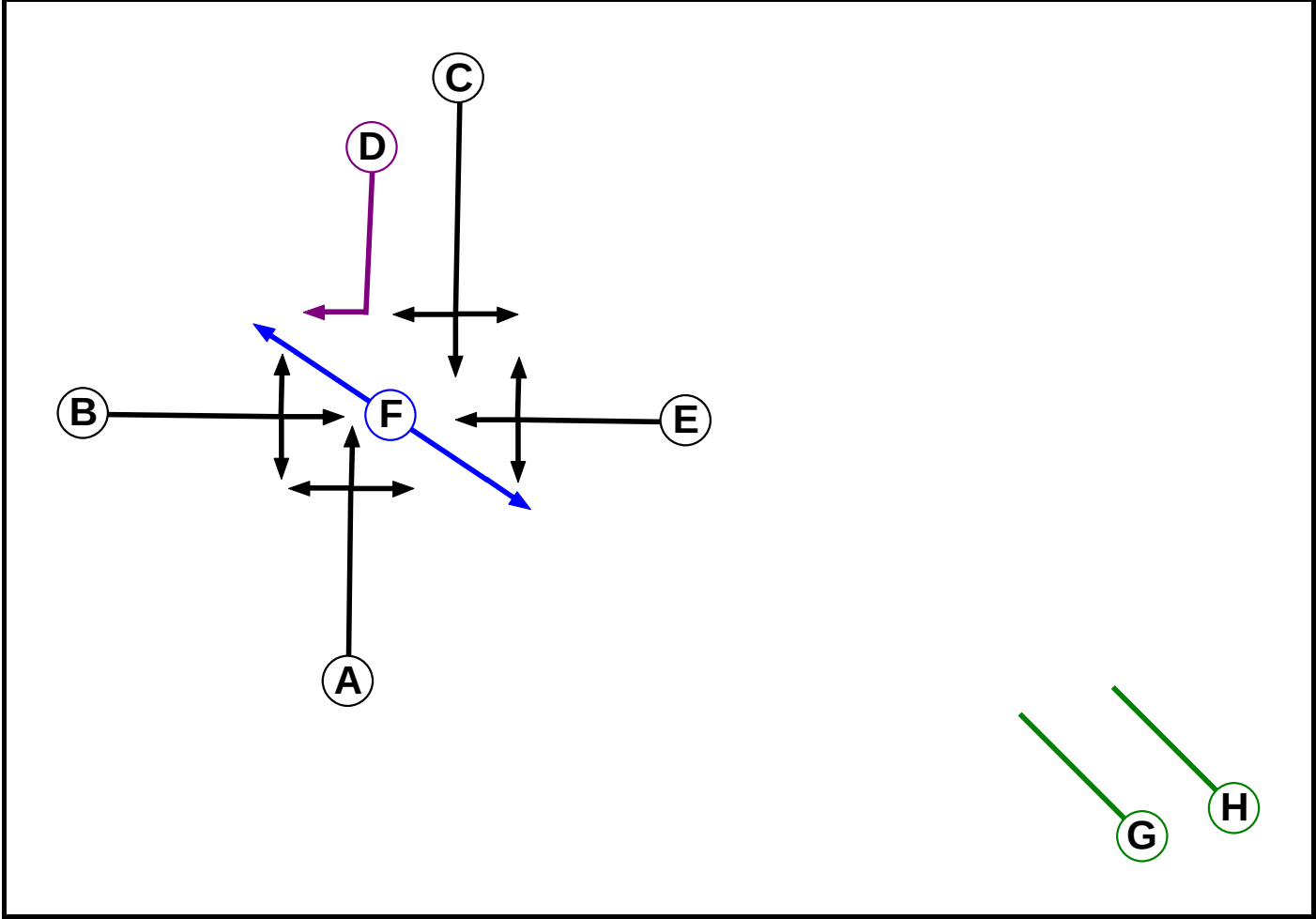
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	B3354 Stubbington Way Junction - HCC Proposal Rev B.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Ind. Arrow	C	4	4
E	Traffic		7	7
F	Pedestrian		7	7
G	Dummy R/A		7	7
H	Dummy R/A		7	7

Full Input Data And Results

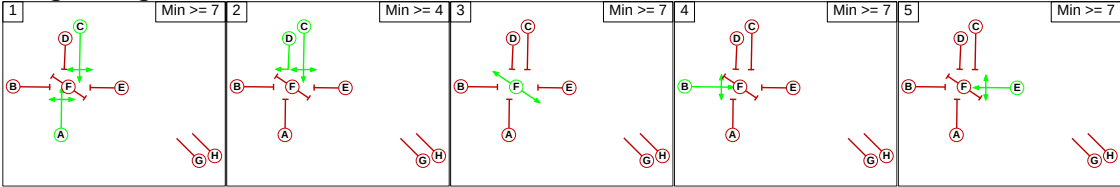
Phase Intergreens Matrix

Terminating Phase	Starting Phase								
		A	B	C	D	E	F	G	H
	A		7	-	6	7	9	3	3
	B	7		7	7	7	9	3	3
	C	-	7		-	7	9	3	3
	D	6	7	-		7	9	3	3
	E	7	7	7	7		9	3	3
	F	0	0	0	0	0		3	3
	G	2	2	2	2	2	2		3
	H	2	2	2	2	2	2	2	

Phases in Stage

Stage No.	Phases in Stage
1	A C
2	C D
3	F
4	B
5	E

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage	To Stage					
		1	2	3	4	5
	1		6	9	7	7
	2	6		9	7	7
	3	2	X		2	2
	4	7	7	9		7
	5	7	7	9	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/2 (B3354 (N) Entry)	8/1 (Right)	1439	0	3/2	1.09	To 5/1 (Ahead)	3.00	-	0.50	3	3.00
				3/1	1.09	All					
3/2 (B3354 (S) Entry)	6/1 (Right)	1439	0	1/1	1.09	All	1.00	1.00	0.50	1	1.00

Full Input Data And Results

Lane Input Data

Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road												
Lane	Lane Type	Phases	Start Disp. (s)	End Disp. (s)	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient (%)	Nearside Lane	Turns	Turning Radius (m)
1/1 (B3354 (N) Entry)	U	C	2	3	60.0	Geom	-	3.36	0.00	Y	Arm 6 Left	17.00
											Arm 7 Ahead	Inf
1/2 (B3354 (N) Entry)	O	C D	2	3	0.9	Geom	-	3.00	0.00	Y	Arm 8 Right	Inf
2/1 (Stubbington Way Entry)	U	E	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 5 Right	14.00
											Arm 7 Left	8.00
											Arm 8 Ahead	Inf
3/1 (B3354 (S) Entry)	U	A	2	3	4.9	Geom	-	2.90	0.00	Y	Arm 8 Left	10.00
3/2 (B3354 (S) Entry)	O	A	2	3	60.0	Geom	-	2.90	0.00	N	Arm 5 Ahead	Inf
											Arm 6 Right	10.00
4/1 (B3037 Eastleigh Road Entry)	U	B	2	3	60.0	Geom	-	3.68	0.00	Y	Arm 5 Left	9.00
											Arm 6 Ahead	Inf
											Arm 7 Right	43.00
5/1 (B3354 (N) Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Stubbington Way Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (B3354 (S) Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (B3037 Eastleigh Road Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Future + Committed AM'	08:00	09:00	01:00	
2: 'Future + Committed PM'	17:00	18:00	01:00	

Scenario 1: 'Future + Committed AM' (FG1: 'Future + Committed AM', Plan 1: 'Network Control Plan 1')
Traffic Flows, Desired
Desired Flow :

	Destination					
Origin	A	0	34	404	89	527
	B	43	0	30	37	110
	C	520	9	0	357	886
	D	65	18	291	0	374
	Tot.	628	61	725	483	1897

Traffic Lane Flows

Lane	Scenario 1: Future + Committed AM
Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	
1/1 (with short)	527(In) 438(Out)
1/2 (short)	89
2/1	110
3/1 (short)	357
3/2 (with short)	886(In) 529(Out)
4/1	374
5/1	628
6/1	61
7/1	725
8/1	483

Lane Saturation Flows

Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B3354 (N) Entry)	3.36	0.00	Y	Arm 6 Left	17.00	7.8 %	1938	1938
				Arm 7 Ahead	Inf	92.2 %		
1/2 (B3354 (N) Entry)	3.00	0.00	Y	Arm 8 Right	Inf	100.0 %	1915	1915
2/1 (Stubbington Way Entry)	3.00	0.00	Y	Arm 5 Right	14.00	39.1 %	1752	1752
				Arm 7 Left	8.00	27.3 %		
				Arm 8 Ahead	Inf	33.6 %		
3/1 (B3354 (S) Entry)	2.90	0.00	Y	Arm 8 Left	10.00	100.0 %	1657	1657
3/2 (B3354 (S) Entry)	2.90	0.00	N	Arm 5 Ahead	Inf	98.3 %	2040	2040
				Arm 6 Right	10.00	1.7 %		
4/1 (B3037 Eastleigh Road Entry)	3.68	0.00	Y	Arm 5 Left	9.00	17.4 %	1878	1878
				Arm 6 Ahead	Inf	4.8 %		
				Arm 7 Right	43.00	77.8 %		
5/1 (B3354 (N) Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (Stubbington Way Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (B3354 (S) Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
8/1 (B3037 Eastleigh Road Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 2: 'Future + Committed PM' (FG2: 'Future + Committed PM', Plan 2: 'Network Control Plan 2')**Traffic Flows, Desired****Desired Flow :**

	Destination					
		A	B	C	D	Tot.
Origin	A	0	30	531	132	693
	B	20	0	17	45	82
	C	459	24	0	349	832
	D	64	33	317	0	414
	Tot.	543	87	865	526	2021

Traffic Lane Flows

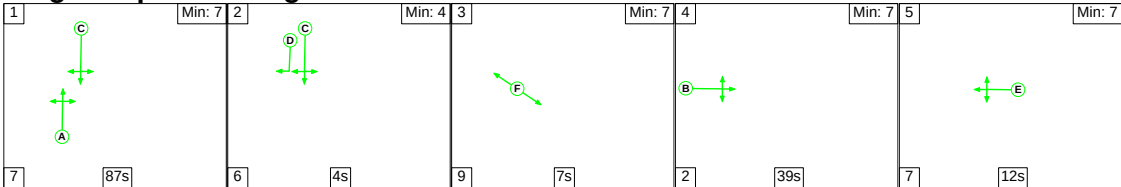
Lane	Scenario 2: Future + Committed PM
Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	
1/1 (with short)	693(In) 561(Out)
1/2 (short)	132
2/1	82
3/1 (short)	349
3/2 (with short)	832(In) 483(Out)
4/1	414
5/1	543
6/1	87
7/1	865
8/1	526

Lane Saturation Flows

Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B3354 (N) Entry)	3.36	0.00	Y	Arm 6 Left	17.00	5.3 %	1942	1942
				Arm 7 Ahead	Inf	94.7 %		
1/2 (B3354 (N) Entry)	3.00	0.00	Y	Arm 8 Right	Inf	100.0 %	1915	1915
2/1 (Stubbington Way Entry)	3.00	0.00	Y	Arm 5 Right	14.00	24.4 %	1798	1798
				Arm 7 Left	8.00	20.7 %		
				Arm 8 Ahead	Inf	54.9 %		
3/1 (B3354 (S) Entry)	2.90	0.00	Y	Arm 8 Left	10.00	100.0 %	1657	1657
3/2 (B3354 (S) Entry)	2.90	0.00	N	Arm 5 Ahead	Inf	95.0 %	2030	2030
				Arm 6 Right	10.00	5.0 %		
4/1 (B3037 Eastleigh Road Entry)	3.68	0.00	Y	Arm 5 Left	9.00	15.5 %	1884	1884
				Arm 6 Ahead	Inf	8.0 %		
				Arm 7 Right	43.00	76.6 %		
5/1 (B3354 (N) Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (Stubbington Way Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (B3354 (S) Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
8/1 (B3037 Eastleigh Road Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 1: 'Future + Committed AM' (FG1: 'Future + Committed AM', Plan 1: 'Network Control Plan 1')

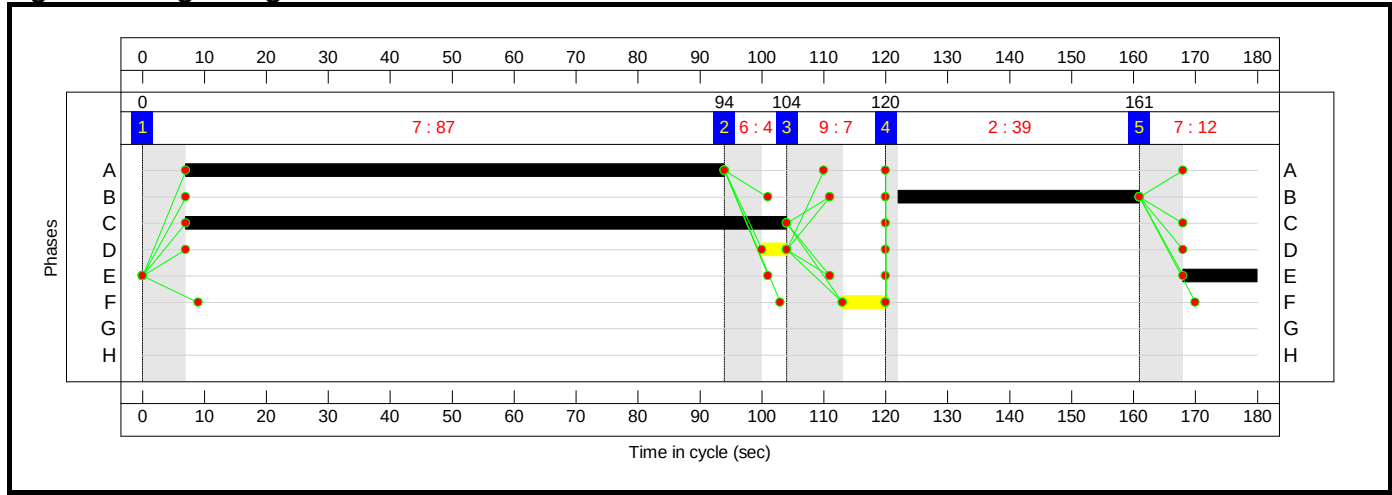
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	87	4	7	39	12
Change Point	0	94	104	120	161

Signal Timings Diagram

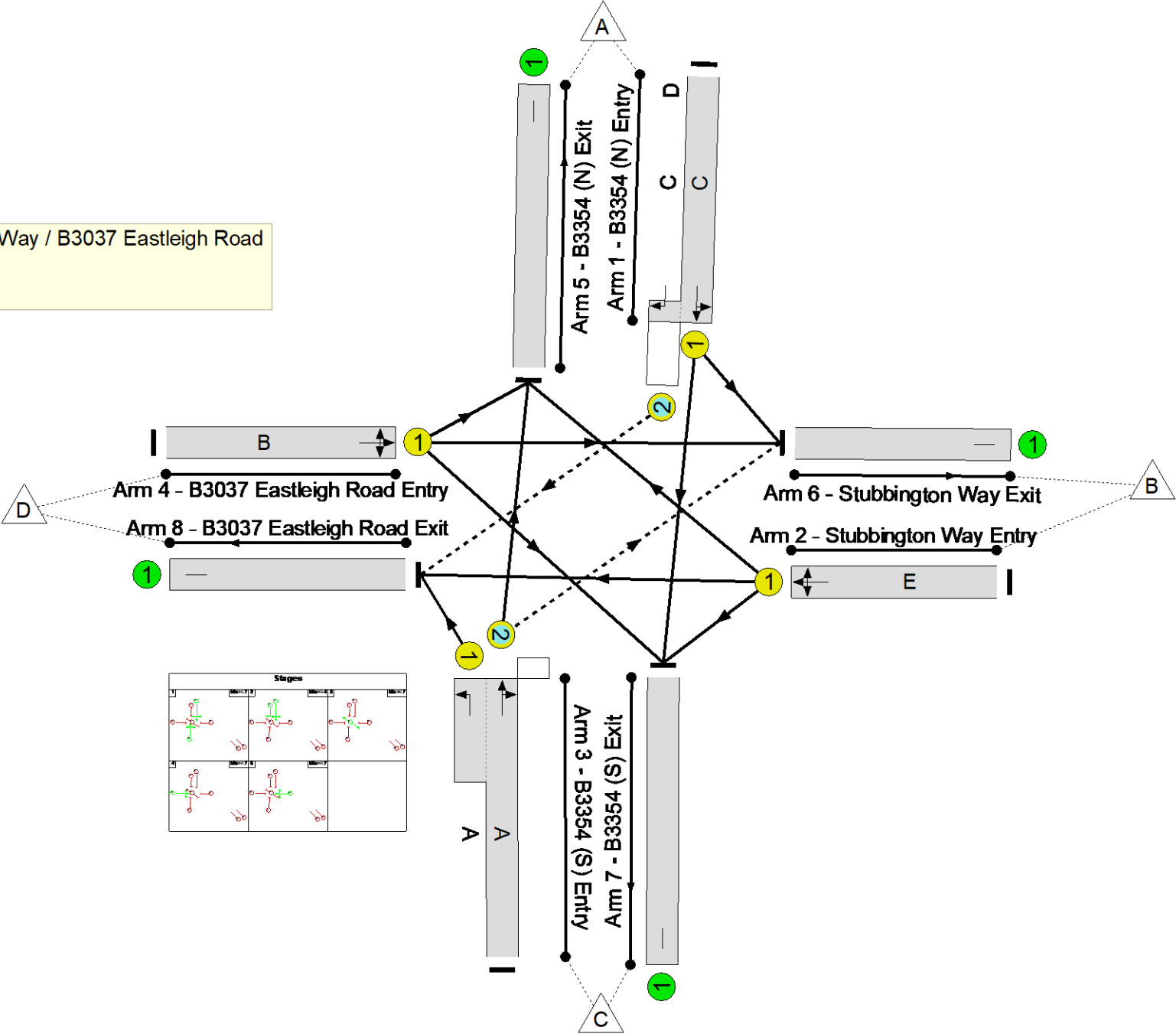




B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road

PRC: 0.4 %

Total Traffic Delay: 35.2 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	89.6%
B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	-	-	N/A	-	-		-	-	-	-	-	-	89.6%
1/1+1/2	B3354 (N) Entry Left Ahead Right	U+O	N/A	N/A	C	D	1	97	4	527	1938:1915	611+124	71.6 : 71.6%
2/1	Stubbington Way Entry Right Left Ahead	U	N/A	N/A	E		1	12	-	110	1752	127	86.9%
3/2+3/1	B3354 (S) Entry Ahead Right Left	O+U	N/A	N/A	A		1	87	-	886	2040:1657	594+401	89.0 : 89.0%
4/1	B3037 Eastleigh Road Entry Left Ahead Right	U	N/A	N/A	B		1	39	-	374	1878	417	89.6%
5/1	B3354 (N) Exit	U	N/A	N/A	-		-	-	-	628	Inf	Inf	0.0%
6/1	Stubbington Way Exit	U	N/A	N/A	-		-	-	-	61	Inf	Inf	0.0%
7/1	B3354 (S) Exit	U	N/A	N/A	-		-	-	-	725	Inf	Inf	0.0%
8/1	B3037 Eastleigh Road Exit	U	N/A	N/A	-		-	-	-	483	Inf	Inf	0.0%

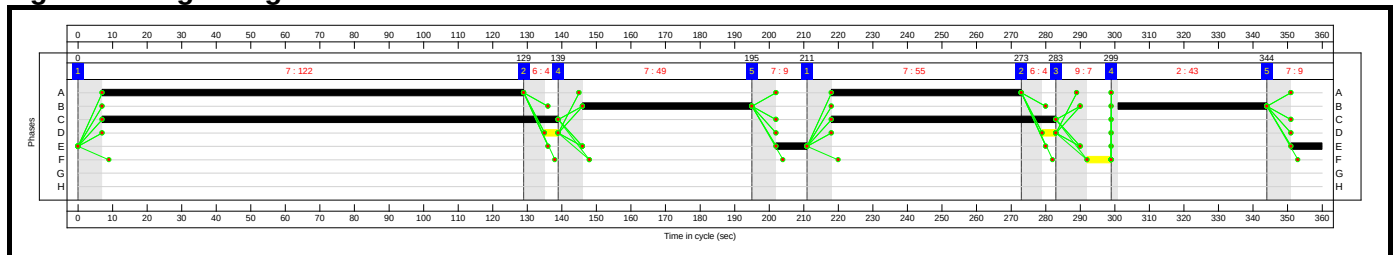
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	58	38	1	22.8	11.3	1.2	35.2	-	-	-	-
B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	-	-	58	38	1	22.8	11.3	1.2	35.2	-	-	-	-
1/1+1/2	527	527	49	38	1	3.8	1.2	1.1	6.1	42.0	16.1	1.2	17.3
2/1	110	110	-	-	-	2.5	2.5	-	5.1	165.9	5.4	2.5	8.0
3/2+3/1	886	886	9	0	0	9.4	3.8	0.0	13.3	53.9	35.8	3.8	39.6
4/1	374	374	-	-	-	7.1	3.7	-	10.8	103.5	18.1	3.7	21.8
5/1	628	628	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	61	61	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	725	725	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	483	483	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 0.4 Total Delay for Signalled Lanes (pcuHr): 35.22 Cycle Time (s): 180 PRC Over All Lanes (%): 0.4 Total Delay Over All Lanes(pcuHr): 35.22													

Stage Sequence Diagram



Signal Timings Diagram

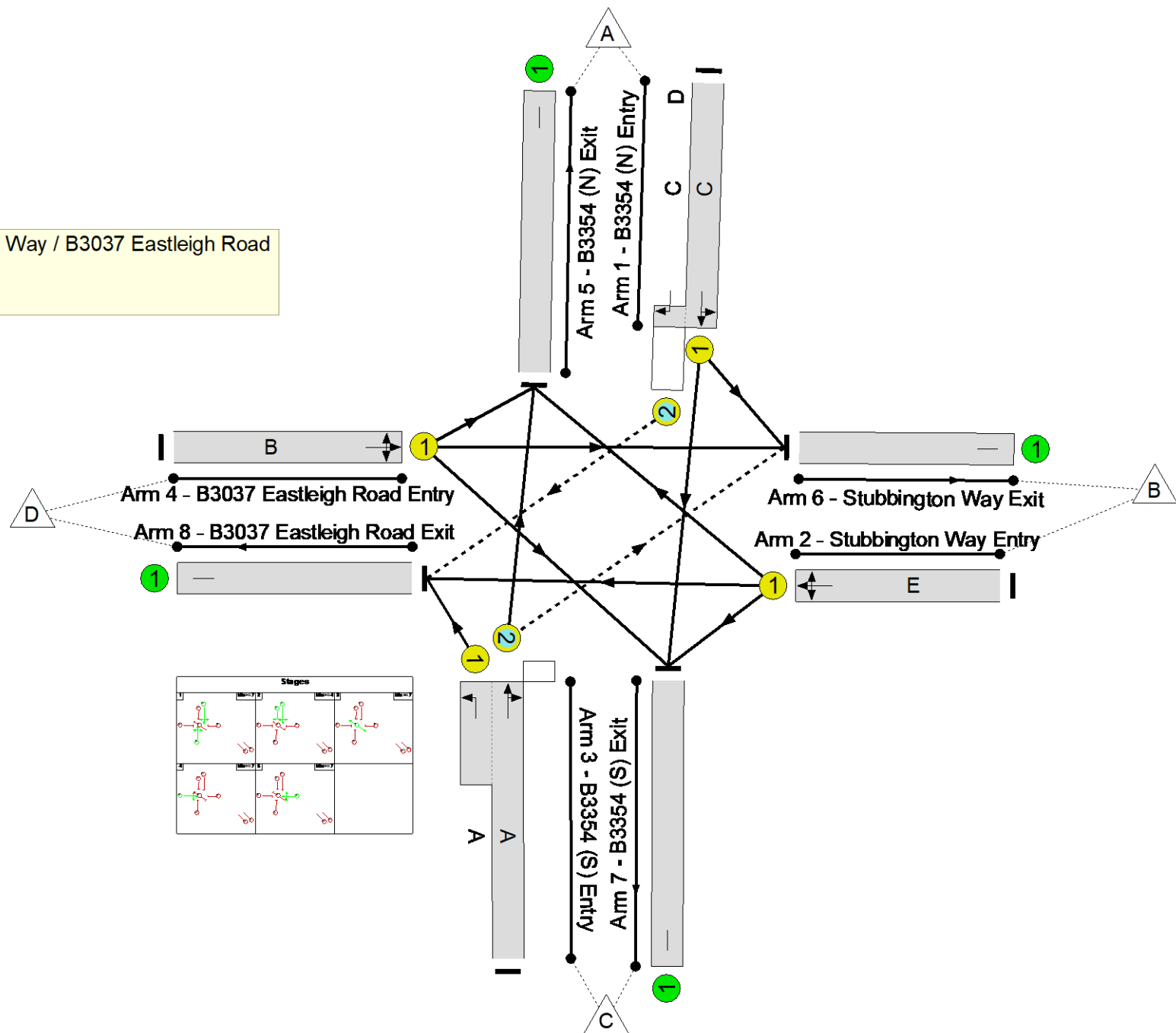


Full Input Data And Results

Network Layout Diagram



PRC: 6.5 %
Total Traffic Delay: 35.9 pcuHr



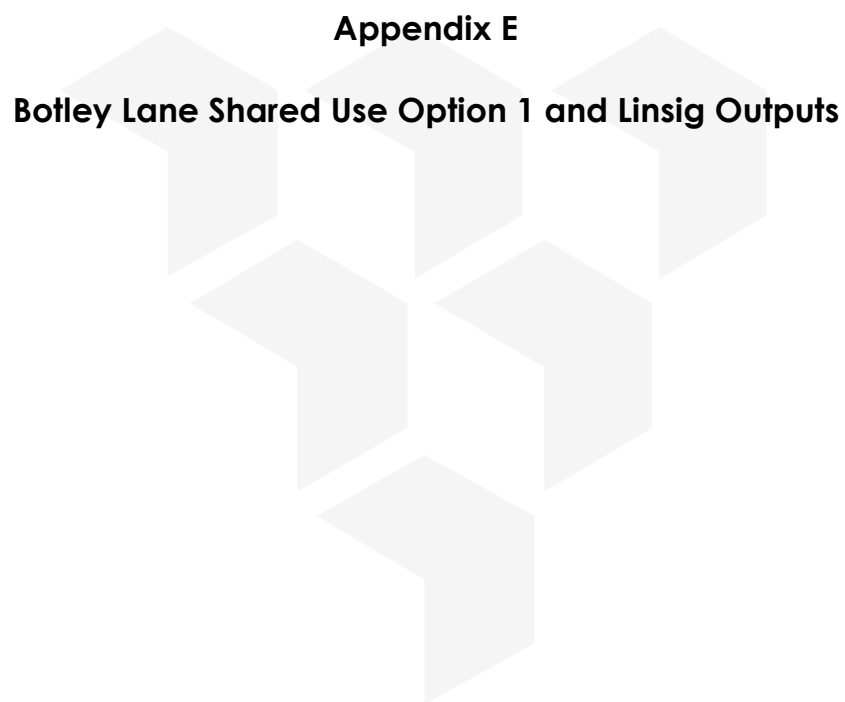
Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	84.5%
B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	-	-	N/A	-	-		-	-	-	-	-	-	84.5%
1/1+1/2	B3354 (N) Entry Left Ahead Right	U+O	N/A	N/A	C	D	2	197	8	693	1942:1915	664+156	84.5 : 84.5%
2/1	Stubbington Way Entry Right Left Ahead	U	N/A	N/A	E		2	18	-	82	1798	100	82.1%
3/2+3/1	B3354 (S) Entry Ahead Right Left	O+U	N/A	N/A	A		2	177	-	832	2030:1657	587+424	82.3 : 82.3%
4/1	B3037 Eastleigh Road Entry Left Ahead Right	U	N/A	N/A	B		2	92	-	414	1884	492	84.2%
5/1	B3354 (N) Exit	U	N/A	N/A	-		-	-	-	543	Inf	Inf	0.0%
6/1	Stubbington Way Exit	U	N/A	N/A	-		-	-	-	87	Inf	Inf	0.0%
7/1	B3354 (S) Exit	U	N/A	N/A	-		-	-	-	865	Inf	Inf	0.0%
8/1	B3037 Eastleigh Road Exit	U	N/A	N/A	-		-	-	-	526	Inf	Inf	0.0%

