

1 INTRODUCTION

1.1 INTRODUCTION

1.1.1 Velocity Transport Planning (VTP) has been appointed by Firethorn Trust (the Applicant) to provide highways and transport planning advice for an outline planning application relating to the development of up to 530 dwellings on land which forms part of the North West Bicester Eco Town development (Policy Bicester 1 of the adopted CDC Local Plan), located in Oxfordshire.

1.1.2 The Application Site falls within the administrative area of Cherwell District Council (CDC) and within the authority of Oxfordshire County Council (OCC), which is the local highway authority.

1.1.3 The Proposed Development description for the outline planning application, planning reference: 21/01630/OUT, is as follows:

“Outline planning application for up to 530 residential dwellings (within Use Class C3), open space provision, access, drainage and all associated works and operations including but not limited to demolition, earthworks, and engineering operations, with the details of appearance, landscaping, layout and scale reserved for later determination.”

1.2 PLANNING CONTEXT

1.2.1 The outline planning application was originally validated by CDC on the 06th of May 2021. An initial response to the outline planning application was received from OCC on the 06th of July 2021 and from CDC on the 21st of September 2021, with the third page of the CDC letter covering matters related to transport.

1.2.2 The consultation response from OCC dated the 06th of July 2021 identified three reasons for objection to the planning submission, which are presented below for ease of reference:

1. *Some inaccuracies and omissions in the Transport Assessment and Environmental Statement mean that it is not possible to fully assess the impact of the development in accordance with paragraphs 109 and 111 of the NPPF.*
2. *Some of the works to provide safe access are outside the red line and not on adopted highway, meaning that the development may fail to provide safe and suitable access to the site for all users in accordance with paragraph 108 of the NPPF.*
3. *The site will create a desire line across the B4100 to the local church, and no safe crossing is offered by the development, contrary to paragraph 108 of the NPPF.*

1.2.3 VTP prepared a series of Technical Notes to respond to both the CDC and OCC consultation responses, including other matters raised by statutory consultees, local groups, and members of the public in relation to the original submission of the outline planning application. These Technical Notes are summarised below for clarity:

- ⊙ TN003 – Consultation Responses (November 2021)
- ⊙ TN004 – Spine Road Assessment (November 2021)
- ⊙ TN005 – Grampian Condition Review (November 2021)



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1.2.4 Following further consultation on the additional information contained within the above-mentioned Technical Notes, OCC responded formally on the 05th of January 2022, identifying four reasons for objection to the planning application, which are presented below for ease of reference:

1. *The assessment of the impact of the development in the absence of the A4095 diversion/Strategic Link Road is not sound and therefore it is not possible to predict the traffic impact of this proposal.*
2. *The development as proposed would have an unacceptable congestion impact on the junction of Charlotte Ave/B4100 in its current form.*
3. *The assessment of the traffic impact on Elmsbrook Spine Road does not take into account the suitability of narrow parts of the road for the volume of traffic.*
4. *There is insufficient commitment to provide pedestrian/cycle connections through to adjacent sites, in order to maximise opportunities for sustainable travel.*

1.2.5 Having engaged in further consultation with both CDC and OCC to address the concerns raised by OCC in their response dated the 05th of January 2022, further Technical Notes were prepared to provide clarity on the outstanding matters with a view to satisfying both CDC and OCC with regards to matters related to highways and traffic. These Technical Notes are summarised below for clarity:

- ⊙ TN006 – A4095 Interim Improvement (March 2022)
- ⊙ TN007 – Response to OCC Comments (March 2022)

1.2.6 Having reviewed the information contained within the further technical Notes, OCC provided a further consultation response dated the 16th of May 2022, which included three reasons for objection to the application, which are presented below for ease of reference:

