



**TRANSPORT STATEMENT**  
**Land at South Side, Steeple Aston**

**Engineering, Design and  
Surveying Consultants**

*from inception to completion*







Prepared for: Rectory Homes  
Ref: TR8171225/TF/DW/021  
Issue 2: 4 December 2019

## Document History

Issue	Date	Description	Prepared By	Checked By
1	9 May 19	Draft for client comment	T Foxall	-
2	4 Dec 19	Updated to reflect changes to scheme	T Foxall	-

## Glanville

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-  Structural Engineering
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-  Transport and Highways
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## 1.0 Introduction and Background

- 1.1 This Transport Statement has been prepared by Glanville Consultants on behalf of Rectory Homes to accompany a planning application which seeks consent for the development of land to the south of South Side, Steeple Aston, for residential purposes.
- 1.2 The site, which is located to the west of the centre of Steeple Aston, fronts South Side, an unclassified semi-rural single carriageway road which runs broadly on an east to west alignment adjacent to the northern site boundary. The site currently benefits from an agricultural access which is located just to the east of the existing change in speed limit from 30mph – 60mph, which itself lies to the immediate west of the site boundary. A site location plan is included at Appendix A.
- 1.3 The site has been subject to three previous planning applications, the relevant numbers for which are 17/02414/F, 18/01482/F and 19/01177/F. The former two of these applications sought consent for the erection of six residential dwellings, while the latter sought consent for 10 dwellings. In all three cases, access was proposed to be taken directly from South Side. All three applications were withdrawn prior to determination and therefore as it stands, there is no extant consent on the site.
- 1.4 Although the applications were ultimately withdrawn, Oxfordshire County Council, acting in its role as local Highway Authority, provided statutory consultation responses to all three applications. In the case of the first two applications, the Highway Authority raised objection to the proposals, principally in respect to the lack of pedestrian connectivity between the site and the village. A copy of the Highway Authority's comments in respect of application 18/01482/F, which also reproduces those made in respect of 17/02414/F, are contained at Appendix B of this Statement.
- 1.5 In respect of Application 19/01177/F, the Highway Authority raised no objection owing to the positive steps the applicant had taken to address their original concerns, which principally related to a need to improve pedestrian connectivity between the site and the village. A copy of the Highway Authority's response to the most recent application is also included at Appendix B.
- 1.6 This report therefore sets out the detail of the currently proposed development and addresses the points of concern that previously gave rise to the Highway Authority's objections.

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## 2.0 Proposed Development

- 2.1 The application for which this Transport Statement has been prepared seeks to secure consent for the erection of 10 new residential dwellings, made up of 2 x 2 bed units, 5 x 3 bed units and 3 x 4 bed units. The proposed site layout is illustrated on the drawing contained at Appendix C of this Statement.
- 2.2 As previously proposed, access is shown to be taken directly from South Side by way of a simple priority junction. In the preparation of previous applications on the site, the applicant commissioned speed surveys to derive the appropriate extent of visibility to be achieved upon egress from the proposed site access. Notwithstanding, in its review of the submitted results, the Highway Authority considered that a visibility splay of 2.4 x 107m should be achieved to the west (left upon egress) and 2.4 x 45m should be achieved to the east (right upon egress).
- 2.3 As illustrated by the drawing contained at Appendix D of this Statement, the above prescribed visibility splays can be achieved upon egress from the proposed site access, subject to appropriate clearance of the highway verge and thus the suggested condition relating to visibility splays as previously proposed by the Highway Authority (see Appendix B), can be fully complied with.
- 2.4 With respect to parking provision, the proposed site plan included at Appendix C demonstrates that some 33 spaces are proposed in a mixture of garages and on-plot parking bays.
- 2.5 When compared to the County Council's adopted Parking Standards, this represents an over provision of 'allocated' spaces, with the standards requiring a maximum provision of 20 spaces. However, the standards would also permit provision of a maximum of 5 unallocated spaces, which the proposed site layout does not specifically allow for. However, given that unallocated provision is intended to principally provide for visitors, the over provision of allocated spaces more than makes up for the absence of any unallocated spaces and will ensure that no overspill parking demand, should it arise, occurs along South Side.
- 2.6 In terms of access to the site by larger vehicles, the drawing contained at Appendix E of this Statement demonstrates that an 11.6m refuse vehicle can satisfactorily access the site, turn around and egress in forward gear. All properties would be with the maximum drag and carry distances prescribed in *Manual for Streets*.

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### 3.0 Pedestrian Connectivity

- 3.1 As noted in Section 1 of this Statement, the principal area of concern originally cited by the Highway Authority when it responded to the original two applications submitted on the site was the lack of any pedestrian connectivity between the site and the wider village.
- 3.2 In light of these concerns, the applicant and Glanville entered into pre-application discussions with the Highway Authority in respect of the various options and alternatives which exist for addressing the noted concerns.
- 3.3 Further to the submission of an Options Appraisal which presented the findings of further survey work requested by the Highway Authority, a detailed assessment of a series of possible options for addressing the identified concerns, along with an accompanying Road Safety Audit, a preferred scheme of works was derived, the details of which are illustrated on the drawing contained at Appendix F of this Statement.
- 3.4 Following submission of the drawing contained at Appendix F to the Highway Authority, it was confirmed that the principles illustrated thereto were acceptable in principle to the authority and that should the applicant propose these improvements as part of a full application, then the County Council would not object on that basis. Copies of relevant correspondence confirming this are contained at Appendix G of this Statement, which is subsequently corroborated by the Authority's response to application 19/01177/F contained at Appendix B.
- 3.5 Notwithstanding the above, for completeness the Applicant has subsequently commissioned a further Stage 1 Road Safety Audit of the agreed scheme of works. This Audit differs to that originally undertaken by virtue of it focussing solely upon the agreed scheme of works, not a series of options which were the previous subject matter.
- 3.6 Before the new Safety Audit was undertaken, where considered appropriate to do so, Glanville took the opportunity to update the works drawing to capture the minor comments made within the Highway Authority's comments contained within the correspondence at Appendix B and G of this Statement. As such, the scheme of works subject of the new Safety Audit is contained at Appendix H of this Statement.
- 3.7 Appendix I of this Statement contains a copy of the new Stage 1 Road Safety Audit. The Audit team identified a number of 'problems' with the scheme which Glanville, as the Design Organisation, have sought to address through a Designer's Response, a copy of which is contained at Appendix J of this Statement.
- 3.9 In light of the Audit Team's comments and the Design Organisation's responses, where considered necessary and appropriate, the proposed scheme of works has been amended slightly, with the final proposed scheme presented on the drawing contained at Appendix K of this Statement.
- 3.10 A series of swept path drawings of vehicles traversing successfully through the proposed works are contained at Appendix L of this Statement.

- 3.11 Given then that the applicant proposes to deliver the scheme of works presented on the drawing contained at Appendix K of this Statement, which themselves do not differ materially to those which the Highway Authority has previously considered acceptable, it is considered that the Highway Authority's principal reason for having previously raised objection to the development of land to the south of South Side continue to have been comprehensively addressed.
- 3.12 The applicant would accept a suitably worded condition requiring implementation of the proposed scheme of works prior to first occupation of any dwelling on-site.

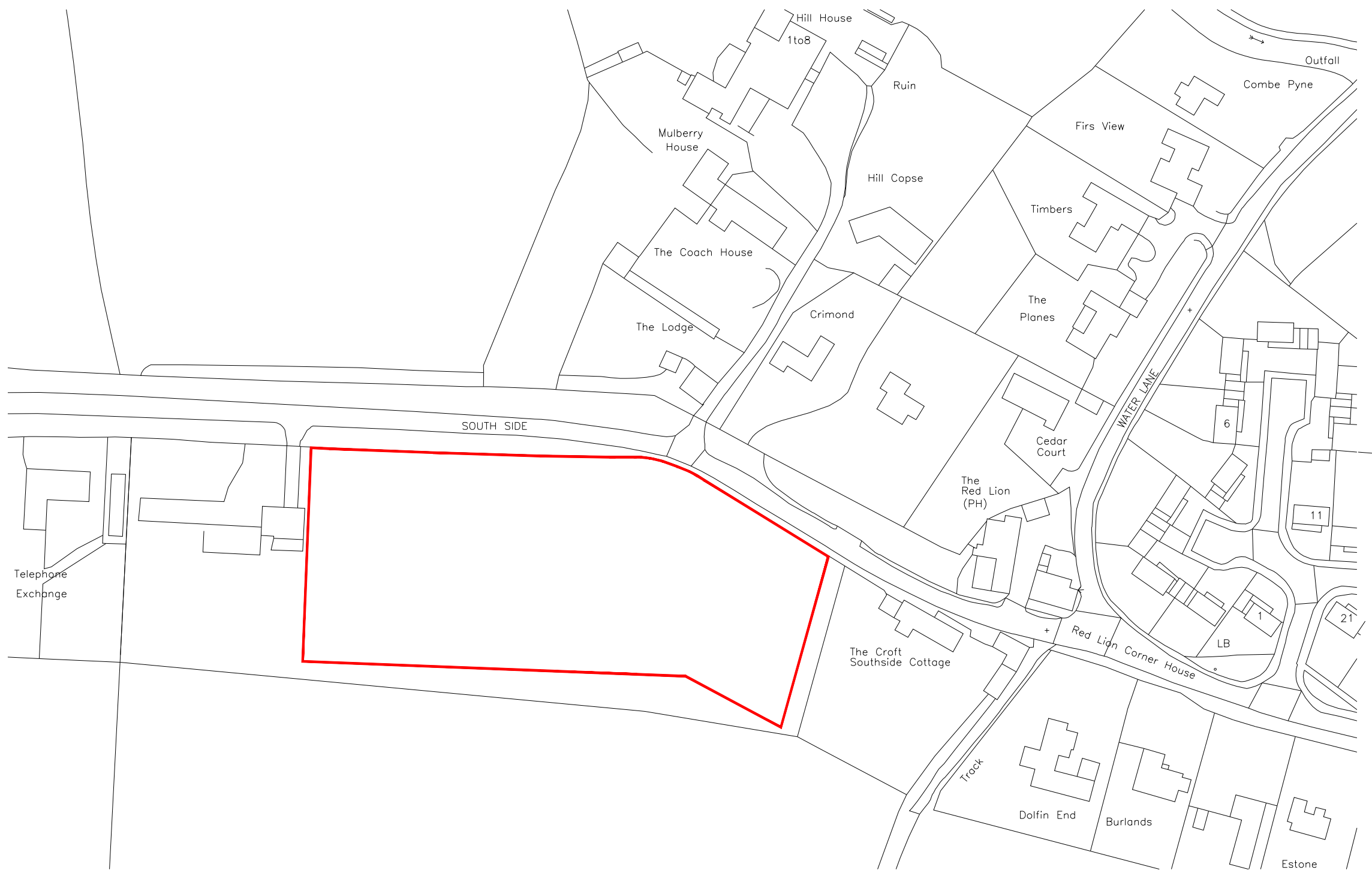
#### **4.0 Summary & Conclusion**

- 4.1 This Transport Statement has been prepared by Glanville Consultants on behalf of Rectory Homes to support an application for the development of land adjacent to South Side, Steeple Aston, for residential purposes.
- 4.2 The development proposes erection of 10 dwellings with associated parking and landscaping, with access taken directly from South Side.
- 4.3 It has been demonstrated that visibility upon egress from the proposed site access can be achieved in line with that requested historically by the Highway Authority.
- 4.4 It has been demonstrated that although the proposed parking provision does not include for unallocated spaces, the overprovision of allocated spaces will ensure that any overspill parking, should it arise, will not occur on South Side.
- 4.5 It has been demonstrated that refuse vehicles can satisfactorily access the site, turn and exit in forward gear.
- 4.6 It has been demonstrated that the Highway Authority's previous concerns with respect to pedestrian connectivity can be satisfactorily addressed through the implementation of a scheme of works which have now been agreed in principle.
- 4.7 On the basis of the above and in the context of Paragraph 109 of the National Planning Policy Framework, it is considered that the proposals would neither give rise to an unacceptable impact on highway safety or a severe residual cumulative impact on the road network and therefore the application should not be refused on highway grounds.



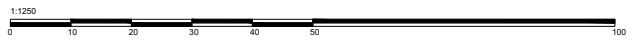
## Appendices

**Appendix A**  
**Site Location Plan**



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PROJECT:			
South Side Steeple Aston			
DRAWING:			
Location Plan			
DEPARTMENT:	DRAWN BY:	CHECKED BY:	
Planning	MC		
DRAWING No:	SCALE:	PAPER:	REV:
P.224.LP.01	1:1250	A3	A
STATUS:	DATE:		
Proposed	28.07.17		



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**Appendix B**

**Oxfordshire County Council's Consultation Response to  
Application No. 18/01482/F and 19/01177/F**

**From:** Plater, Roger - Communities  
**Sent:** 14 September 2018 14:13  
**To:** James Kirkham  
**Cc:** Cllr Arash Ali Fatemian  
**Subject:** 18-01482-F South Side Steeple Aston

Hi James,

I have looked over the above planning application and have the following comments to make.

---

<b>Planning application:</b>	18/01482/F
<b>Location:</b>	Land To The South And Adj To South Side Steeple Aston
<b>Description:</b>	Erection of 6 no. two-storey residential dwellings with access off South Side, including parking and garaging, landscaping and all enabling and ancillary works
<b>Type:</b>	Full Development
<b>Case officer:</b>	James Kirkham

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### **Recommendation:**

Oxfordshire County Council, as the Local Highways Authority, hereby notify the District Planning Authority that they **object** to the granting of planning permission.

Should the Planning Authority decide to approve the application, then the following conditions are requested:

### **Conditions:**

#### **Access: Full Details**

Prior to the commencement of the development hereby approved, full details of the means of access between the land and the highway, including, position, layout, construction, drainage and vision splays shall be submitted to and approved in writing by the Local Planning Authority. Thereafter, the means of access shall be constructed and retained in accordance with the approved details.  
Reason - In the interests of highway safety and to comply with Government guidance contained within the National Planning Policy Framework

#### **Vision Splay Details**

Prior to the commencement of the development hereby approved, full details of the access vision splays, including layout and construction shall be submitted to and approved in writing by the Local Planning Authority. Thereafter, and prior to the first occupation of the development the vision splays shall be constructed in accordance with the approved details and the land and vegetation within the vision splays shall not be raised or allowed to grow above a maximum height of 0.6m above carriageway level. The splay to the west of the access shall be 2.4m x 107m, and to the east of the access shall be 2.4m x 45m.  
Reason - In the interests of highway safety and to comply with Government guidance contained within the National Planning Policy Framework

### **Close Existing Access**

Prior to the first use of the access hereby approved, the existing access onto South Side shall be permanently stopped up by means of hedging and verge, and shall not be used by any vehicular traffic whatsoever.

Reason - In the interests of highway safety and to comply with Government guidance contained within the National Planning Policy Framework

### **Parking and Manoeuvring Areas Retained**

Prior to the commencement of the development hereby approved, full specification details (including construction, layout, surfacing and drainage) of the parking and manoeuvring areas shall be submitted to and approved in writing by the Local Planning Authority. Thereafter, and prior to the first occupation of the development, the parking and manoeuvring areas shall be provided on the site in accordance with the approved details and shall be retained unobstructed except for the parking and manoeuvring of vehicles at all times thereafter.

Reason - In the interests of highway safety and to comply with Government guidance contained within the National Planning Policy Framework

### **Estate Accesses, Driveways and Turning Areas**

Prior to the commencement of the development hereby approved, full specification details of the vehicular accesses, driveways and turning areas to serve the dwellings, which shall include construction, layout, surfacing and drainage, shall be submitted to and approved in writing by the Local Planning Authority. Thereafter and prior to the first occupation of any of the dwellings, the access, driveways and turning areas shall be constructed in accordance with the approved details.

