

# Central Section Brookleigh, Northern Arc ave

Safety Audit Designer's Response - Stage 1 ADDENDUM

Homes England

Project number: 60610807  
60610807-ACM-CS-XX-DR-HW-0009

21 January 2026

Quality information

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Revision History

| Revision | Revision date | Details         | Authorised | Name     | Position        |
|----------|---------------|-----------------|------------|----------|-----------------|
| P01      | 11.12.2025    | For Information |            | D.Parker | Senior Engineer |
|          |               |                 |            |          |                 |
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# 1. Designer's Response

## Project Details

Table 1: Project Details

|                                  |                                                                                                            |
|----------------------------------|------------------------------------------------------------------------------------------------------------|
| Report Title:                    | Brookleigh, Northern Arc ave - Central Section<br>Road Safety Audit Designer's Response - Stage 1 Addendum |
| Date:                            | 11 December 2025                                                                                           |
| Document Reference and Revision: | 60610807-ACM-CS-XX-RP-HW-0008 Revision – P01                                                               |
| Prepared By:                     | AECOM Limited                                                                                              |
| On Behalf of:                    | Homes England                                                                                              |

Table 2: Authorisation Sheet

|               |                                                                                                            |
|---------------|------------------------------------------------------------------------------------------------------------|
| Project:      | Brookleigh, Northern Arc                                                                                   |
| Report Title: | Brookleigh, Northern Arc ave – Central Section<br>Road Safety Audit Designer's Response - Stage 1 Addendum |
| Prepared By:  |                                                                                                            |
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| Position:     | Senior Civil Engineer                                                                                      |
| Signed:       |  2026.01.21<br>10:42:56 |
| Organisation: | AECOM Limited                                                                                              |
| Date:         | 11 December 2025                                                                                           |
| Approved By:  |                                                                                                            |
| Name:         | Tom Royal                                                                                                  |
| Position:     | Associate Director - Development Infrastructure                                                            |
| Signed:       |                         |
| Organisation: | AECOM Limited                                                                                              |
| Date:         | 20 <sup>th</sup> January 2026                                                                              |

# Introduction

This Designer's Response is related to the Stage 1 Road Safety Audit Addendum document, dated 10 December 2025 (document ref: 60610807-ACM-CS-XX-RP-HW-0008 Version P02), for the proposed Central Section of Northern Arc avenue following a number of amended scheme design elements and the part realignment of Cuckfield Road (B2036), as part of the Brookleigh, Northern Arc development north of Burgess Hill, West Sussex. This RSA Addendum only covers alterations to the scheme previously audited in January 2025.

The Stage 1 Road Safety Audit Addendum identified a number of problems associated with the design proposed for the public highway and this Designers Response is provided in accordance with the requirements of GG 119.

Table 3: Key Personnel

| Role                    | Organisation                                           |
|-------------------------|--------------------------------------------------------|
| Overseeing Organisation | West Sussex County Council (WSCC)                      |
| Road Safety Audit Team  | AECOM Limited (Aldgate)                                |
| Design Organisation     | AECOM Limited (Development Infrastructure - St Albans) |