1. *The application seeks to bring forward the full development ahead of the A4095 diversion. The traffic assessment provided shows that this would have a severe congestion impact on the local network, and the proposed mitigation would make queueing worse on Lords Lane.*
2. *The number of dwellings proposed to access onto Charlotte Avenue is too high, given the narrow width of this road in places at its northern end. Without mitigation, there is a risk of footways being overrun as vehicles attempt to pass one another, with consequent risk to the safety of pedestrians, and deterioration of attractiveness for sustainable transport.*
3. *The need for improvements to cycle provision on Braeburn Avenue, as a result of vehicle traffic generated by the development, has not been addressed.*

1.2.7 This Technical Note – TN009 Response to OCC Comments, has been prepared to address the three outstanding objections from OCC. It should be noted that a separate standalone Technical Note – TN008 A4095 Junction Modelling, has been prepared to address reason 1 of the identified objections raised by OCC in their latest consultation response dated the 16th of May 2022.

1.3 REPORT PURPOSE AND STRUCTURE

1.3.1 This Technical Note has been prepared to address Reasons 2 and 3 of OCC's latest objections to the planning application, and following this Introduction; this Technical Note is structured as follows:

- ⊙ **Section 2:** Reason 2 – Proposed Mitigation to Charlotte Avenue; and
- ⊙ **Section 3:** Reason 3 – Cycle Improvements along Braeburn Avenue.



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2 PROPOSED MITIGATION TO CHARLOTTE AVENUE

2.1 DETAILS OF THE EXISTING ELMSBROOK SPINE ROAD

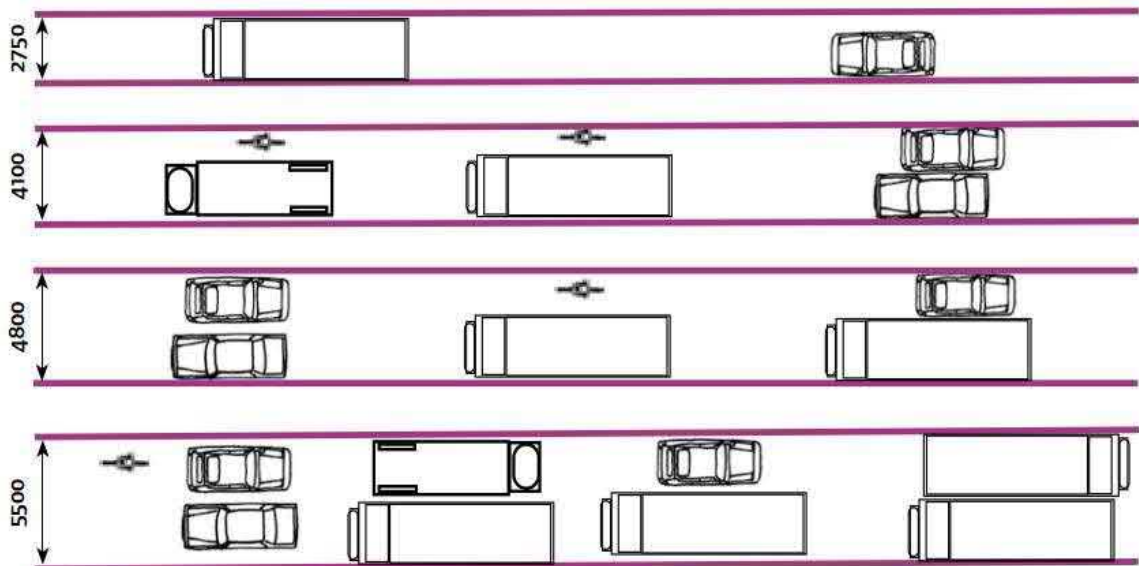
- 2.1.1 It is relevant to acknowledge that neither Charlotte Avenue nor Braeburn Avenue, which combined, form what is referred to as the Elmsbrook Spine Road, currently form part of OCC's adopted highway. As such, the Elmsbrook Spine Road is currently a private road that is within the control and ownership of the developers of the existing Elmsbrook development.
- 2.1.2 A Section 38 Agreement has been entered into between the Elmsbrook developers and OCC, but it is reiterated that the Elmsbrook Spine Road is yet to be adopted. However, as a Section 38 Agreement has been entered into, it is assumed that OCC has agreed to and accepted the design parameters of the Elmsbrook Spine Road as provided on the ground today.
- 2.1.3 With regards to the suitability of the Elmsbrook Spine Road to accommodate the total person trips (cars, cycles, pedestrians, etc) associated with the permitted Elmsbrook development and those proposed by further developments as identified within the wider North West Bicester Eco-Town (Policy Bicester 1 of the adopted Cherwell Local Plan), the SPD that provides the details of the wider North West Bicester Eco-Town was adopted in February 2016. However, full planning permission for the development of 393 residential units and associated elements of the Elmsbrook development was granted on the 10th of July 2012.
- 2.1.4 A review of the existing geometry of the Elmsbrook Spine Road identifies that the carriageway varies in width from approximately 6.0m at its widest to 4.1m at its narrowest, which includes the build-out features at the bridges along with a number of 'road narrowing' sections.
- 2.1.5 Whilst it might be assumed that these 'road narrowing' features were included to act as traffic calming features, the Elmsbrook Spine Road was designed to a standard that was agreed with OCC to provide an acceptable means of vehicular access to the 393 residential units and the associated uses that have been permitted.
- 2.1.6 If no consideration was given to further development having to utilise the Elmsbrook Spine Road in the future, particularly as the SPD was only adopted four years after the Elmsbrook development was granted planning consent, then there would be no need for traffic calming as Charlotte Avenue and Braeburn Avenue would effectively form cul-de-sacs with no opportunity for through traffic, with the exception of bus services.
- 2.1.7 With regards to the provision of bus services operating along the Elmsbrook Spine Road, it would sensibly have been assumed that these services might achieve a frequency of at least two buses an hour, if not three buses an hour, once the full development is occupied. Manual for Streets (MfS), published in March 2007, sets out design guidance for residential developments, and Figure 7.1 identifies the various acceptable carriageway widths of residential roads, including an indication of the traffic that might use these roads.
- 2.1.8 MfS notes that whilst a 4.1m road width is considered to be suitable for two cars to pass each other, the minimum recommended carriageway width for a car and large vehicle (including buses) to pass each other is identified as being 4.8m. As the MfS guidance was current at the time that the Elmsbrook development was permitted, it is considered that OCC accepted that at least two buses an hour would need to pass local traffic associated with at least the permitted Elmsbrook development traffic along extended stretches of road that might be as narrow as 4.1m in width, and through traffic calming features that might reduce the carriageway width to 4.1m for limited sections.