Reason - In the interests of highway safety, to ensure a satisfactory standard of construction and layout for the development and to comply with Government guidance contained within the National Planning Policy Framework.

### **Comments:**

It appears that this application is identical in all aspects to the one (1702414/F) that was previously withdrawn. It is noted that the Planning Statement and Design & Access Statement have both been re-dated as August 2018, but the content appears to be the same as before.

The LHA comments to 17/02414/F have not been addressed in the latest submission. In particular, the main areas of concern were the visibility splays from the entrance, and the lack of provision for pedestrians between the site and the village. Required visibility splays were calculated (from the limited amount of valid speed data) as 107m to the west and 45m to the east, but the Indicative Site Access drawing in Appendix B of the Transport Statement still shows 90m and 43m respectively. There is no discussion on potential improvements for safe pedestrian access to the village. Therefore, my comments on 18/01482/F remain the same as on 17/02414/F, and I reproduce them here:

*The proposal would create a new vehicular access on to South Side, which would be approximately 10m to the east of the existing agricultural access. Should planning permission be granted, a separate consent in the form of an agreement under*

*Section 278 of the Highways Act 1980 will be required. Pedestrian access will also be available via a footpath to South Side at the east end of the development, although this appears to serve Plot 6 only as this plot is gated off from the rest of the site.*

*My objection is due to the lack of existing provision for pedestrians on the route between the site and the village. There are a number of facilities in the village (as listed in Table 4.2 of the Transport Statement), including the bus stops which serve routes including the regular S4 service between Oxford and Banbury. These facilities would not be able to be reached safely on foot as there is no footway between Water Lane and the site, a distance of approximately 110m to the Plot 6 pedestrian access, or 170m to the main access. There is a curve in the road and a change in gradient near to the Red Lion pub, which results in poor inter-visibility between vehicles and pedestrians, who would be on the carriageway. Thus I do not consider that a safe and suitable access to the site can be achieved for all people, as required by the National Planning Policy Framework (cl. 32).*

*The vehicular access would need to be a bellmouth junction with 6m radii as noted in sect. 3.2.1 of the Transport Statement and shown on the drawings, rather than a verge crossover as suggested in sect. 2.6 of the Access Appraisal.*

*It is recognised that the traffic survey took place during a week when three days were heavily influenced by the snowy and icy weather conditions, which has suppressed the average and 85%ile speeds, as well as the number of vehicles. South Side to the west of the proposed access has a 60mph speed limit up to approx. 20m of the junction, so the Design Manual for Roads and Bridges criteria will apply. The Manual for Streets is appropriate for the east side where the limit is 30mph. Due to the overgrown vegetation it is not possible to measure the actual visibility to the east, but given that the vegetation is within the curtilage of the site it should be possible to achieve the necessary visibility. Locations of the ATCs were appropriate, being around 45m to the east of the junction, and 76m to the west.*

*The speed data gathered during the four days unaffected by bad weather is sufficient to determine the 85%ile speeds, and the visibility required in each direction. The average 85%ile eastbound speed (i.e. towards the village at Site 1) is 40.85mph, and the corresponding westbound speed is 30.89mph at Site 2. Therefore, using the standards referenced above, the required visibility splays will be 2.4m x 107m to the west and 2.4m x 45m to the east. Conditions requiring the construction and maintenance of these splays are requested should the application be approved.*

*Garages in Plots 1 and 2 will need to have internal dimensions of at least 6.0m x 3.0m to count as parking spaces, and to accommodate cycle storage. Plots 3 to 6 have adequate unenclosed parking.*

*It should be noted that the NPPF was updated and reissued in July 2018. The requirement for a "safe and suitable access" remains, but is now in clause 108.*

*If you would like to discuss any of the above in more detail, then please do not hesitate to contact me.*

Kind regards

*Roger*

Roger Plater  
Transport Planner, Transport Development Control  
(Cherwell and West Oxfordshire)  
Oxfordshire County Council



**Application no: 19/01177/F**

**Location:** Land To The South And Adj To South Side Steeple Aston

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## **Transport Schedule**

### **Recommendation:**

#### **No objection subject to:**

- **S106 Contributions** as summarised in the table below and justified in this Schedule:
- **An obligation to enter into a S278** agreement as detailed below.
- **Planning Conditions** as detailed below.
- Note should be taken of the **informatives** stated below.

#### S106 Contributions

<b>Contribution</b>	<b>Amount</b>	<b>Price base</b>	<b>Index</b>	<b>Towards (details)</b>
Public transport services	£10,000	July 2019	RPI-x	Improvements to the bus service that connects Steeple Aston to Banbury and Oxford.
<b>Total</b>	<b>£10,000</b>			

### **Key points**

- Pedestrian improvements are agreed in principle
- A S278 Agreement, secured by a S106, will be necessary for the improvement works
- A contribution is required towards the improvement of the existing bus service
- A swept path analysis of the final layout, including the passage of appropriate agricultural vehicles, is required.

### **Comments:**

#### **Background**

This site has been subject to two previous applications (17/02414/F and 18/01482/F). The OCC response to the latter application, which was identical to the

original application, is included in Appendix B of the Transport Statement. Although these two previous proposals were for six dwellings rather than the ten now put forward, the principle of development is the same in transport terms.

OCC, as the Local Highway Authority (LHA), objected to the previous schemes due to the lack of existing provision for pedestrians on the route between the site and the village. Subsequently, the applicant and their Transport Consultant have engaged in pre-application discussions with the LHA to formulate the required improvements for pedestrians, as discussed further below. The proposed improvements are considered satisfactory by the LHA, so I am able to remove my objection to the development of the site, subject to the terms in the Recommendation above.

### Pedestrian improvements

The applicant's Transport Consultant, Glanville, initially produced five options that were evaluated by a Road Safety Audit. Following consideration of the "problems" associated with each option, a "Preferred Final Option" was derived. After further assessment and a site meeting, the proposed layout drawing was modified to that included in Appendix F of the Transport Statement (drg. no. 8171225/6110 Rev. A1).

OCC have some outstanding comments on this drawing which have been communicated (ref. email in Appendix G of the TS) but which are yet to be incorporated:

- We are still of the opinion that the priority sign to diagram 615 needs to be lit. The TSRGD requires this to be illuminated as it is within 50m of a street light which forms part of a system of street lighting, and it is a 30mph speed limit.
- The 811 sign is not in a suitable position as it is too distant from the build-out. As it is an advisory sign there is no requirement to provide it in conjunction with 615, but we would prefer that the sign is provided, assuming that a suitable alternative location can be found, taking account of site constraints. The 811 sign does not need to be lit.
- The virtual footway should be buff colour, rather than grey.

OCC are satisfied that the proposals will offer a significant improvement for pedestrians moving to/from the west side of the village to the centre. The virtual footway concept has been used successfully in other locations within Oxfordshire (and elsewhere) and is considered appropriate in this situation, in conjunction with a build-out feature that will reduce vehicle speeds and will effectively reduce traffic flow to a single lane along the length of the virtual footway.

### Parking

The proposals incorporate adequate car parking provision so there should not be the risk of overspill parking in the highway.

As every dwelling has a garage and enclosed back garden there will be opportunities to conveniently store bicycles. Single garages must have internal dimensions of at least 6.0m x 3.0m to allow cycle storage along with a car.

### Visibility splays

Visibility splays at the access junction were considered as part of the previous application, where the required splay length was determined from the trustworthy speed data (i.e. that which was not recorded during days of snow and ice). I have requested a condition to create and maintain the splays over the required dimensions.

### Bus services

Steeple Aston is served by the Banbury-Oxford inter-urban bus route (currently S4) on an hourly basis during Mondays to Fridays.

The development needs to make a contribution to the cost of improving the frequency and hours of operation of the bus service. Other developments in Bodicote, Adderbury, Deddington and Tackley have made a contribution of £1,000 per additional dwelling.

The S4 bus service provides a very valuable public transport facility for the residents in Steeple Aston village, linking them with many opportunities and facilities in Banbury and in Oxford. The desire for an improved pedestrian environment along the narrow village road is certainly understood. However, the full-sized Gold-specification buses used on this route are 12 metres long and 3 metres wide (including mirrors). A width of 2.82 metres is shown at one point on the reconfigured road.

### Swept path analysis

Swept path analyses were carried out using a 12.8m long bus and a 11.6m refuse collection vehicle, for the five initial options. For completeness, these vehicles should be tracked along the final proposed layout. I note that there is also an occasional need for oversize agricultural vehicles to move along this stretch of road. The applicant needs to determine what type of vehicles these will be, and perform a swept path analysis to ensure that they can pass through.

### Road agreements

Standard comments regarding Road Agreements:

- Visibility Splays must be dedicated to OCC if they fall out of the existing highway boundary.
- If there is not a footway adjacent to the carriageway an 800mm maintenance margin is required.
- Visitor parking bays should not interfere with internal vis splays.
- No Highway materials, construction methods, adoptable layouts and technical details have been approved at this stage. The detailed design will be subject to a full technical audit.
- Informative note: OCC require saturated CBR laboratory tests on the sub-soil likely to be used as the sub-formation layer. This would be best done

alongside the main ground investigation for the site but the location of the samples must relate to the proposed location of the carriageway/footway.

- Foul and surface water manholes should not be placed within the middle of the carriageway, at junctions, tyre tracks and where informal crossing points are located.
- No property should be within 500mm of the proposed highway. No doors, gates, windows, garages or gas/electric cupboards should open onto the proposed highway.
- Trees within the highway will need to be approved by OCC and will carry a commuted sum. No private planting to overhang or encroach the proposed adoptable areas.
- Trees that are within 5m of the carriageway or footway will require root protection, trees must not conflict with street lights.
- No private drainage to discharge onto existing Highway.
- No private drainage to discharge onto any area of proposed adoptable highway.

### **S106 obligations and their compliance with Regulation 122(2) Community Infrastructure Levy Regulations 2010 (as amended):**

**£10,000 Public Transport Service Contribution** indexed from July 2019 using RPI-X

**Towards:** Upgrading of the bus service that connects Steeple Aston with Oxford and Banbury to a half-hourly daytime frequency.

**Justification:** The contribution is necessary to make the development acceptable in planning terms because the increase in frequency would make the destinations of Oxford and Banbury, and the villages inbetween, more accessible by a sustainable mode of transport. It would be in accordance with paragraph 102 of the National Planning Policy Framework (NPPF July 2018), which states that:

*“Transport issues should be considered from the earliest stages of plan-making and development proposals, so that: ... opportunities to promote walking, cycling and public transport use are identified and pursued.”*

The contribution is fair and reasonably related in scale and kind to the development because it is based on a contribution of £1,000 per dwelling, a calculation that is applied to all new residential developments in Oxfordshire when contributions for public transport improvements are sought.

**Calculation:** £1,000 per dwelling x 10 dwellings = £10,000

### **S278 Highway Works:**

An obligation to enter into a S278 Agreement will be required to secure mitigation/improvement works, including:

- A bellmouth junction to provide access from the site on to South Side, as shown indicatively on drg. no. P.224.SP.01 Rev. H

- Off-site highway works, including a length of 1.2m wide footway, coloured virtual footway, priority build-out feature, signing, lining and lighting, as shown indicatively on drg. no. 8171225/6110 Rev. A1

**Notes:**

This is secured by means of S106 restriction not to implement development (or occasionally other trigger point) until S278 agreement has been entered into. The trigger by which time S278 works are to be completed shall also be included in the S106 agreement.

Identification of areas required to be dedicated as public highway and agreement of all relevant landowners will be necessary in order to enter into the S278 agreements.

S278 agreements include certain payments that apply to all S278 agreements however the S278 agreement may also include an additional payment(s) relating to specific works.

**Planning Conditions:**

In the event that permission is to be given, the following planning conditions should be attached:

**Access: Full Details**

Prior to the commencement of the development hereby approved, full details of the means of access between the land and the highway, including, position, layout, construction, drainage and vision splays shall be submitted to and approved in writing by the Local Planning Authority. Thereafter, the means of access shall be constructed and retained in accordance with the approved details.

Reason - In the interests of highway safety and to comply with Government guidance contained within the National Planning Policy Framework

**Vision Splay Details**

Prior to the commencement of the development hereby approved, full details of the access vision splays, including layout and construction shall be submitted to and approved in writing by the Local Planning Authority. Thereafter, and prior to the first occupation of the development the vision splays shall be constructed in accordance with the approved details and the land and vegetation within the vision splays shall not be raised or allowed to grow above a maximum height of 0.6m above carriageway level. The splay to the west of the access shall be 2.4m x 107m, and to the east of the access shall be 2.4m x 45m.

Reason - In the interests of highway safety and to comply with Government guidance contained within the National Planning Policy Framework

**Close Existing Access**

Prior to the first use of the access hereby approved, the existing access onto South Side shall be permanently stopped up by means of hedging and verge, and shall not be used by any vehicular traffic whatsoever.

Reason - In the interests of highway safety and to comply with Government guidance contained within the National Planning Policy Framework

### **Parking and Manoeuvring Areas Retained**

Prior to the commencement of the development hereby approved, full specification details (including construction, layout, surfacing and drainage) of the parking and manoeuvring areas shall be submitted to and approved in writing by the Local Planning Authority. Thereafter, and prior to the first occupation of the development, the parking and manoeuvring areas shall be provided on the site in accordance with the approved details and shall be retained unobstructed except for the parking and manoeuvring of vehicles at all times thereafter.

Reason - In the interests of highway safety and to comply with Government guidance contained within the National Planning Policy Framework

### **Estate Accesses, Driveways and Turning Areas**

Prior to the commencement of the development hereby approved, full specification details of the vehicular accesses, driveways and turning areas to serve the dwellings, which shall include construction, layout, surfacing and drainage, shall be submitted to and approved in writing by the Local Planning Authority. Thereafter and prior to the first occupation of any of the dwellings, the access, driveways and turning areas shall be constructed in accordance with the approved details.

Reason - In the interests of highway safety, to ensure a satisfactory standard of construction and layout for the development and to comply with Government guidance contained within the National Planning Policy Framework.

### **Construction Traffic Management Plan**

Prior to commencement of the development hereby approved, a Construction Traffic Management Plan (CTMP) shall be submitted to and approved in writing by the Local Planning Authority. Thereafter, the approved CTMP shall be implemented and operated in accordance with the approved details.

Reason - In the interests of highway safety and to mitigate the impact of construction vehicles on the surrounding highway network, road infrastructure and local residents, particularly at morning and afternoon peak traffic times.

### **Informative:**

Prior to commencement of development, a separate consent must be obtained from OCC Road Agreements Team for the new highway vehicular access under S278 of the Highway Act. Contact: 01865 815700; [RoadAgreements@oxfordshire.gov.uk](mailto:RoadAgreements@oxfordshire.gov.uk).

Please note the Advance Payments Code (APC), Sections 219 -225 of the Highways Act, is in force in the county to ensure financial security from the developer to off-set the frontage owners' liability for private street works, typically in the form of a cash deposit or bond. Should a developer wish for a street or estate to remain private then to secure exemption from the APC procedure a 'Private Road Agreement' must be entered into with the County Council to protect the interests of prospective frontage owners.