# Highway Works

Table 4: Road Safety Audit Decision Log

| Road Safety Audit Problem                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Road Safety Audit Recommendation                                                                                                        | Design Organisation Response                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Overseeing Organisation Response | Agreed Road Safety Audit Action |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------|
| <div><div>Area:</div><div>Problem:</div><div>Location:</div><div>Drawing:</div></div> <div><div>GENERAL</div><div>B1</div><div>Proposed chicane arrangement on Cuckfield Road</div><div>60610807-ACM-CS-ZZ-DR-HW-00-3016</div></div>                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                  |                                 |
| <p>Larger vehicles may collide with infrastructure/ kerb or verge when navigating chicane layout.</p> <p>A chicane layout is proposed on Cuckfield Road. The swept path analysis provided shows that an articulated vehicle appears to overrun / overhang the verge when navigating the arrangement. In addition, it is understood that the route is regularly used by other large vehicles (e.g. agricultural vehicles) and it is unclear whether all vehicles using the route would be able to do so safely. This may result in larger vehicles colliding with the chicane build-outs, verge and/ or losing control at this location.</p> | <p>It is recommended that the layout is revised to ensure that the scheme can be safely navigated by all vehicles that will use it.</p> | <p>Disagreed.</p> <p>The proposed highway arrangement has been designed in accordance with the DfTs Local Transport Note: Traffic Calming (2007), specifically section 6.4 relating to carriageway chicanes. The design achieves an appropriate balance between creating vehicular deflection and encouraging speed compliance.</p> <p>Swept Path Analysis has been undertaken using the UK Max legal rigid HGV vehicle, which should cater for the majority of situations. While the provided drawing may appear to show minor infringement into the verge, this relates to the proposed solid edge road marking, which is intended to guide drivers to remain within the carriageway and avoid meandering into the verge, where no kerb upstand is present.</p> <p>Any occasional minor overrun by larger vehicles (e.g., HGVs or agricultural vehicles) reflects the existing accepted situation on this route and is not considered to present an increased safety risk.</p> |                                  |                                 |

**Area:** GENERAL  
**Problem:** B2  
**Location:** Proposed chicane arrangement on Cuckfield Road  
**Drawing:** 60610807-ACM-CS-ZZ-DR-HW-00-1209

Road users may struggle to safely egress the private driveway opposite the chicane arrangement, potentially resulting in collisions with other road users.

Road users egressing the private (angled) driveway on the western side of Cuckfield Road, located opposite the northern chicane buildout, may struggle to safely manoeuvre out of the access when southbound road users are queuing at the chicane arrangement give-way line. It is unclear whether swept path analysis has been undertaken of this movement, however road users turning at this location may collide with queuing traffic and/ or other vehicles on Cuckfield Road, especially if they are required to undertake slow, point turns for example.

It is recommended that swept path analysis is undertaken to ensure that road users can safely manoeuvre in and out of the driveway without issue.

Disagree.  
  
The existing access north of Copes Bridge is the second of two vehicular access points serving Bridge Farm on Cuckfield Road. The angle of the junction implies its only a southbound exit, and driver should wait until its safe to enter the carriageway, rather than trying to manoeuvre to the give way line, and will enter directly into the chicane.

Given the low and infrequent use of this access compared to the primary access further north, the likelihood of conflict with queuing traffic at the chicane is considered infrequent.

Additionally, the proposed chicane arrangement is specifically designed to reduce vehicle speeds, which further reduces the potential risk of vehicles egressing from this access and colliding with oncoming vehicles in Cuckfield Road. The proposed layout therefore represents an improvement in safety compared to existing conditions.

**Area:** GENERAL**Problem:** C1**Location:** Northern Arc Avenue/ Road 09 Junction (southern footway, west of junction)**Drawing:** 60610807-ACM-CS-ZZ-DR-HW-00-1206