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2.1.9 For ease of reference, the extract from MfS is presented in **Figure 2-1**.

Figure 2-1: Extract from Manual for Streets – Fig 7.1 Carriageway Widths



2.1.10 In addition, the pavements, whilst generally provided on both sides of the Elmsbrook Spine Road, vary in width from 1.5m at the narrowest to in excess of 3.0m, which is considered to be a suitable width for shared pedestrian and cycle use.

2.1.11 Again, it must be assumed that the provision of these pavements, whether as pedestrian only footways of widths as narrow as 1.5m, or as shared footway/cycleways of 3.0m or more, were acceptable to OCC to accommodate the level of predicted pedestrian and cycle activity associated with at least the 393 residential units and associated development, including the Gagle Brook Primary School, that was permitted in July 2012.

2.1.12 It is acknowledged that LTN 1/20 – Cycle Infrastructure Design had not yet been published, and any new developments should consider this as the appropriate guidance when considering the potential impacts of new developments.

2.2 OCC CONCERNS OVER THE SUITABILITY OF THE ELMSBROOK SPINE ROAD

2.2.1 OCC's original consultation response dated the 06th of July 2021 identified concerns over the suitability of Charlotte Avenue to accommodate the additional total person trips predicted to be generated by the proposed development, albeit it was acknowledged that a limited amount of development could be accessed via Charlotte Avenue due to the current vehicular restriction created by the bus gate between Charlotte Avenue and Braeburn Avenue.