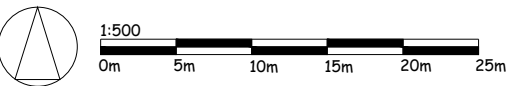
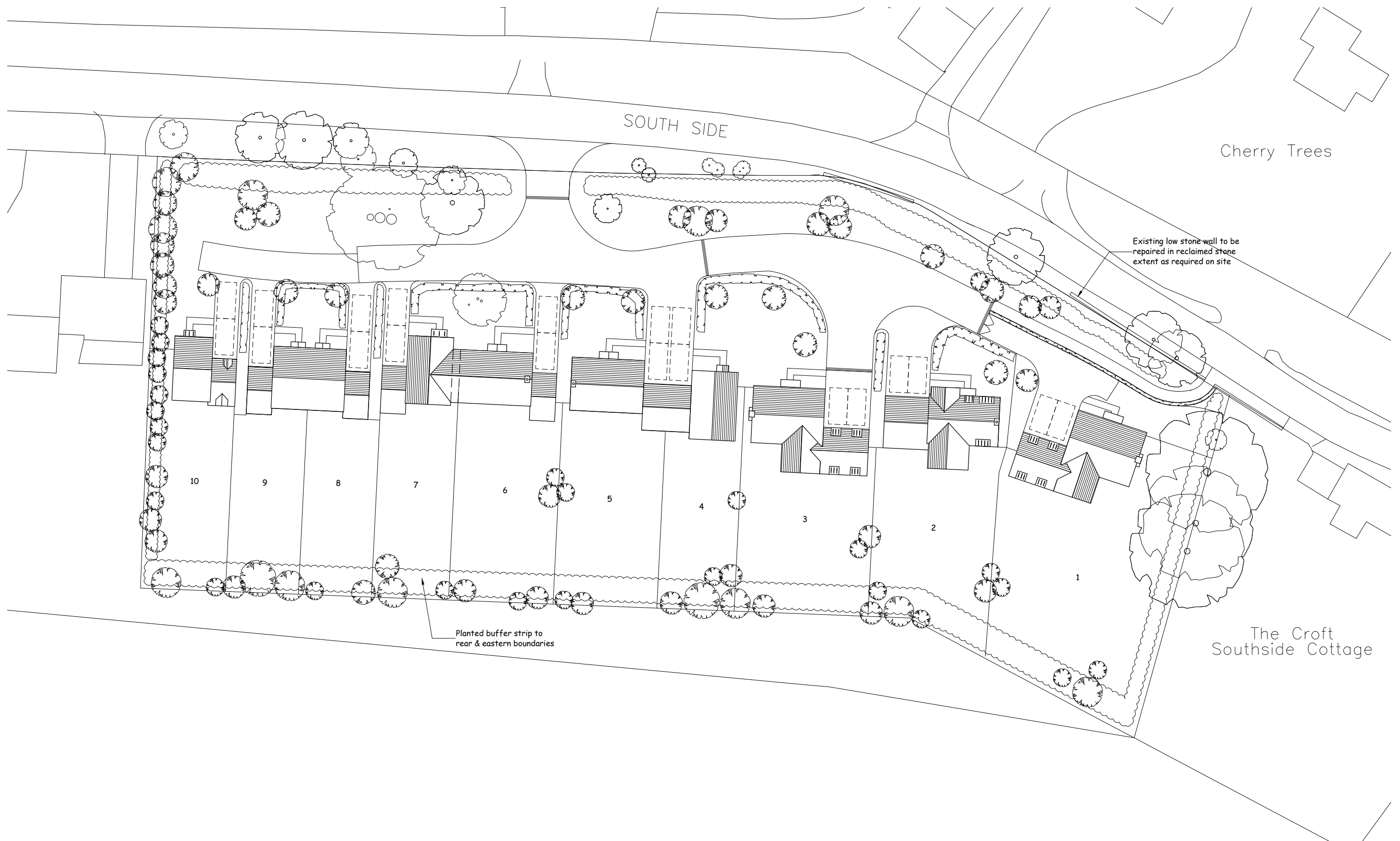
**Officer's Name:** Roger Plater


**Officer's Title:** Transport Planner

**Date:** 8 August 2019

---

**Appendix C**  
**Proposed Site Layout**



PROJECT: South Side, Steeple Aston	DEPARTMENT: Planning	DRAWN BY: GL	CHECKED BY:	RECTORY HOMES LTD RECTORY HOUSE THAME ROAD HADDENHAM, AYLESBURY, BUCKINGHAMSHIRE, HP17 8DA T: 01844 295100 F: 01844 295350 www.rectory.co.uk		
DRAWING: Proposed Site Plan	DRAWING No: P.224.SP.01	SCALE: 1:500	PAPER: A3			REV: K
	STATUS: PROPOSED	DATE: 28.07.17				

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**Appendix D**  
**Visibility Splays**

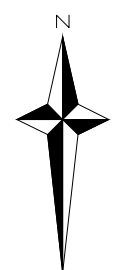


**NOTES**

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

Source: RGL Surveys Ltd drawing number RGL-17-2679  
Rectory homes drawing P.224.SP.01 Rev K

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**KEY**

- 2.4m x y'm
- Site Boundary

B	Architect's layout amended.	27.11.19 T.Hart	TF
A	Architect's layout amended. Visibility splays modified.	08.05.19 M.Delgado	TF
Rev.	Description	Date	Chkd

**Glanville**  
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62 Foxhall Road, Didcot  
Oxon, OX11 7AD  
Tel: (01235) 515550 Fax: (01235) 817799  
postbox@glanvillegroup.com www.glanvillegroup.com

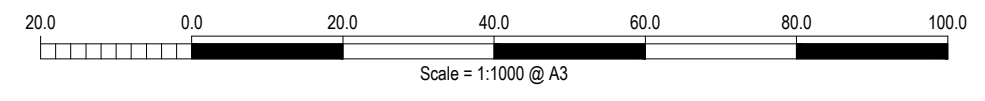
Client :  
**Rectory Homes**

Project :  
**Land at South Side,  
Steeple Aston**

Title :  
**Site Access Visibility Splays**

Project Engineer : B. East      Scale : 1:1000 @ A3  
Project Director : T. Foxall      Date : December 2017  
Status : Preliminary

Drawing No. 8171225/6101      Rev B



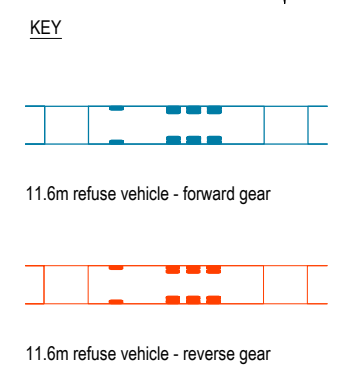
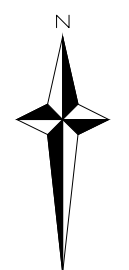
**Appendix E**  
**Swept Path Analysis**



**NOTES**

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

Source: Rectory homes drawing P.224.SP.01 Rev K  
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Rev.	Description	Date	Chkd
A	Architect's layout updated. Swept path revised to suit.	27/11/19 T. Hart	TF

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 postbox@glanvillegroup.com www.glanvillegroup.com

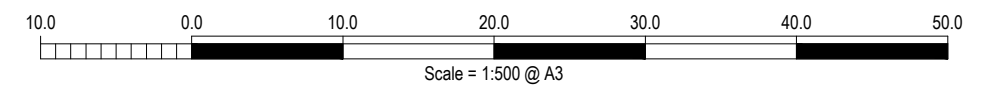
Client :  
**Rectory Homes**

Project :  
**Land at South Side,  
 Steeple Aston**

Title :  
**Swept Path Analysis  
 11.6m Refuse Vehicle**

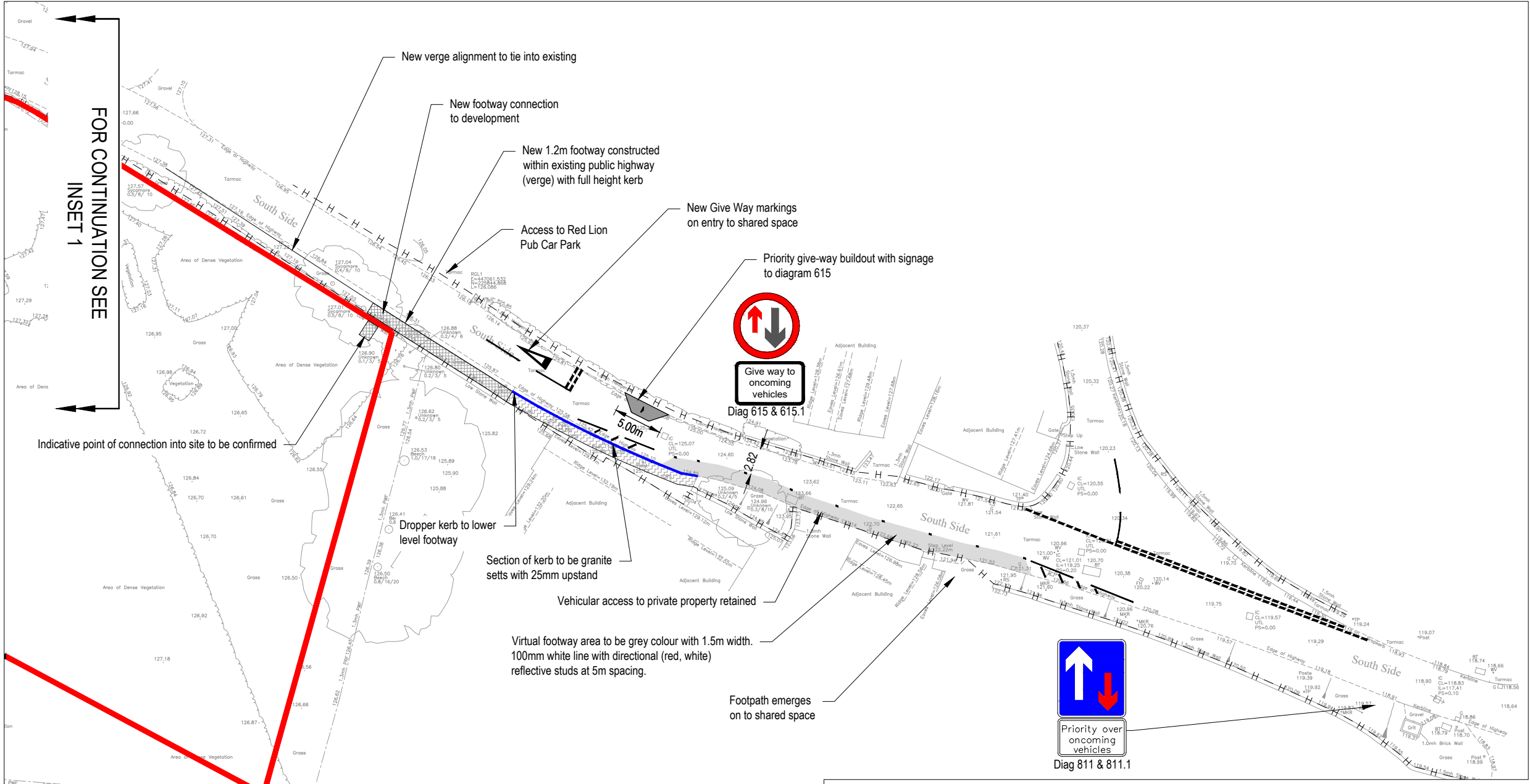
Project Engineer : B. East      Scale : 1:500 @ A3  
 Project Director : T. Foxall      Date : May 2019  
 Status : Preliminary

Drawing No. 8171225/6220      Rev A



**Appendix F**

**Off-site Highway Works**

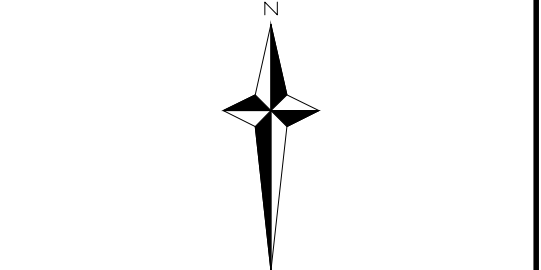


**NOTES**

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- Dimensions are not to be scaled.

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**KEY**

- H - H - Existing highway boundary
- Virtual footway
- New footway constructed within verge (full height kerb)
- New footway constructed across existing driveways/accesses/property frontage (25mm upstand)
- Site Boundary

A1	Updated following site meeting with OCC	10/04/2019	JHeathcote	TF
----	---	------------	------------	----

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

**Glanville**  
 Cornerstone House  
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 postbox@glanvillegroup.com www.glanvillegroup.com

Client : Rectory Homes

Project : Land at South Side, Steeple Aston

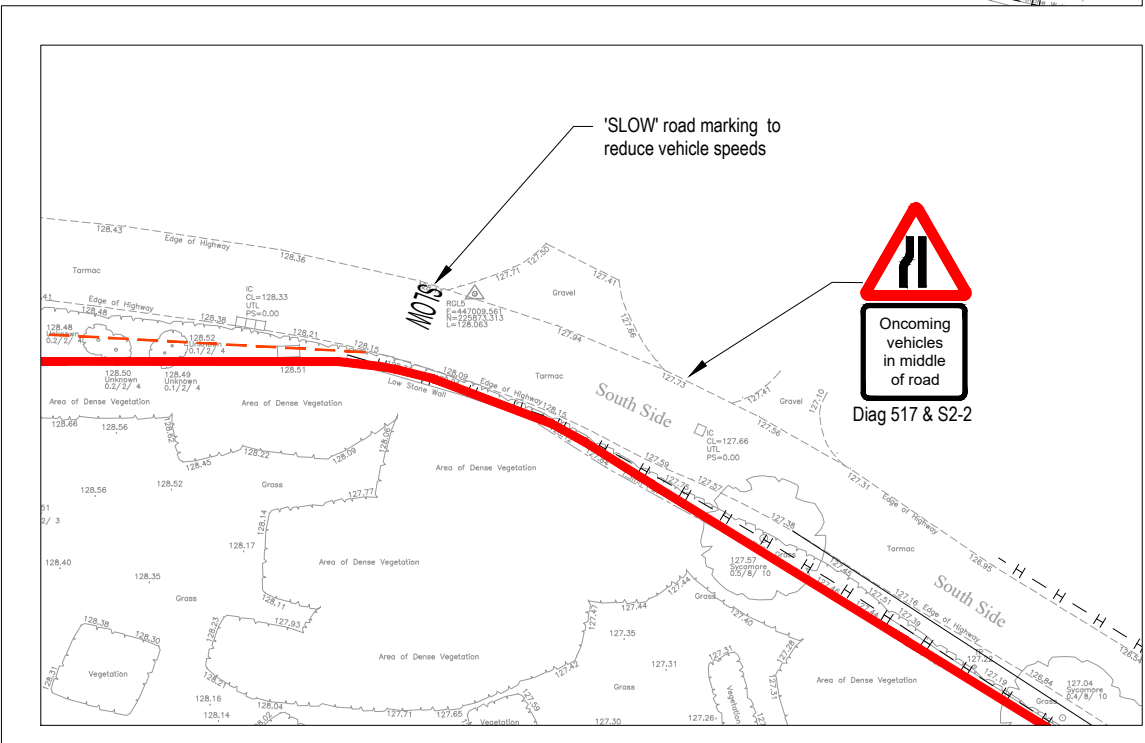
Title : Proposed Pedestrian Facilities with Shared Space

Project Engineer : J.Heathcote Scale : 1:500 @ A3

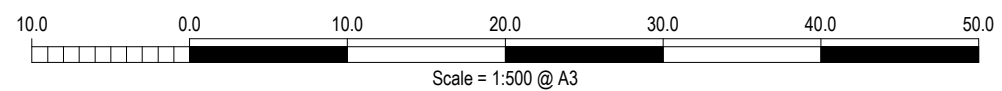
Project Director : T. Foxall Date : March 2019

Status : PRELIMINARY

Drawing No. 8171225/6110 Rev A1



INSET 1



FOR CONTINUATION SEE INSET 1

Indicative point of connection into site to be confirmed

## **Appendix G**

### **Correspondence with Oxfordshire County Council**

**Tim Foxall**

---

**Subject:** FW: Steeple Aston pedestrian improvements

**From:** Plater, Roger - Communities [<mailto:Roger.Plater@Oxfordshire.gov.uk>]

**Sent:** 12 April 2019 10:37

**To:** James Heathcote

**Cc:** Kirkwood, Anthony - Communities

**Subject:** RE: Steeple Aston pedestrian improvements

Hi James,

I can confirm that OCC agree in principle to the pedestrian improvements illustrated in drawing 8171225/6110 Rev. A1 (dated 10/4/2019). Should the applicant propose these improvements as part of a full application then OCC would not object on that basis.