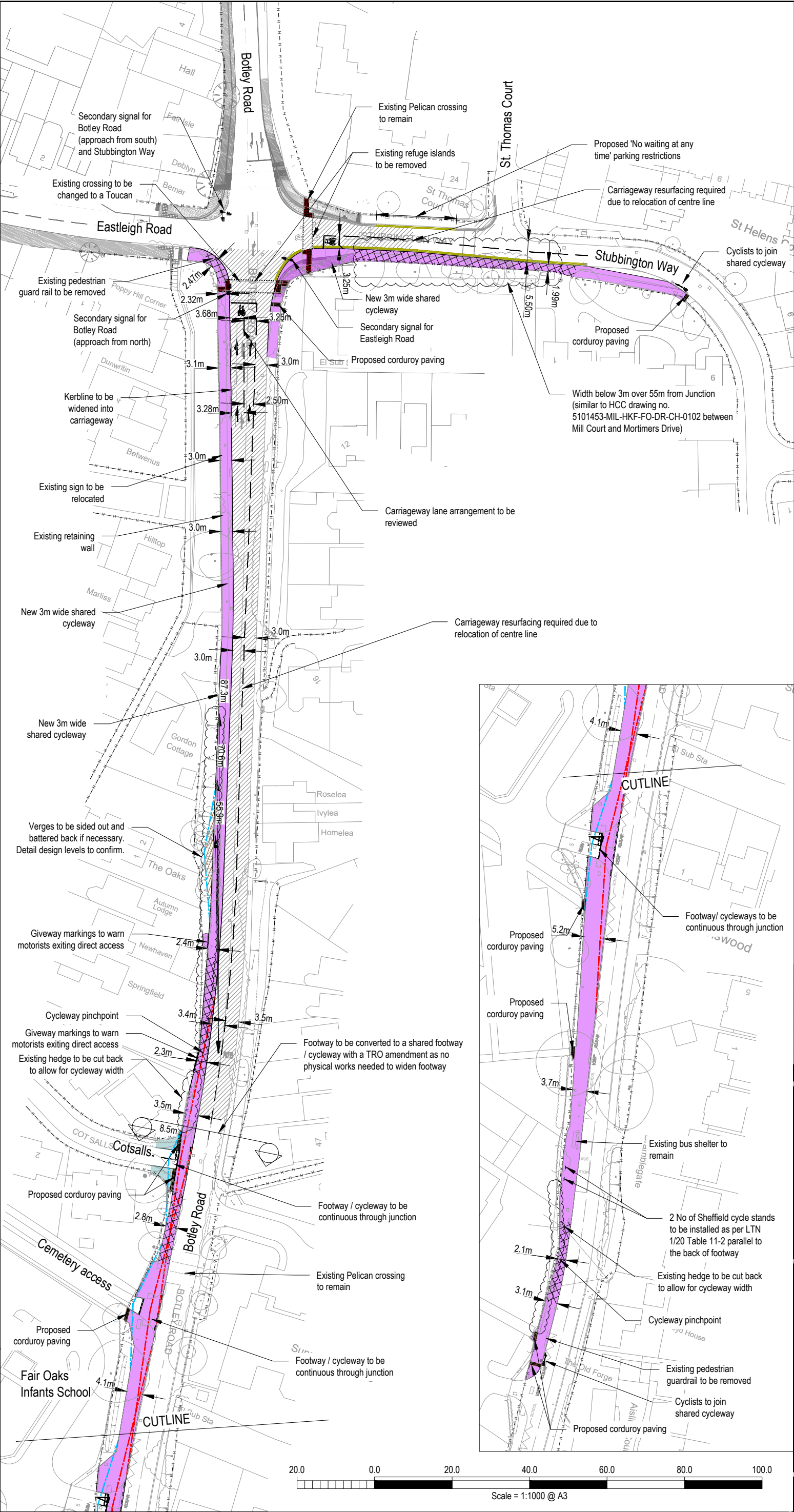
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	105	45	6	25.5	9.3	1.1	35.9	-	-	-	-
B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	-	-	105	45	6	25.5	9.3	1.1	35.9	-	-	-	-
1/1+1/2	693	693	81	45	6	7.8	2.6	1.0	11.4	59.4	37.2	2.6	39.8
2/1	82	82	-	-	-	2.0	1.9	-	3.9	170.0	4.8	1.9	6.7
3/2+3/1	832	832	24	0	0	8.2	2.3	0.1	10.5	45.6	31.8	2.3	34.1
4/1	414	414	-	-	-	7.6	2.5	-	10.1	87.5	23.7	2.5	26.2
5/1	543	543	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	87	87	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	865	865	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	526	526	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 6.5 Total Delay for Signalled Lanes (pcuHr): 35.91 PRC Over All Lanes (%): 6.5 Total Delay Over All Lanes(pcuHr): 35.91 Cycle Time (s): 360													



Appendix E

Botley Lane Shared Use Option 1 and Linsig Outputs



KEY

- Proposed shared use footway
- Proposed carriageway resurfacing
- Proposed footway resurfacing
- Shared footway/cycleway < 3m
- Highway boundary interpreted from Hampshire County council records
- 2.4m x 43m junction visibility splay
- 2.4m x 17m cyclist visibility splay as per LTN 1/20 Table 5-5 unless stated otherwise
- 11m (M/S 10mph) forward visibility splay

NOTES

- Do not scale from this drawing.
- The highway boundary is to be verified by the highway authority throughout the scheme extents of the proposed works.

Reproduced from Ordnance Survey digital data with permission of the Controller of His Majesty's Stationery Office, Crown copyright (License number 100022432).

Existing Junction Intervisibility	
Arm	Compliant with CD 123
Botley Rd (S) / Eastleigh Rd	No
Eastleigh Rd / Botley Rd (N)	No
Botley Rd (N) / Stubbington Way	No
Stubbington Way / Botley Rd (S)	No
Hampshire Junction Intervisibility	
Botley Rd (S) / Eastleigh Rd	No
Eastleigh Rd / Botley Rd (N)	No
Botley Rd (N) / Stubbington Way	No
Stubbington Way / Botley Rd (S)	No
Bloor Homes Junction Intervisibility	
Botley Rd (S) / Eastleigh Rd	No
Eastleigh Rd / Botley Rd (N)	No
Botley Rd (N) / Stubbington Way	No
Stubbington Way / Botley Rd (S)	No

F	Updated in response to RSA.	24.04.25	TH	AD
E	Shared footway cycleway <3m highlighted.	07.04.25	TH	AD
D	Updated in accordance with HCC comments	18.03.25	AH	AJ
C	Updated in accordance with HCC comments	14.10.24	AH	AJ
B	Sheffield cycle stands added at bus stop.	18.09.24	AH	AJ
A	Updated with HCC Scheme	22.08.24	AH	AJ



Survey > Plan > Engineer

 Civil Engineering

 Structural Engineering

 Transport Planning

 Highways Engineering

 Building Surveying

 Geomatics

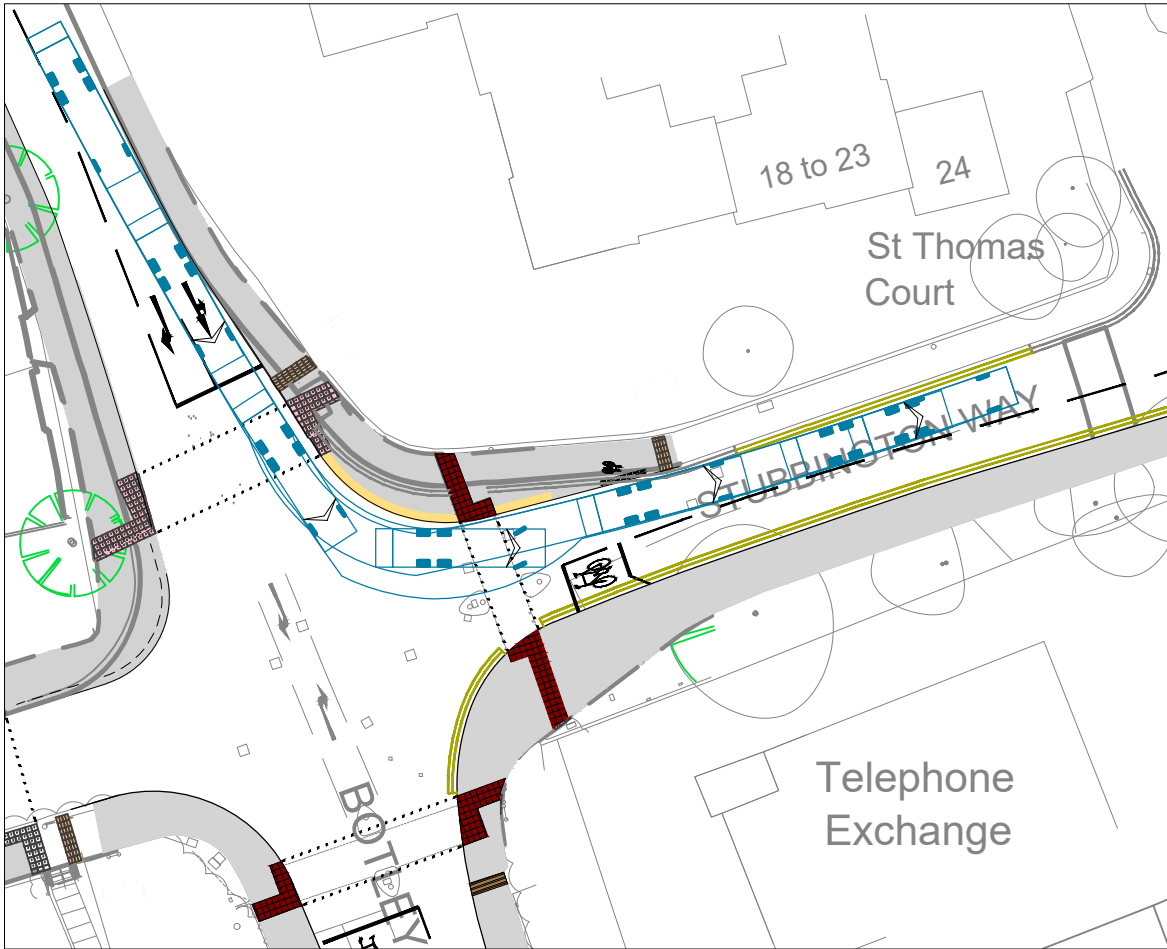
 Hertfordshire

 Oxfordshire

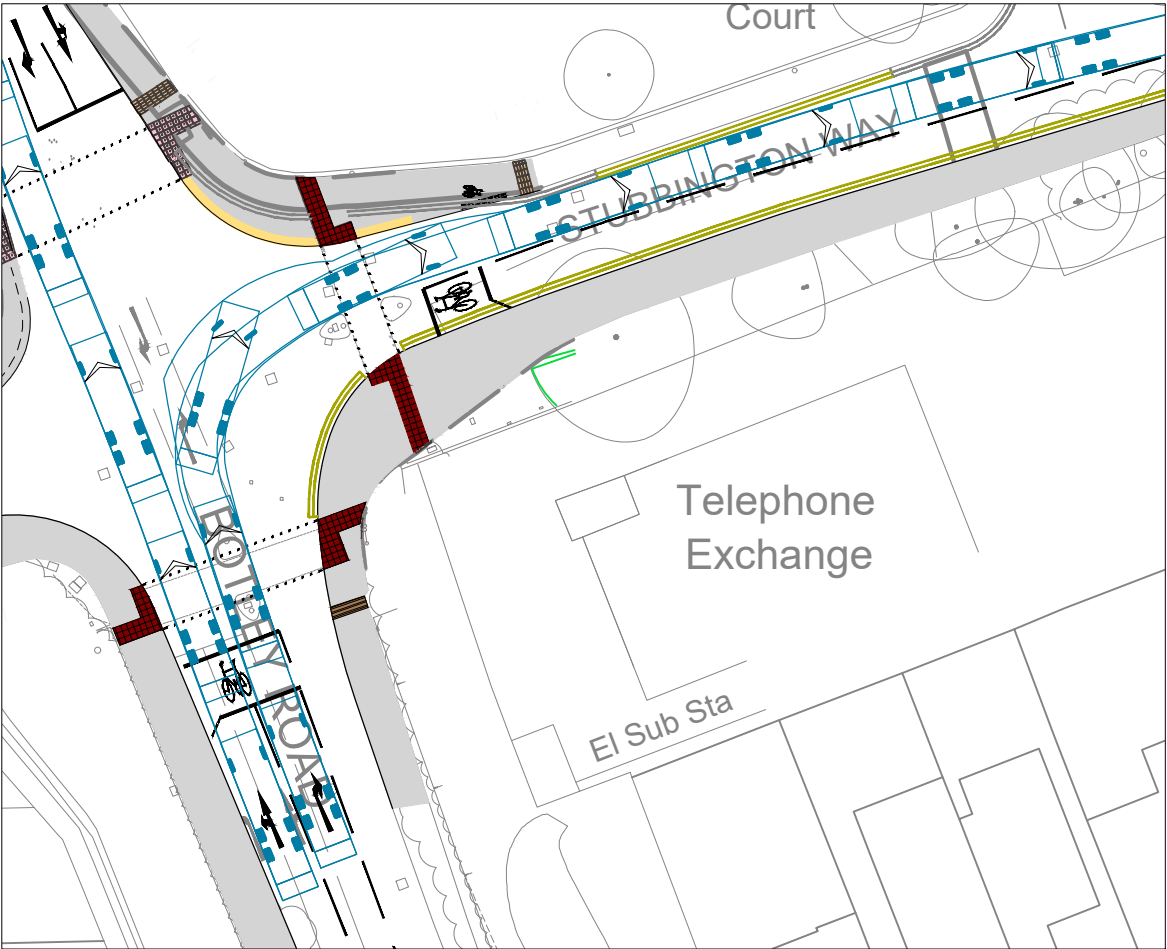
 Cambridgeshire

 Bristol

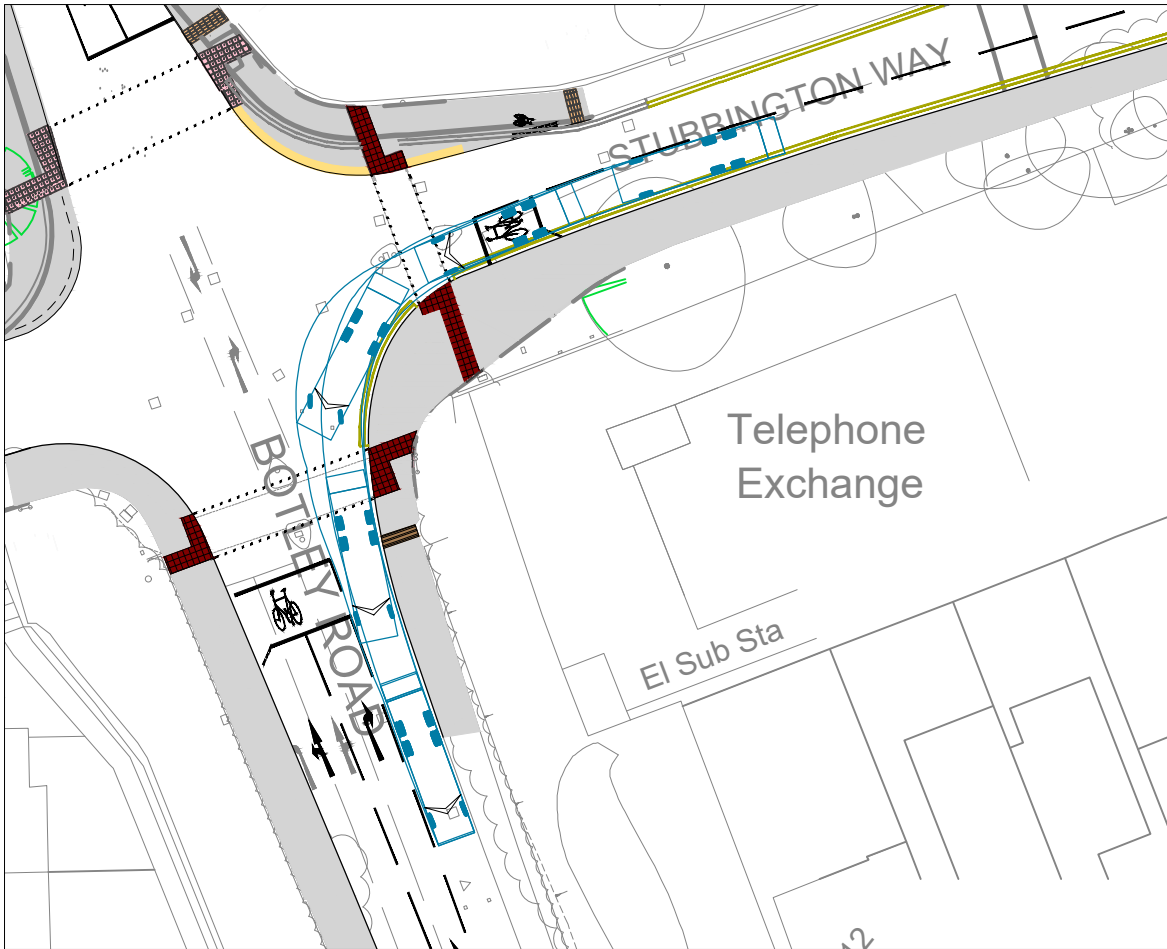
Client :	Bloor Homes Southern		
Project :	Land South of Mortimers Lane, Fair Oak, Eastleigh		
Title :	Proposed Highway and Cycle Improvements Site 2 General Arrangement		
Engineer : A. Harper	Date : July 2024		
Director : A. Jones	Scale : NTS @ A3		
Status :	PRELIMINARY		
Drawing No.	8230679/6107	Rev	F



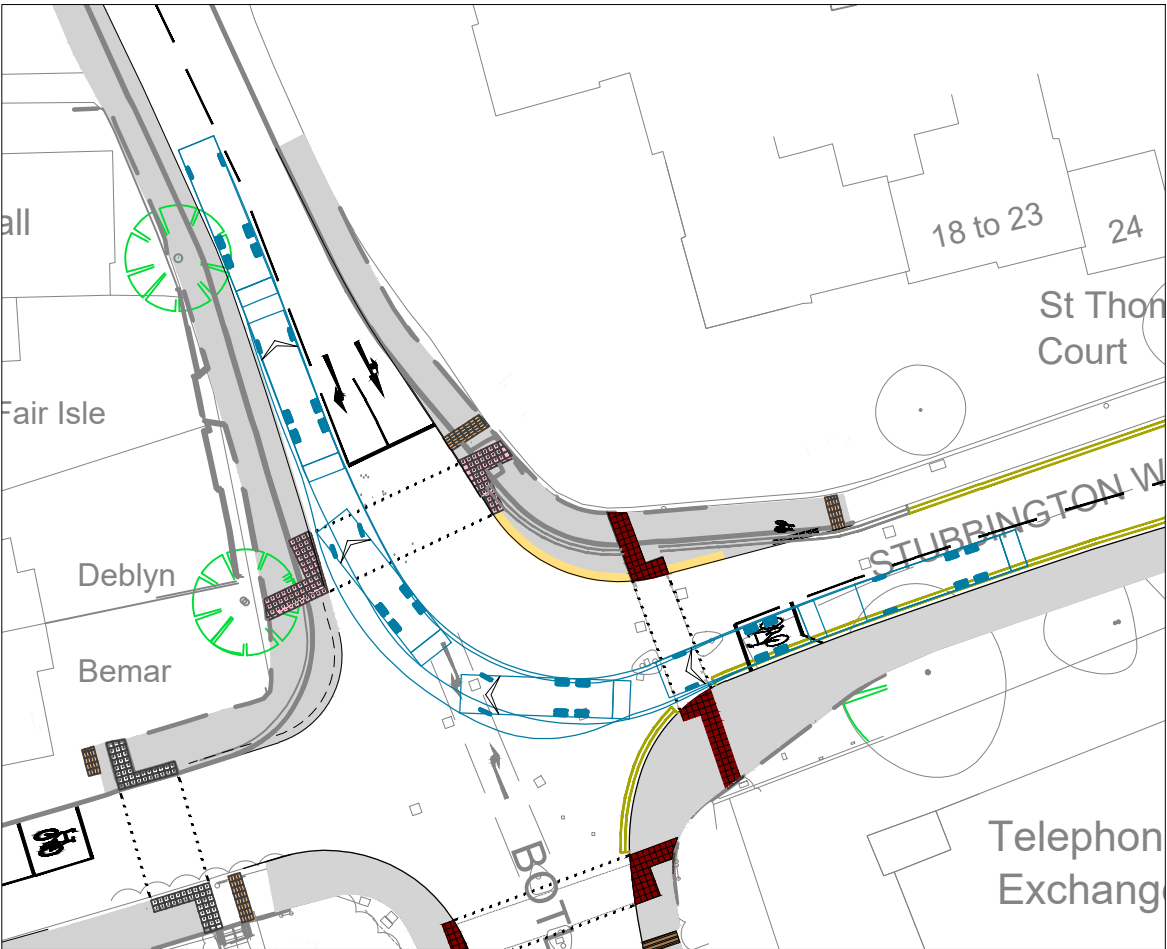
STUBBINGTON WAY LEFT-TURN - ENTRY



STUBBINGTON WAY RIGHT-TURN - ENTRY



STUBBINGTON WAY LEFT-TURN - EXIT



STUBBINGTON WAY RIGHT-TURN - EXIT

NOTES

- 1. This drawing is to be read in conjunction with all relevant documents and specifications.
 - 2. Dimensions are not to be scaled.
- Source: Site Line's drawing number
01MK005 1 to 5
HCC drawing numbers -
510453-MIL-HKF-FO-DR-CH-0101 - 0105

KEY



11.2m refuse vehicle - forward gear



A	Highway layout updated.	04/04/25	TH	AD
Rev.	Description	Date	By	Chkd



Survey > Plan > Engineer

 Civil Engineering

 Structural Engineering

 Transport Planning

 Highways Engineering

 Building Surveying

 Geomatics

 Hertfordshire

 Oxfordshire

 Cambridgeshire

 Bristol

Client :	Bloor Homes Southern
Project :	Land South of Mortimers Lane, Fair Oak, Eastleigh
Title :	Swept Path Analysis 11.2m Refuse Vehicle
Engineer : A. Harper	Date : October 2024
Director : A. Jones	Scale : 1:500 @ A3
Status :	PRELIMINARY
Drawing No.	8230679/6203
Rev	A

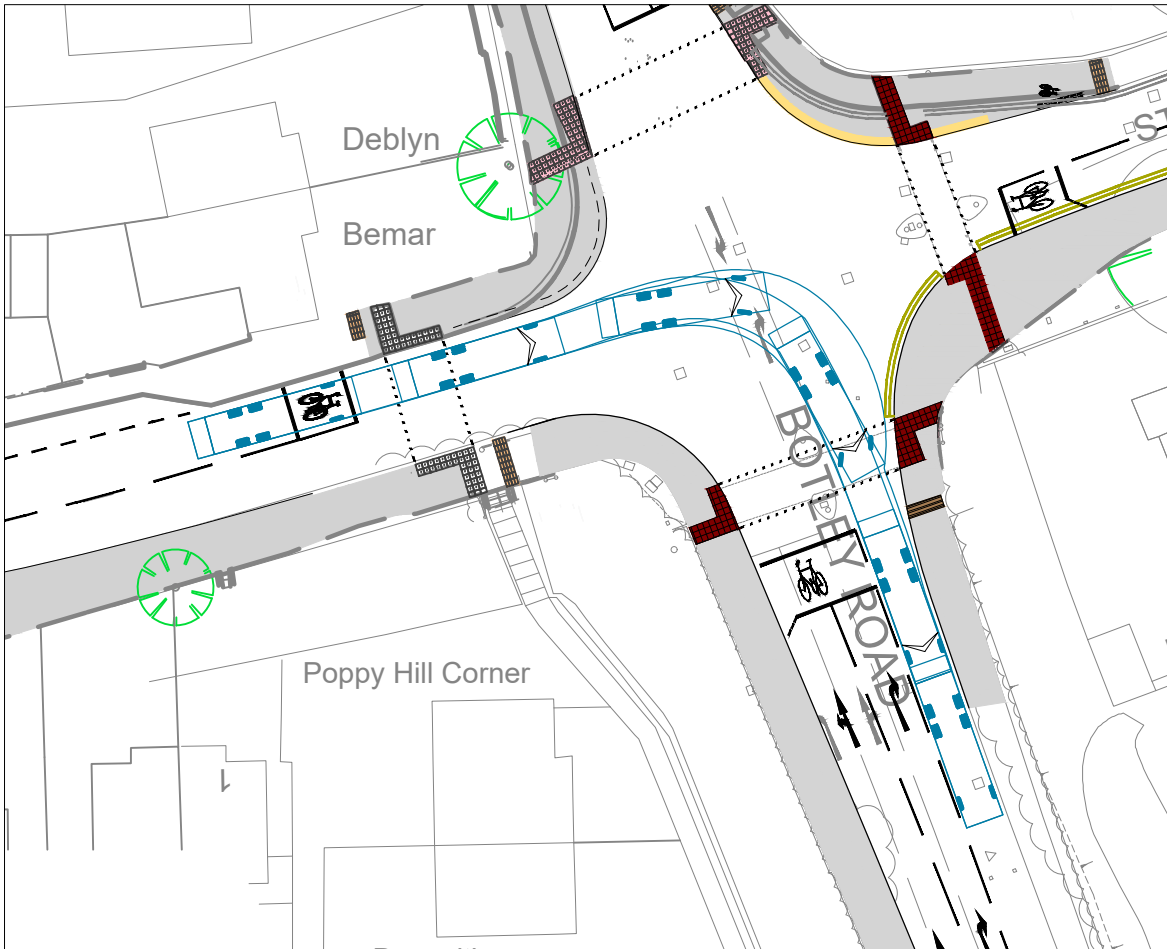
NOTES

1. This drawing is to be read in conjunction with all relevant documents and specifications.
2. Dimensions are not to be scaled.
- Source: Site Line's drawing number
01MK005 1 to 5
HCC drawing numbers -
510453-MIL-HKF-FO-DR-CH-0101 - 0105