2.2.2 To address these initial concerns raised by OCC, VTP prepared TN004 – Spine Road Assessment (November 2021), which focused on possible improvements to the stretch of Charlotte Avenue from the Gagle Brook Primary School to the junction with the B4100 Banbury Road.

2.2.3 No further comments have been raised by OCC in relation to this stretch of Charlotte Avenue, and as such, it is assumed that the proposed mitigation measures are acceptable to be OCC.

2.2.4 OCC's further consultation responses noted that concerns remained over the suitability of the narrow

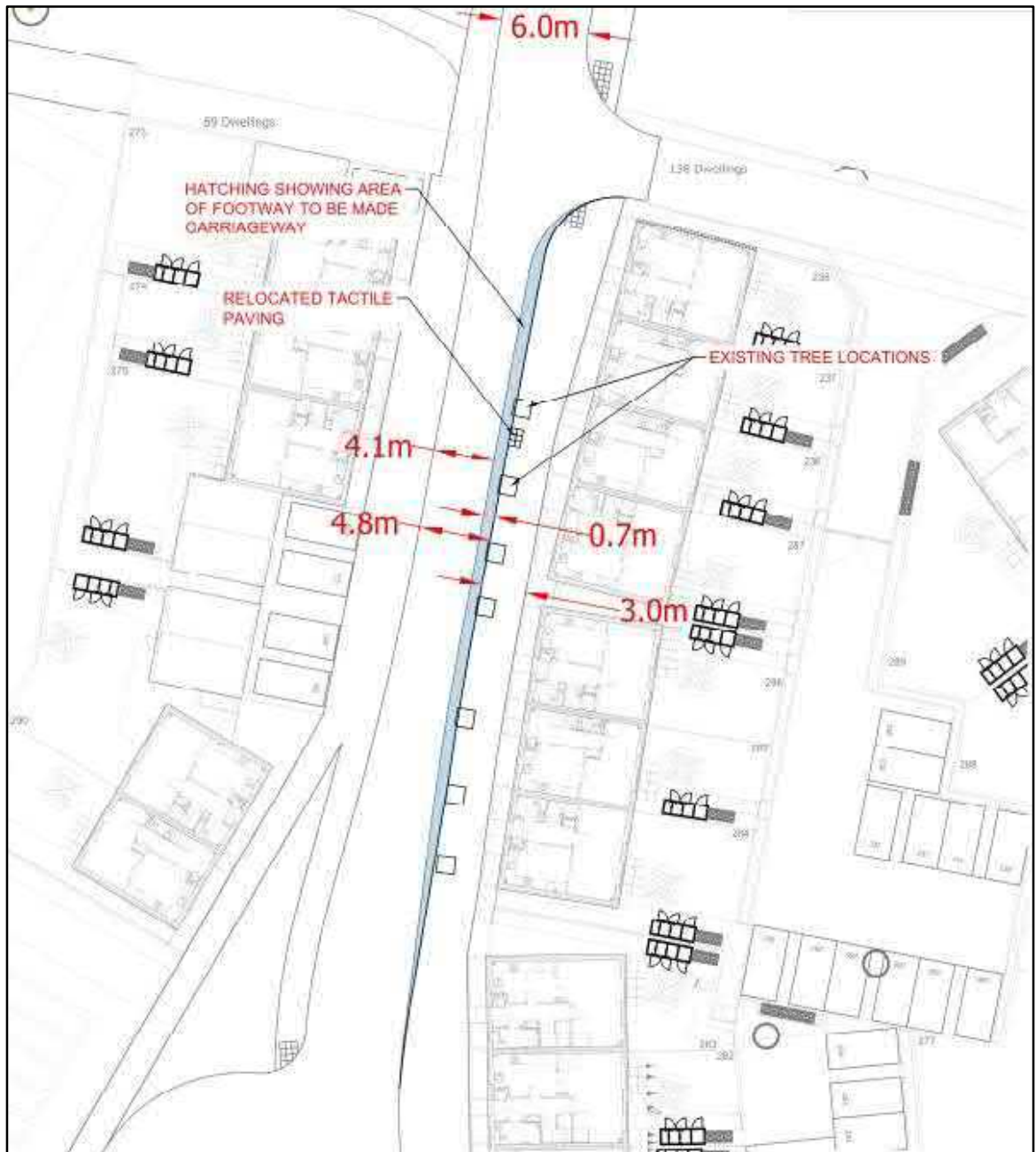


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section of Charlotte Avenue between the Gagle Brook Primary school and the bus gate, and in particular to the immediate north of the bus stop opposite the school.

2.2.5 VTP Drawing 4600-1100-T-073 Rev A – Elmsbrook Spine Road Assessment, a copy of which is included in **ATTACHMENT A**, identifies the existing and proposed widths of the ‘contentious’ stretch of Charlotte Avenue between the Gagle Brook Primary School and the bus gate. An extract of this plan is presented below in **Figure 2-2**.

Figure 2-2: Extract from Elmsbrook Spine Road Assessment (4600-1100-T-073 Rev A)



2.2.6 It is clear from the above extract that the existing width of this stretch of Charlotte Avenue is as narrow as 4.1m in parts. Whilst it is acknowledged that there are existing trees located within the wide pavement along the eastern side of Charlotte Avenue, the above extract shows that it would be possible to increase

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the width of the carriageway to at least 4.8m without impacting the existing trees located along the eastern side of the carriageway. It is acknowledged that this increased width of the carriageway would result in a reduced width of the pavement, but it would not impact the suitability of this pavement to accommodate the existing level of activity that would be using it due to the location of the existing trees.

- 2.2.7 No reduction in the width of the pavement on the western side of Charlotte Avenue would be required, and this is considered to be the 'desire line' for people using this route from the north of the Elmsbrook development (Phase 3 and 4 and the development north of the bridge crossing), and the future Firethorn development. For info, the width of this western footway is well in excess of 3.5m for the majority of the identified length adjacent to the properties, and more importantly, it currently accommodates three existing trees. As such, adequate footway provision is considered to be provided along this existing pavement.