We do have some further comments on this revised drawing, but these will not impact our in-principle agreement:

- We are still of the opinion that the priority sign to diagram 615 needs to be lit. The TSRGD requires this to be illuminated as it is within 50m of a street light which forms part of a system of street lighting, and it is a 30mph speed limit.
- The 811 sign is not in a suitable position as it is too distant from the build-out. As it is an advisory sign there is no requirement to provide it in conjunction with 615, but we would prefer that the sign is provided, assuming that a suitable alternative location can be found, taking account of site constraints. The 811 sign does not need to be lit.
- The virtual footway should be buff colour, rather than grey.

Kind regards

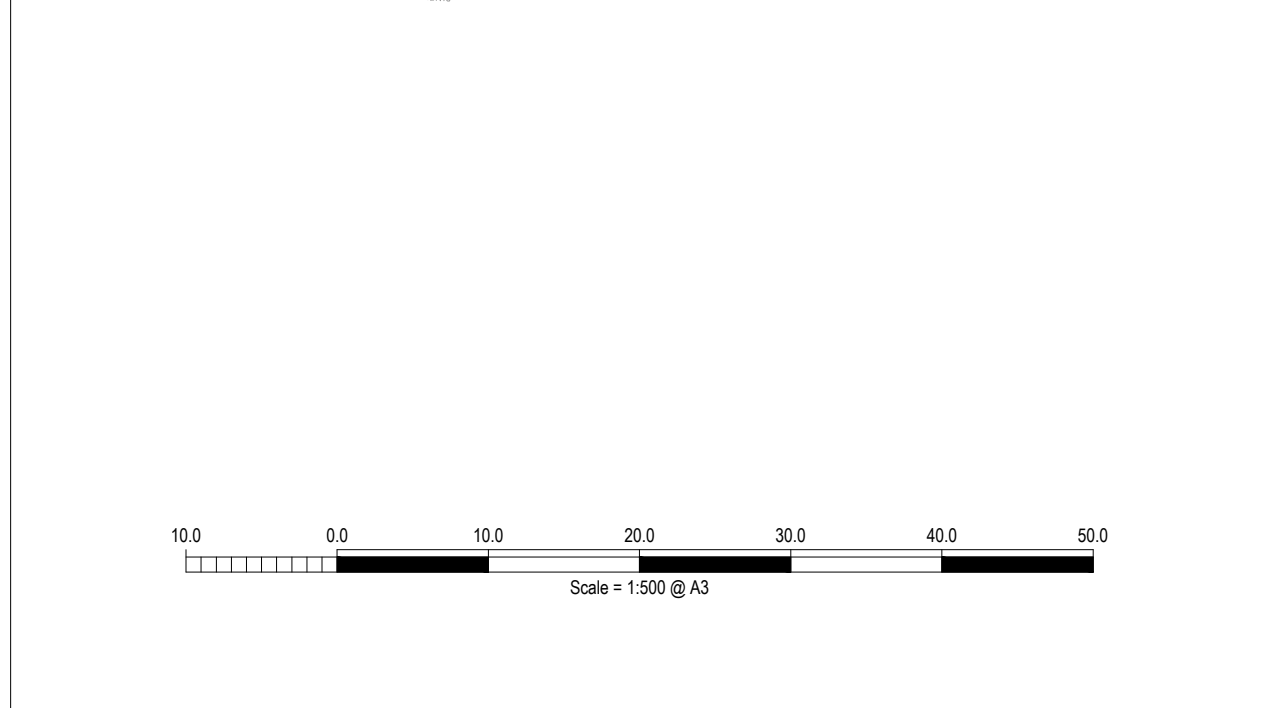
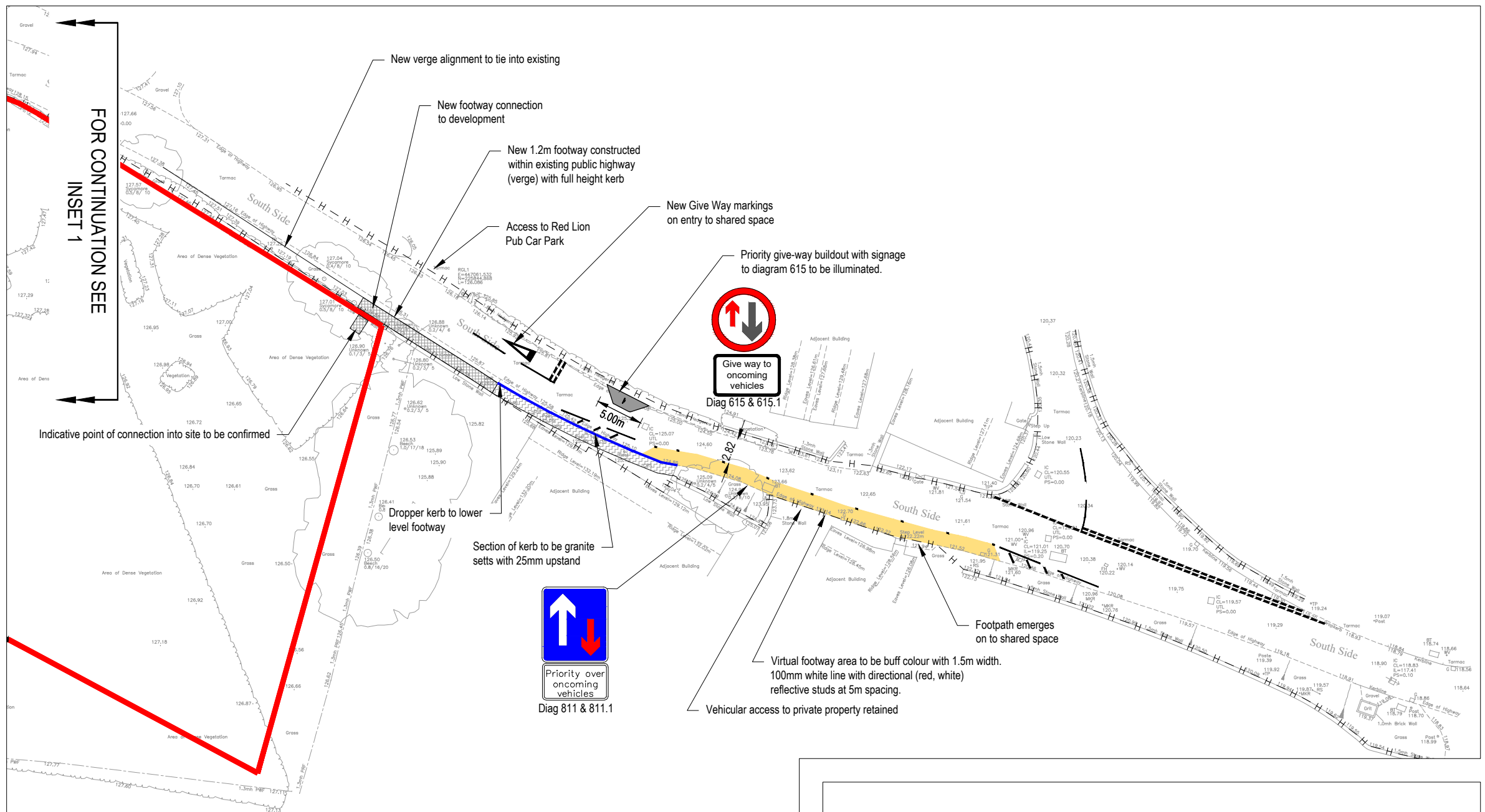
*Roger*

Roger Plater  
Transport Planner, Transport Development Control  
(Cherwell and West Oxfordshire)  
Oxfordshire County Council  
Mobile 07789 653049



## **Appendix H**

### **Updated Off-site Highway Works subject to new Road Safety Audit**

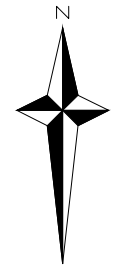


**NOTES**

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

Source: RGL Surveys Ltd drawing number RGL-17-2679

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- KEY**
- H - H - Existing highway boundary
  - Virtual footway
  - New footway constructed within verge (full height kerb)
  - New footway constructed across existing driveways/accesses/property frontage (25mm upstand)
  - Site Boundary

A2	Updated following consultation with OCC	17/04/2019	TF
A1	Updated following site meeting with OCC	10/04/2019	TF

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 postbox@glanvillegroup.com www.glanvillegroup.com

Client :	Rectory Homes		
Project :	Land at South Side, Steeple Aston		
Title :	Proposed Pedestrian Facilities with Shared Space		
Project Engineer :	J.Heathcote	Scale :	1:500 @ A3
Project Director :	T. Foxall	Date :	March 2019
Status :	PRELIMINARY		

Drawing No.	8171225/6110	Rev	A2
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**Appendix I**

**New Stage 1 Road Safety Audit**



## STAGE 1 ROAD SAFETY AUDIT

**Pedestrian Facilities**  
**Land at South Side**  
**Steeple Aston, Oxfordshire**

Engineering, Design and  
Surveying Consultants

*from inception to completion*

Prepared for: Rectory Homes  
Ref: TR8171225/GT/018  
Issue 1: 5 November 2019

## Document History

Issue	Date	Description	Prepared By	Checked By
1	5 Nov 2019	Issued to the Design Organisation (Tim Foxall - Glanville)	G Turner	P Whitehead

## Glanville

Glanville Consultants is a multi-disciplinary engineering, design and surveying consultancy with the following expertise:

-  Structural Engineering
-  Civil Engineering
-  Transport and Highways
-  Geomatics (Land Surveying)
-  Building Surveying
-  BIM

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## Contents

1.0	Introduction.....	1
2.0	Items Resulting from the Stage 1 Road Safety Audit.....	4
	Audit Team Statement.....	9

## Figures

Figure 1      Location of Problems

---

## 1.0 Introduction

- 1.1 This report forms an independent Stage 1 Road Safety Audit carried out on off-site highway works associated with a proposed residential development on land at South Side, Steeple Aston, Oxfordshire. The Audit was carried out at the request of Tim Foxall, representing the Design Organisation (Glanville Consultants) and the developer (Rectory Homes) and on behalf of the Overseeing Organisation (Oxfordshire County Council).

The Audit Team membership was as follows:

### Road Safety Audit Team Leader

P.A. Whitehead            BSc CEng MICE MCIHT  
Associate Director, Glanville Consultants

### Road Safety Audit Team Member

G. Turner                    BEng MSoRSA  
Principal Engineer, Glanville Consultants

- 1.2 The terms of reference of the Audit are as described in GG119 'Road Safety Audit' which form part of the Design Manual for Roads and Bridges. The Audit Team has examined and reported only on the road safety implications for users of the scheme as presented. The scheme has not been examined or verified for compliance with any other standards or criteria. However, in order to clearly explain a safety problem or a recommendation to resolve a safety problem, the Audit Team may on occasion refer to a design standard for information only. Any recommendations or comments made in this report should not be construed as implying that a technical audit of the scheme, as presented, has been undertaken in any respect.
- 1.3 Any recommendations included within this report should not be regarded as being prescriptive design solutions to the safety problem identified. Recommendations are intended only to indicate a proportionate and viable means of eliminating or mitigating the safety problem identified, in accordance with GG 119. The Audit Team recognises that there may be alternative methods for addressing a safety problem which may be equally acceptable in achieving the desired elimination or mitigation and thus such alternatives should also be considered when responding to this report.
- 1.4 Responsibility for the safety of operatives, the public and end users during all stages (typically planning, construction and maintenance) which are required to deliver any of the recommendations included within this report, shall not lie with the Audit Team.
- 1.5 Although a formal Audit Brief has not been issued to the Audit Team they are, nevertheless, satisfied that sufficient information has been provided to enable them to carry out a valid Road Safety Audit.
- 1.6 The Audit Team has had no involvement in any aspect of the scheme design and the Design Organisation (Glanville Consultants) has had no involvement in the Road Safety Audit process, other than to respond to any safety concerns identified.

1.7 The Audit took place in October / November 2019 and comprised examination of the following information:

Drawings

- 8171225/6110 Rev A2 Proposed Pedestrian Facilities with Shared Space
- 8171225/6111 Rev A General Arrangement Site Location
- 8171225/6218 Rev A Swept Path Analysis 12.8m Bus
- 8171225/6221 Rev A Swept Path Analysis Massey Ferguson 7278 Combine Harvester
- 8171225/6222 Swept Path Analysis Car

Supplementary Information

- Interim Stage 1 Road Safety Audit, Ref. TR8171225/GT/009, 7 February 2019 as prepared by the independent Audit Team listed in this Stage 1 Road Safety Audit.

1.8 The site is located on South Side in Steeple Aston, Oxfordshire.

1.9 South Side is an unclassified semi-rural single carriageway broadly lying on an east to west alignment between the A4260 Oxford Road (to the west) and Heyford Road (to the east). At its western end the posted speed limit is 60mph whilst on the immediate outskirts of, and including through Steeple Aston, the posted speed limit is 30mph. Some limited street lighting is provided in the form of lanterns which have been mounted on telegraph poles. A footway is provided on the northern side of South Side to the east of its junction with Water Lane.

1.10 The site currently comprises open grassland which, it is proposed, will be developed to provide 10 residential dwellings including a single vehicular access on to South Side. A separate pedestrian link, also providing access to South Side, is proposed at the eastern end of the site.

1.11 In order to provide improved and safer connectivity between the proposed development and existing pedestrian facilities the Design Organisation has proposed the following measures:

- Provision of a new section of kerbed footway (1.2 metres wide) on the southern side of South Side, commencing at the eastern pedestrian link from the development and continuing east over a distance of approximately 18 metres. This is followed by an over-runnable footway continuing east over a distance of approximately 20 metres.
- Provision of a virtual footway (1.5 metres wide) on the southern side of South Side, commencing at the eastern end of the over-runnable footway and continuing east over a distance of approximately 40 metres. Directional red / white reflective studs to be inserted on the northern boundary of this footway.
- Provision of a priority give-way arrangement including a kerbed build-out, road markings and traffic signs, with priority given to all vehicles travelling east to west.

1.12 This Road Safety Audit considers only the proposed highway works as described above and does not include a review of any other aspect of the development proposals including any part of the on-site layout.



- 1.13 The Audit Team visited the site together on 30 October 2019 between 11.00 and 11.45 hours to review the proposed highway works in context. The weather conditions during this visit were overcast but dry.
- 1.14 Personal injury collision (PIC) data has not been provided for the Audit Team to review. Instead, the Audit Team has interrogated the Thames Valley Police / Hampshire Constabulary Traffweb and Crashmap databases to determine whether there have been any recorded PICs in the vicinity of the site in the last 5 years. This interrogation has confirmed that there have been no recorded collisions on South Side. Furthermore, the Design Organisation has established through consultation with the highway authority that there have been no recorded personal injury collisions on South Side between the site and Water Lane, including the junction itself, between 1 January 2013 and 30 September 2018. Hence, the Audit Team is satisfied that there is no existing accident problem in the vicinity of the site which might be exacerbated by the proposed modifications to the highway.
- 1.15 The Audit Team is not aware, nor has it been notified, of any requirements for a Departure from Standard, pending or otherwise, or Relaxation of Standards applied in connection with the proposed highway works.
- 1.16 No details have been provided in respect of drainage, surfacing or street lighting for the Audit Team to review. It is recommended that these elements are developed during the detailed design and that a Stage 2 Road Safety Audit is undertaken once they have been completed.
- 1.17 All safety problems and recommendations are referenced to the layout drawing at Figure 1.

## 2.0 Items Resulting from the Stage 1 Road Safety Audit

### 2.1 Problem 1

Location: Eastbound approach to priority give way and build-out and continuing east.

Summary: Risk of obstructed forward visibility leading to vehicle / vehicle head-on collisions leading to possible personal injury.