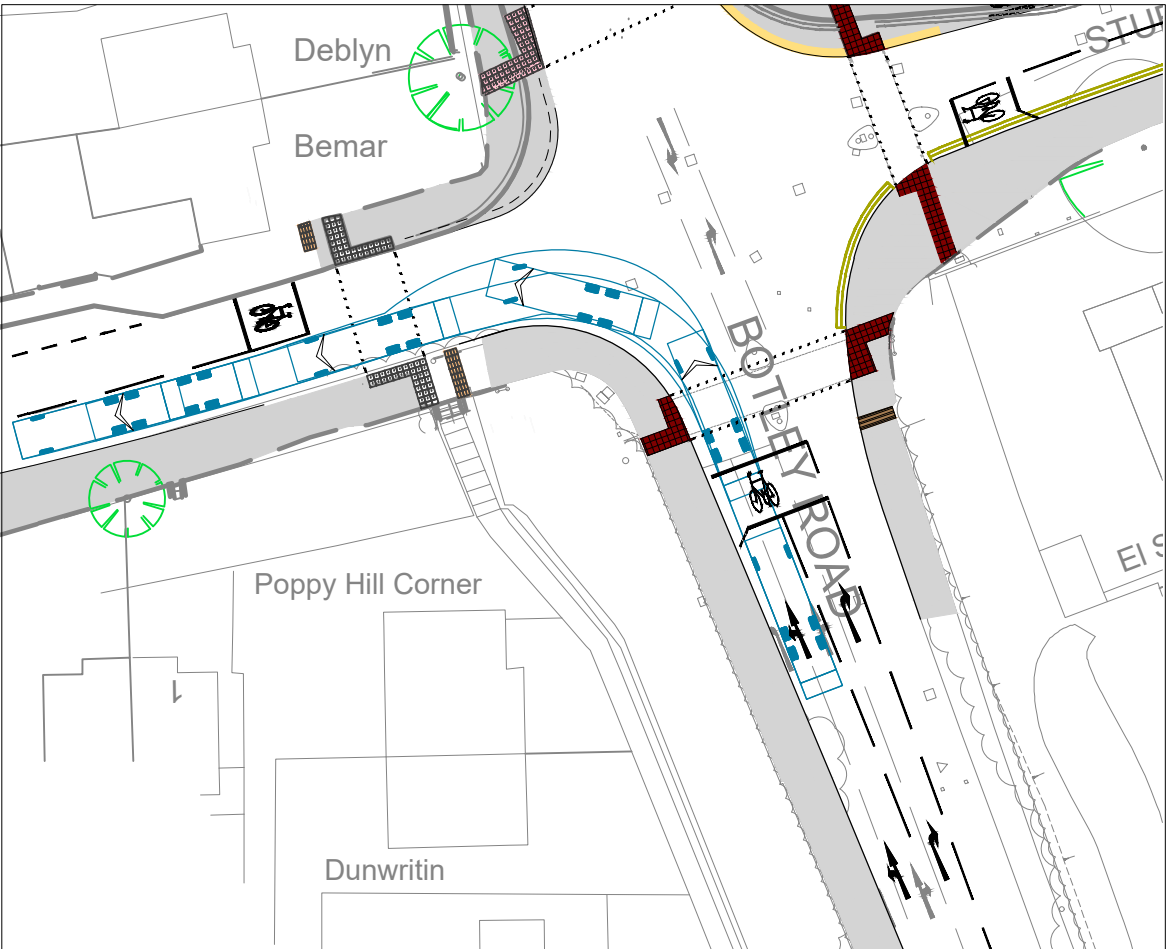
KEY



11.2m refuse vehicle - forward gear



EASTLEIGH ROAD RIGHT-TURN



BOTLEY ROAD LEFT-TURN

A	Highway layout updated.	04/04/25	TH	AD
Rev.	Description	Date	By	Chkd



- Civil Engineering

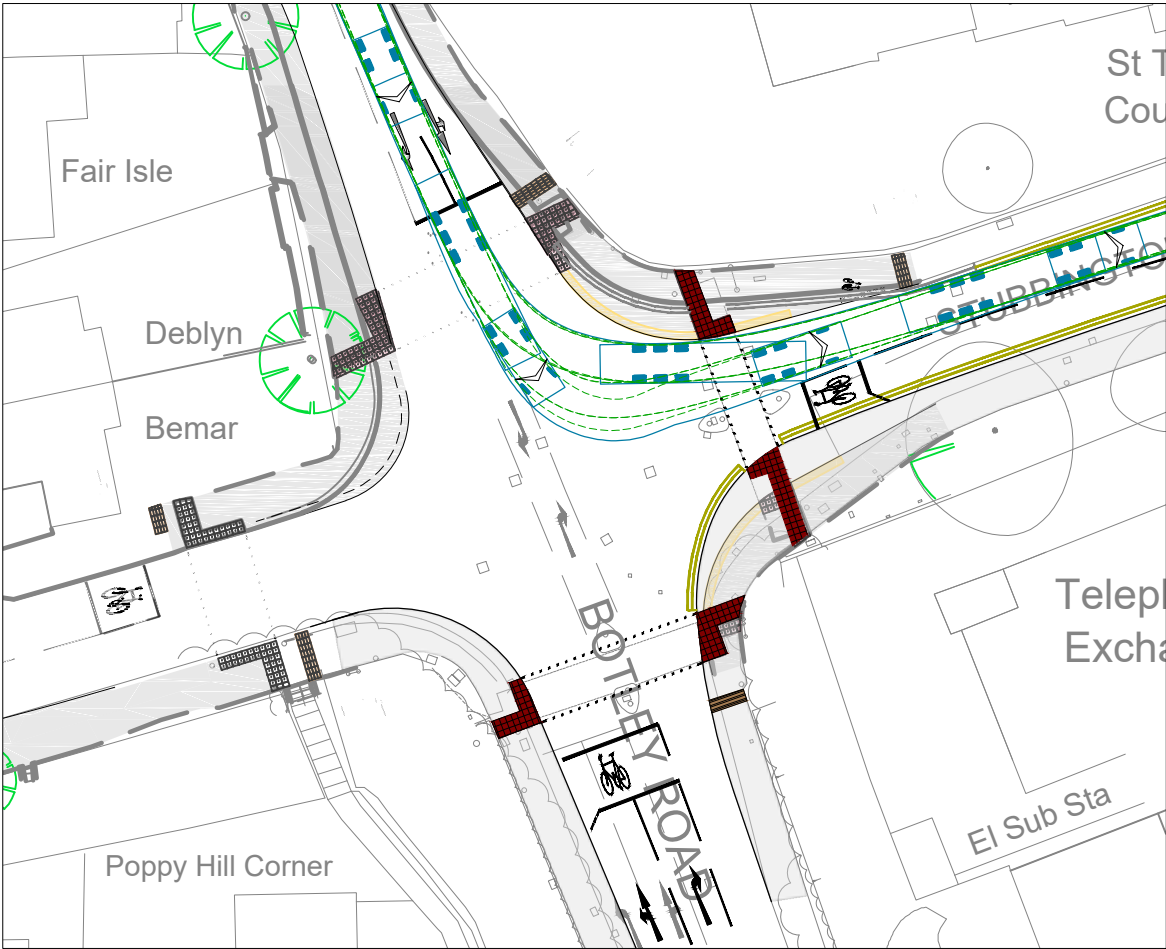
Structural Engineering

Transport Planning
- Highways Engineering

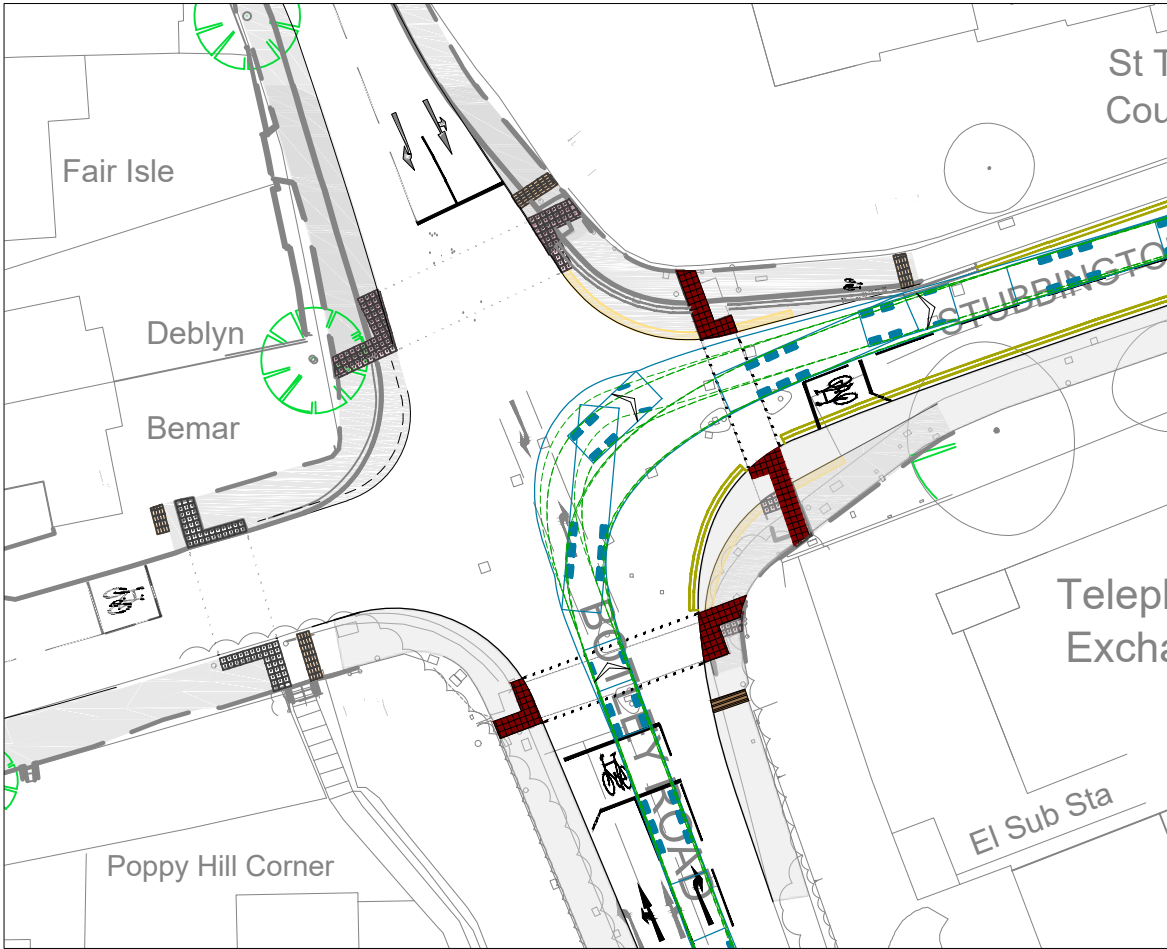
Building Surveying

Geomatics
- Hertfordshire | Oxfordshire | Cambridgeshire | Bristol

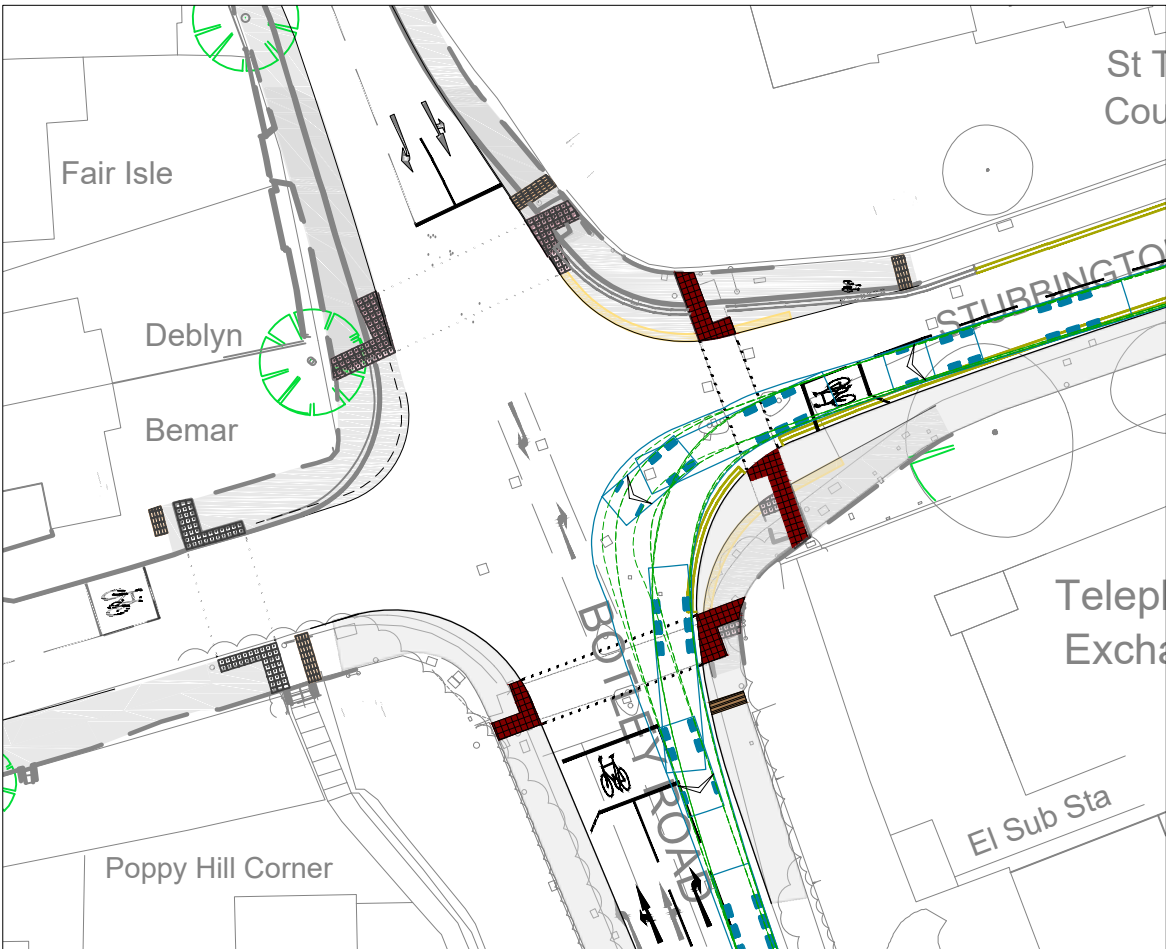
Client :	Bloor Homes Southern
Project :	Land South of Mortimers Lane, Fair Oak, Eastleigh
Title :	Swept Path Analysis 11.2m Refuse Vehicle
Engineer : A. Harper	Date : October 2024
Director : A. Jones	Scale : 1:500 @ A3
Status :	PRELIMINARY
Drawing No.	8230679/6204
Rev	A



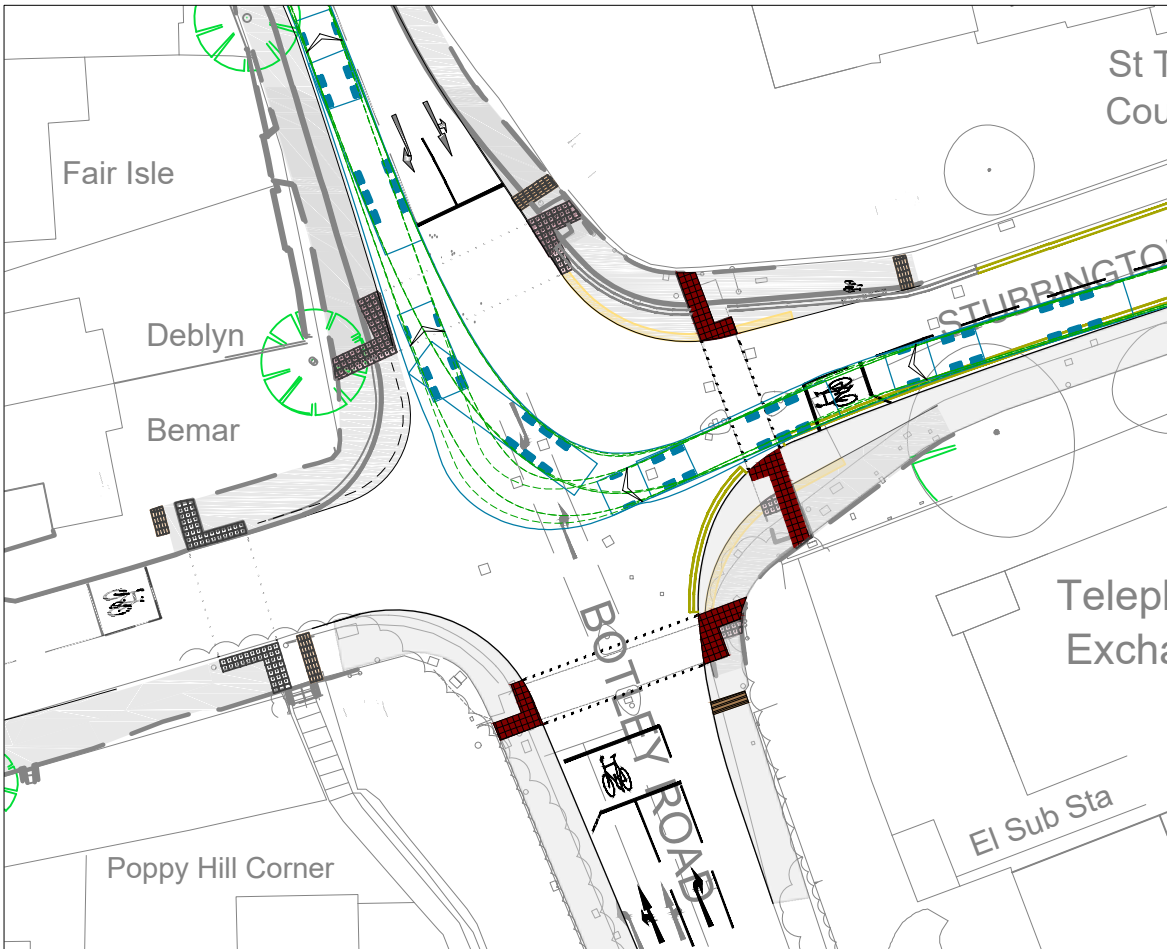
LEFT-TURN - ENTRY



RIGHT-TURN - ENTRY



LEFT-TURN - EXIT



RIGHT-TURN - EXIT

- NOTES**
1. This drawing is to be read in conjunction with all relevant documents and specifications.
 2. Dimensions are not to be scaled.
- Source: Site Line's drawing number
01MK005 1 to 5
HCC drawing numbers -
510453-MIL-HKF-FO-DR-CH-0101 - 0105

KEY

16.5m articulated vehicle - forward gear

Wheel tracks



Rev.	Description	Date	By	Chkd
------	-------------	------	----	------



- Civil Engineering
 - Structural Engineering
 - Transport Planning
 - Highways Engineering
 - Building Surveying
 - Geomatics
- Hertfordshire | Oxfordshire | Cambridgeshire | Bristol

Client :	Bloor Homes Southern
Project :	Land South of Mortimers Lane, Fair Oak, Eastleigh
Title :	Swept Path Analysis 16.5m Articulated Vehicle
Engineer : A. Harper	Date : April 2025
Director : A. Jones	Scale : 1:500 @ A3
Status :	PRELIMINARY
Drawing No.	8230679/6207
Rev	

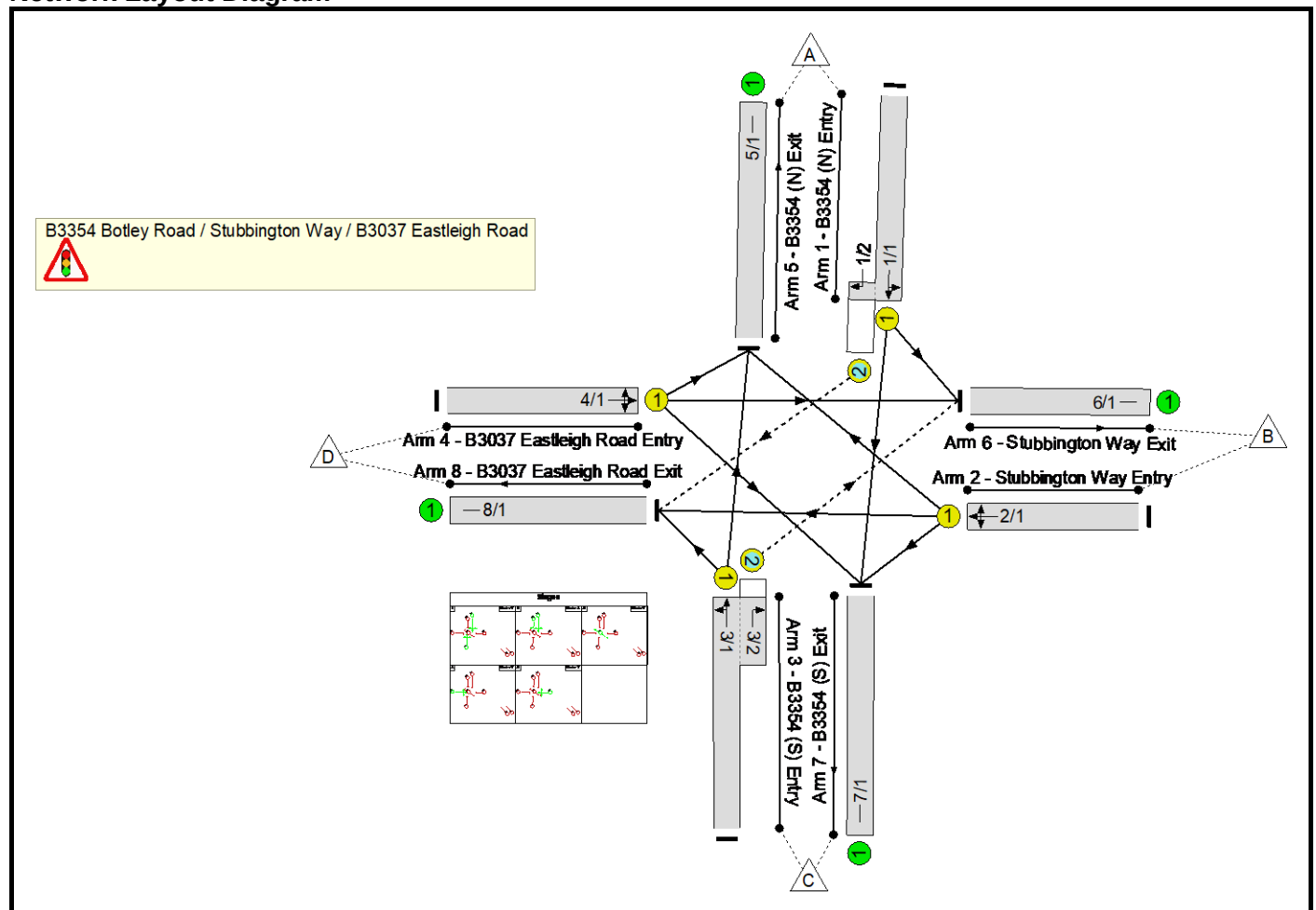
Full Input Data And Results

Full Input Data And Results

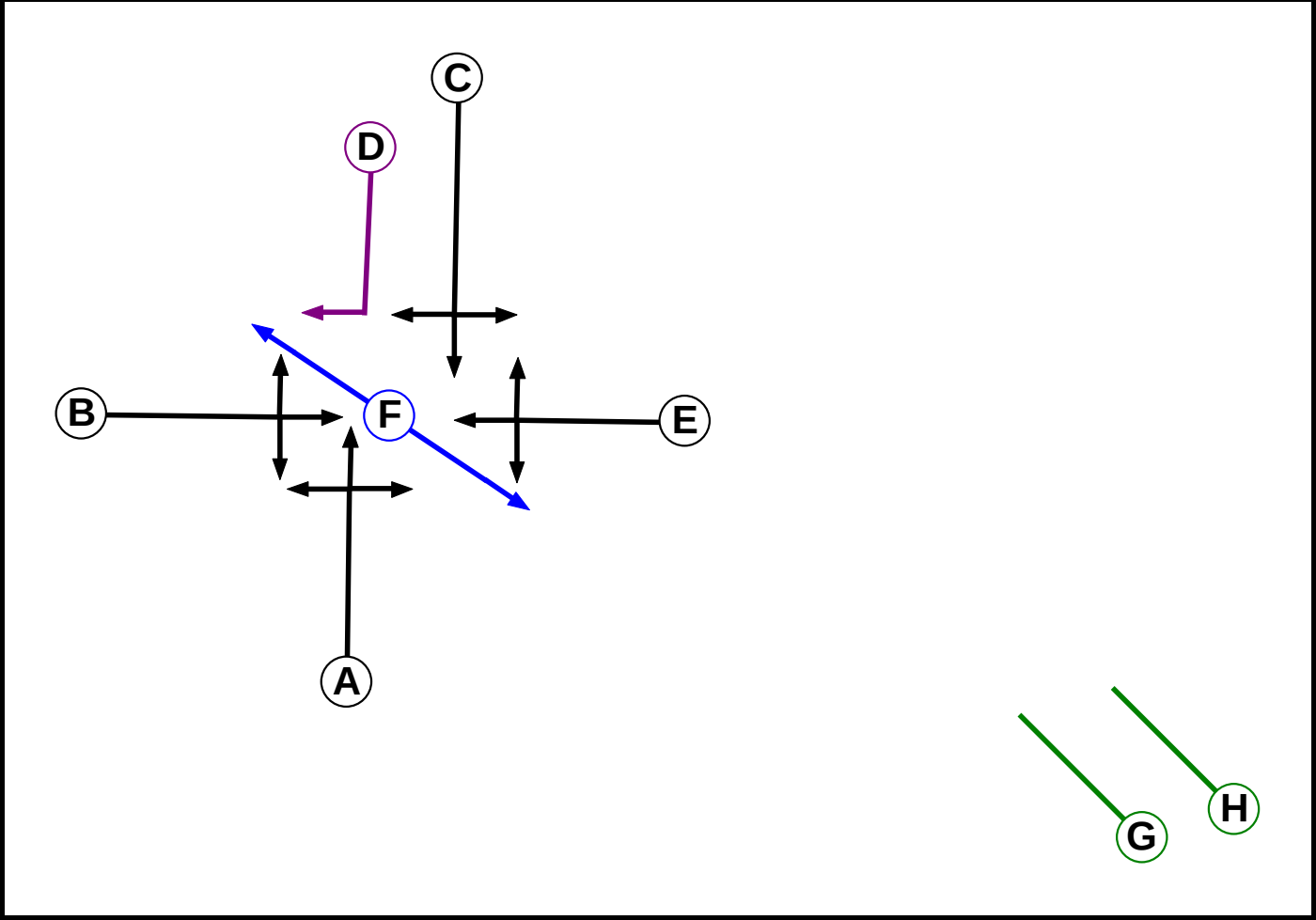
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	B3354 Stubbington Way Junction - Glanville mitigation west side Rev B.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Ind. Arrow	C	4	4
E	Traffic		7	7
F	Pedestrian		7	7
G	Dummy R/A		7	7
H	Dummy R/A		7	7

Full Input Data And Results

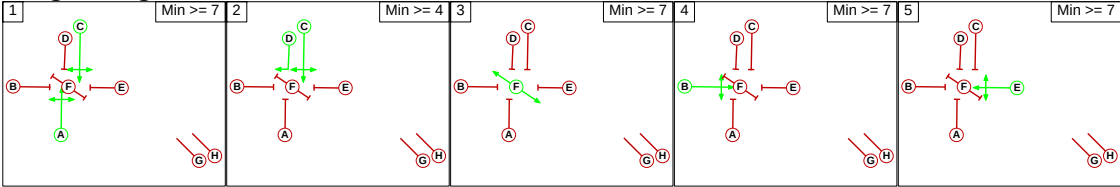
Phase Intergreens Matrix

Terminating Phase	Starting Phase								
		A	B	C	D	E	F	G	H
	A		7	-	6	7	9	3	3
	B	7		7	7	7	9	3	3
	C	-	7		-	7	9	3	3
	D	6	7	-		7	9	3	3
	E	7	7	7	7		9	3	3
	F	0	0	0	0	0		3	3
	G	2	2	2	2	2	2		3
	H	2	2	2	2	2	2	2	