2.3 SUMMARY

- 2.3.1 It is considered that a design solution has been identified to increase the existing width of the narrow carriageway along Charlotte Avenue from the existing substandard provision of 4.1m to an acceptable 4.8m without an adverse impact on the provision for pedestrians using this route toward the Gagle Brook Primary School.
- 2.3.2 However, it is acknowledged that whilst a design solution might be identified to provide suitable improvements to the Elmsbrook Spine Road that would be in accordance with both MfS and LTN 1/20, as the Elmsbrook Spine Road remains a private road, neither the developers of the Firethorn scheme nor OCC are in a position to implement these proposed improvement works at present.
- 2.3.3 A financial contribution towards the future improvement of the Elmsbrook Spine Road could be agreed with the future developers that would have an impact on this corridor, which could then facilitate the future improvement to the Elmsbrook Spine Road once it is adopted by OCC.



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3 CYCLE PROVISION ON BRAEBURN AVENUE

3.1 INTRODUCTION

3.1.1 OCC's third reason for objection, as set out in their latest consultation response dated the 16th of May 2022, suggests that there is a need for improvements to cycle provision on Braeburn Avenue as a result of vehicular traffic generated by the development.

3.2 EXISTING BRAEBURN AVENUE PARAMETERS

3.2.1 Braeburn Avenue currently extends from the priority junction with the B4100 Banbury Road to the bus gate that separates Braeburn Avenue from Charlotte Avenue along the Elmsbrook Spine Road. A priority junction with Lemongrass Road is located approximately 65m south of the B4100 that provides access to Phase 4 of the Elmsbrook development (138 dwellings), a priority junction with Blueberry Avenue is located approximately 40m further south, which provides the primary access to Phase 3 of the Elmsbrook development (89 dwellings), and a further priority junction with Sage Street is located at the northern end of the bus gate, which provides a secondary access to Phase 3 of the Elmsbrook development.