The existing nearside hedgerow on the eastbound approach to the proposed priority give way line and east of the proposed build-out was noted to partially obstruct forward visibility. This may result in drivers passing the give way line whilst having insufficient sight of on-coming vehicles travelling east to west along South Side. As a result, vehicles travelling west to east may be unable to sufficiently clear the proposed kerbed build-out, giving rise to a risk of either vehicle / vehicle head-on collisions or collisions with the build-out, both with possible personal injury occurring.



*View from proposed position of give way line  
(looking east along south Side)*

#### Recommendation

It is recommended that the existing hedgerow is trimmed back along its length at least as far as the highway boundary, if this can be easily defined. Future growth shall be monitored and trimmed as required as part of an on-going maintenance programme. It is also recommended that the build-out is not kerbed but is instead constructed to be fully or part over-runnable thereby providing larger vehicles with additional carriageway width to take avoidance action if required. The proposed sign assembly to be installed within this build-out should be relocated as a result, whilst ensuring that sufficient horizontal clearance is provided.

---

## 2.2 Problem 2

Location: Eastbound approach to priority give way.

Summary: Risk of obstructed forward visibility leading to vehicle / vehicle head-on collisions leading to possible personal injury.

There is a concern that the proposed assembly comprising signs conforming to diag 615 and 615.1 will obstruct forward visibility for drivers of larger vehicles or SUVs travelling west to east who are likely to be seated in a more elevated position. This may result in drivers passing the give way line whilst having insufficient sight of on-coming vehicles travelling east to west along South Side giving rise to a risk of vehicle / vehicle head-on collisions with possible personal injury occurring.

### Recommendation

It is recommended that the sign assembly is relocated such that forward visibility is not compromised, whilst ensuring that sufficient horizontal clearance is achieved.

## 2.3 Problem 3

Location: Proposed narrowing.

Summary: Risk of vehicle / cycle collisions leading to possible personal injury.

The introduction of the virtual footway will locally reduce the carriageway width to 2.82 metres. Whilst the Audit Team accepts that the virtual footway is designed to be over-runable, there is the potential that some drivers travelling west to east may be reluctant to use this additional width when attempting to overtake a cyclist or will be unable to use it if it is occupied by a pedestrian. There is a similar concern in respect of cyclists travelling in the opposite direction. This gives rise to a risk of collisions with possible personal injury occurring. [Note: Local Transport Note 1/07 (Traffic Calming) recommends that *'Total widths through narrowings of between 2.75 and 3.25 metres should be avoided if no cycle bypass is provided'*].

### Recommendation

It is recommended that the width of carriageway adjacent to the virtual footway is either increased to a minimum of 3.25 metres (recognising that the width of the adjacent footway may need to undergo a commensurate reduction in width) or the carriageway width is reduced to be no wider than 2.75 metres, thereby discouraging drivers from attempting to pass a cyclist.

## 2.4 Problem 4

Location: Over-runnable footway.

Summary: Risk of vehicles colliding with full height kerbing leading to loss of control incidents or injury being caused to vehicle occupants.

A mix of over-runnable and kerbed footway will be provided between the development site and the virtual footway. There is a concern that larger vehicles passing similarly sized vehicles waiting at the priority give way will have to use part of the kerbed footway during this manoeuvre. This may lead to loss of control incidents and / or a risk of injury being caused to vehicle occupants.

### Recommendation

It is recommended that the full length of footway between the development site and the virtual footway is constructed to be over-runnable.

## 2.5 Problem 5

Location: Virtual footway.

Summary: Risk of injury to pedestrians owing to overhanging vegetation leading to personal injury.

Existing vegetation currently overhangs the route of the proposed virtual footway. This will cause obstruction leading to pedestrians having to step into the carriageway giving rise to a risk of vehicle / pedestrian collisions with possible personal injury occurring.



*Overhanging vegetation*

## Recommendation

It is recommended that overhanging vegetation is extensively trimmed back to ensure that the full width of the virtual footway can be used by pedestrians travelling in either direction.

### 2.6 Problem 6

Location: Eastern end of over-runnable footway at interface with virtual footway.

Summary: Lack of warning for visually impaired pedestrians leading to a risk of trips or falls with possible personal injury.

Pedestrians with a visual impairment are given no indication of where the over-runnable footway ends, and the virtual footway commences. Furthermore, all pedestrians must transfer to and from both footways via a dropped kerb with a 25mm upstand. There is a concern that an absence of demarcation at the end of the over-runnable footway and the kerb upstand may both give rise to trips or falls with possible personal injury occurring.

## Recommendation

It is recommended that a short length of dropped kerb with an upstand not exceeding 6mm is provided at the eastern end of the over-runnable footway, where pedestrians must transfer to and from the virtual footway and some form of demarcation indicating the end of the over-runnable footway is also provided.

### 2.7 Problem 7

Location: Virtual footway.

Summary: Proposed studs potentially leading to confusion with possible personal injury occurring.

In order to demarcate the edge of the virtual footway it is proposed that directional red and white studs are installed. Conventionally white studs are used to indicate a traffic lane or centre of carriageway marking. Hence, their use in this instance may be confusing to approaching drivers giving rise to a risk of pedestrian / vehicle collisions with possible personal injury occurring.

Conventionally red studs are installed to indicate a line which should not be crossed and thus drivers may be reluctant to use the virtual footway when passing other road users travelling in the same direction. This may lead to side swipe collisions with possible personal injury occurring.

## Recommendation

It is recommended that the edge of the virtual footway is clearly defined which may be through the use of an alternative stud colour that avoids the potential for confusion with its conventional use, or by other means.

## 2.8 Problem 8

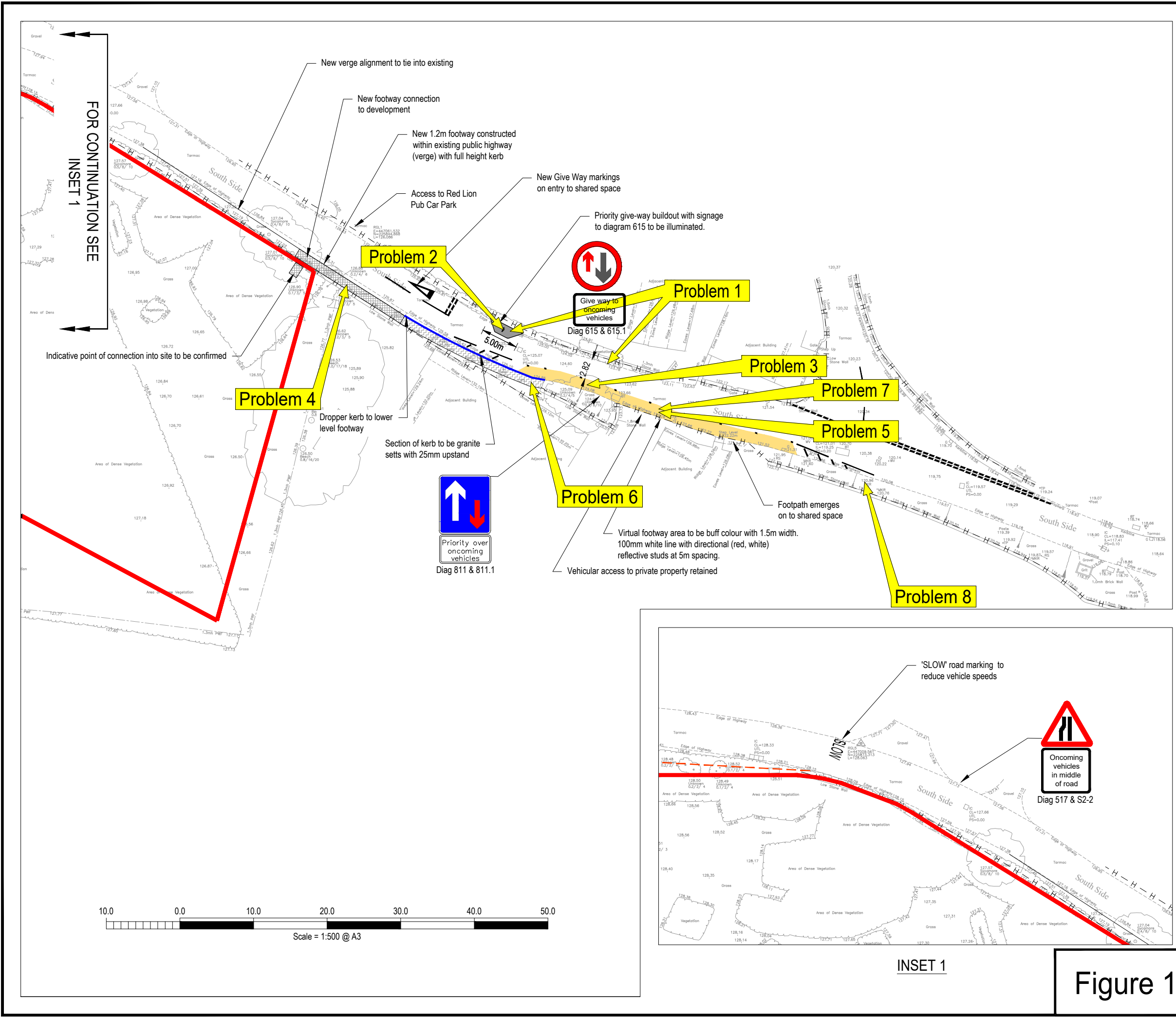
Location: Eastern end of virtual footway.

Summary: Risk of pedestrian / vehicle collisions leading to personal injury.

The virtual footway terminates at its eastern end such that pedestrians are left exposed with no defined onward route using other existing facilities. The opposite, east to west route is also an issue since there is no defined route guiding pedestrians from existing facilities to the virtual footway. This may lead to confusion and a risk of pedestrian / vehicle collisions with consequent personal injury occurring.

### Recommendation

It is recommended that appropriate facilities are included as part of these works to allow all pedestrians to transfer between the virtual footway and existing facilities.

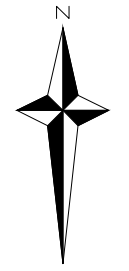


**NOTES**

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

Source: RGL Surveys Ltd drawing number RGL-17-2679

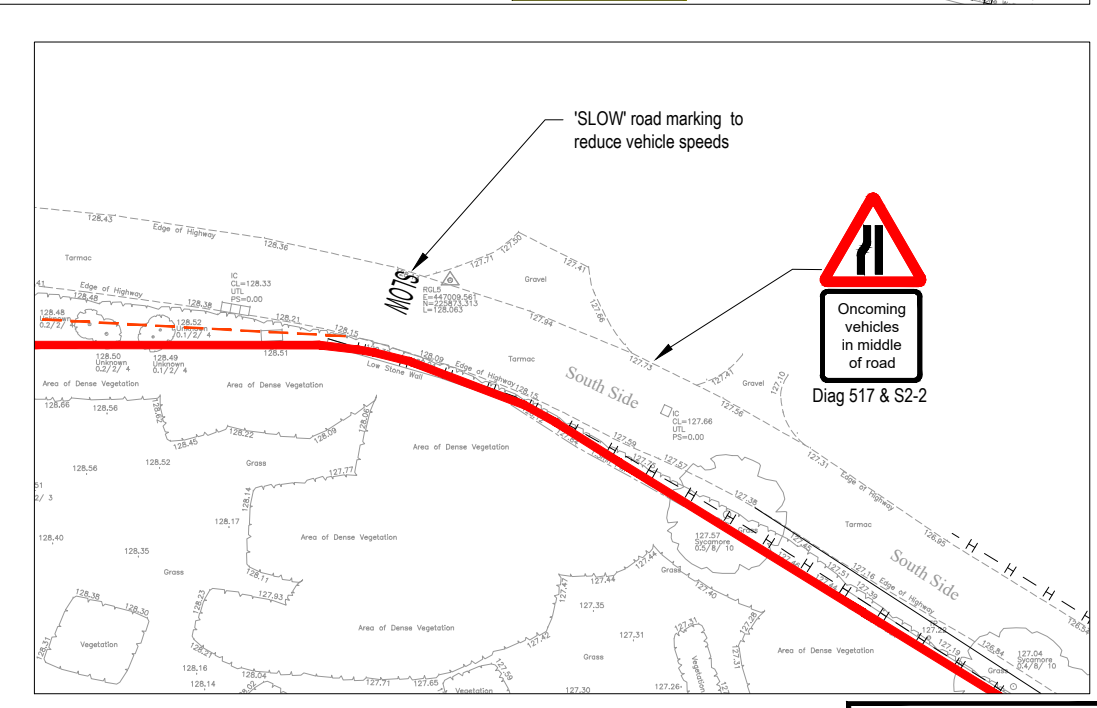
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**KEY**

- H - H - Existing highway boundary
- Virtual footway
- New footway constructed within verge (full height kerb)
- New footway constructed across existing driveways/accesses/property frontage (25mm upstand)
- Site Boundary

A2	Updated following consultation with OCC	17/04/2019	TF
A1	Updated following site meeting with OCC	10/04/2019	TF
Rev.	Description	Date	Chkd



**Figure 1**

**Glanville**  
Cornerstone House  
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postbox@glanvillegroup.com www.glanvillegroup.com

Client : Rectory Homes

Project : Land at South Side, Steeple Aston

Title : Proposed Pedestrian Facilities with Shared Space

Project Engineer : J.Heathcote Scale : 1:500 @ A3  
Project Director : T. Foxall Date : March 2019

Status : PRELIMINARY

Drawing No. 8171225/6110 Rev A2

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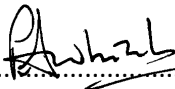
**Audit Team Statement**

The Audit Team has examined the drawings and documents listed in the report with the sole purpose of identifying any feature of the design which could be removed or modified in order to improve the safety of the scheme. The problems identified have been noted in this report, together with associated safety improvements which are recommended for implementation.

We certify that this Road Safety Audit has been carried out in accordance with GG 119.

**Road Safety Audit Team Leader**

P.A. Whitehead BSc CEng MICE MCIHT  
Associate Director  
Glanville Consultants

Signed: 

Date: 5 November 2019

**Road Safety Audit Team Member**

G Turner BEng MSoRSA  
Principal Engineer  
Glanville Consultants

Signed: 

Date: 5 November 2019





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- Structural Engineering
- Civil Engineering
- Transport & Highways
- Geomatics (Land Surveying)
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**Appendix J**

**Designer's Response to New Stage 1 Road Safety Audit**

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## PEDESTRIAN FACILITIES, LAND AT SOUTH SIDE, STEEPLE ASTON, OXFORDSHIRE

### RESPONSE TO STAGE 1 ROAD SAFETY AUDIT

#### Introduction

The following is provided in response to Stage 1 Road Safety Audit (Ref. TR8171225/GT/018) dated 5 November 2019, which was undertaken by Glanville Consultants in respect of the proposed delivery of pedestrian facilities at South Side, Steeple Aston, Oxfordshire. The works are proposed to accompany a modest residential development on land to the south of South Side.

The proposed highway works relate to pedestrian facilities and include the following:

- Provision of a new section of kerbed footway (1.2 metres wide) on the southern side of South Side, commencing at the eastern pedestrian link from the development and continuing east over a distance of approximately 18 metres. This is followed by an over-runnable footway continuing east over a distance of approximately 20 metres.
- Provision of a virtual footway (1.5 metres wide) on the southern side of South Side, commencing at the eastern end of the over-runnable footway and continuing east over a distance of approximately 40 metres. Directional red / white reflective studs to be inserted on the northern boundary of this footway.
- Provision of a priority give-way arrangement including a kerbed build-out, road markings and traffic signs, with priority given to all vehicles travelling east to west.

#### Key Personnel

- Graeme Turner - Glanville Consultants (Stage 1 & 2 RSA Team Leader)
- Peter Whitehead - Glanville Consultants (Stage 1 & 2 RSA Team Member)
- Tim Foxall - Glanville Consultants (Director – Design Organisation)
- Tom Hart - Glanville Consultants (Technician – Design Organisation)

#### Audit History

Road Safety Audit TR8171225/GT/018 is the first audit of this scheme. Prior to this, an interim Stage 1 Road Safety Audit (TR8171225/GT/009) of 5 options for the highway works was completed. The findings of this initial audit helped inform the design of the highway works that are subject of this most recent Audit.