- |     |                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                    |                                                                                                                                                                                                                                                                                                              |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | Confusion resulting from unclear messaging regarding the type of provision/ facility at this location may result in footway user/ cyclist collisions.                                                                                                                                                                                               | It is recommended that the design is amended so that the type of provision at this location is clear to all users. | Agreed.                                                                                                                                                                                                                                                                                                      |
| 1.2 | The north/ south running section (along Road 09) of the Green Super Highway terminates just south of the junction with Northern Arc Avenue. The section of footway (or potential shared cycleway) west from this point, running along the southern side of Northern Arc Avenue as far as the pedestrian crossing, includes/ features the following: |                                                                                                                    | The current arrangement could lead to ambiguity for users due to mixed messaging from signage, tactile paving, and layout features. The design intent is to achieve an appropriate and consistent balance between accessibility, safety, and clarity for all users, including those with visual impairments. |
| 1.3 | • A 3m wide facility                                                                                                                                                                                                                                                                                                                                |                                                                                                                    |                                                                                                                                                                                                                                                                                                              |
| 1.4 | • Numerous sets of corduroy paving                                                                                                                                                                                                                                                                                                                  |                                                                                                                    |                                                                                                                                                                                                                                                                                                              |
| 1.5 | • Cyclist dismount signage/ Segregated shared use signage                                                                                                                                                                                                                                                                                           |                                                                                                                    |                                                                                                                                                                                                                                                                                                              |
| 1.6 | • An angled area of paving with a dropped kerb onto the carriageway (assumed to be for cyclists joining the carriageway)                                                                                                                                                                                                                            |                                                                                                                    | This section will be reviewed and refined during the Detailed Design stage in consultation with the Highway Authority to ensure compliance with relevant standards and to provide clear, unambiguous guidance for both pedestrians and cyclists.                                                             |

Some elements of the layout in this area, such as the 3m width and the angled section of paving/ dropped kerb suggests that this is a shared facility, however the presence of the corduroy paving and cyclist dismount signage suggest it is footway only. This may cause confusion to users resulting in collisions between footway users (especially those with visual impairments) and cyclists.

**Area:** GENERAL  
**Problem:** C2  
**Location:** Cuckfield Road/ Road 5 Junction  
**Drawing:** 60610807-ACM-CS-ZZ-DR-HW-00-1208

Absence of pedestrian crossing facility and onward pedestrian facilities may result in pedestrians being struck by passing road users.

There does not appear to be a pedestrian crossing facility across Road 05 at its junction with Cuckfield Road despite their being footway provision on both sides at this location. In addition, the footway provision on the northern side of the junction consists of a small spur, which does not appear to connect to anything else (i.e. existing or proposed footway provision running north). The absence of a suitable crossing facility and/ or onward footway provision to the north may result in pedestrians attempting to cross at unsuitable locations and/ or walking in the carriageway where they will be at risk of being struck by passing vehicles.

It is recommended that a pedestrian crossing is provided across the Road 05 junction and onward pedestrian facilities are provided north of the junction, as required.

Agreed.

A dropped, uncontrolled pedestrian crossing with tactile paving will be incorporated to provide safe crossing for existing residents north of the new junction and to ensure connectivity with the new facilities.

This section will be reviewed and refined during the Detailed Design stage in consultation with the Highway Authority to ensure compliance with relevant standards and to deliver clear, safe, and accessible provision for all non-motorised users.

**Area:** LOCAL ALIGNMENT  
**Problem:** D1  
**Location:** Northern Arc Avenue/ Cuckfield Road (North) Junction  
**Drawing:** 60610807-ACM-CS-ZZ-DR-HW-00-1205

Insufficient differentiation between the footway and carriageway may result in road users overrunning the footway area or footway users inadvertently entering the live carriageway; this could result in collisions between road users and footway users.

A raised table is proposed at the Northern Arc Avenue/ Cuckfield Road (North) junction. It is unclear from the information provided whether there will be any level difference and/ or sufficient colour contrast/ differentiation between the proposed carriageway and footway surfacing through this section. Inadequate differentiation may result in road users mistakenly encroaching/ overrunning the adjacent footway area, especially given the horizontal alignment through the junction. Similarly, footway users (particularly those with visual impairments) may inadvertently enter the live carriageway. Collisions between road users and footway users could occur as a result.

It is recommended that care is taken at detailed design stage to ensure sufficient contrast/ delineation (colour/ surfacing/ height) is provided between the carriageway and footway areas.

Agreed.

This section will be reviewed and refined during the Detailed Design stage in consultation with the Highway Authority to ensure compliance with relevant standards and to deliver safe, accessible provision for all non-motorised users, including those with visual impairments.

The design will ensure clear differentiation between the carriageway and footway through appropriate level changes and contrasting surfacing materials.