3.2.2 The concerns raised by OCC relate to the provision of cycle facilities along Braeburn Avenue that would need to be provided in accordance with the LTN 1/20 guidance. As such, it is necessary to establish the level of activity predicted along this corridor for pedestrians, cyclists and vehicular traffic in order to establish the suitability of this route.

3.2.3 A review of the local facilities in the area identifies that there are no destinations for pedestrians or cyclists to the north of the Elmsbrook development via the junction of Braeburn Avenue with the B4100 Banbury Road. On-site observations have established that pedestrian footways are not provided on either side of Braeburn Avenue to meet the B4100, nor are any pedestrian facilities provided along the B4100.

3.2.4 As the only destinations for pedestrians and cyclists from Phases 3 and 4 of the Elmsbrook development would be towards Bicester town centre via the existing bus gate, it is only cyclists from these parcels that are to be accommodated along the stretch of Braeburn Avenue from the junction of Lemongrass Road (Phase 4), Blueberry Drive (Phase 3), and Sage Street (Phase 3).

3.2.5 Due to the layout of Phase 3, with the primary vehicular access from Braeburn Avenue considered to be from the junction with Blueberry Drive, a limited number of pedestrians and cyclists would use this junction to pass through the bus gate as a more direct route is available via the junction with Sage Street. However, it is acknowledged that all cycle traffic associated with Phase 4 of the Elmsbrook development would access Braeburn Avenue from the junction of Lemongrass Road. Pedestrians would utilise other available routes from Phase 4.

3.2.6 As such, a limited number of cyclists would use Braeburn Avenue as a route to destinations in Bicester town centre. To establish what level of activity this would reasonably be, **Table 3-1** provides an indication of cyclists and vehicles that would be generated along the stretch of Braeburn Avenue between the junction of Lemongrass Road and the bus gate and includes the traffic flows that would be generated by the limited amount of traffic that would use the proposed junction to the Firethorn scheme at Access C, which is located to the north of the bus gate.

3.2.7 The cycle and vehicular trip rates have been considered that were set out within the original Transport Assessment that was agreed with OCC to identify these trips.



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Table 3-1: Cycle and Vehicular Activity Along Braeburn Avenue (Daily)