---

## Matters Arising from Audit TR8171225/GT/018

Throughout this Audit response, where considered appropriate to do so, amendments to the proposed design are illustrated on drawing 8171225/6110 Rev A3.

### Problem 1

Location: Eastbound approach to priority give way and build-out and continuing east.

Summary: Risk of obstructed forward visibility leading to vehicle / vehicle head-on collisions leading to possible personal injury.

The existing nearside hedgerow on the eastbound approach to the proposed priority give way line was noted to partially obstruct forward visibility. This may result in drivers passing the give way line whilst having insufficient sight of on-coming vehicles travelling east to west along South Side. As a result, vehicles travelling west to east may be unable to sufficiently clear the proposed kerbed build-out, giving rise to a risk of either vehicle / vehicle head-on collisions or collisions with the build-out, both with possible personal injury occurring.

### Recommendation

It is recommended that the existing hedgerow is trimmed back along its length at least as far as the highway boundary, if this can be easily defined. Future growth shall be monitored and trimmed as required as part of an on-going maintenance programme. It is also recommended that the build-out is not kerbed but is instead constructed to be fully or part over-runnable thereby providing larger vehicles with additional carriageway width to take avoidance action if required. The proposed sign assembly to be installed within this build-out should be relocated as a result, whilst ensuring that sufficient horizontal clearance is provided.

### *Design Organisation's Response*

Although the Design Organisation considers that forward visibility is currently acceptable (see the photograph in the Safety Audit which demonstrates that a clear line of sight is available from the proposed give way line to a point beyond the limit of the proposed highway works) it is nevertheless accepted that future growth of the hedge could begin to erode this.

As such, it is proposed that the nearside hedgerow on the eastbound approach is trimmed back along its length at least as far as the highway boundary.

For the above reason of there already being adequate forward visibility, it is not considered absolutely necessary to amend the island so as to become half over-runnable. However, the Design Organisation can see that there would be advantages of making the island half-over-runnable, in so much as it would allow vehicles to take 'avoidance action' if necessary, while providing additional room for larger vehicles to manoeuvre. As such, a half over-runnable solution is duly proposed, with commensurate relocation of the associated signage.

Problem 1 is therefore considered to have been fully addressed.

---

## Problem 2

Location: Eastbound approach to priority give way.

Summary: Risk of obstructed forward visibility leading to vehicle / vehicle head-on collisions leading to possible personal injury.

There is a concern that the proposed assembly comprising signs conforming to diag 615 and 615.1 will obstruct forward visibility for drivers of larger vehicles or SUVs travelling west to east who are likely to be seated in a more elevated position. This may result in drivers passing the give way line whilst having insufficient sight of on-coming vehicles travelling east to west along South Side giving rise to a risk of vehicle / vehicle head-on collisions with possible personal injury occurring.

### Recommendation

It is recommended that the sign assembly is relocated such that forward visibility is not compromised, whilst ensuring that sufficient horizontal clearance is achieved.

### *Design Organisation's Response*

The Design Organisation considers that the mounting height of the signs will be above the driver's eye line, even for those driving larger vehicles with an elevated seating position.

Notwithstanding, as noted above, it is proposed that the island is amended so as to become half over-runnable. This will mean the signs can be moved towards the nearside on the eastbound approach and out of the visibility splay of vehicles approaching the give-way from the west.

Whilst the signs will be nearer to the highway boundary they will still be clear of potentially encroaching vegetation.

Problem 2 is therefore considered to have been fully addressed.

## Problem 3

Location: Proposed narrowing.

Summary: Risk of vehicle / cycle collisions leading to possible personal injury.

The introduction of the virtual footway will locally reduce the carriageway width to 2.82 metres. Whilst the Audit Team accepts that the virtual footway is designed to be over-runnable, there is the potential that some drivers travelling west to east may be reluctant to use this additional width when attempting to overtake a cyclist or will be unable to use it if it is occupied by a pedestrian. There is a similar concern in respect of cyclists travelling in the opposite direction. This gives rise to a risk of collisions with possible personal injury occurring. [Note: Local Transport Note 1/07 (Traffic Calming) recommends that *'Total widths through narrowings of between 2.75 and 3.25 metres should be avoided if no cycle bypass is provided'*.].

### Recommendation

It is recommended that the width of carriageway adjacent to the virtual footway is either increased to a minimum of 3.25 metres (recognising that the width of the adjacent footway may need to undergo a commensurate reduction in width) or the carriageway width is reduced to be no wider than 2.75 metres, thereby discouraging drivers from attempting to pass a cyclist.

---

### *Design Organisation's Response*

The Design Organisation accepts the Audit Team's recommendation. It is proposed that the carriageway width is reduced to be 2.75 metres at the pinch point, thereby discouraging drivers from attempting to pass a cyclist. This will also mean the virtual footway is slightly wider for pedestrians. To the east of this pinch point the carriageway opens out to be 3.25 metres wide or wider.

Problem 3 is therefore considered to have been fully addressed.

### Problem 4

Location: Over-runnable footway.

Summary: Risk of vehicles colliding with full height kerbing leading to loss of control incidents or injury being caused to vehicle occupants.

A mix of over-runnable and kerbed footway will be provided between the development site and the virtual footway. There is a concern that larger vehicles passing similarly sized vehicles waiting at the priority give way will have to use part of the kerbed footway during this manoeuvre. This may lead to loss of control incidents and / or a risk of injury being caused to vehicle occupants.

### Recommendation

It is recommended that the full length of footway between the development site and the virtual footway is constructed to be over-runnable.

### *Design Organisation's Response*

The Design Organisation does agree with the Audit Teams observation and does not consider it necessary to adopt their recommendation.

The scheme has been designed using swept path analysis and Glanville drawing 8171225/6218 shows that a bus will be able to pass a car waiting at the give-way line without over-running the full height footway.

Moreover, the levels between the site and the carriageway and the adjacent existing wall of the neighbouring property are such that providing an over-runnable footway over a greater length is not considered practical.

No design changes are therefore proposed to address Problem 4.

### Problem 5

Location: Virtual footway.

Summary: Risk of injury to pedestrians owing to overhanging vegetation leading to personal injury.

Existing vegetation currently overhangs the route of the proposed virtual footway. This will cause obstruction leading to pedestrians having to step into the carriageway giving rise to a risk of vehicle / pedestrian collisions with possible personal injury occurring.

## Recommendation

It is recommended that overhanging vegetation is extensively trimmed back to ensure that the full width of the virtual footway can be used by pedestrians travelling in either direction.

### *Design Organisation's Response*

The Design Organisation accepts the Audit Team's recommendation. It is proposed the overhanging vegetation is extensively trimmed back to ensure that the full width of the virtual footway can be used by pedestrians.

Problem 5 is therefore considered to have been fully addressed.

## Problem 6

Location: Eastern end of over-runnable footway at interface with virtual footway.

Summary: Lack of warning for visually impaired pedestrians leading to a risk of trips or falls with possible personal injury.

Pedestrians with a visual impairment are given no indication of where the over-runnable footway ends, and the virtual footway commences. Furthermore, all pedestrians must transfer to and from both footways via a dropped kerb with a 25mm upstand. There is a concern that an absence of demarcation at the end of the over-runnable footway and the kerb upstand may both give rise to trips or falls with possible personal injury occurring.

## Recommendation

It is recommended that a short length of dropped kerb with an upstand not exceeding 6mm is provided at the eastern end of the over-runnable footway, where pedestrians must transfer to and from the virtual footway and some form of demarcation indicating the end of the over-runnable footway is also provided.

### *Design Organisation's Response*

The Design Organisation accepts the Audit Team's recommendation. A short length of dropped kerb with an upstand not exceeding 6mm is provided at the eastern end of the over-runnable footway.

Two bollards have been added to the design to demarcate the eastern end of the over-runnable footway.

Problem 6 is therefore considered to have been fully addressed.

## Problem 7

Location: Virtual footway.

Summary: Proposed studs potentially leading to confusion with possible personal injury occurring.

In order to demarcate the edge of the virtual footway it is proposed that directional red and white studs are installed. Conventionally white studs are used to indicate a traffic lane or centre of carriageway marking. Hence, their use in this instance may be confusing to approaching drivers giving rise to a risk of pedestrian / vehicle collisions with possible personal injury occurring.

Conventionally red studs are installed to indicate a line which should not be crossed and thus drivers may be reluctant to use the virtual footway when passing other road users travelling in the same direction. This may lead to side swipe collisions with possible personal injury occurring.

#### Recommendation

It is recommended that the edge of the virtual footway is clearly defined which may be through the use of an alternative stud colour that avoids the potential for confusion with its conventional use, or by other means.

#### *Design Organisation's Response*

Notwithstanding the demarcation having been previously agreed by the Highway Authority, the Design Organisation accepts the Audit Team's concerns. It is proposed that the virtual footway is demarcated with a white line to diag 1010 and that studs are omitted.

Problem 7 is therefore considered to have been fully addressed.

#### Problem 8

Location: Eastern end of virtual footway.

Summary: Risk of pedestrian / vehicle collisions leading to personal injury.

The virtual footway terminates at its eastern end such that pedestrians are left exposed with no defined onward route using other existing facilities. The opposite, east to west route is also an issue since there is no defined route guiding pedestrians from existing facilities to the virtual footway. This may lead to confusion and a risk of pedestrian / vehicle collisions with consequent personal injury occurring.

#### Recommendation

It is recommended that appropriate facilities are included as part of these works to allow all pedestrians to transfer between the virtual footway and existing facilities.

#### *Design Organisation's Response*

The Design Organisation has considered the Audit Team's concerns.

The proposed scheme of highway works offers a substantial positive enhancement over the existing arrangement whereby pedestrians are free to walk throughout the narrowest section of South Side, with no mechanism in place to contain vehicle speeds or to direct their onward travel.

The works hereby proposed offer several benefits; speed reduction and a formalised area within which pedestrians can walk. This regularises the situation for pedestrians and drivers alike and therefore substantially enhances highway safety.



The point at which pedestrians emerge from the virtual footway at its eastern end is in reality little different to the existing situation whereby pedestrians may find themselves in the exact same position and therefore the proposed works are arguable no different, save of course for the wider benefit of speed reduction and formalisation noted above which must be taken in the round as being a material benefit.

The matter of onward travel has been discussed on-site with the Highway Authority and the need for further works discounted.

As such it is not considered necessary to address the Audit Team's comments through the inclusion of further works.


No design changes are therefore proposed to address Problem 8.

Design Organisation Statement

On behalf of the Design Organisation I certify that:

The preceding RSA actions constitute our response to the Stage 1 & 2 Road Safety Audit and are submitted to the Overseeing Organisation for approval.

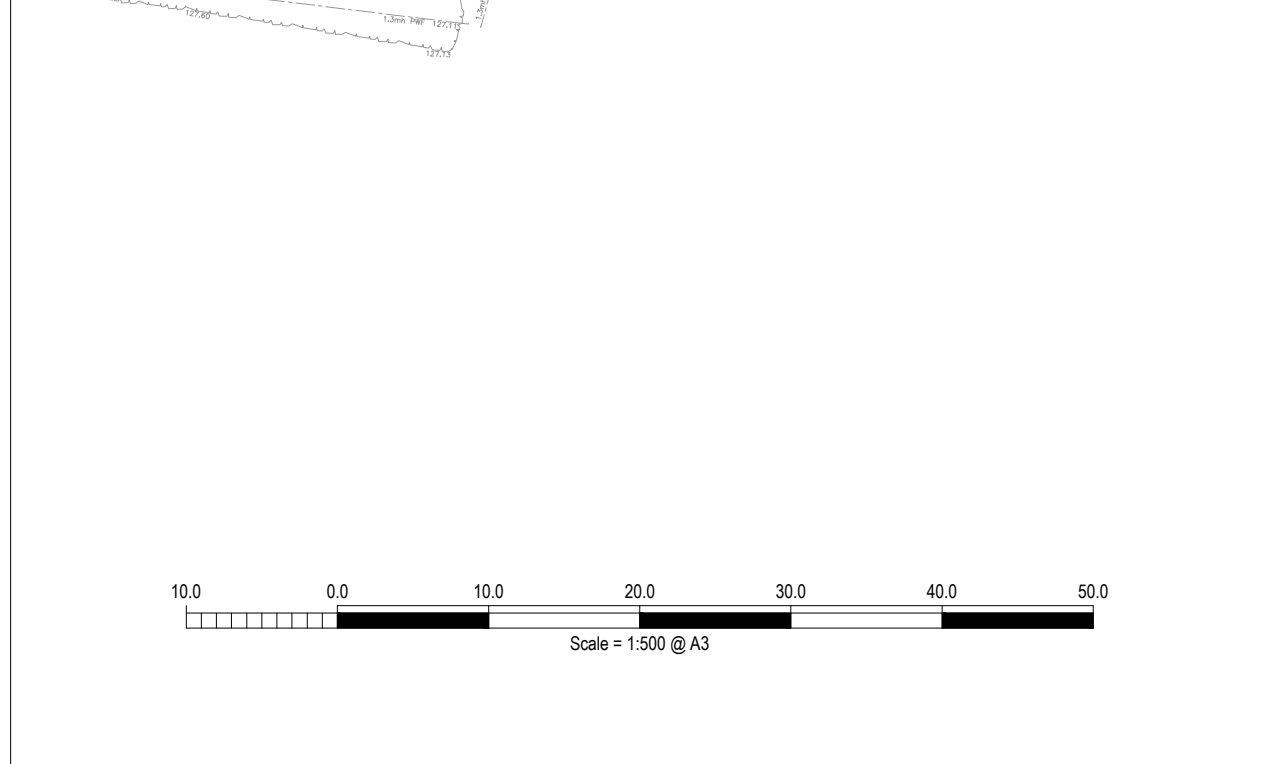
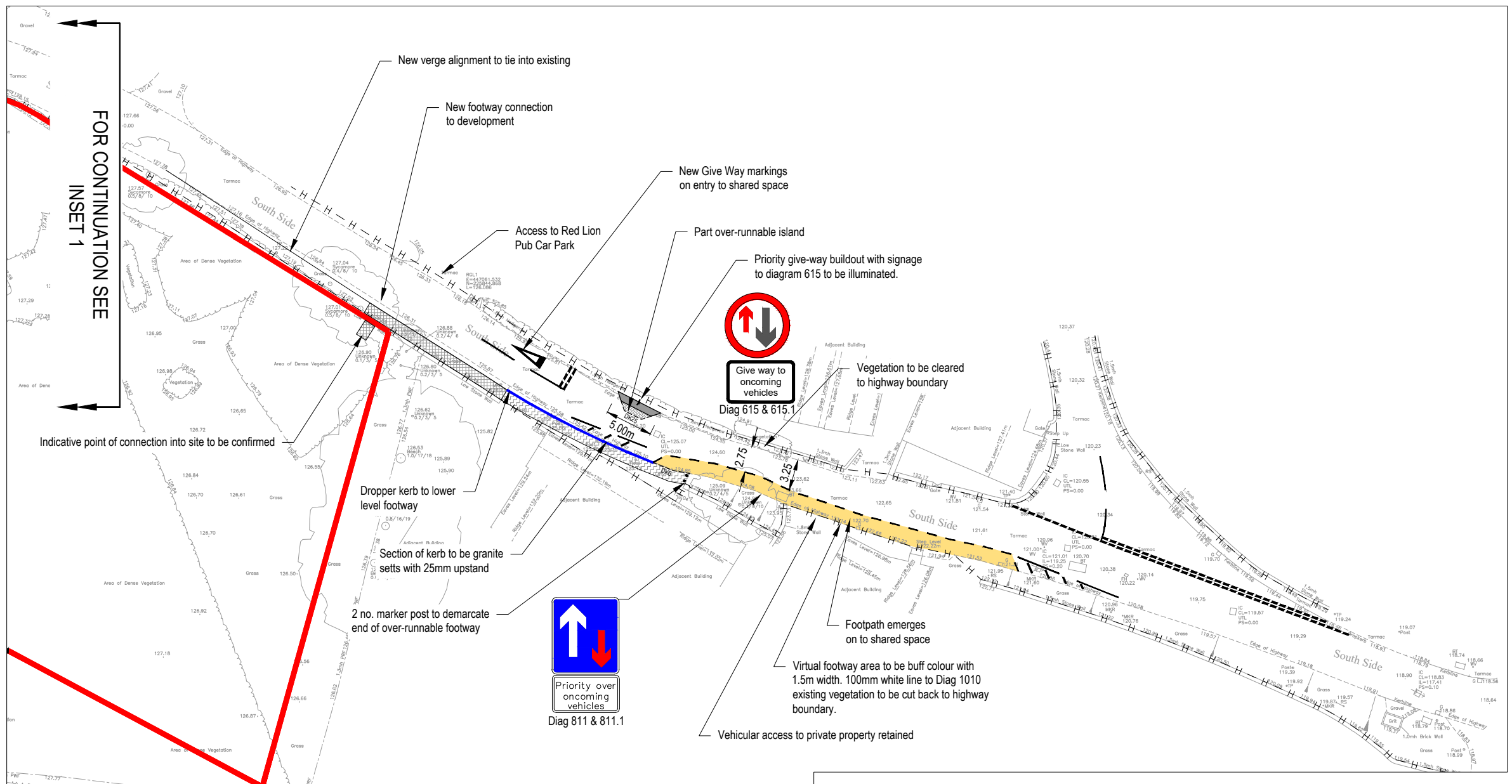
T Hart  
Technician  
Glanville Consultants

Signed:  .....