Phases in Stage

Stage No.	Phases in Stage
1	A C
2	C D
3	F
4	B
5	E

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage	To Stage					
	1	2	3	4	5	
	1		6	9	7	7
	2	6		9	7	7
	3	2	X		2	2
	4	7	7	9		7
	5	7	7	9	7	

Full Input Data And Results

Give-Way Lane Input Data

Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/2 (B3354 (N) Entry)	8/1 (Right)	1439	0	3/2	1.09	None	3.00	-	0.50	3	3.00
				3/1	1.09	All					
3/2 (B3354 (S) Entry)	6/1 (Right)	1439	0	1/1	1.09	All	1.00	-	0.50	1	1.00

Lane Input Data

Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road												
Lane	Lane Type	Phases	Start Disp. (s)	End Disp. (s)	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient (%)	Nearside Lane	Turns	Turning Radius (m)
1/1 (B3354 (N) Entry)	U	C	2	3	60.0	Geom	-	3.36	0.00	Y	Arm 6 Left	17.00
											Arm 7 Ahead	Inf
1/2 (B3354 (N) Entry)	O	C D	2	3	0.9	Geom	-	3.00	0.00	Y	Arm 8 Right	Inf
2/1 (Stubbington Way Entry)	U	E	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 5 Right	14.00
											Arm 7 Left	8.00
											Arm 8 Ahead	Inf
3/1 (B3354 (S) Entry)	U	A	2	3	60.0	Geom	-	3.28	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	10.00
3/2 (B3354 (S) Entry)	O	A	2	3	3.9	Geom	-	3.25	0.00	N	Arm 6 Right	10.00
4/1 (B3037 Eastleigh Road Entry)	U	B	2	3	60.0	Geom	-	3.68	0.00	Y	Arm 5 Left	9.00
											Arm 6 Ahead	Inf
											Arm 7 Right	43.00
5/1 (B3354 (N) Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Stubbington Way Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (B3354 (S) Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (B3037 Eastleigh Road Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Future + Committed + Development AM'	08:00	09:00	01:00	
2: 'Future + Committed + Development PM'	17:00	18:00	01:00	
3: 'Future + Committed + Development AM Mode Shift'	08:00	09:00	01:00	
4: 'Future + Committed + Development PM Mode Shift'	17:00	18:00	01:00	

Full Input Data And Results

Scenario 1: 'Future + Committed + Development AM' (FG1: 'Future + Committed + Development AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	34	434	131	599
	B	43	0	30	37	110
	C	537	9	0	357	903
	D	90	18	291	0	399
	Tot.	670	61	755	525	2011

Traffic Lane Flows

Lane	Scenario 1: Future + Committed + Development AM
Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	
1/1 (with short)	599(In) 468(Out)
1/2 (short)	131
2/1	110
3/1 (with short)	903(In) 894(Out)
3/2 (short)	9
4/1	399
5/1	670
6/1	61
7/1	755
8/1	525

Lane Saturation Flows

Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B3354 (N) Entry)	3.36	0.00	Y	Arm 6 Left	17.00	7.3 %	1939	1939
				Arm 7 Ahead	Inf	92.7 %		
1/2 (B3354 (N) Entry) 2/1 (Stubbington Way Entry)	3.00	0.00	Y	Arm 8 Right	Inf	100.0 %	1915	1915
	3.25	0.00	Y	Arm 5 Right	14.00	39.1 %	1775	1775
				Arm 7 Left	8.00	27.3 %		
				Arm 8 Ahead	Inf	33.6 %		
3/1 (B3354 (S) Entry) 3/2 (B3354 (S) Entry)	3.28	0.00	Y	Arm 5 Ahead	Inf	60.1 %	1833	1833
	3.25	0.00	N	Arm 8 Left	10.00	39.9 %	1809	1809
				Arm 6 Right	10.00	100.0 %		
4/1 (B3037 Eastleigh Road Entry)	3.68	0.00	Y	Arm 5 Left	9.00	22.6 %	1865	1865
				Arm 6 Ahead	Inf	4.5 %		
				Arm 7 Right	43.00	72.9 %		
5/1 (B3354 (N) Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (Stubbington Way Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (B3354 (S) Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
8/1 (B3037 Eastleigh Road Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 2: 'Future + Committed + Development PM' (FG2: 'Future + Committed + Development PM', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	30	533	154	717
	B	20	0	17	45	82
	C	463	24	0	349	836
	D	99	33	317	0	449
	Tot.	582	87	867	548	2084

Traffic Lane Flows

Lane	Scenario 2: Future + Committed + Development PM
Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	
1/1 (with short)	717(In) 563(Out)
1/2 (short)	154
2/1	82
3/1 (with short)	836(In) 812(Out)
3/2 (short)	24
4/1	449
5/1	582
6/1	87
7/1	867
8/1	548

Lane Saturation Flows

Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B3354 (N) Entry)	3.36	0.00	Y	Arm 6 Left	17.00	5.3 %	1942	1942
				Arm 7 Ahead	Inf	94.7 %		
1/2 (B3354 (N) Entry)	3.00	0.00	Y	Arm 8 Right	Inf	100.0 %	1915	1915
2/1 (Stubbington Way Entry)	3.25	0.00	Y	Arm 5 Right	14.00	24.4 %	1822	1822
				Arm 7 Left	8.00	20.7 %		
				Arm 8 Ahead	Inf	54.9 %		
3/1 (B3354 (S) Entry)	3.28	0.00	Y	Arm 5 Ahead	Inf	57.0 %	1825	1825
3/2 (B3354 (S) Entry)	3.25	0.00	N	Arm 8 Left	10.00	43.0 %		
				Arm 6 Right	10.00	100.0 %	1809	1809
4/1 (B3037 Eastleigh Road Entry)	3.68	0.00	Y	Arm 5 Left	9.00	22.0 %	1868	1868
Arm 6 Ahead				Inf	7.3 %			
Arm 7 Right				43.00	70.6 %			
5/1 (B3354 (N) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/1 (Stubbington Way Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (B3354 (S) Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/1 (B3037 Eastleigh Road Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 3: 'Future + Committed + Development AM (Mode Shift)' (FG3: 'Future + Committed + Development AM Mode Shift', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Problem 10-1						
Origin	Destination					
		A	B	C	D	Tot.
	A	0	34	431	127	592
	B	43	0	30	37	110
	C	536	9	0	357	902
	D	88	18	291	0	397
	Tot.	667	61	752	521	2001

Traffic Lane Flows

Lane	Scenario 3: Future + Committed + Development AM (Mode Shift)
Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	
1/1 (with short)	592(In) 465(Out)
1/2 (short)	127
2/1	110
3/1 (with short)	902(In) 893(Out)
3/2 (short)	9
4/1	397
5/1	667
6/1	61
7/1	752
8/1	521

Lane Saturation Flows

Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B3354 (N) Entry)	3.36	0.00	Y	Arm 6 Left	17.00	7.3 %	1938	1938
				Arm 7 Ahead	Inf	92.7 %		
1/2 (B3354 (N) Entry)	3.00	0.00	Y	Arm 8 Right	Inf	100.0 %	1915	1915
2/1 (Stubbington Way Entry)	3.25	0.00	Y	Arm 5 Right	14.00	39.1 %	1775	1775
				Arm 7 Left	8.00	27.3 %		
3/1 (B3354 (S) Entry)	3.28	0.00	Y	Arm 8 Ahead	Inf	60.0 %	1833	1833
				Arm 8 Left	10.00	40.0 %		
3/2 (B3354 (S) Entry)	3.25	0.00	N	Arm 6 Right	10.00	100.0 %	1809	1809
4/1 (B3037 Eastleigh Road Entry)	3.68	0.00	Y	Arm 5 Left	9.00	22.2 %	1866	1866
				Arm 6 Ahead	Inf	4.5 %		
				Arm 7 Right	43.00	73.3 %		
5/1 (B3354 (N) Exit Lane 1)			Infinite Saturation Flow				Inf	Inf
6/1 (Stubbington Way Exit Lane 1)			Infinite Saturation Flow				Inf	Inf
7/1 (B3354 (S) Exit Lane 1)			Infinite Saturation Flow				Inf	Inf
8/1 (B3037 Eastleigh Road Exit Lane 1)			Infinite Saturation Flow				Inf	Inf

Scenario 4: 'Future + Committed + Development PM (Mode Shift)' (FG4: 'Future + Committed + Development PM Mode Shift', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

		Destination				
Origin		A	B	C	D	Tot.
	A	0	30	533	152	715
	B	20	0	17	45	82
	C	463	24	0	349	836
	D	95	33	317	0	445
	Tot.	578	87	867	546	2078

Traffic Lane Flows

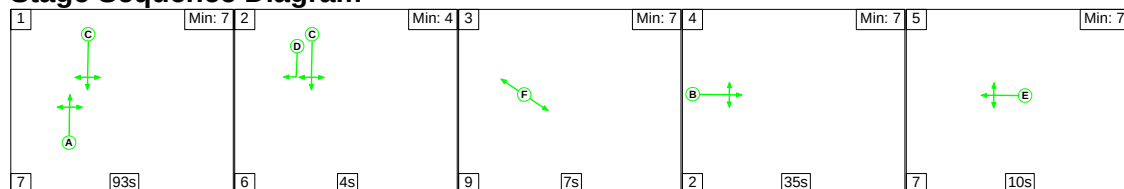
Lane	Scenario 4: Future + Committed + Development PM (Mode Shift)
Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	
1/1 (with short)	715(In) 563(Out)
1/2 (short)	152
2/1	82
3/1 (with short)	836(In) 812(Out)
3/2 (short)	24
4/1	445
5/1	578
6/1	87
7/1	867
8/1	546

Lane Saturation Flows

Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B3354 (N) Entry)	3.36	0.00	Y	Arm 6 Left	17.00	5.3 %	1942	1942
				Arm 7 Ahead	Inf	94.7 %		
1/2 (B3354 (N) Entry)	3.00	0.00	Y	Arm 8 Right	Inf	100.0 %	1915	1915
2/1 (Stubbington Way Entry)	3.25	0.00	Y	Arm 5 Right	14.00	24.4 %	1822	1822
				Arm 7 Left	8.00	20.7 %		
				Arm 8 Ahead	Inf	54.9 %		
3/1 (B3354 (S) Entry)	3.28	0.00	Y	Arm 5 Ahead	Inf	57.0 %	1825	1825
				Arm 8 Left	10.00	43.0 %		
3/2 (B3354 (S) Entry)	3.25	0.00	N	Arm 6 Right	10.00	100.0 %	1809	1809
4/1 (B3037 Eastleigh Road Entry)	3.68	0.00	Y	Arm 5 Left	9.00	21.3 %	1870	1870
				Arm 6 Ahead	Inf	7.4 %		
				Arm 7 Right	43.00	71.2 %		
5/1 (B3354 (N) Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (Stubbington Way Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (B3354 (S) Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
8/1 (B3037 Eastleigh Road Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 1: 'Future + Committed + Development AM' (FG1: 'Future + Committed + Development AM', Plan 1: 'Network Control Plan 1')

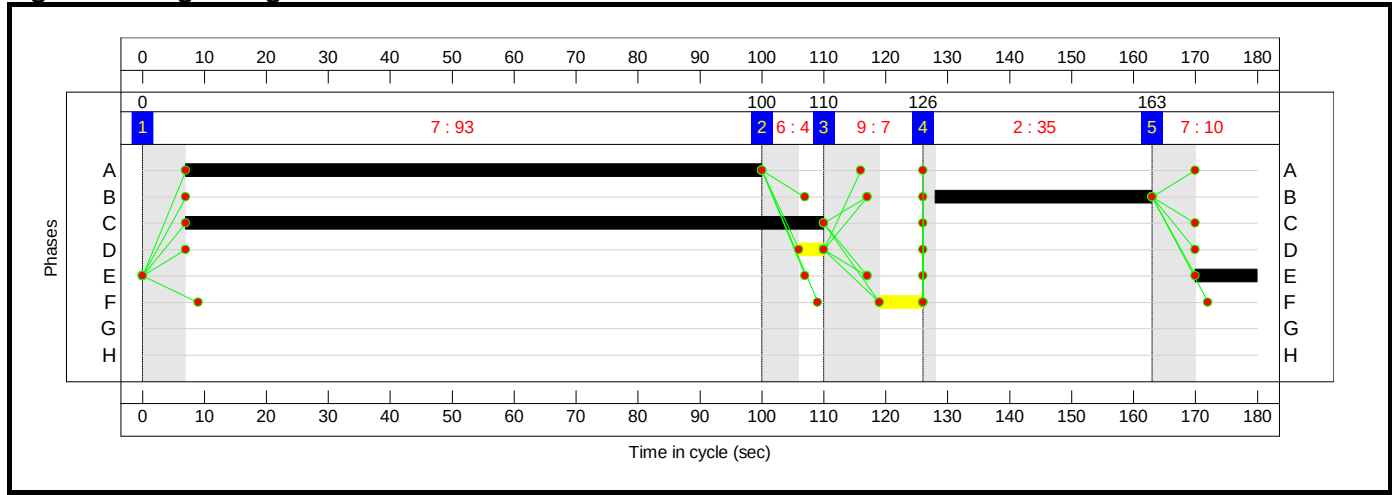
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	93	4	7	35	10
Change Point	0	100	110	126	163

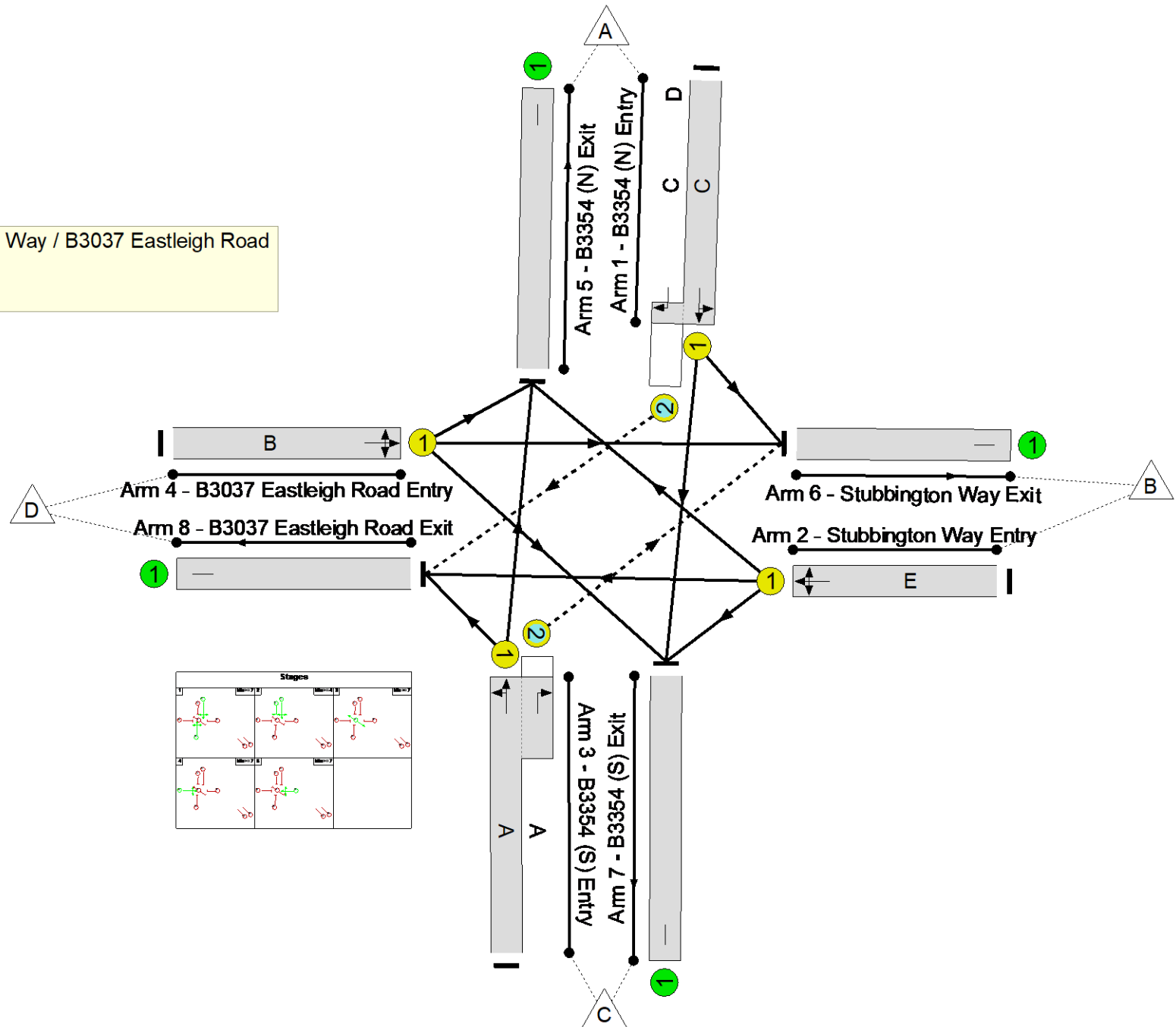
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

PRC: -20.4 %
Total Traffic Delay: 91.3 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	108.3%
B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	-	-	N/A	-	-		-	-	-	-	-	-	108.3%
1/1+1/2	B3354 (N) Entry Left Ahead Right	U+O	N/A	N/A	C	D	1	103	4	599	1939:1915	432+121	108.3 : 108.3%
2/1	Stubbington Way Entry Right Left Ahead	U	N/A	N/A	E		1	10	-	110	1775	108	101.4%
3/1+3/2	B3354 (S) Entry Ahead Right Left	U+O	N/A	N/A	A		1	93	-	903	1833:1809	956+10	93.5 : 93.5%
4/1	B3037 Eastleigh Road Entry Left Ahead Right	U	N/A	N/A	B		1	35	-	399	1865	373	107.0%
5/1	B3354 (N) Exit	U	N/A	N/A	-		-	-	-	670	Inf	Inf	0.0%
6/1	Stubbington Way Exit	U	N/A	N/A	-		-	-	-	61	Inf	Inf	0.0%
7/1	B3354 (S) Exit	U	N/A	N/A	-		-	-	-	755	Inf	Inf	0.0%
8/1	B3037 Eastleigh Road Exit	U	N/A	N/A	-		-	-	-	525	Inf	Inf	0.0%

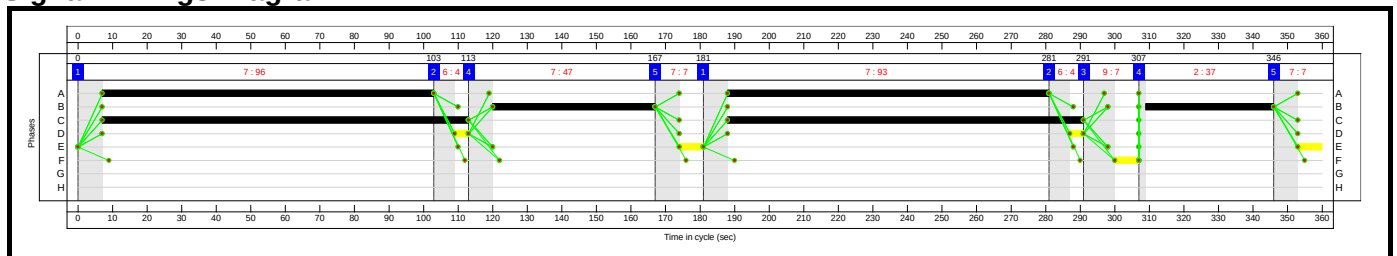
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	40	83	7	31.5	58.4	1.4	91.3	-	-	-	-
B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	-	-	40	83	7	31.5	58.4	1.4	91.3	-	-	-	-
1/1+1/2	599	553	31	83	7	9.2	28.3	1.4	38.9	233.9	32.0	28.3	60.3
2/1	110	108	-	-	-	2.7	5.6	-	8.4	274.1	5.6	5.6	11.2
3/1+3/2	903	903	9	0	0	10.1	6.0	0.0	16.1	64.3	41.8	6.0	47.9
4/1	399	373	-	-	-	9.5	18.4	-	27.9	252.0	21.2	18.4	39.7
5/1	664	664	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	57	57	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	702	702	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	514	514	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -20.4 Total Delay for Signalled Lanes (pcuHr): 91.34 Cycle Time (s): 180 PRC Over All Lanes (%): -20.4 Total Delay Over All Lanes(pcuHr): 91.34													

Stage Sequence Diagram



Signal Timings Diagram

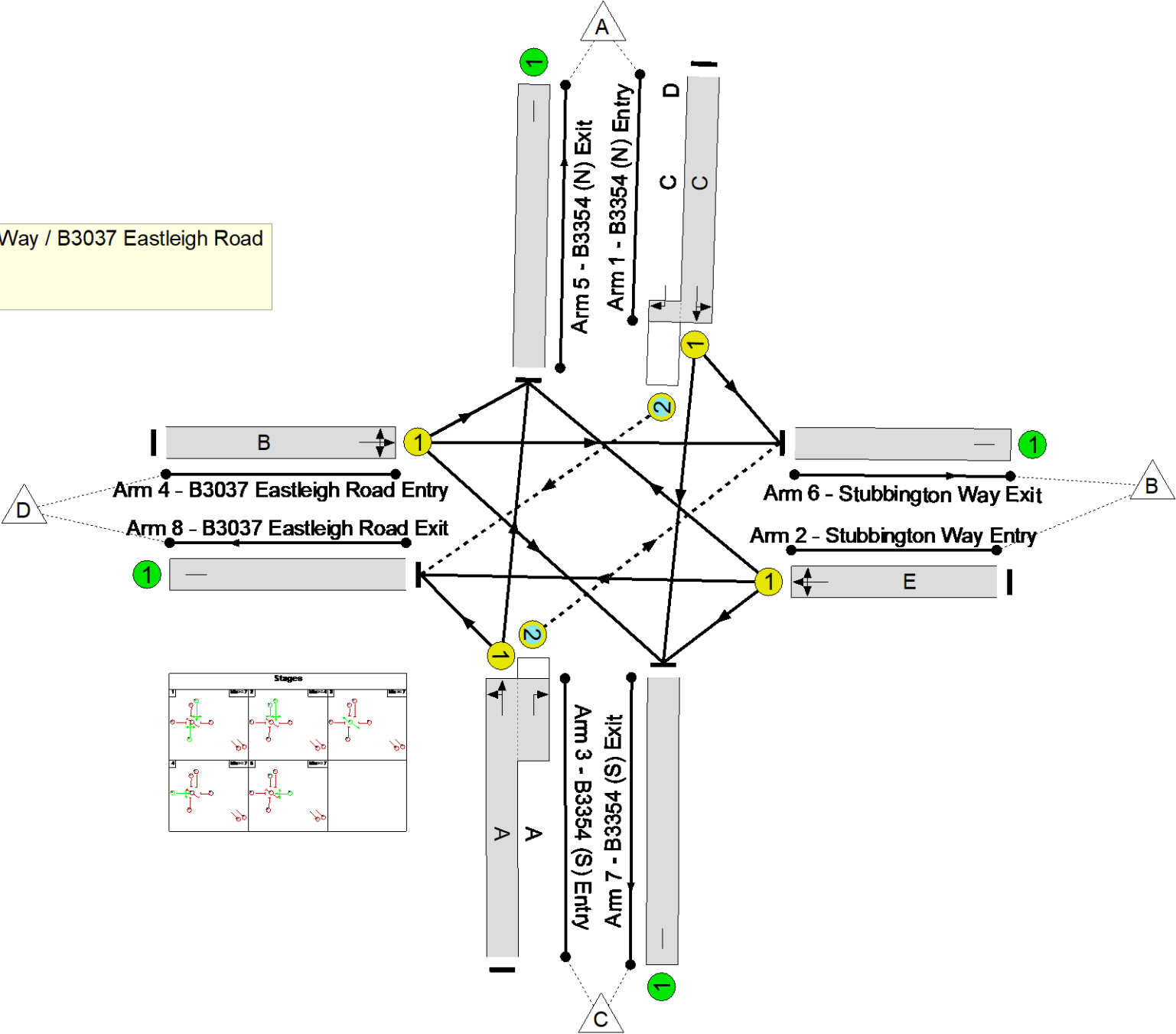




B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road

PRC: -12.5 %

Total Traffic Delay: 62.0 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	101.3%
B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	-	-	N/A	-	-		-	-	-	-	-	-	101.3%
1/1+1/2	B3354 (N) Entry Left Ahead Right	U+O	N/A	N/A	C	D	2	209	8	717	1942:1915	563+154	99.9 : 99.9%
2/1	Stubbington Way Entry Right Left Ahead	U	N/A	N/A	E		2	14	-	82	1822	81	101.3%
3/1+3/2	B3354 (S) Entry Ahead Right Left	U+O	N/A	N/A	A		2	189	-	836	1825:1809	950+28	85.4 : 85.4%
4/1	B3037 Eastleigh Road Entry Left Ahead Right	U	N/A	N/A	B		2	84	-	449	1868	446	100.6%
5/1	B3354 (N) Exit	U	N/A	N/A	-		-	-	-	582	Inf	Inf	0.0%
6/1	Stubbington Way Exit	U	N/A	N/A	-		-	-	-	87	Inf	Inf	0.0%
7/1	B3354 (S) Exit	U	N/A	N/A	-		-	-	-	867	Inf	Inf	0.0%
8/1	B3037 Eastleigh Road Exit	U	N/A	N/A	-		-	-	-	548	Inf	Inf	0.0%

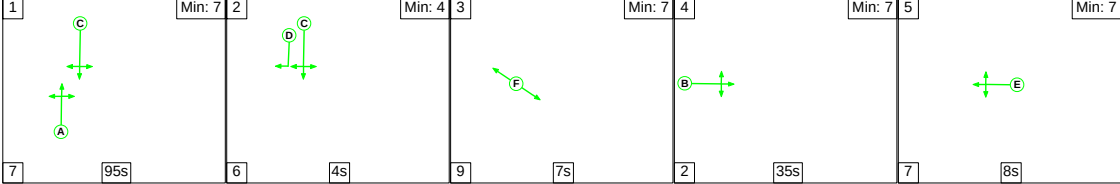
Full Input Data And Results

[illegible]

Full Input Data And Results

Scenario 3: 'Future + Committed + Development AM (Mode Shift)' (FG3: 'Future + Committed + Development AM Mode Shift', Plan 1: 'Network Control Plan 1')