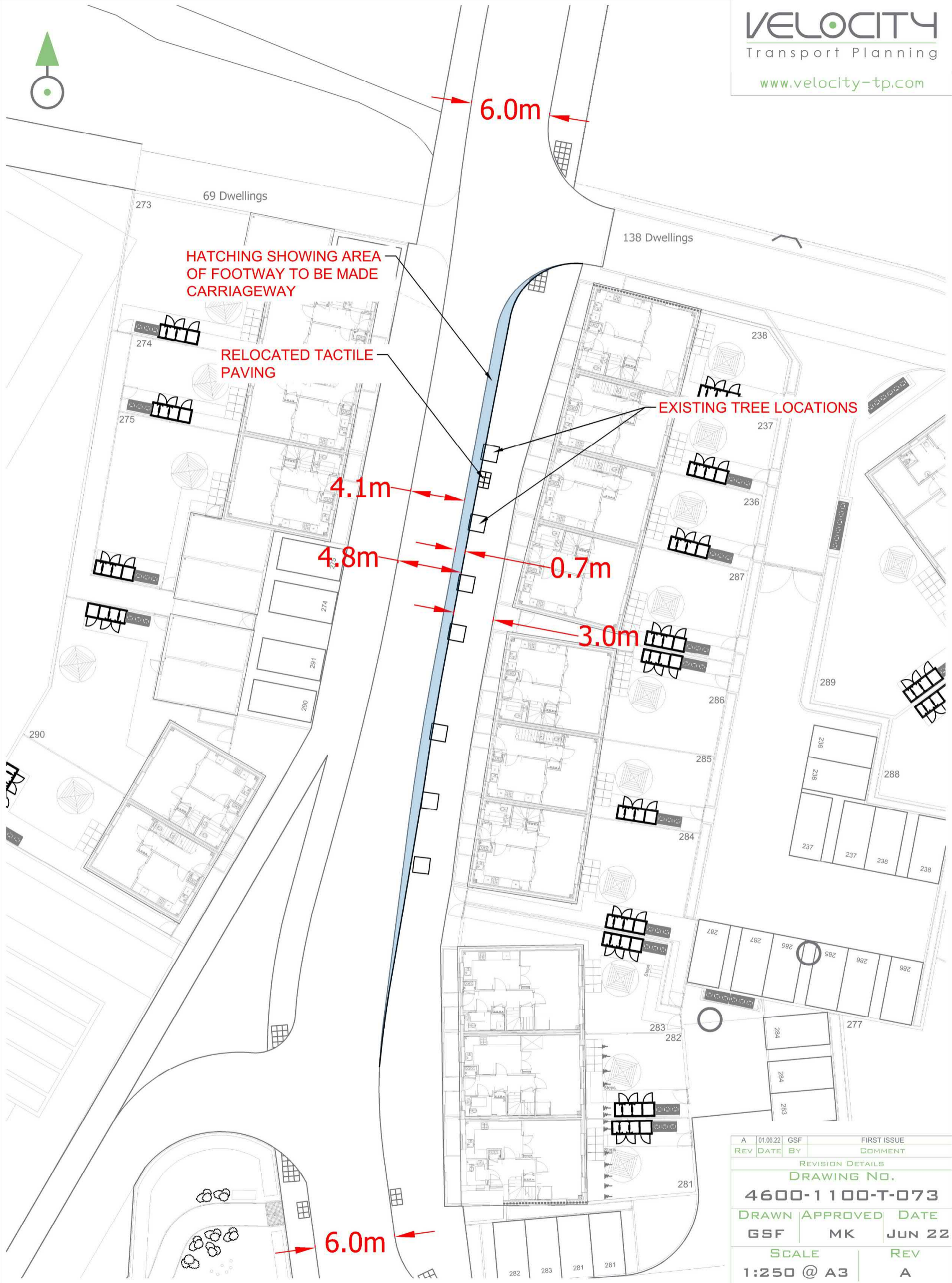
Parcel	No of Dwellings	Cars	Cycles
Phase 4	138	0	100
Phase 3 (assume 50%)	45	182	33
Firethorn (Access C)	70	284	0
Total	253	466	133

- 3.2.8 Based on the information presented in **Table 3-1**, a total of less than 500 two-way daily vehicle movements would utilise this stretch of Braeburn Avenue, assuming that no vehicles from Phase 4 use Braeburn Avenue from the junction with Lemongrass Road to the south, 50% of vehicles connect with Braeburn Avenue at the junction with Sage Street, which is considered to be very robust as the primary vehicular access with Braeburn Avenue would be via the junction of Blueberry Drive, and 100% of vehicles from Access C of the Firethorn development would utilise Braeburn Avenue. This stretch of Braeburn Avenue would therefore be shared with a maximum of 133 two-way cycle movements.
- 3.2.9 This level of shared vehicle and cycle activity is considered to be well within the parameters identified within LTN 1/20 as being a suitable route for cyclists to share the carriageway with vehicles. As such, no further mitigation is considered to be required to accommodate cyclists, even with the predicted increase in vehicular activity associated with the Firethorn development.



ATTACHMENT A

ELSMBROOK SPINE ROAD ASSESSMENT



A	01.06.22	GSF	FIRST ISSUE
REV	DATE	BY	COMMENT
REVISION DETAILS			
DRAWING NO.			
4600-1100-T-073			
DRAWN		APPROVED	DATE
GSF		MK	JUN 22
SCALE			REV
1:250 @ A3			A

CLIENT
FIRETHORN TRUST
 PROJECT
NW BICESTER

DRAWING TITLE
**ELMSBROOK SPINE
 ROAD ASSESSMENT**