Date: 12 November 2019 .....

**Appendix K**

**Final Scheme of Off-site Highway Works**

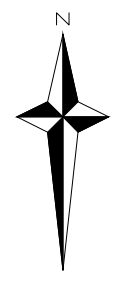


**NOTES**

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

Source: RGL Surveys Ltd drawing number RGL-17-2679

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- KEY**
- H - H - Existing highway boundary
  - Virtual footway
  - New footway constructed within verge (full height kerb)
  - New footway constructed across existing driveways/accesses/property frontage (25mm upstand)
  - Site Boundary
  - DK25 Dropped kerb with 25mm upstand
  - DK6 Dropped kerb with 6mm upstand

Rev.	Description	Date	Chkd
A3	Updated following Stage 1 Road Safety Audit	11/11/2019 T.Hart	TF
A2	Updated following consultation with OCC	17/04/2019 J.Heathcote	TF
A1	Updated following site meeting with OCC	10/04/2019 J.Heathcote	TF

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 postbox@glanvillegroup.com www.glanvillegroup.com

Client : Rectory Homes

Project : Land at South Side, Steeple Aston

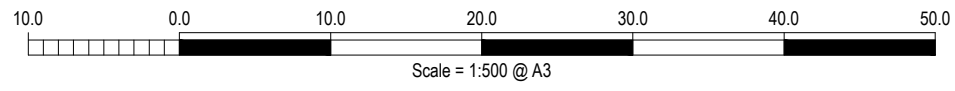
Title : Proposed Pedestrian Facilities with Shared Space

Project Engineer : J.Heathcote Scale : 1:500 @ A3

Project Director : T. Foxall Date : March 2019

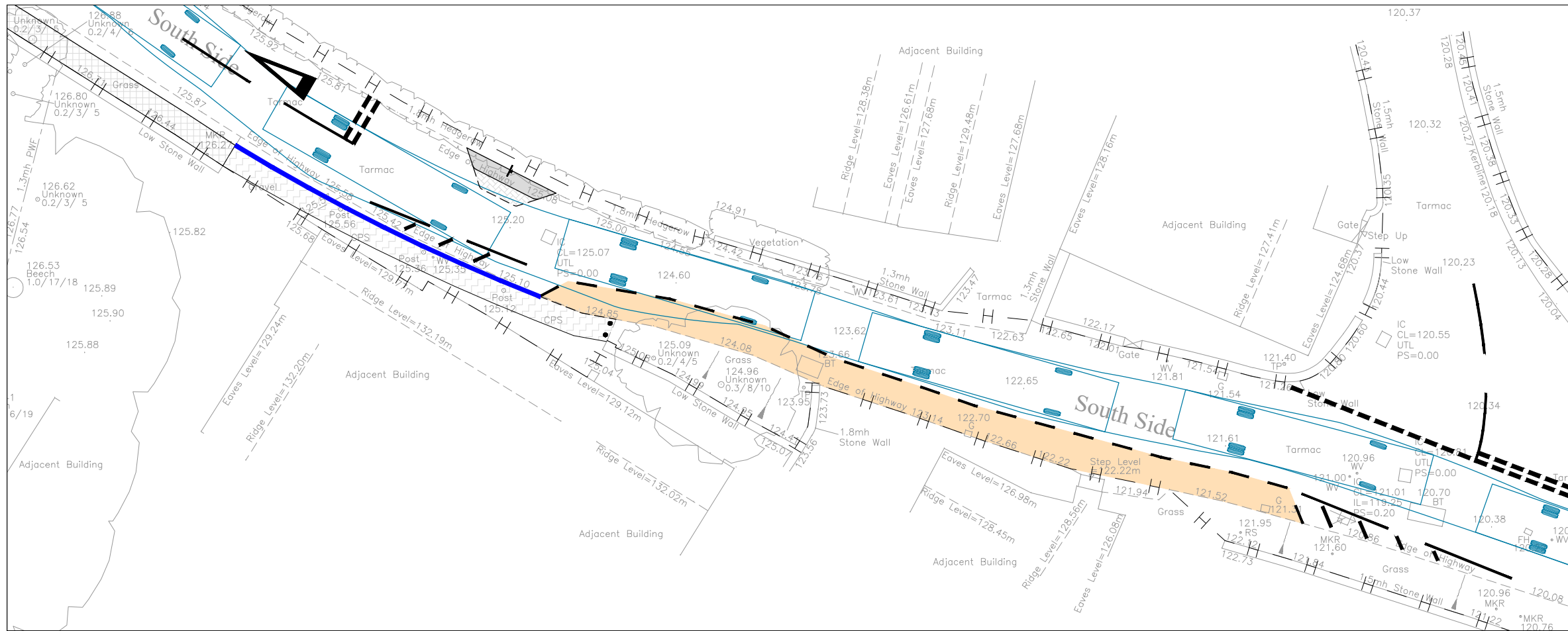
Status : PRELIMINARY

Drawing No. 8171225/6110	Rev A3
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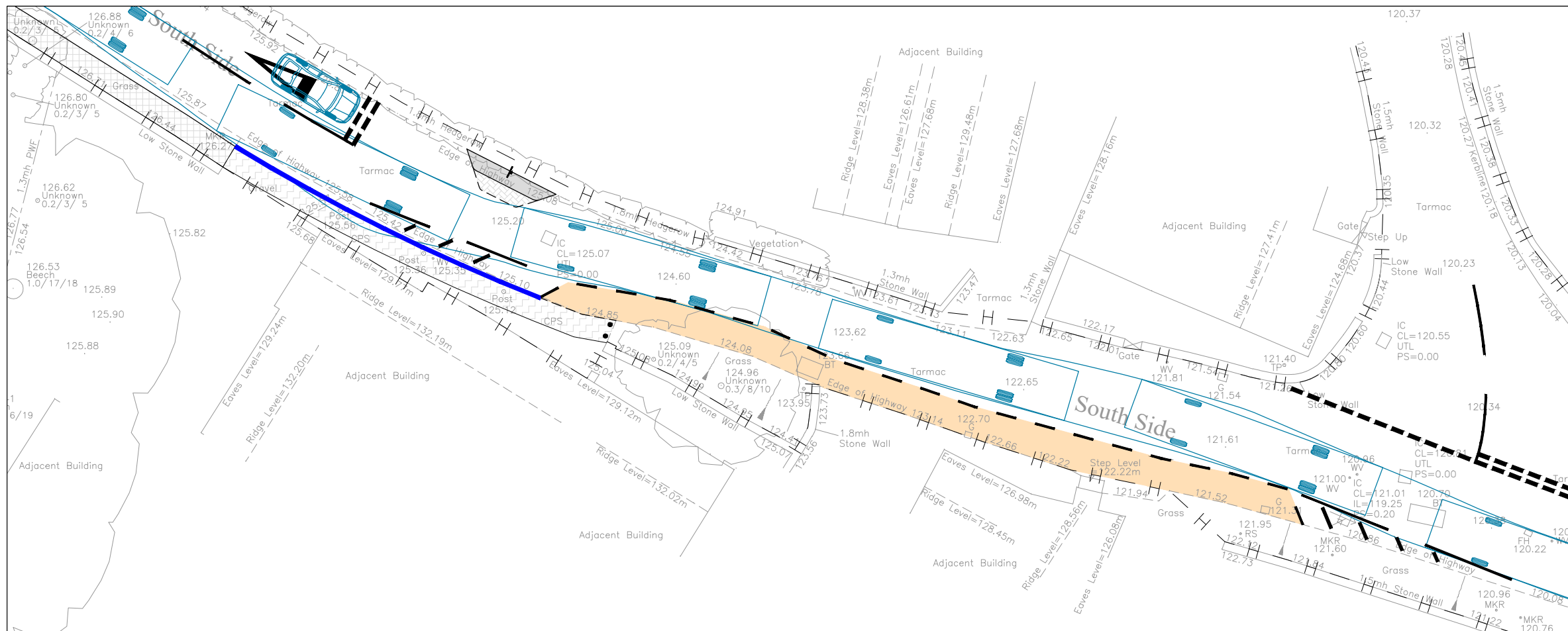


## **Appendix L**

### **Swept Path Analysis of Off-site Highway Works**



EASTBOUND BUS



WESTBOUND BUS

**NOTES**

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

Source: RGL Surveys Ltd drawing number RGL-17-2679

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**KEY**



12.8m Bus - forward gear

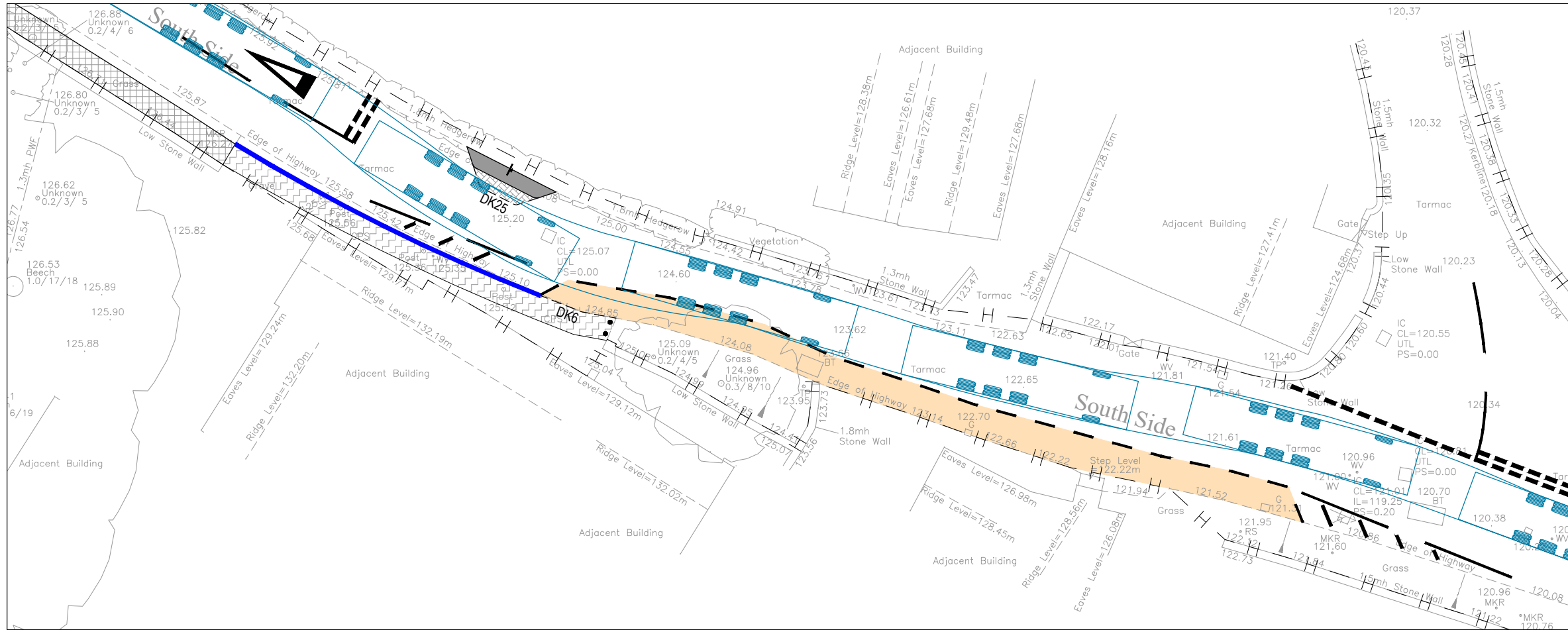


Rev.	Description	Date	Chkd
B	Layout revised following Road Safety Audit. Swept paths revised to suit.	20/11/2019 T.Hart	TF
A	Footway revised.	14/10/2019 T.Hart	TF

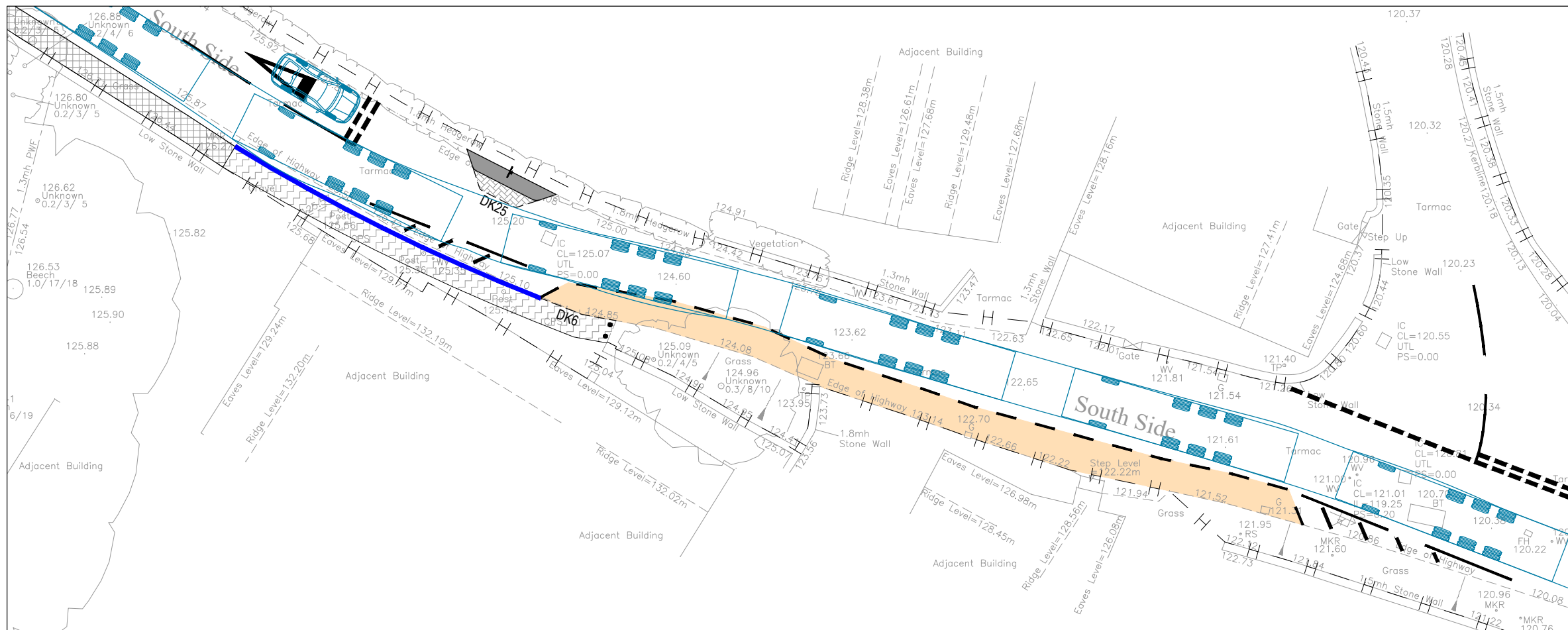
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 postbox@glanvillegroup.com www.glanvillegroup.com