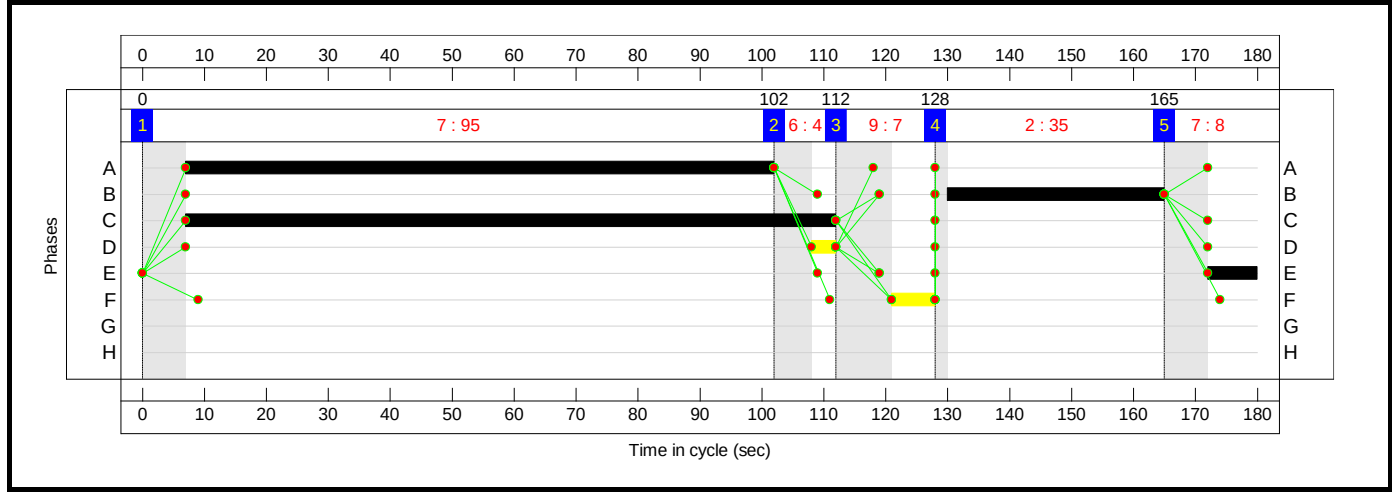
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	95	4	7	35	8
Change Point	0	102	112	128	165

Signal Timings Diagram

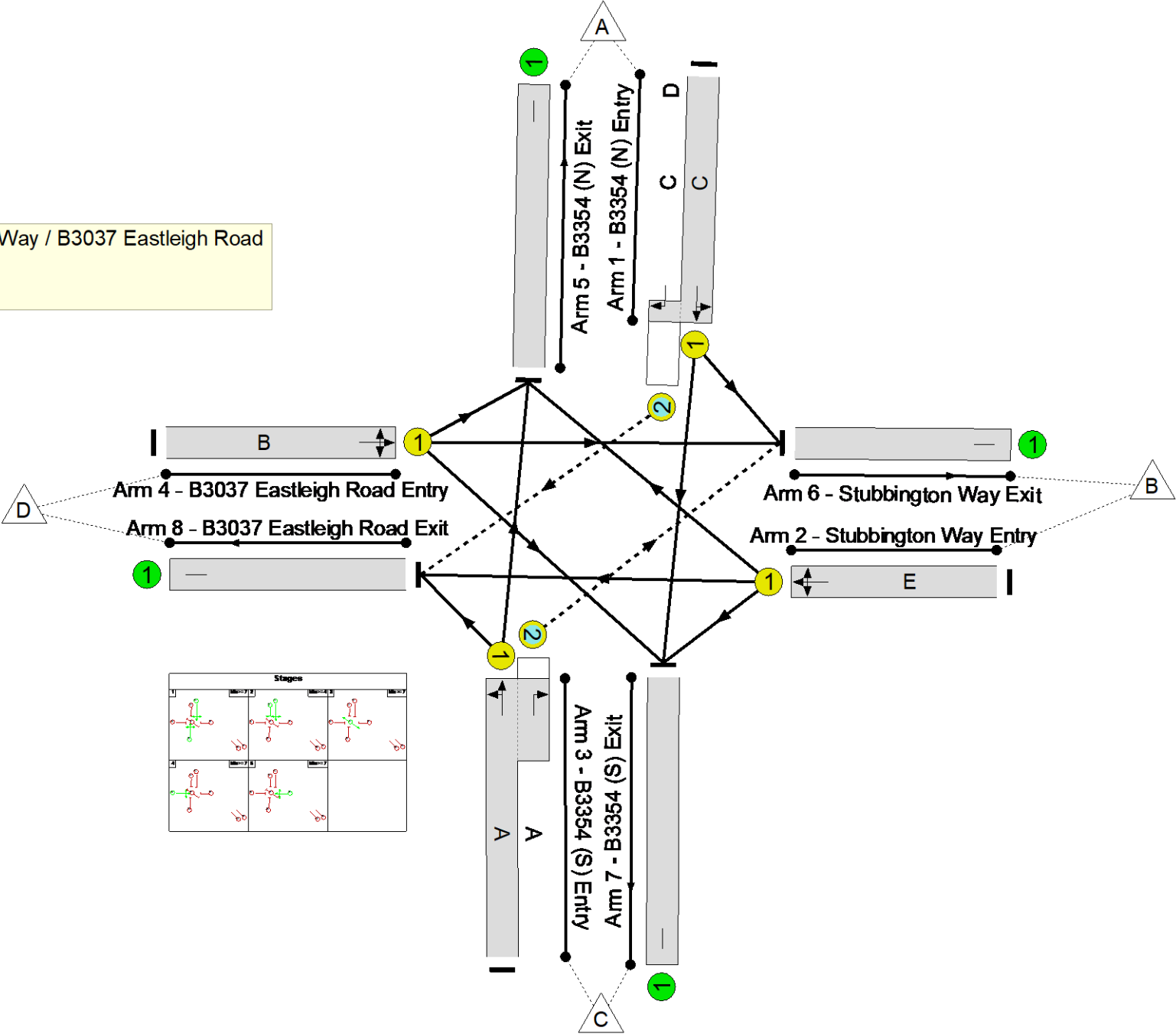




B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road

PRC: -37.7 %

Total Traffic Delay: 75.2 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	123.9%
B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	-	-	N/A	-	-		-	-	-	-	-	-	123.9%
1/1+1/2	B3354 (N) Entry Left Ahead Right	U+O	N/A	N/A	C	D	1	105	4	592	1938:1915	474+129	98.1 : 98.1%
2/1	Stubbington Way Entry Right Left Ahead	U	N/A	N/A	E		1	8	-	110	1775	89	123.9%
3/1+3/2	B3354 (S) Entry Ahead Right Left	U+O	N/A	N/A	A		1	95	-	902	1833:1809	976+10	91.5 : 91.5%
4/1	B3037 Eastleigh Road Entry Left Ahead Right	U	N/A	N/A	B		1	35	-	397	1866	373	106.4%
5/1	B3354 (N) Exit	U	N/A	N/A	-		-	-	-	667	Inf	Inf	0.0%
6/1	Stubbington Way Exit	U	N/A	N/A	-		-	-	-	61	Inf	Inf	0.0%
7/1	B3354 (S) Exit	U	N/A	N/A	-		-	-	-	752	Inf	Inf	0.0%
8/1	B3037 Eastleigh Road Exit	U	N/A	N/A	-		-	-	-	521	Inf	Inf	0.0%

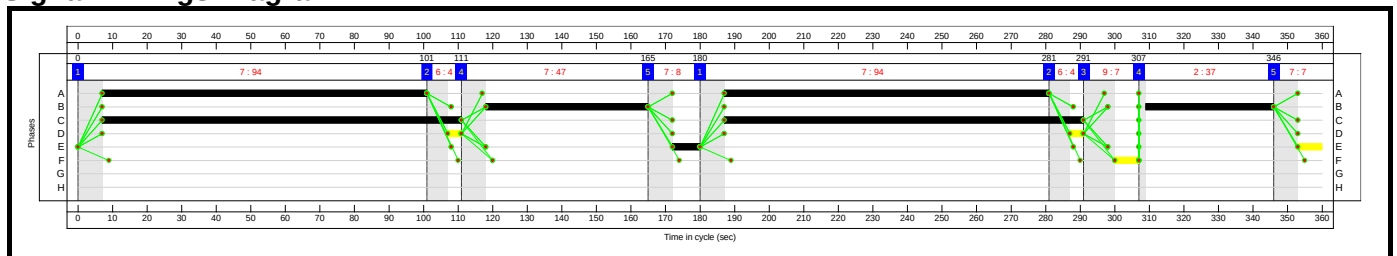
Full Input Data And Results

[illegible]

Stage Sequence Diagram



Signal Timings Diagram

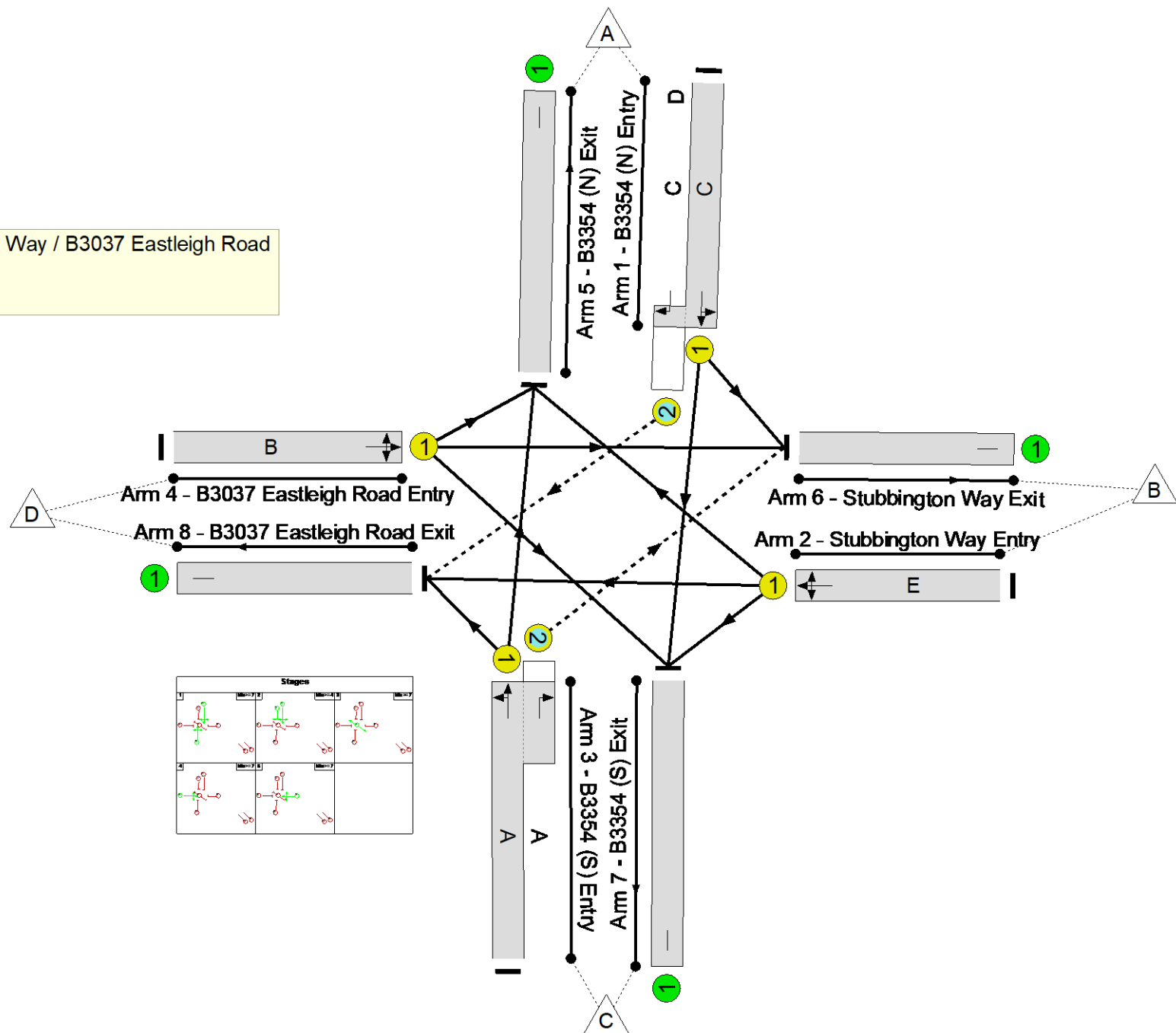


Full Input Data And Results

Network Layout Diagram



PRC: -11.6 %
Total Traffic Delay: 60.5 pcuHr



Stages

	Min=7		Min=4		Min=1
	Min=7		Min=4		Min=1

Full Input Data And Results

Network Results

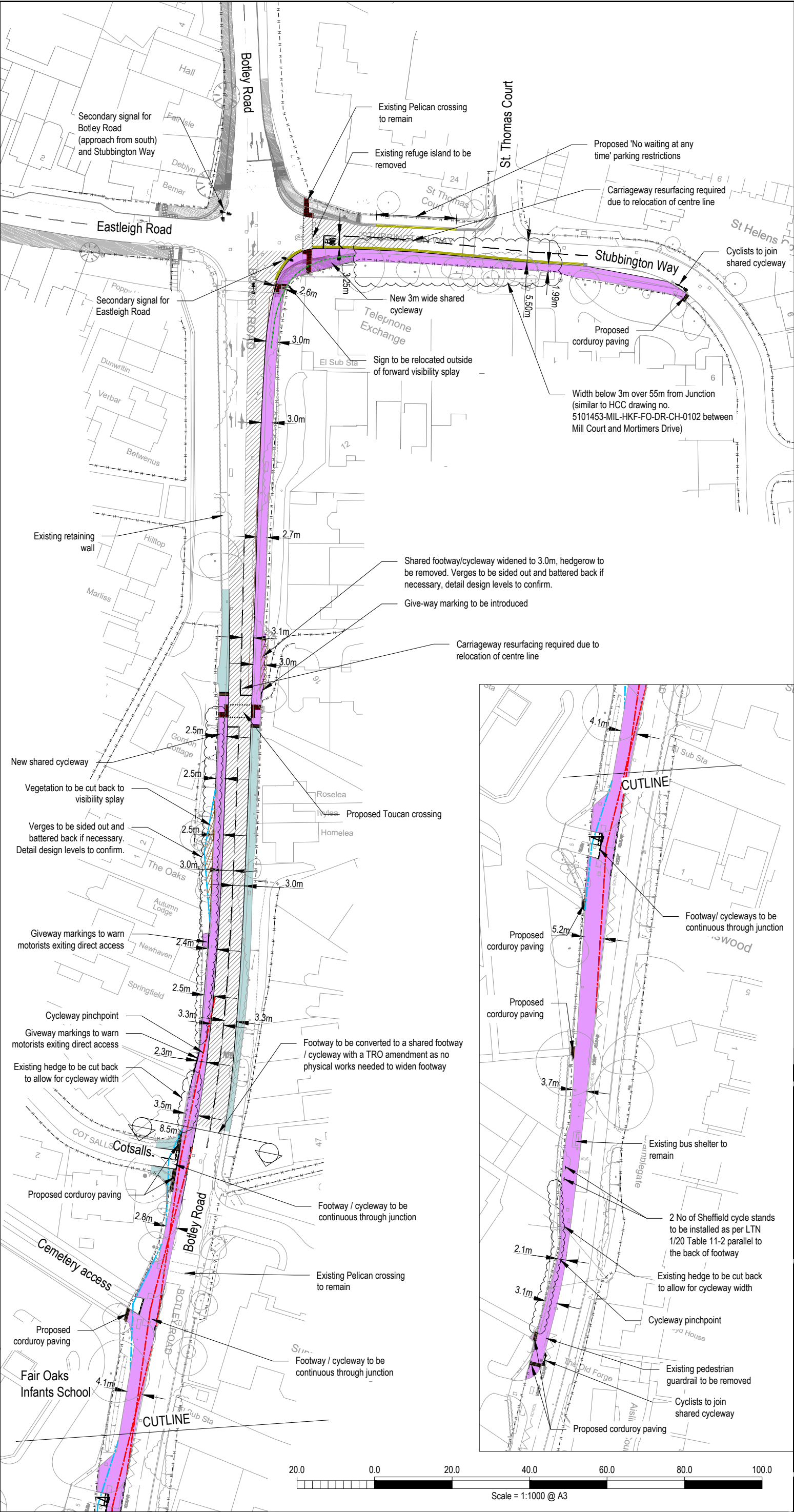
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	100.4%
B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	-	-	N/A	-	-		-	-	-	-	-	-	100.4%
1/1+1/2	B3354 (N) Entry Left Ahead Right	U+O	N/A	N/A	C	D	2	208	8	715	1942:1915	561+151	100.4 : 100.4%
2/1	Stubbington Way Entry Right Left Ahead	U	N/A	N/A	E		2	15	-	82	1822	86	95.3%
3/1+3/2	B3354 (S) Entry Ahead Right Left	U+O	N/A	N/A	A		2	188	-	836	1825:1809	945+28	85.9 : 85.9%
4/1	B3037 Eastleigh Road Entry Left Ahead Right	U	N/A	N/A	B		2	84	-	445	1870	447	99.6%
5/1	B3354 (N) Exit	U	N/A	N/A	-		-	-	-	578	Inf	Inf	0.0%
6/1	Stubbington Way Exit	U	N/A	N/A	-		-	-	-	87	Inf	Inf	0.0%
7/1	B3354 (S) Exit	U	N/A	N/A	-		-	-	-	867	Inf	Inf	0.0%
8/1	B3037 Eastleigh Road Exit	U	N/A	N/A	-		-	-	-	546	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

Appendix F

Botley Lane Shared Use Option 2 and Linsig Outputs



KEY

- Proposed shared use footway
- Proposed carriageway resurfacing
- Proposed footway resurfacing
- Highway boundary interpreted from Hampshire County council records
- 2.4m x 43m junction visibility splay
- 2.4m x 17m cyclist visibility splay as per LTN 1/20 Table 5-5 unless stated otherwise
- 11m (MfS 10mph) forward visibility splay

NOTES

- Do not scale from this drawing.
- The highway boundary is to be verified by the highway authority throughout the scheme extents of the proposed works.

Reproduced from Ordnance Survey digital data with permission of the Controller of His Majesty's Stationery Office, Crown copyright (License number 100022432).



Existing Junction Intervisibility	
Arm	Compliant with CD 123
Botley Rd (S) / Eastleigh Rd	No
Eastleigh Rd / Botley Rd (N)	No
Botley Rd (N) / Stubbington Way	No
Stubbington Way / Botley Rd (S)	No
Hampshire Junction Intervisibility	
Botley Rd (S) / Eastleigh Rd	No
Eastleigh Rd / Botley Rd (N)	No
Botley Rd (N) / Stubbington Way	No
Stubbington Way / Botley Rd (S)	No
Bloor Homes Junction Intervisibility	
Botley Rd (S) / Eastleigh Rd	No
Eastleigh Rd / Botley Rd (N)	No
Botley Rd (N) / Stubbington Way	No
Stubbington Way / Botley Rd (S)	No

A	Updated in response to RSA.	25.04.25	TH	AD
Rev.	Description	Date	By	Chkd



- Civil Engineering
- Structural Engineering
- Transport Planning
- Highways Engineering
- Building Surveying
- Geomatics

Client: Bloor Homes Southern

Project: Land South of Mortimers Lane, Fair Oak, Eastleigh

Title: Proposed Highway and Cycle Improvements
Site 2 Alternative General Arrangement