Client :	Rectory Homes		
Project :	Land at South Side, Steeple Aston		
Title :	Swept Path Analysis 12.8m Bus		
Project Engineer :	J.Heathcote	Scale :	1:250 @ A3
Project Director :	T. Foxall	Date :	January 2019
Status :	PRELIMINARY		

Drawing No.	8171225/6218	Rev	B
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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: RGL Surveys Ltd drawing number RGL-17-2679

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**KEY**



11.6m refuse vehicle - forward gear

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Rev.	Description	Date	Chkd
A	Layout revised following Road Safety Audit. Swept paths revised to suit.	20/11/2019	TF

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 postbox@glanvillegroup.com www.glanvillegroup.com

Client : Rectory Homes

Project : Land at South Side, Steeple Aston

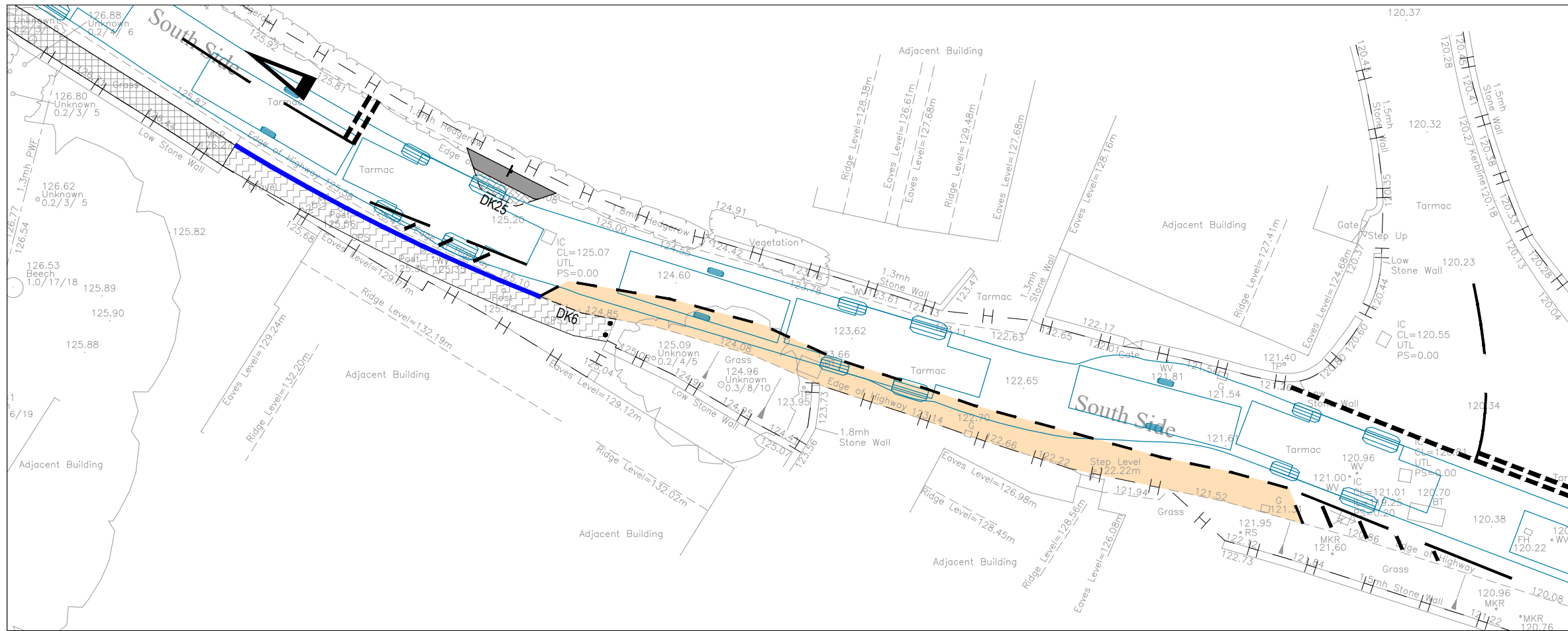
Title : Swept Path Analysis  
 11.6m Refuse Vehicle

Project Engineer : T. Hart Scale : 1:250 @ A3

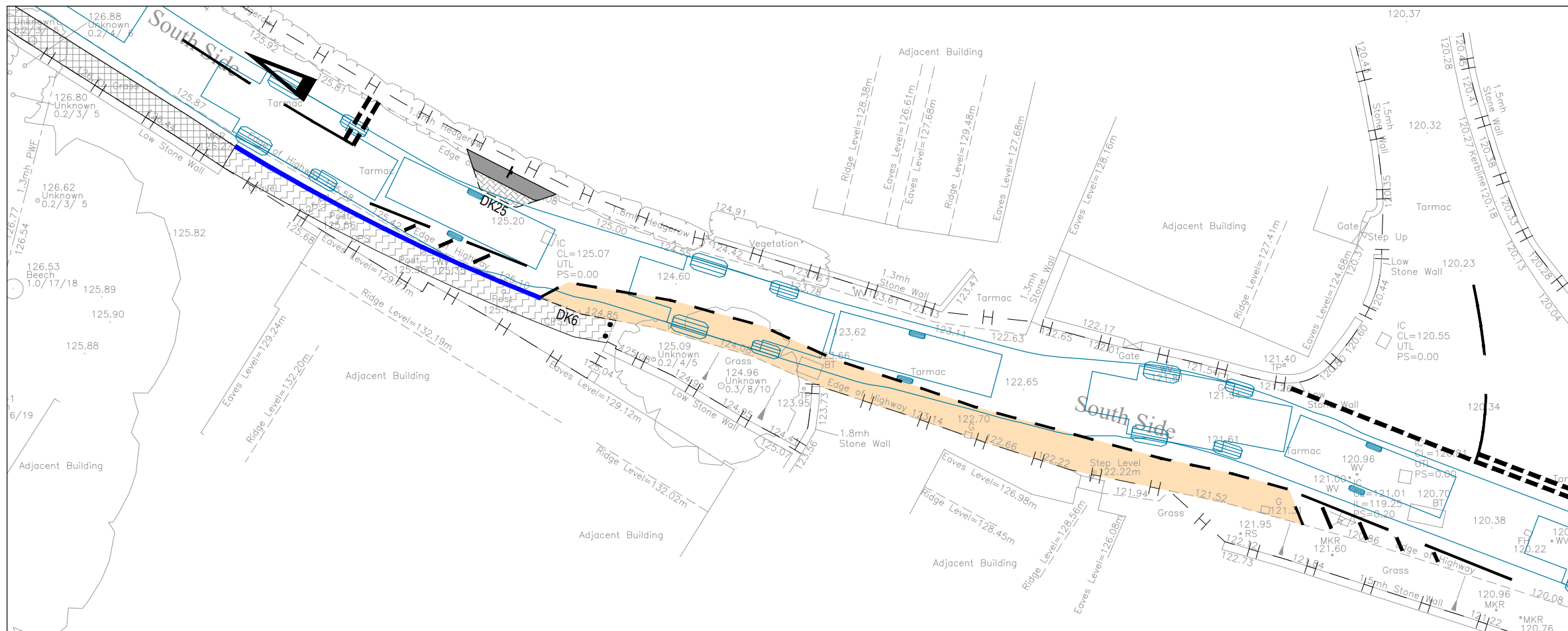
Project Director : T. Foxall Date : March 2019

Status : PRELIMINARY

Drawing No. 8171225/6219 Rev A



EASTBOUND



WESTBOUND

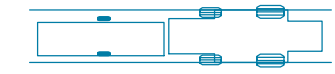
**NOTES**

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

Source: RGL Surveys Ltd drawing number RGL-17-2679

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**KEY**



Massey Ferguson 7278 combine harvester and trailer  
- forward gear

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B	Layout revised following Road Safety Audit. Swept paths revised to suit.	20/11/2019 T.Hart	TF
A	Footway revised.	14/10/2019 T.Hart	TF
Rev.	Description	Date	Chkd

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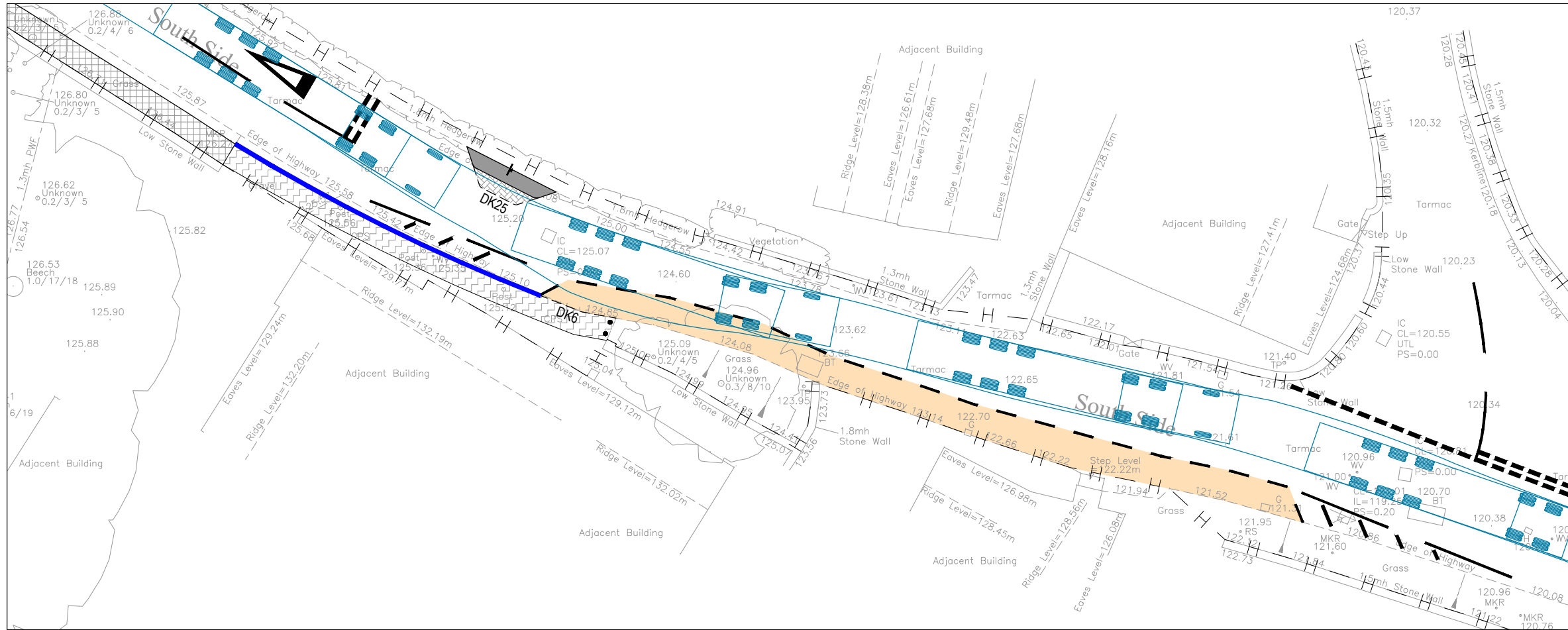
Client :  
**Rectory Homes**

Project :  
**Land at South Side, Steeple Aston**

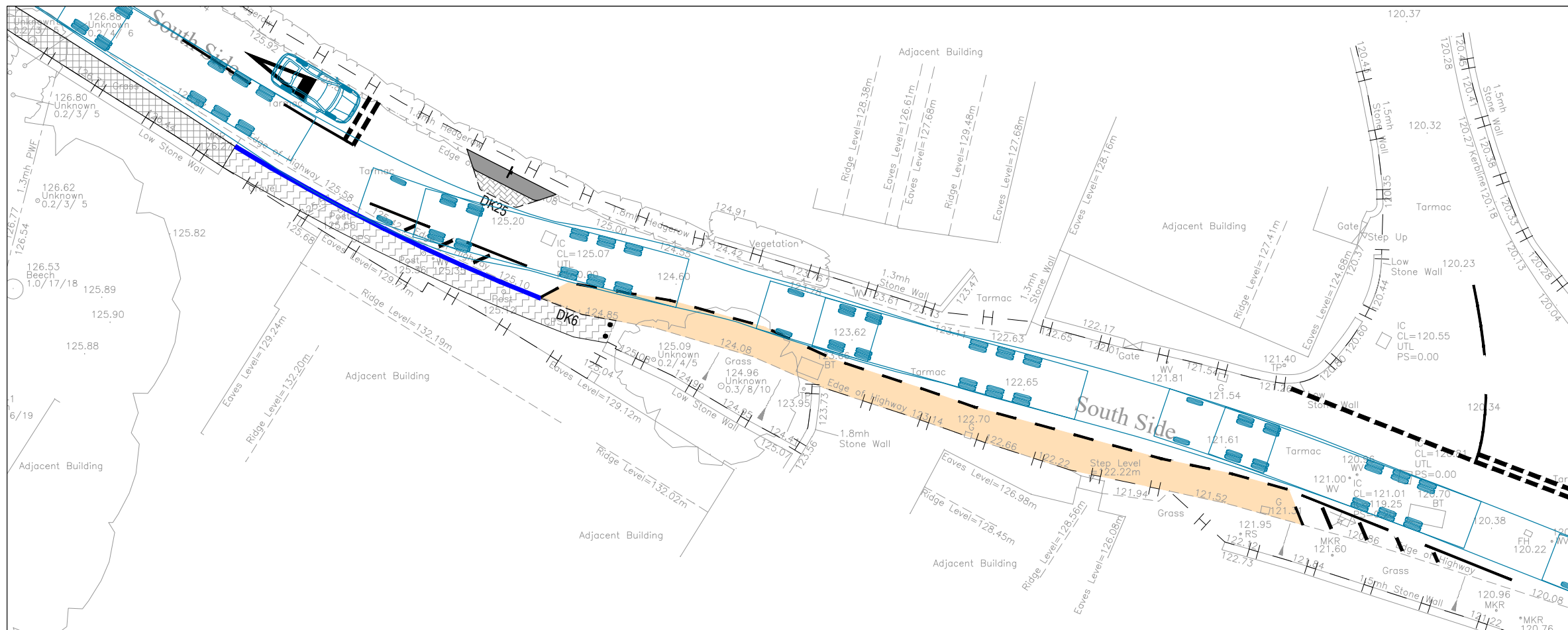
Title :  
**Swept Path Analysis  
Massey Ferguson 7278 combine harvester**

Project Engineer : T. Hart      Scale : 1:250 @ A3  
Project Director : T. Foxall      Date : March 2019  
Status : **PRELIMINARY**

Drawing No. 8171225/6221      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: RGL Surveys Ltd drawing number RGL-17-2679

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**KEY**



16.5m articulated vehicle - forward gear

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Rev.	Description	Date	Chkd
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Client :		Rectory Homes	
Project :		Land at South Side, Steeple Aston	
Title :		Swept Path Analysis 16.5m Articulated Vehicle	
Project Engineer :		T. Hart	Scale : 1:250 @ A3
Project Director :		T. Foxall	Date : March 2019
Status :		PRELIMINARY	
Drawing No. 8171225/6224			Rev





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- Geomatics (Land Surveying)
- Building Surveying
- BIM