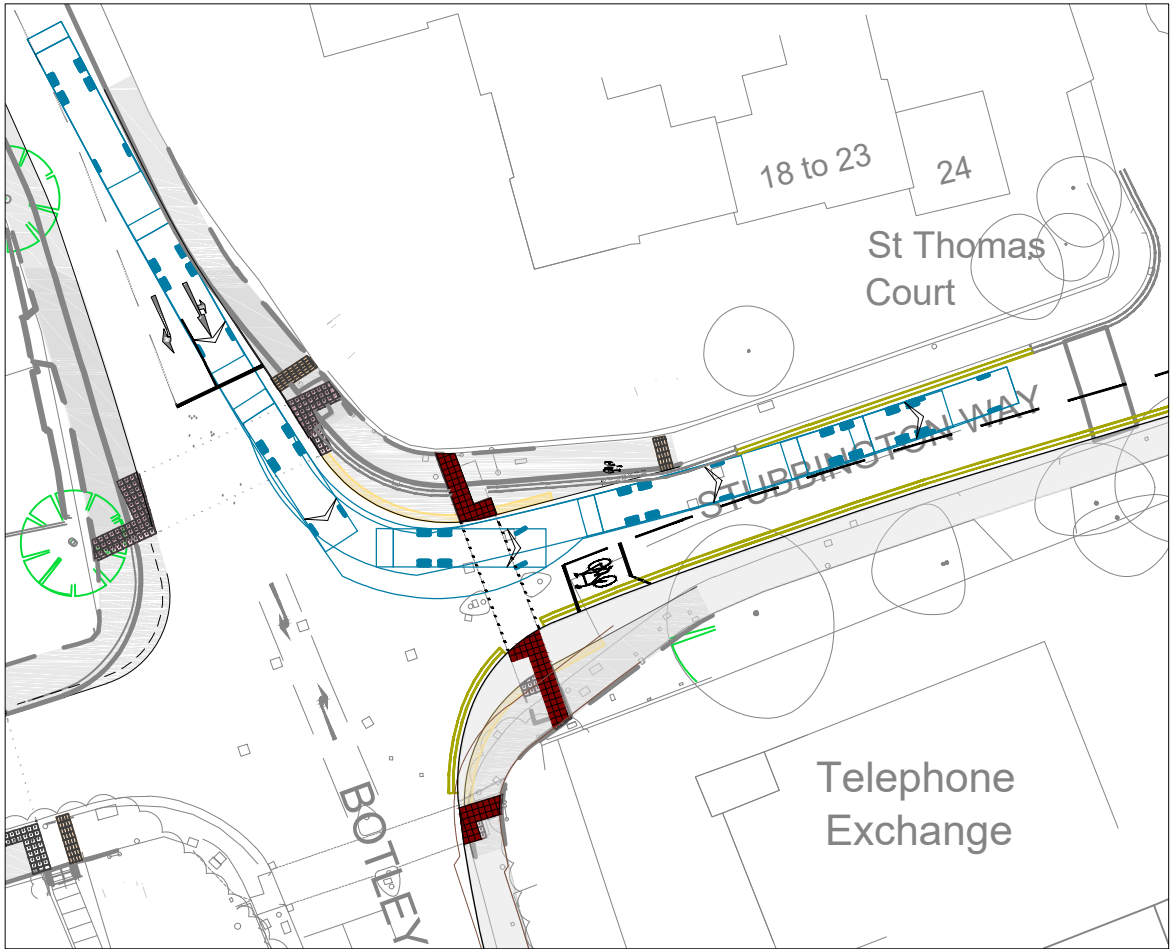
Engineer: A. Harper Date: March 2025

Director: A. Jones Scale: 1:1000 @ A3

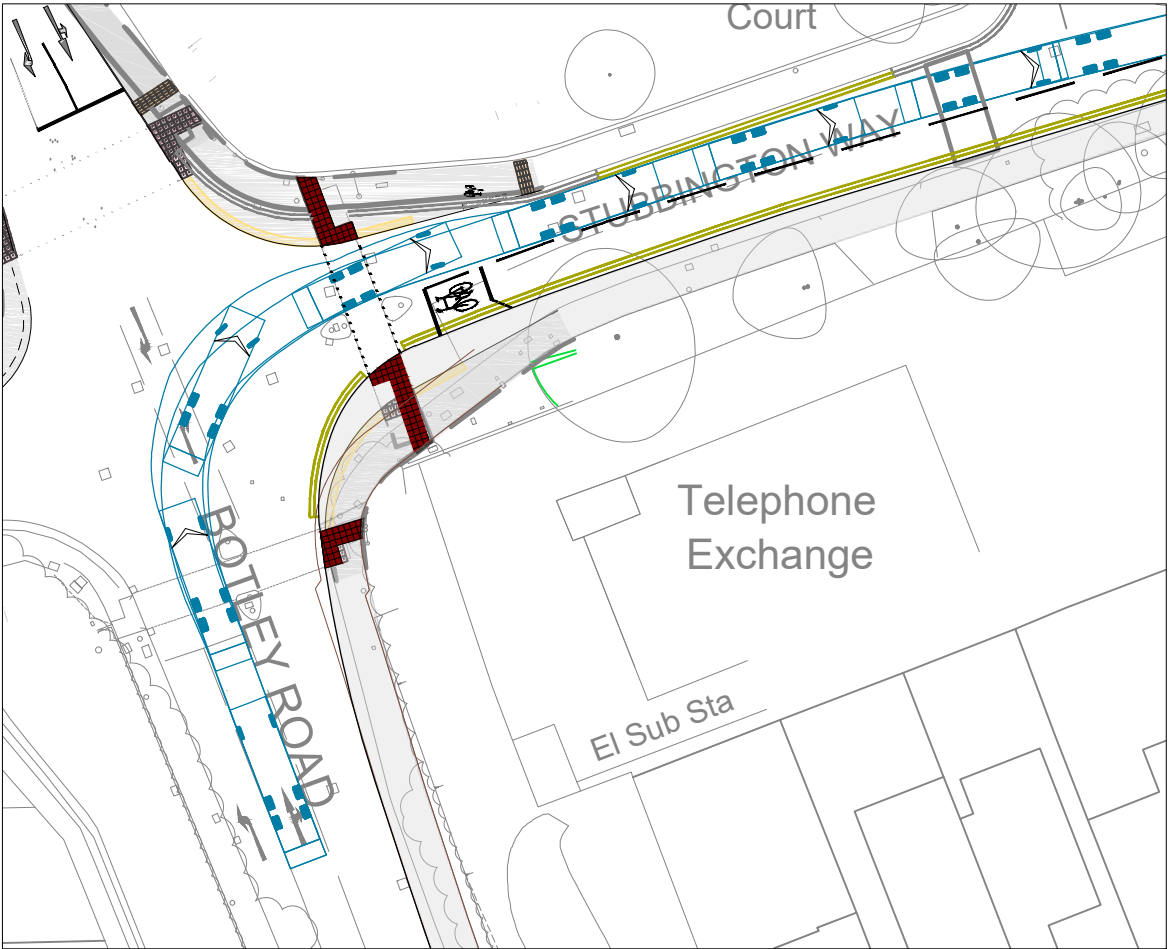
Status: PRELIMINARY

Drawing No. 8230679/6119

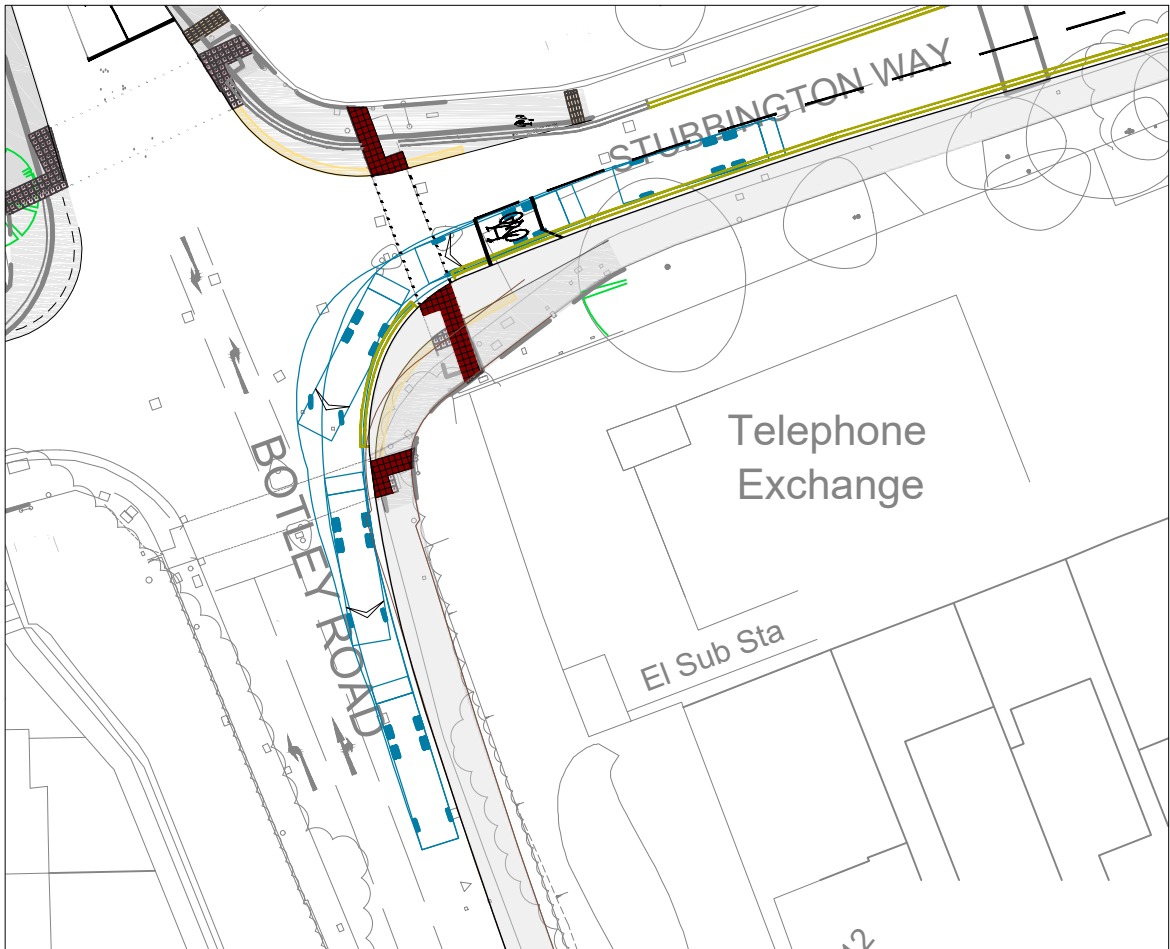
Rev A



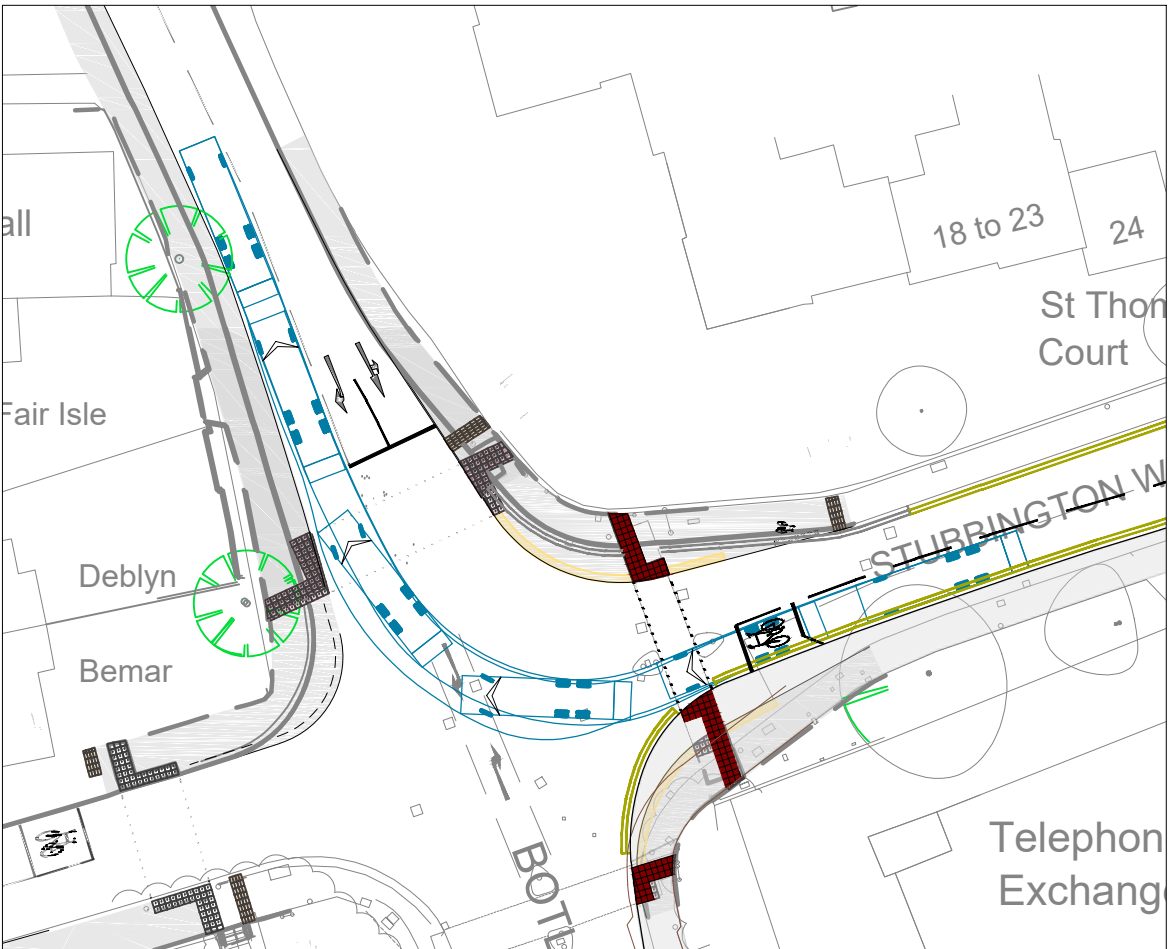
STUBBINGTON WAY LEFT-TURN - ENTRY



STUBBINGTON WAY RIGHT-TURN - ENTRY



STUBBINGTON WAY LEFT-TURN - EXIT



STUBBINGTON WAY RIGHT-TURN - EXIT

- NOTES**
1. This drawing is to be read in conjunction with all relevant documents and specifications.
 2. Dimensions are not to be scaled.
- Source: Site Line's drawing number
01MK005 1 to 5
HCC drawing numbers -
510453-MIL-HKF-FO-DR-CH-0101 - 0105

KEY



11.2m refuse vehicle - forward gear



Rev.	Description	Date	By	Chkd
------	-------------	------	----	------



- Civil Engineering
 - Structural Engineering
 - Transport Planning
 - Highways Engineering
 - Building Surveying
 - Geomatics
- Hertfordshire | Oxfordshire | Cambridgeshire | Bristol

Client :	Bloor Homes Southern		
Project :	Land South of Mortimers Lane, Fair Oak, Eastleigh		
Title :	Swept Path Analysis 11.2m Refuse Vehicle		
Engineer : A. Harper	Date : March 2025		
Director : A. Jones	Scale : 1:500 @ A3		
Status :	PRELIMINARY		
Drawing No.	8230679/6205		Rev

NOTES

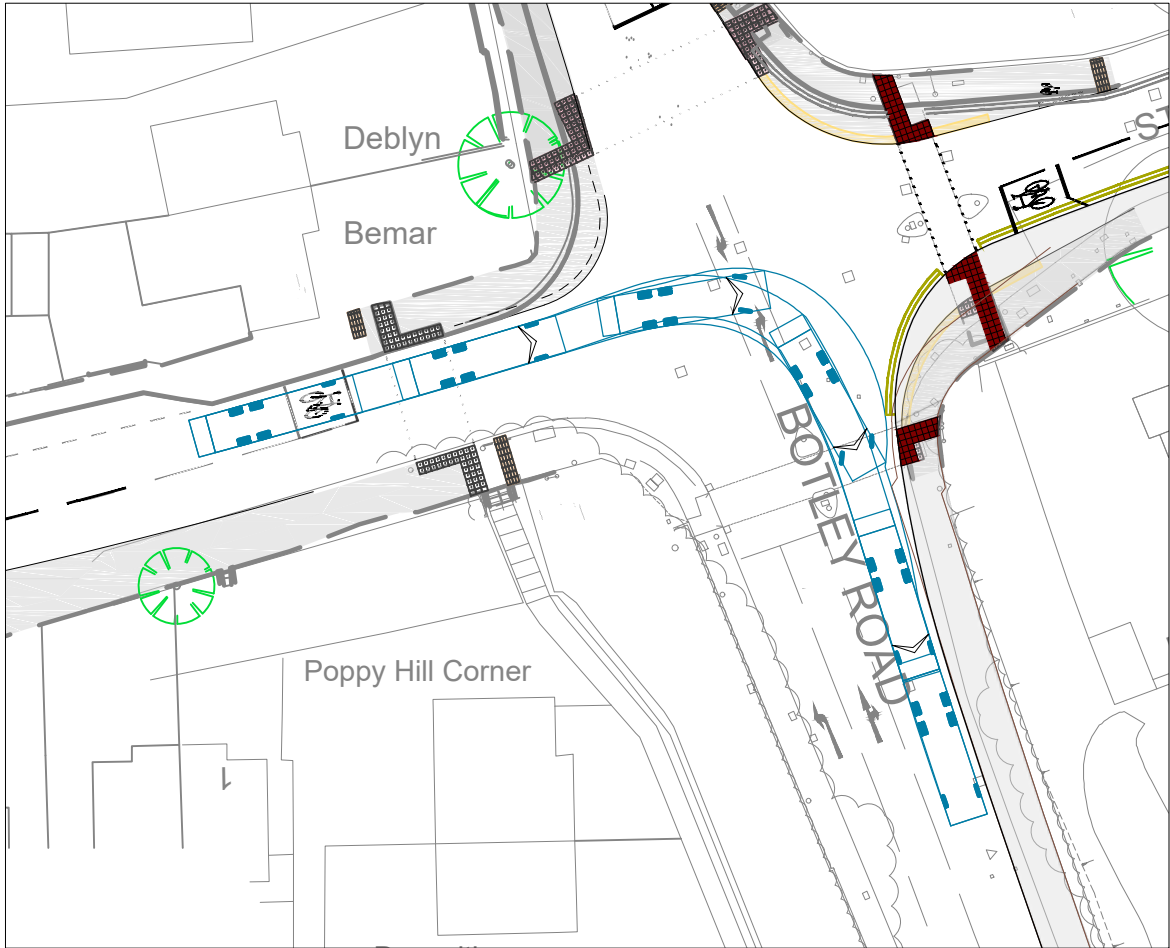
- 1. This drawing is to be read in conjunction with all relevant documents and specifications.
- 2. Dimensions are not to be scaled.

Source: Site Line's drawing number
01MK005 1 to 5
HCC drawing numbers -
510453-MIL-HKF-FO-DR-CH-0101 - 0105

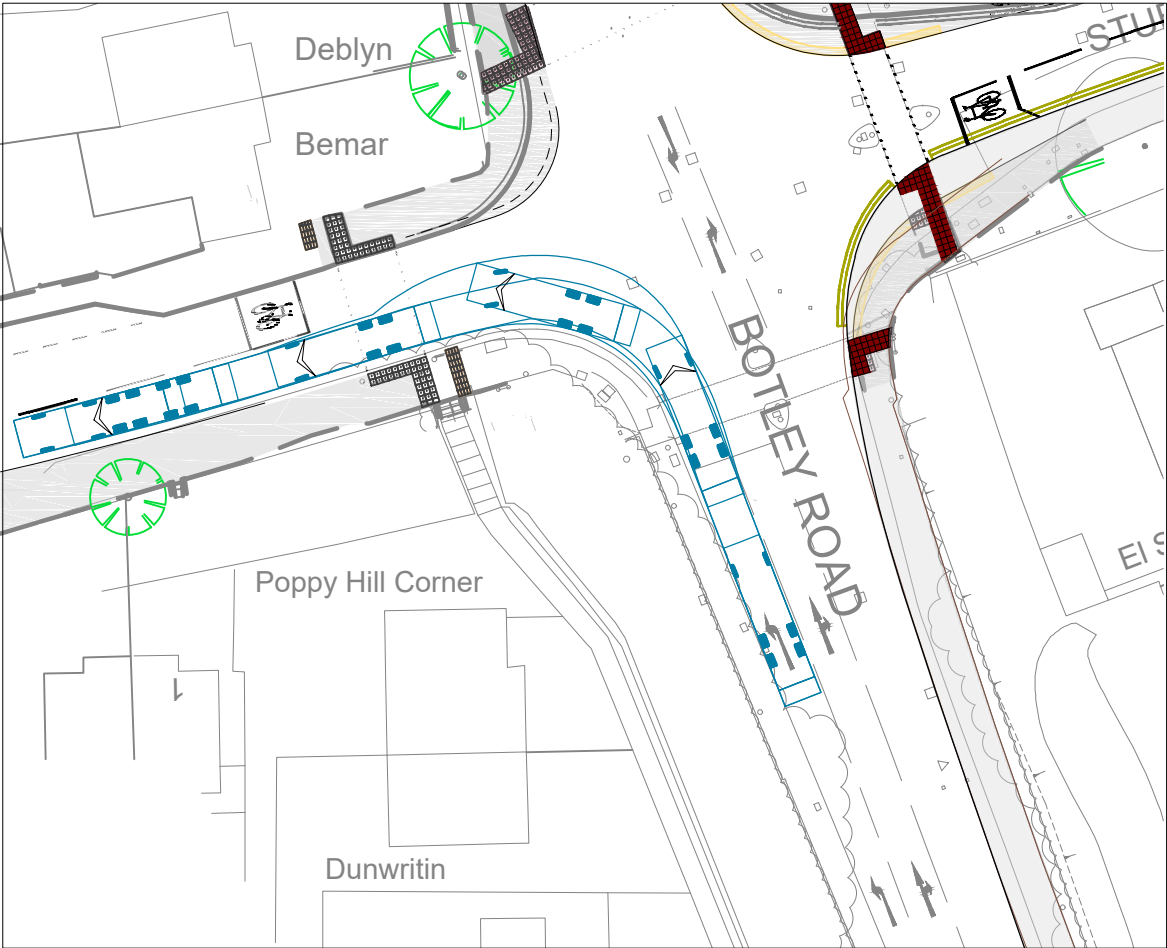
KEY



11.2m refuse vehicle - forward gear



EASTLEIGH ROAD RIGHT-TURN



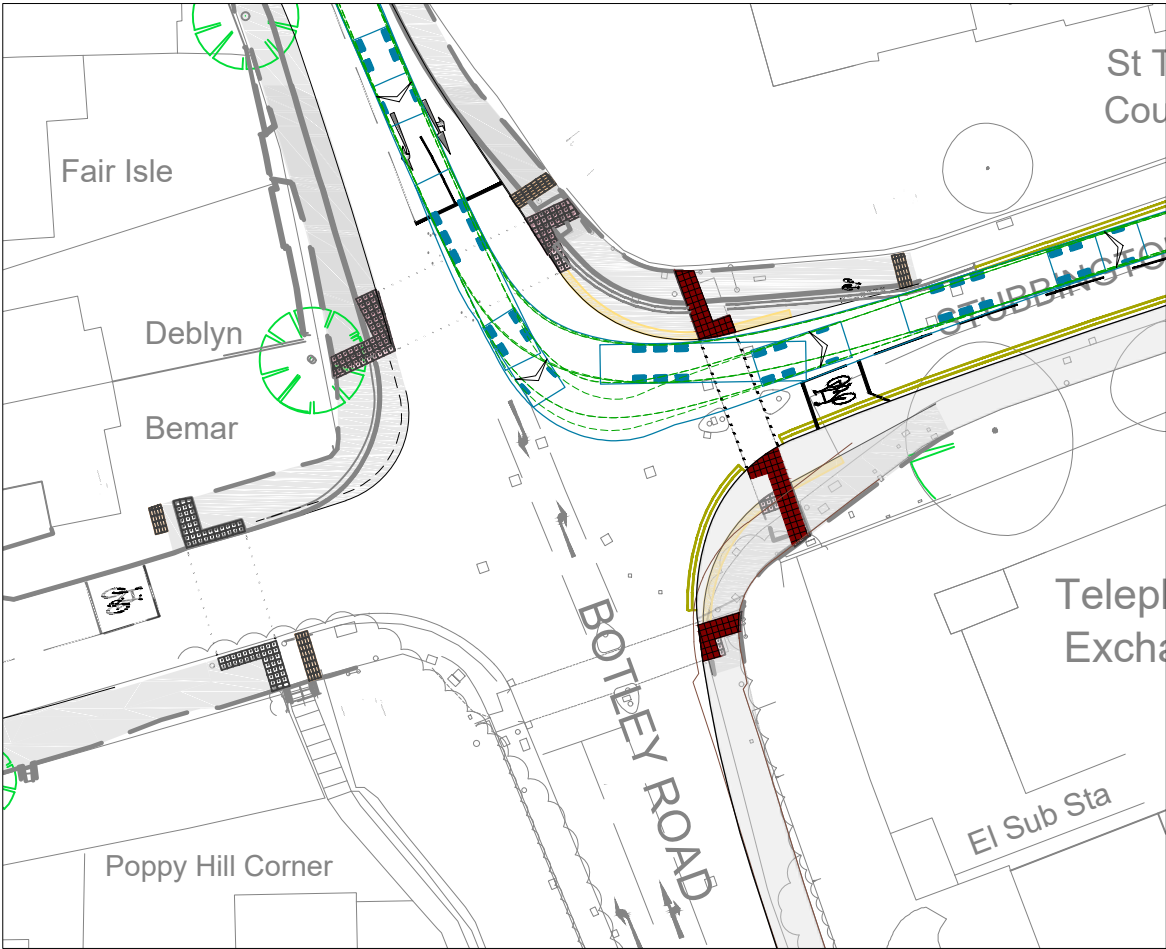
BOTLEY ROAD LEFT-TURN

Rev.	Description	Date	By	Chkd
------	-------------	------	----	------

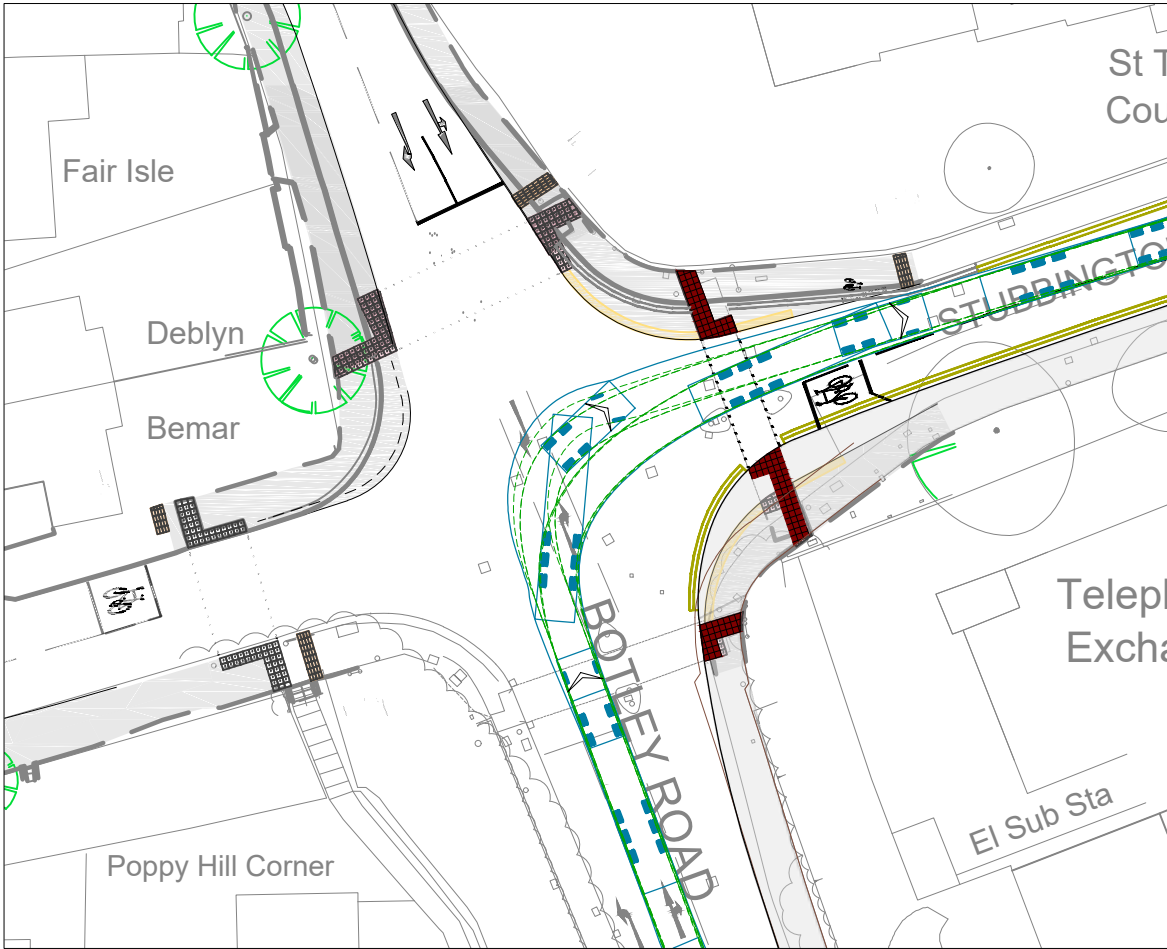


- Civil Engineering
 - Structural Engineering
 - Transport Planning
 - Highways Engineering
 - Building Surveying
 - Geomatics
- Hertfordshire | Oxfordshire | Cambridgeshire | Bristol

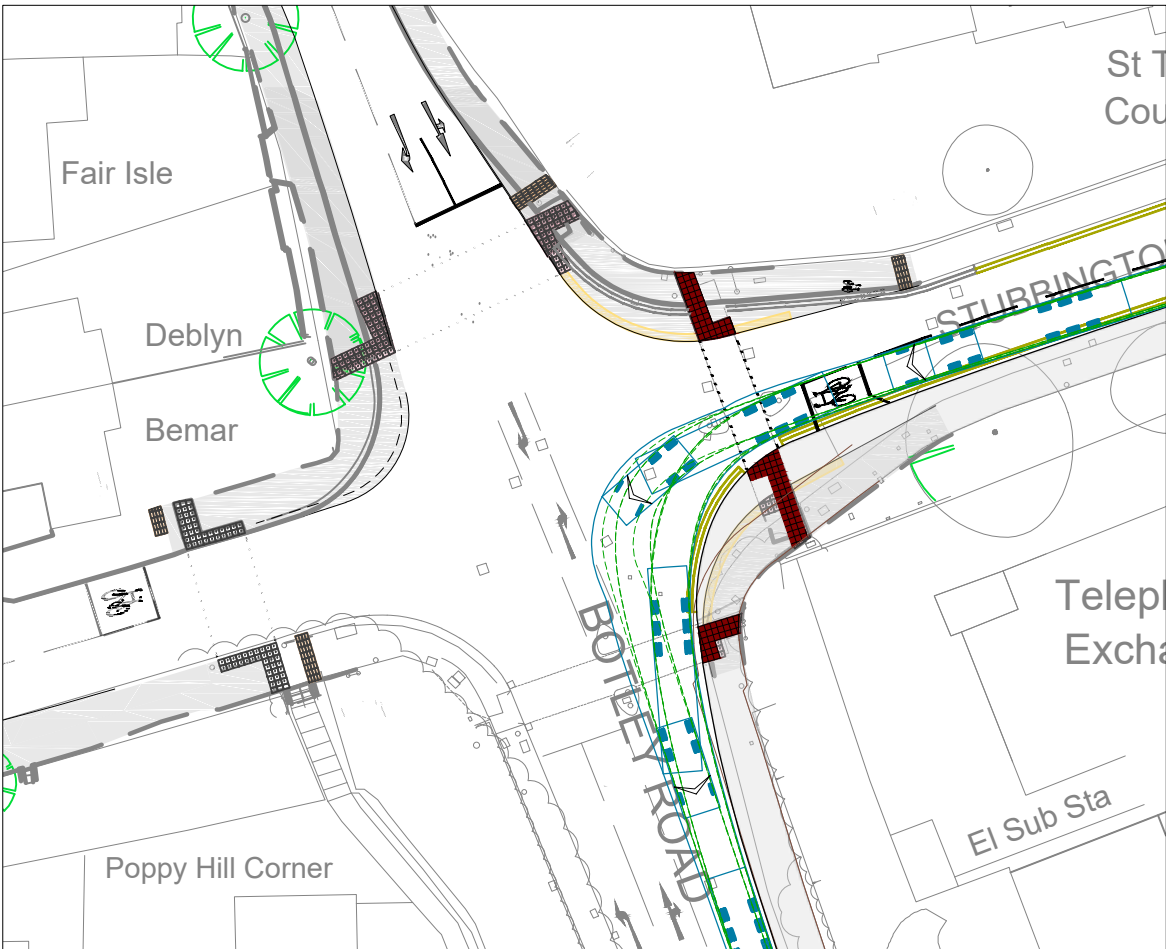
Client :	Bloor Homes Southern
Project :	Land South of Mortimers Lane, Fair Oak, Eastleigh
Title :	Swept Path Analysis 11.2m Refuse Vehicle
Engineer : A. Harper	Date : March 2025
Director : A. Jones	Scale : 1:500 @ A3
Status :	PRELIMINARY
Drawing No.	8230679/6206
Rev	



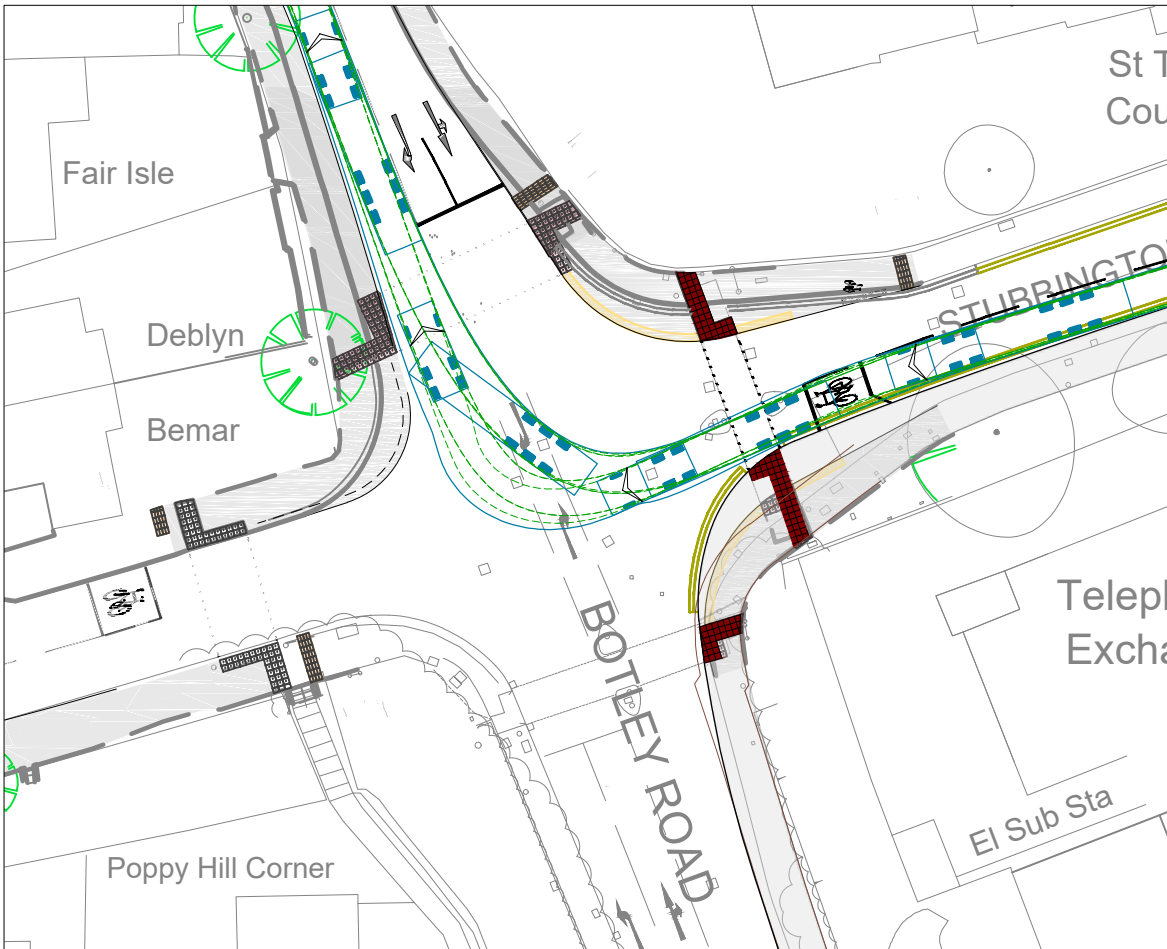
LEFT-TURN - ENTRY



RIGHT-TURN - ENTRY



LEFT-TURN - EXIT



RIGHT-TURN - EXIT

- NOTES**
1. This drawing is to be read in conjunction with all relevant documents and specifications.
 2. Dimensions are not to be scaled.
- Source: Site Line's drawing number
01MK005 1 to 5
HCC drawing numbers -
510453-MIL-HKF-FO-DR-CH-0101 - 0105

KEY

16.5m articulated vehicle - forward gear

Wheel tracks



Rev.	Description	Date	By	Chkd
------	-------------	------	----	------



- Civil Engineering
 - Structural Engineering
 - Transport Planning
 - Highways Engineering
 - Building Surveying
 - Geomatics
- Hertfordshire | Oxfordshire | Cambridgeshire | Bristol

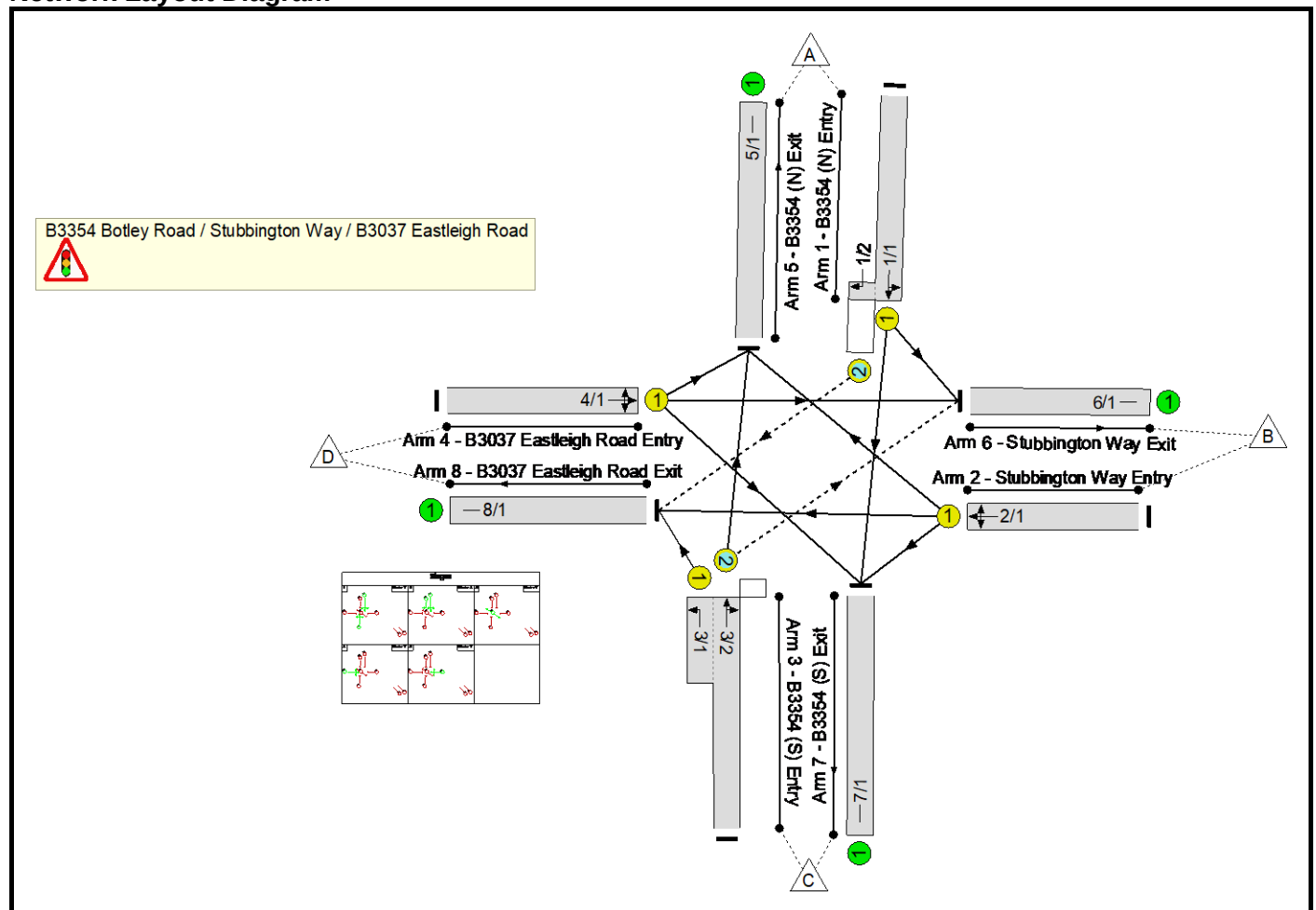
Client :	Bloor Homes Southern
Project :	Land South of Mortimers Lane, Fair Oak, Eastleigh
Title :	Swept Path Analysis Alternative Arrangement 16.5m Articulated Vehicle
Engineer : A. Harper	Date : April 2025
Director : A. Jones	Scale : 1:500 @ A3
Status :	PRELIMINARY
Drawing No.	8230679/6208
Rev	

Full Input Data And Results
Full Input Data And Results

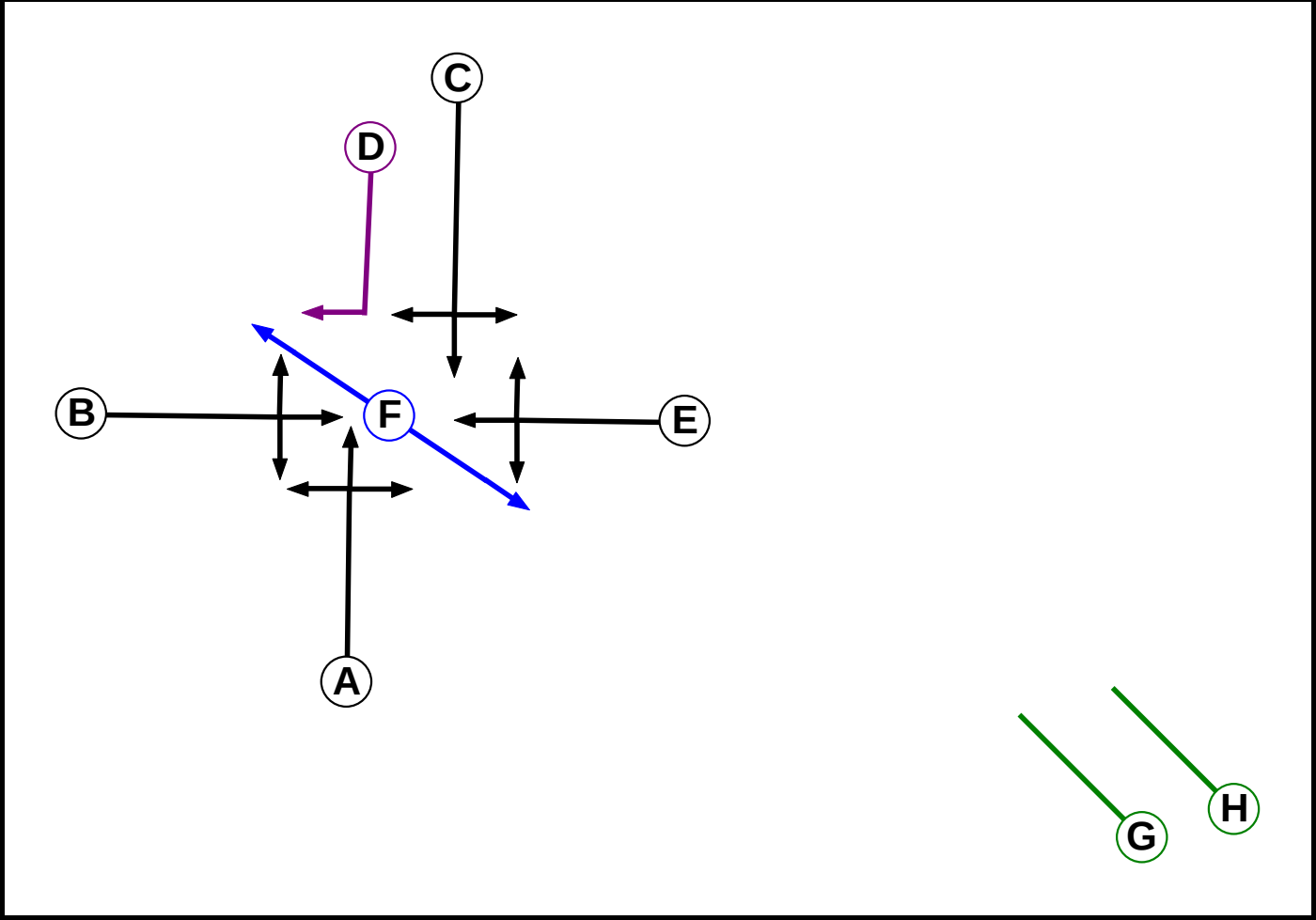
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	B3354 Stubbington Way Junction - Glanville mitigation east side Rev B.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Ind. Arrow	C	4	4
E	Traffic		7	7
F	Pedestrian		7	7
G	Dummy R/A		7	7
H	Dummy R/A		7	7

Full Input Data And Results

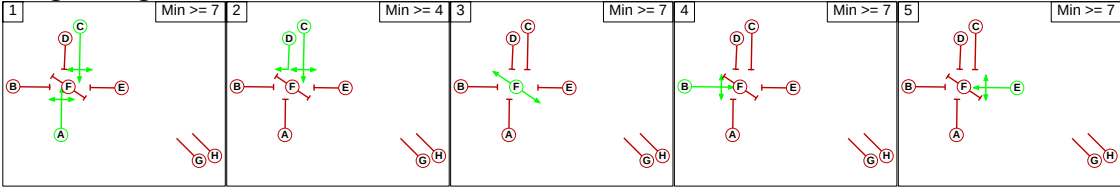
Phase Intergreens Matrix

Terminating Phase	Starting Phase								
		A	B	C	D	E	F	G	H
	A		7	-	6	7	9	3	3
	B	7		7	7	7	9	3	3
	C	-	7		-	7	9	3	3
	D	6	7	-		7	9	3	3
	E	7	7	7	7		9	3	3
	F	0	0	0	0	0		3	3
	G	2	2	2	2	2	2		3
	H	2	2	2	2	2	2	2	

Phases in Stage

Stage No.	Phases in Stage
1	A C
2	C D
3	F
4	B
5	E

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage	To Stage				
	1	2	3	4	5
	1		6	9	7
	2	6		9	7
	3	2	X		2
	4	7	7		7
	5	7	7	9	

Full Input Data And Results

Give-Way Lane Input Data

Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/2 (B3354 (N) Entry)	8/1 (Right)	1439	0	3/2	1.09	All	3.00	-	0.50	3	3.00
3/2 (B3354 (S) Entry)	6/1 (Right)	1439	0	1/1	1.09	All	1.00	1.00	0.50	1	1.00

Lane Input Data

Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road												
Lane	Lane Type	Phases	Start Disp. (s)	End Disp. (s)	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient (%)	Nearside Lane	Turns	Turning Radius (m)
1/1 (B3354 (N) Entry)	U	C	2	3	60.0	Geom	-	3.36	0.00	Y	Arm 6 Left	17.00
											Arm 7 Ahead	Inf
1/2 (B3354 (N) Entry)	O	C D	2	3	0.9	Geom	-	3.00	0.00	Y	Arm 8 Right	Inf
2/1 (Stubbington Way Entry)	U	E	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 5 Right	14.00
											Arm 7 Left	8.00
											Arm 8 Ahead	Inf
3/1 (B3354 (S) Entry)	U	A	2	3	4.9	Geom	-	2.90	0.00	Y	Arm 8 Left	10.00
3/2 (B3354 (S) Entry)	O	A	2	3	60.0	Geom	-	2.90	0.00	Y	Arm 5 Ahead	Inf
											Arm 6 Right	Inf
4/1 (B3037 Eastleigh Road Entry)	U	B	2	3	60.0	Geom	-	3.68	0.00	Y	Arm 5 Left	9.00
											Arm 6 Ahead	Inf
											Arm 7 Right	43.00
5/1 (B3354 (N) Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Stubbington Way Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (B3354 (S) Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (B3037 Eastleigh Road Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Future + Committed + Development AM'	08:00	09:00	01:00	
2: 'Future + Committed + Development PM'	17:00	18:00	01:00	
3: 'Future + Committed + Development AM (Mode Shift)'	08:00	09:00	01:00	
4: 'Future + Committed + Development PM (Mode Shift)'	17:00	18:00	01:00	

Scenario 1: 'Future + Committed + Development AM' (FG1: 'Future + Committed + Development AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	34	434	131	599
	B	43	0	30	37	110
	C	537	9	0	357	903
	D	90	18	291	0	399
	Tot.	670	61	755	525	2011

Traffic Lane Flows

Lane	Scenario 1: Future + Committed + Development AM
Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	
1/1 (with short)	599(In) 468(Out)
1/2 (short)	131
2/1	110
3/1 (short)	357
3/2 (with short)	903(In) 546(Out)
4/1	399
5/1	670
6/1	61
7/1	755
8/1	525

Lane Saturation Flows

Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B3354 (N) Entry)	3.36	0.00	Y	Arm 6 Left	17.00	7.3 %	1939	1939
				Arm 7 Ahead	Inf	92.7 %		
1/2 (B3354 (N) Entry)	3.00	0.00	Y	Arm 8 Right	Inf	100.0 %	1915	1915
2/1 (Stubbington Way Entry)	3.25	0.00	Y	Arm 5 Right	14.00	39.1 %	1775	1775
				Arm 7 Left	8.00	27.3 %		
				Arm 8 Ahead	Inf	33.6 %		
3/1 (B3354 (S) Entry)	2.90	0.00	Y	Arm 8 Left	10.00	100.0 %	1657	1657
3/2 (B3354 (S) Entry)	2.90	0.00	Y	Arm 5 Ahead	Inf	98.4 %	1905	1905
				Arm 6 Right	Inf	1.6 %		
4/1 (B3037 Eastleigh Road Entry)	3.68	0.00	Y	Arm 5 Left	9.00	22.6 %	1865	1865
				Arm 6 Ahead	Inf	4.5 %		
				Arm 7 Right	43.00	72.9 %		
5/1 (B3354 (N) Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (Stubbington Way Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (B3354 (S) Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
8/1 (B3037 Eastleigh Road Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 2: 'Future + Committed + Development PM' (FG2: 'Future + Committed + Development PM', Plan 2: 'Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	30	533	154	717
	B	20	0	17	45	82
	C	463	24	0	349	836
	D	99	33	317	0	449
	Tot.	582	87	867	548	2084

Traffic Lane Flows

Lane	Scenario 2: Future + Committed + Development PM
Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	
1/1 (with short)	717(In) 563(Out)
1/2 (short)	154
2/1	82
3/1 (short)	349
3/2 (with short)	836(In) 487(Out)
4/1	449
5/1	582
6/1	87
7/1	867
8/1	548

Lane Saturation Flows

Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B3354 (N) Entry)	3.36	0.00	Y	Arm 6 Left	17.00	5.3 %	1942	1942
				Arm 7 Ahead	Inf	94.7 %		
1/2 (B3354 (N) Entry)	3.00	0.00	Y	Arm 8 Right	Inf	100.0 %	1915	1915
				Arm 5 Right	14.00	24.4 %		
2/1 (Stubbington Way Entry)	3.25	0.00	Y	Arm 7 Left	8.00	20.7 %	1822	1822
				Arm 8 Ahead	Inf	54.9 %		
3/1 (B3354 (S) Entry)	2.90	0.00	Y	Arm 8 Left	10.00	100.0 %	1657	1657
3/2 (B3354 (S) Entry)	2.90	0.00	Y	Arm 5 Ahead	Inf	95.1 %	1905	1905
				Arm 6 Right	Inf	4.9 %		
4/1 (B3037 Eastleigh Road Entry)	3.68	0.00	Y	Arm 5 Left	9.00	22.0 %	1868	1868
				Arm 6 Ahead	Inf	7.3 %		
				Arm 7 Right	43.00	70.6 %		
5/1 (B3354 (N) Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (Stubbington Way Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (B3354 (S) Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
8/1 (B3037 Eastleigh Road Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 3: 'Future + Committed + Development AM (Mode Shift)' (FG3: 'Future + Committed + Development AM (Mode Shift)', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Problem 10.1						
Origin	Destination					
		A	B	C	D	Tot.
	A	0	34	431	127	592
	B	43	0	30	37	110
	C	536	9	0	357	902
	D	88	18	291	0	397
	Tot.	667	61	752	521	2001

Traffic Lane Flows

Lane	Scenario 3: Future + Committed + Development AM (Mode Shift)
Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	
1/1 (with short)	592(In) 465(Out)
1/2 (short)	127
2/1	110
3/1 (short)	357
3/2 (with short)	902(In) 545(Out)
4/1	397
5/1	667
6/1	61
7/1	752
8/1	521

Lane Saturation Flows

Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B3354 (N) Entry)	3.36	0.00	Y	Arm 6 Left	17.00	7.3 %	1938	1938
				Arm 7 Ahead	Inf	92.7 %		
1/2 (B3354 (N) Entry)	3.00	0.00	Y	Arm 8 Right	Inf	100.0 %	1915	1915
2/1 (Stubbington Way Entry)	3.25	0.00	Y	Arm 5 Right	14.00	39.1 %	1775	1775
				Arm 7 Left	8.00	27.3 %		
				Arm 8 Ahead	Inf	33.6 %		
3/1 (B3354 (S) Entry)	2.90	0.00	Y	Arm 8 Left	10.00	100.0 %	1657	1657
3/2 (B3354 (S) Entry)	2.90	0.00	Y	Arm 5 Ahead	Inf	98.3 %	1905	1905
				Arm 6 Right	Inf	1.7 %		
4/1 (B3037 Eastleigh Road Entry)	3.68	0.00	Y	Arm 5 Left	9.00	22.2 %	1866	1866
				Arm 6 Ahead	Inf	4.5 %		
				Arm 7 Right	43.00	73.3 %		
5/1 (B3354 (N) Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (Stubbington Way Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (B3354 (S) Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
8/1 (B3037 Eastleigh Road Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 4: 'Future + Committed + Development PM (Mode Shift)' (FG4: 'Future + Committed + Development PM (Mode Shift)', Plan 2: ' Network Control Plan 2')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	30	533	152	715
	B	20	0	17	45	82
	C	463	24	0	349	836
	D	95	33	317	0	445
	Tot.	578	87	867	546	2078

Traffic Lane Flows

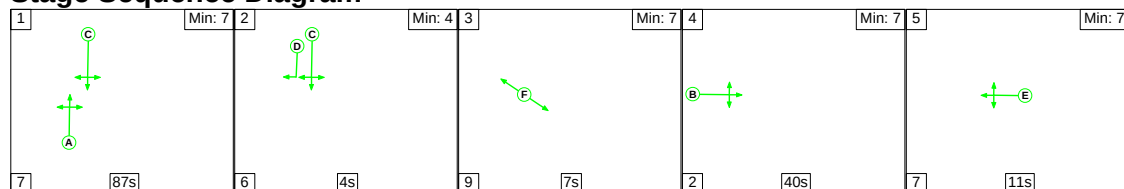
Lane	Scenario 4: Future + Committed + Development PM (Mode Shift)
Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	
1/1 (with short)	715(In) 563(Out)
1/2 (short)	152
2/1	82
3/1 (short)	349
3/2 (with short)	836(In) 487(Out)
4/1	445
5/1	578
6/1	87
7/1	867
8/1	546

Lane Saturation Flows

Junction: B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (B3354 (N) Entry)	3.36	0.00	Y	Arm 6 Left	17.00	5.3 %	1942	1942
				Arm 7 Ahead	Inf	94.7 %		
1/2 (B3354 (N) Entry)	3.00	0.00	Y	Arm 8 Right	Inf	100.0 %	1915	1915
2/1 (Stubbington Way Entry)	3.25	0.00	Y	Arm 5 Right	14.00	24.4 %	1822	1822
				Arm 7 Left	8.00	20.7 %		
				Arm 8 Ahead	Inf	54.9 %		
3/1 (B3354 (S) Entry)	2.90	0.00	Y	Arm 8 Left	10.00	100.0 %	1657	1657
3/2 (B3354 (S) Entry)	2.90	0.00	Y	Arm 5 Ahead	Inf	95.1 %	1905	1905
				Arm 6 Right	Inf	4.9 %		
4/1 (B3037 Eastleigh Road Entry)	3.68	0.00	Y	Arm 5 Left	9.00	21.3 %	1870	1870
				Arm 6 Ahead	Inf	7.4 %		
				Arm 7 Right	43.00	71.2 %		
5/1 (B3354 (N) Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
6/1 (Stubbington Way Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
7/1 (B3354 (S) Exit Lane 1)				Infinite Saturation Flow			Inf	Inf
8/1 (B3037 Eastleigh Road Exit Lane 1)				Infinite Saturation Flow			Inf	Inf

Scenario 1: 'Future + Committed + Development AM' (FG1: 'Future + Committed + Development AM', Plan 1: 'Network Control Plan 1')

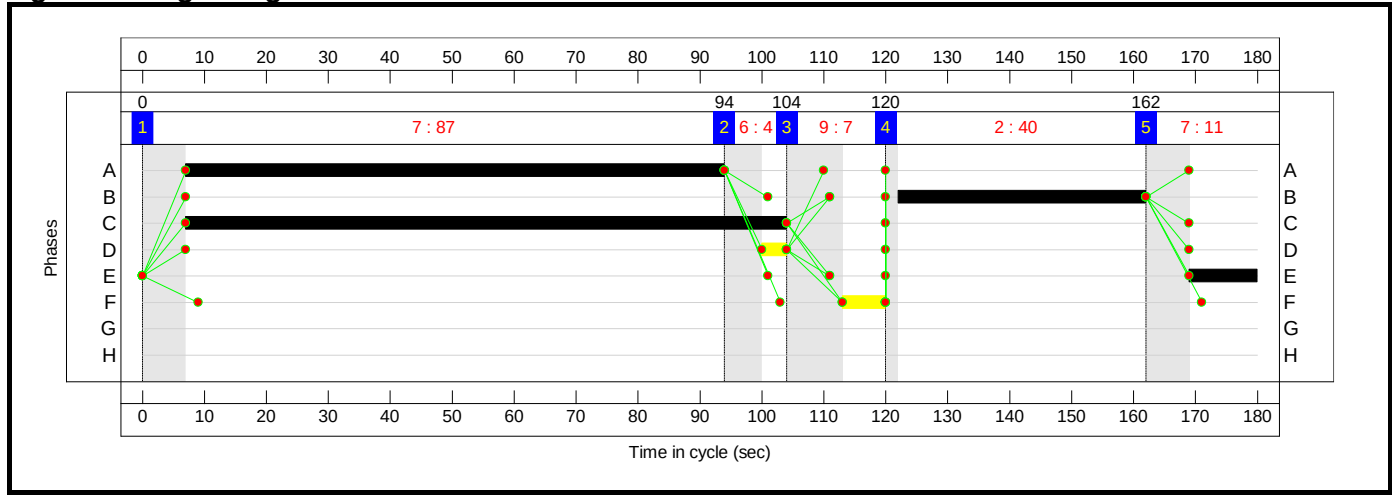
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	5
Duration	87	4	7	40	11
Change Point	0	94	104	120	162

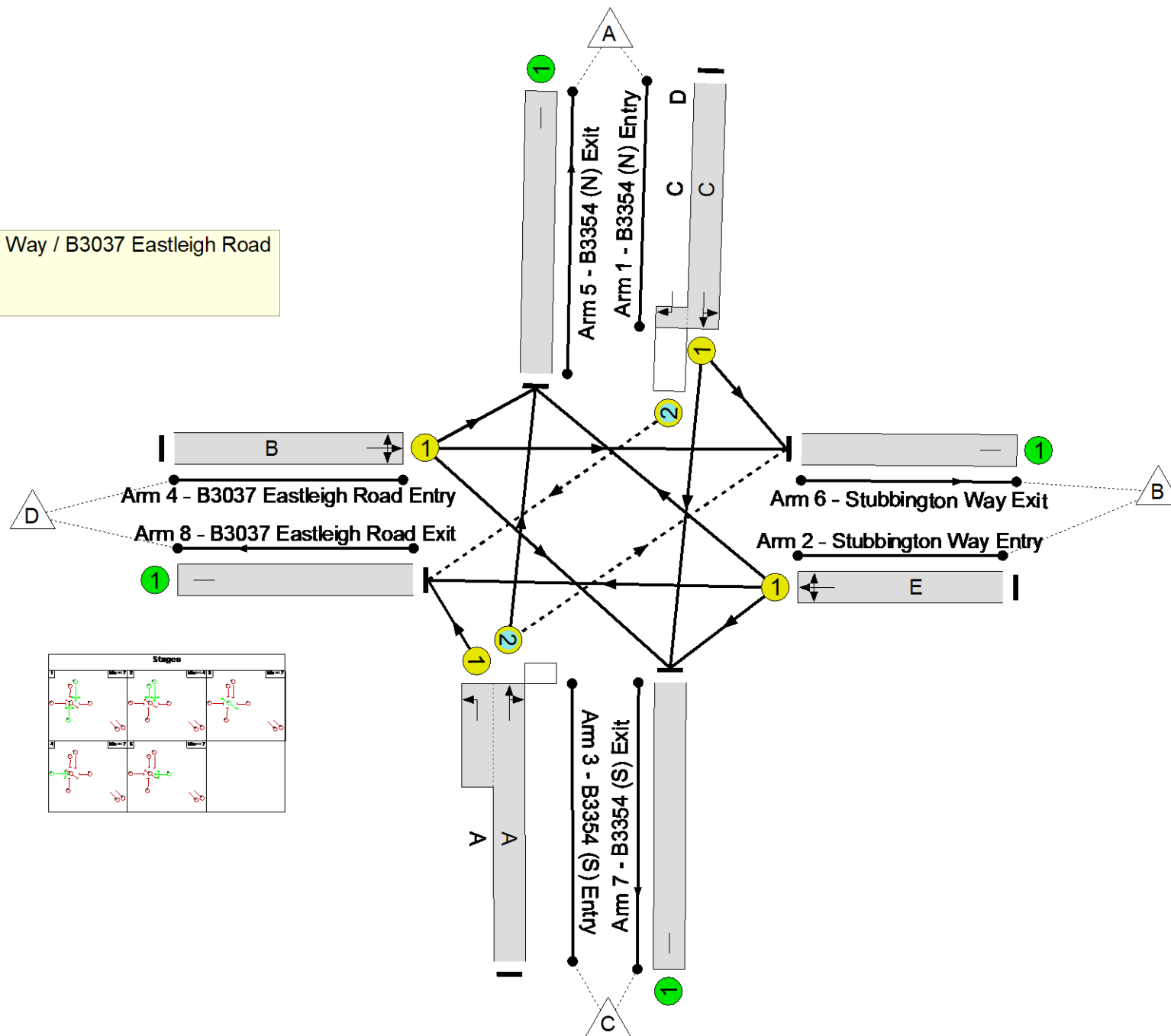
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

PRC: -5.3 %
Total Traffic Delay: 42.2 pcuHr



The diagram illustrates the stages of a 2D Fourier transform. It is organized into a 2x3 grid of sub-diagrams, each labeled with 'Stage' and 'Step'.

- Top Row:**
 - Stage 1, Step 1:** Shows the input image as a 2D grid of red dots.
 - Stage 1, Step 2:** Shows the input image being transformed into a 1D spectrum, represented by a vertical line of red dots.
 - Stage 1, Step 3:** Shows the 1D spectrum being transformed into a 2D spectrum, represented by a grid of red dots.
- Bottom Row:**
 - Stage 2, Step 1:** Shows the 2D spectrum being transformed back into a 1D spectrum, represented by a vertical line of red dots.
 - Stage 2, Step 2:** Shows the 1D spectrum being transformed back into the original input image, represented by a 2D grid of red dots.
 - Stage 2, Step 3:** Shows the original input image as a 2D grid of red dots.

Each sub-diagram includes a small diagram of a 2D grid of red dots, representing the input image or the output of the transform.

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	94.7%
B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	-	-	N/A	-	-		-	-	-	-	-	-	94.7%
1/1+1/2	B3354 (N) Entry Left Ahead Right	U+O	N/A	N/A	C	D	1	97	4	599	1939:1915	772+216	60.7 : 60.7%
2/1	Stubbington Way Entry Right Left Ahead	U	N/A	N/A	E		1	11	-	110	1775	118	93.0%
3/2+3/1	B3354 (S) Entry Ahead Right Left	O+U	N/A	N/A	A		1	87	-	903	1905:1657	576+377	94.7 : 94.7%
4/1	B3037 Eastleigh Road Entry Left Ahead Right	U	N/A	N/A	B		1	40	-	399	1865	425	93.9%
5/1	B3354 (N) Exit	U	N/A	N/A	-		-	-	-	670	Inf	Inf	0.0%
6/1	Stubbington Way Exit	U	N/A	N/A	-		-	-	-	61	Inf	Inf	0.0%
7/1	B3354 (S) Exit	U	N/A	N/A	-		-	-	-	755	Inf	Inf	0.0%
8/1	B3037 Eastleigh Road Exit	U	N/A	N/A	-		-	-	-	525	Inf	Inf	0.0%

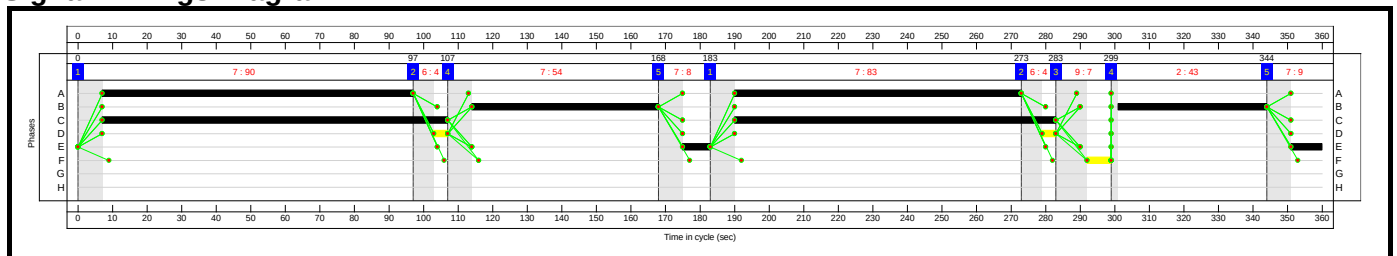
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	132	6	2	24.7	16.8	0.7	42.2	-	-	-	-
B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	-	-	132	6	2	24.7	16.8	0.7	42.2	-	-	-	-
1/1+1/2	599	599	123	6	2	4.4	0.8	0.7	5.8	35.0	19.0	0.8	19.8
2/1	110	110	-	-	-	2.6	3.6	-	6.1	200.1	5.5	3.6	9.0
3/2+3/1	903	903	9	0	0	10.2	7.0	0.0	17.3	68.9	39.2	7.0	46.2
4/1	399	399	-	-	-	7.6	5.4	-	13.0	117.3	19.5	5.4	24.9
5/1	670	670	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	61	61	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	755	755	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	525	525	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -5.3 Total Delay for Signalled Lanes (pcuHr): 42.21 Cycle Time (s): 180 PRC Over All Lanes (%): -5.3 Total Delay Over All Lanes(pcuHr): 42.21													

Stage Sequence Diagram



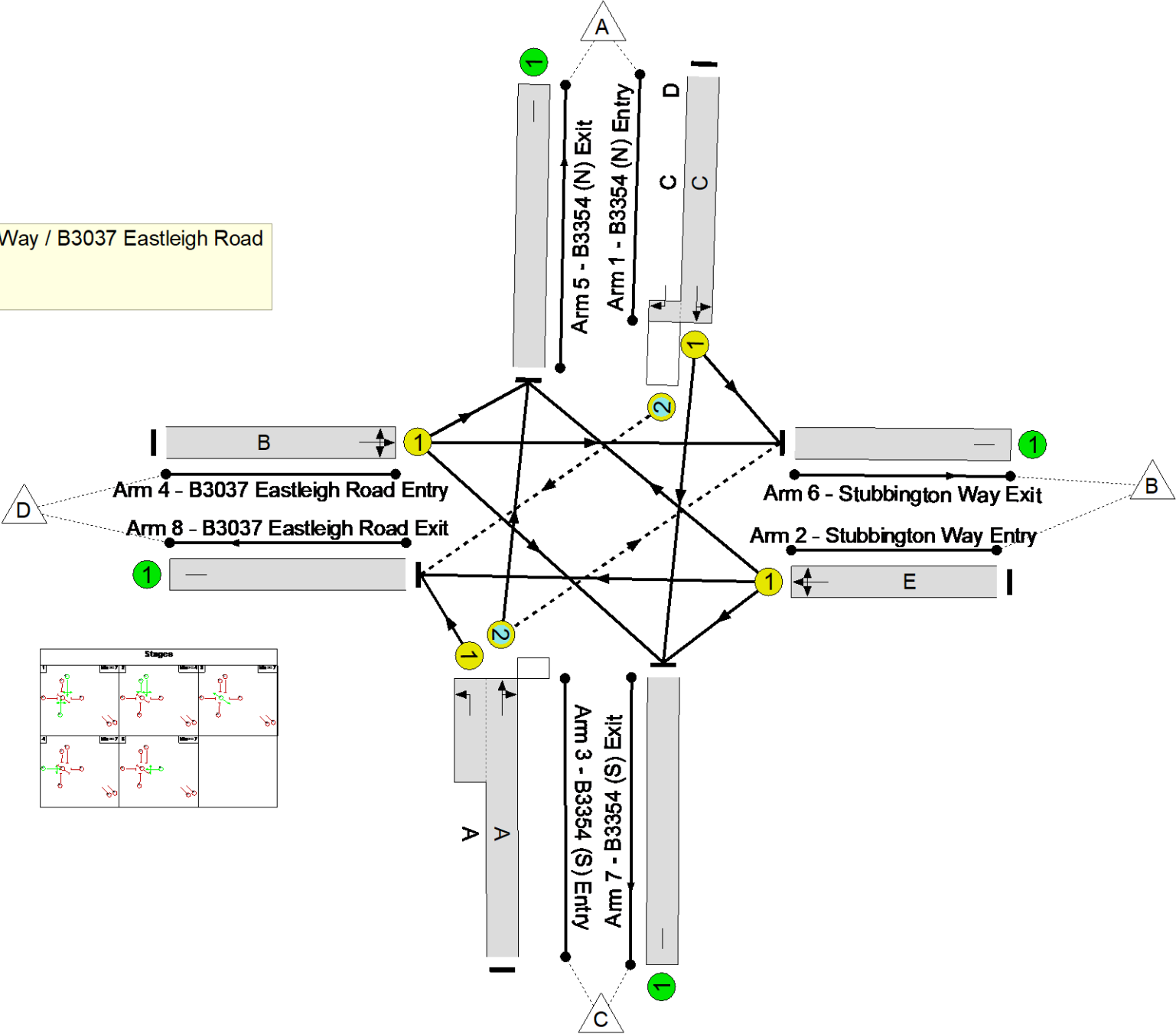
Signal Timings Diagram



B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road

PRC: 2.5 %

Total Traffic Delay: 34.8 pcuHr



Full Input Data And Results

Network Results

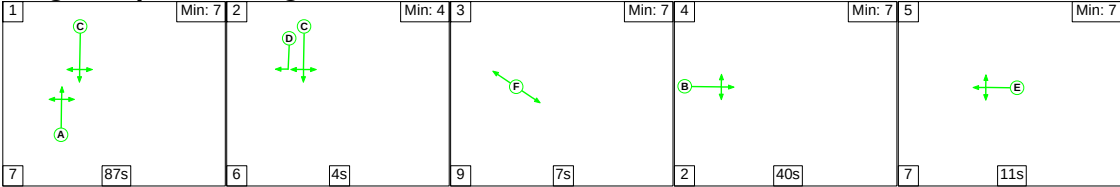
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	87.8%
B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	-	-	N/A	-	-		-	-	-	-	-	-	87.8%
1/1+1/2	B3354 (N) Entry Left Ahead Right	U+O	N/A	N/A	C	D	2	193	8	717	1942:1915	834+228	67.5 : 67.5%
2/1	Stubbington Way Entry Right Left Ahead	U	N/A	N/A	E		2	17	-	82	1822	96	85.3%
3/2+3/1	B3354 (S) Entry Ahead Right Left	O+U	N/A	N/A	A		2	173	-	836	1905:1657	554+397	87.8 : 87.8%
4/1	B3037 Eastleigh Road Entry Left Ahead Right	U	N/A	N/A	B		2	97	-	449	1868	514	87.4%
5/1	B3354 (N) Exit	U	N/A	N/A	-		-	-	-	582	Inf	Inf	0.0%
6/1	Stubbington Way Exit	U	N/A	N/A	-		-	-	-	87	Inf	Inf	0.0%
7/1	B3354 (S) Exit	U	N/A	N/A	-		-	-	-	867	Inf	Inf	0.0%
8/1	B3037 Eastleigh Road Exit	U	N/A	N/A	-		-	-	-	548	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	169	7	3	24.3	9.8	0.7	34.8	-	-	-	-
B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	-	-	169	7	3	24.3	9.8	0.7	34.8	-	-	-	-
1/1+1/2	717	717	145	7	3	5.8	1.0	0.5	7.4	37.1	25.4	1.0	26.5
2/1	82	82	-	-	-	1.9	2.2	-	4.1	181.5	4.1	2.2	6.4
3/2+3/1	836	836	24	0	0	8.8	3.4	0.1	12.4	53.3	33.4	3.4	36.8
4/1	449	449	-	-	-	7.8	3.2	-	10.9	87.6	21.6	3.2	24.7
5/1	582	582	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	87	87	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	867	867	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	548	548	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 2.5 Total Delay for Signalled Lanes (pcuHr): 34.82 Cycle Time (s): 360 PRC Over All Lanes (%): 2.5 Total Delay Over All Lanes(pcuHr): 34.82													

Full Input Data And Results
Scenario 3: 'Future + Committed + Development AM (Mode Shift)' (FG3: 'Future + Committed + Development AM (Mode Shift)', Plan 1: 'Network Control Plan 1')

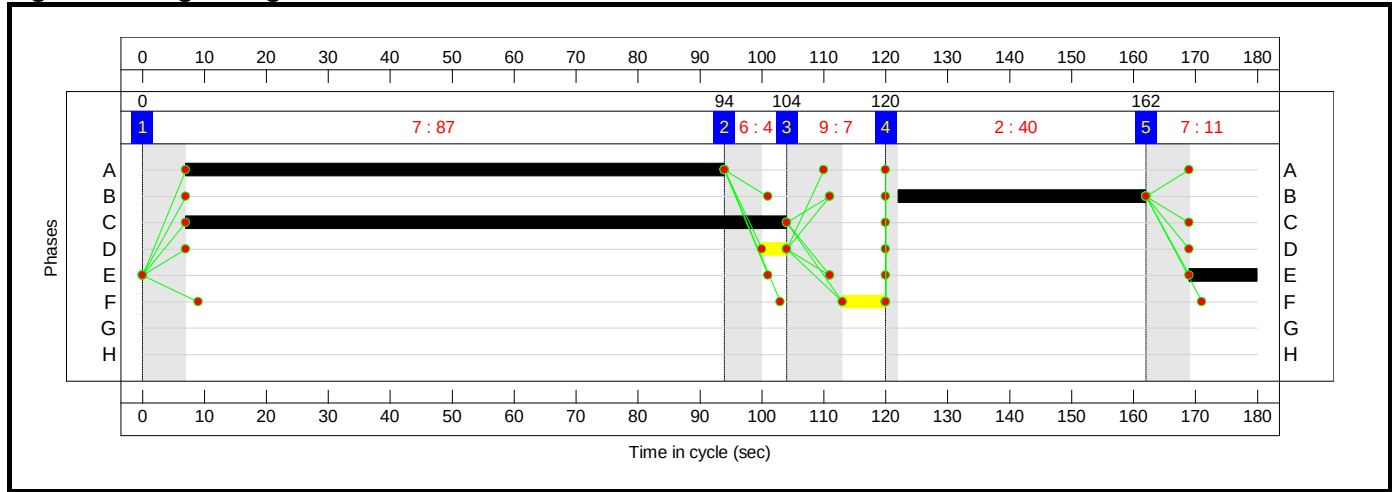
Stage Sequence Diagram



Stage Timings

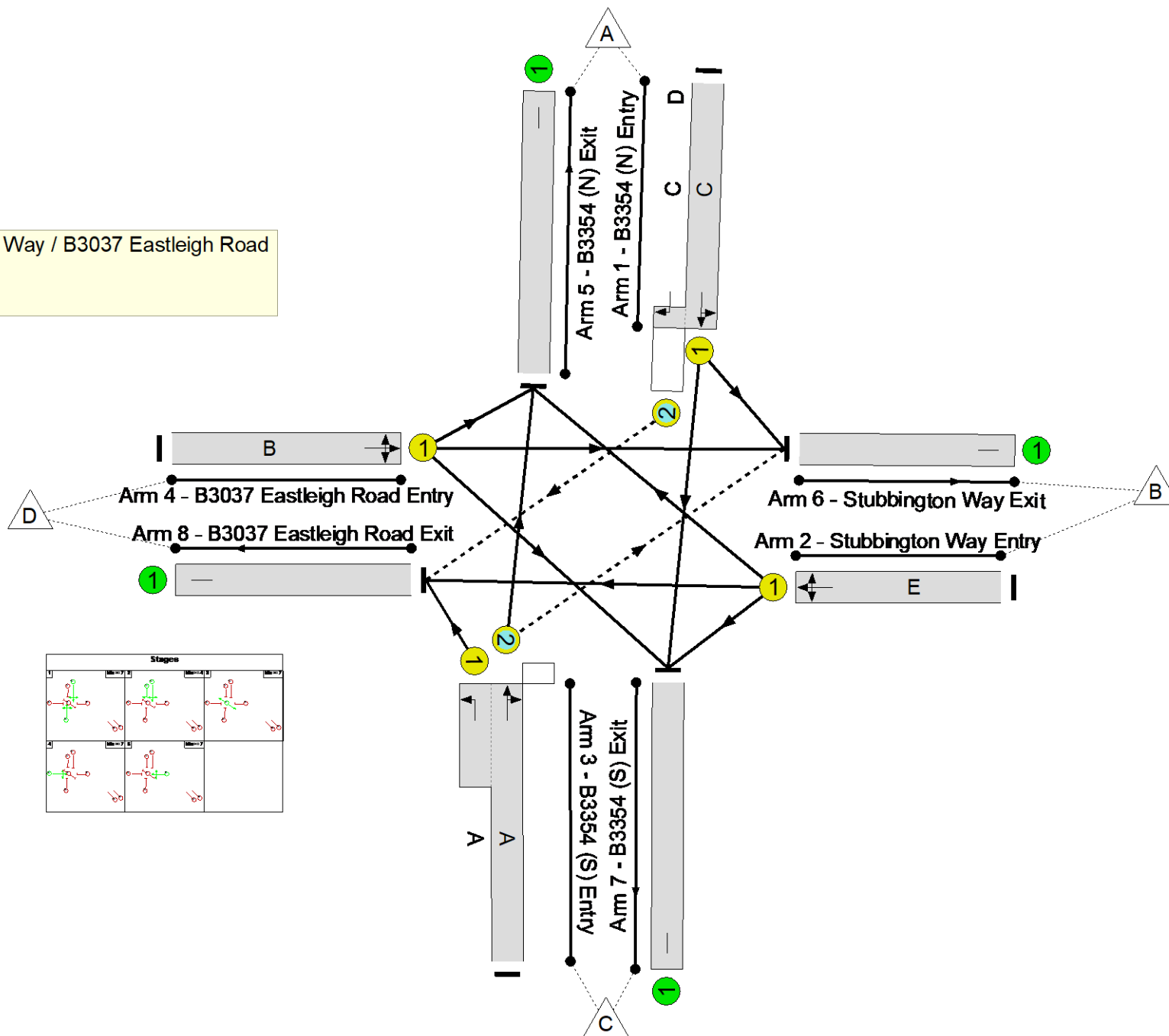
Stage	1	2	3	4	5
Duration	87	4	7	40	11
Change Point	0	94	104	120	162

Signal Timings Diagram





PRC: -5.1 %
Total Traffic Delay: 41.6 pcuHr



Stages

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	94.6%
B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	-	-	N/A	-	-		-	-	-	-	-	-	94.6%
1/1+1/2	B3354 (N) Entry Left Ahead Right	U+O	N/A	N/A	C	D	1	97	4	592	1938:1915	784+214	59.3 : 59.3%
2/1	Stubbington Way Entry Right Left Ahead	U	N/A	N/A	E		1	11	-	110	1775	118	93.0%
3/2+3/1	B3354 (S) Entry Ahead Right Left	O+U	N/A	N/A	A		1	87	-	902	1905:1657	576+377	94.6 : 94.6%
4/1	B3037 Eastleigh Road Entry Left Ahead Right	U	N/A	N/A	B		1	40	-	397	1866	425	93.4%
5/1	B3354 (N) Exit	U	N/A	N/A	-		-	-	-	667	Inf	Inf	0.0%
6/1	Stubbington Way Exit	U	N/A	N/A	-		-	-	-	61	Inf	Inf	0.0%
7/1	B3354 (S) Exit	U	N/A	N/A	-		-	-	-	752	Inf	Inf	0.0%
8/1	B3037 Eastleigh Road Exit	U	N/A	N/A	-		-	-	-	521	Inf	Inf	0.0%

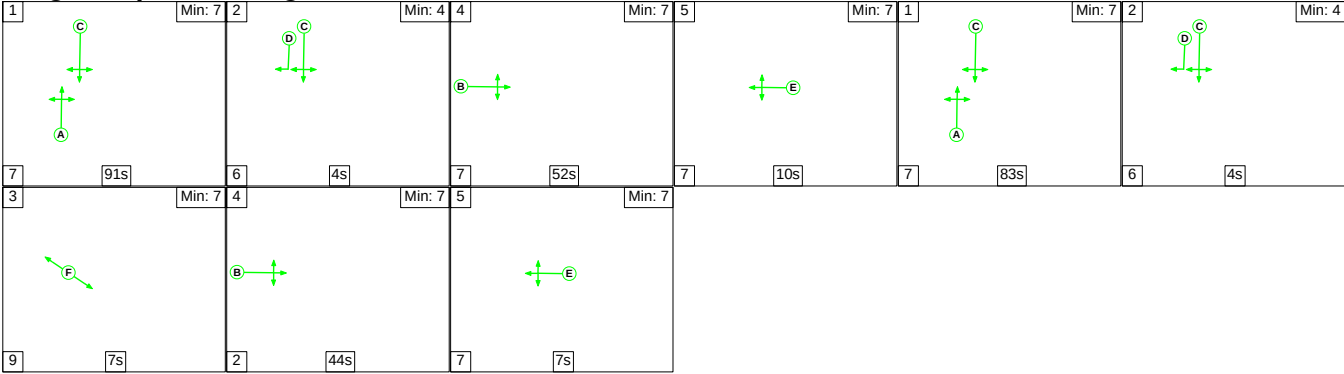
Full Input Data And Results

[illegible]

Full Input Data And Results

Scenario 4: 'Future + Committed + Development PM (Mode Shift)' (FG4: 'Future + Committed + Development PM (Mode Shift)', Plan 2: ' Network Control Plan 2')

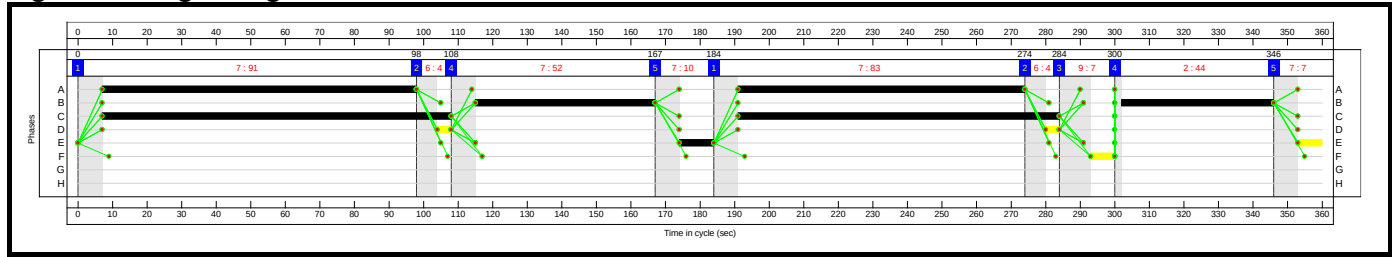
Stage Sequence Diagram



Stage Timings

Stage	1	2	4	5	1	2	3	4	5
Duration	91	4	52	10	83	4	7	44	7
Change Point	0	98	108	167	184	274	284	300	346

Signal Timings Diagram

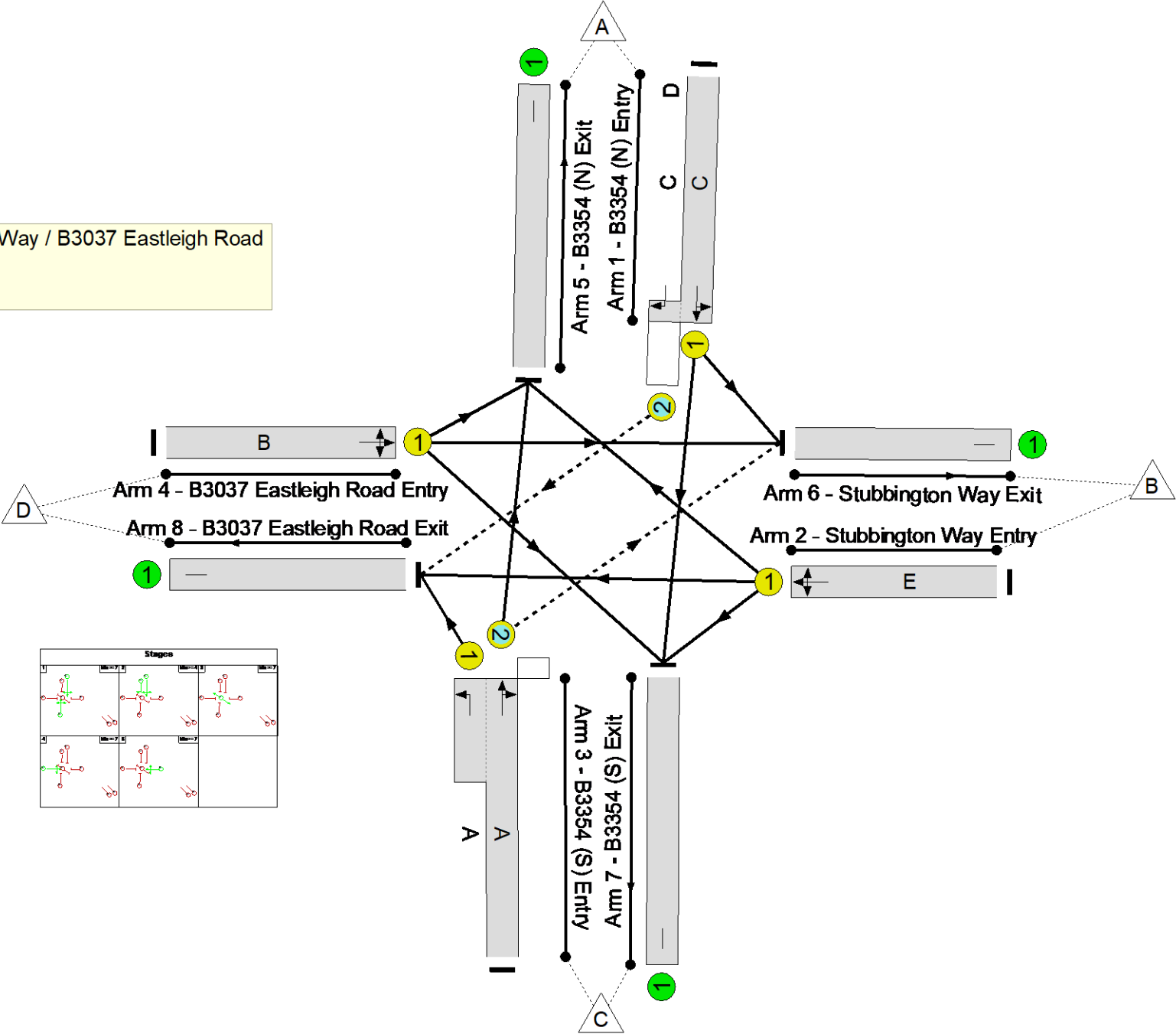




B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road

PRC: 3.0 %

Total Traffic Delay: 34.4 pcuHr



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	87.4%
B3354 Botley Road / Stubbington Way / B3037 Eastleigh Road	-	-	N/A	-	-		-	-	-	-	-	-	87.4%
1/1+1/2	B3354 (N) Entry Left Ahead Right	U+O	N/A	N/A	C	D	2	194	8	715	1942:1915	841+227	67.0 : 67.0%
2/1	Stubbington Way Entry Right Left Ahead	U	N/A	N/A	E		2	17	-	82	1822	96	85.3%
3/2+3/1	B3354 (S) Entry Ahead Right Left	O+U	N/A	N/A	A		2	174	-	836	1905:1657	557+399	87.4 : 87.4%
4/1	B3037 Eastleigh Road Entry Left Ahead Right	U	N/A	N/A	B		2	96	-	445	1870	509	87.4%
5/1	B3354 (N) Exit	U	N/A	N/A	-		-	-	-	578	Inf	Inf	0.0%
6/1	Stubbington Way Exit	U	N/A	N/A	-		-	-	-	87	Inf	Inf	0.0%
7/1	B3354 (S) Exit	U	N/A	N/A	-		-	-	-	867	Inf	Inf	0.0%
8/1	B3037 Eastleigh Road Exit	U	N/A	N/A	-		-	-	-	546	Inf	Inf	0.0%

Full Input Data And Results

[illegible]