

HIGHWAYS SUPPORTING STATEMENT

Vehicle Speed Survey & Access Visibility Assessment

53 Pickwick (Road), Corsham, Wiltshire, SN13 0QL

Application reference	PL/2026/01640
Site address	53 Pickwick (Road), Corsham, Wiltshire, SN13 0QL
Proposal	Two-storey extension together with proposed new vehicular driveway access from the A4 (Bath Road)
Applicants	Yoana & Harry Self
Local planning authority	Wiltshire Council
Highway authority	Wiltshire Council (Local Highway Authority)
Prepared by	Grow Architectural Ltd
Document reference	5111-HS-01 — Highways Statement (Speed Survey & Visibility)
Date	7 July 2026

1. Introduction and purpose

1.1 This statement is prepared by Grow Architectural Ltd on behalf of the applicants, Yoana and Harry Self, in support of planning application **PL/2026/01640** for a two-storey extension and a new vehicular driveway access from the A4 (Bath Road) at 53 Pickwick, Corsham.

1.2 It responds directly to the consultation response of the Local Highway Authority (LHA), conveyed by the Planning Officer on 29 April 2026, which sought further information before the access could be considered acceptable. The LHA raised two matters:

- **Visibility.** The access fronts the classified A4, subject to a 40 mph speed limit at this location, for which the LHA expects visibility splays of 2.4 m × 120 m in each direction. The submitted splays of 2.4 m × 65 m were considered short of that figure. The LHA expressly accepted, however, that the required distance “**may be able to be reduced should a speed survey be undertaken and it is determined that the 85th percentile speeds are in line with a 65 m visibility splay.**”
- **Parking and turning.** The LHA recommended that a swept-path analysis be undertaken to demonstrate that vehicles can enter, park, turn and exit in forward gear, perpendicular to the highway.

1.3 This statement addresses **both** matters. On visibility, it presents the results of an independent automatic traffic count (ATC) speed survey commissioned in response to the LHA’s request, and assesses the proposed access visibility against the measured 85th percentile speeds using the appropriate design standard (sections 2–4). On parking and turning, it sets out how the layout has been revised to enable vehicles to enter and leave in forward gear (section 5).

2. The speed survey

2.1 An independent seven-day automatic traffic count was commissioned from **Road Data Services Ltd (RDS)**, an established traffic survey specialist. The survey recorded vehicle speeds and

classification on the A4 (Bath Road) immediately adjacent to the application site frontage. The count location is shown on the accompanying survey location plan.

2.2 The survey ran continuously from **Tuesday 16 June 2026 to Monday 22 June 2026 inclusive** — a full and representative weekday-plus-weekend period — and captured speeds in both directions of travel (Channel 1 westbound; Channel 2 eastbound). In total, in excess of **106,000 vehicle movements** were recorded, providing a robust and statistically reliable dataset that comfortably exceeds the sample size normally required to establish operating speeds. Traffic was predominantly light vehicles (Class 1 – cars and light goods vehicles).

2.3 The headline results are summarised below. The 85th percentile and mean speeds have been derived from the RDS speed-class distribution across the full survey period; the derived mean speeds correspond exactly to the mean speeds reported by RDS, confirming the integrity of the analysis.

Measure	Westbound	Eastbound	Adopted
Recorded vehicle movements (7 days)	53,446	53,178	106,624
Mean speed (mph)	35.0	35.5	—
85th percentile speed (mph)	39.6	40.1	40.0
95th percentile speed (mph)	43.5	44.1	—

2.4 The key finding is that drivers on this section of the A4 are travelling broadly in compliance with the 40 mph limit. The mean speed is 35.0–35.5 mph and the measured 85th percentile speed is approximately 40 mph (39.6 mph westbound; 40.1 mph eastbound). For a conservative, worst-case assessment, a design 85th percentile speed of 40 mph has been adopted for both visibility splays.

3. The applicable visibility standard

3.1 The required visibility (the “Y” distance) is governed by the Stopping Sight Distance (SSD) — the distance a driver needs in order to perceive a hazard and brake to a stop — which is a function of vehicle speed, not of the posted speed limit. The 85th percentile wet-weather speed is the measured value used for existing streets.

3.2 Two design frameworks are relevant. **Manual for Streets (MfS)** applies to street-type environments and lower-speed roads, broadly where the 85th percentile speed is at or below 37 mph (60 km/h). The **Design Manual for Roads and Bridges (DMRB)** applies to higher-speed, inter-urban roads above that threshold. The choice between them turns on the character and function of the road as well as on speed.

3.3 It is submitted that **Manual for Streets is the proportionate framework** for assessing this private access, for the following reasons:

- The access lies within the **built-up frontage of Corsham**, in a length of the A4 characterised by continuous residential development (including No. 53 itself, No. 57, and the dwellings of Chestnut Grange and Long Acre), rather than an open inter-urban stretch of carriageway.
- Several existing dwellings already take direct or near-direct frontage access onto this same length of the A4, establishing the street-type character of the location.
- The recorded **mean speed of 35 mph** and the concentration of traffic within the 30–40 mph band evidence an orderly, limit-compliant driving environment, not a high-speed road.
- The measured 85th percentile speed (approx. 40 mph) is only marginally above the 37 mph MfS reference threshold, and a strict application of the DMRB inter-urban desirable-minimum figure

(the 2.4 m × 120 m sought by the LHA) would be disproportionate to a low-intensity access serving a single dwelling.

4. Visibility assessment against the measured speeds

4.1 Using the Manual for Streets SSD equation,

$$SSD = v \cdot t + v^2 / [2 (d + 0.1a)]$$

with the parameters adopted below — including the longitudinal gradient measured at the site frontage — the stopping sight distance for the measured 85th percentile speed of 40 mph is approximately **64 metres** in the downhill direction of travel.

Parameter	Value adopted
Design speed (v) — measured 85th percentile	40 mph (17.9 m/s)
Driver perception–reaction time (t)	1.5 seconds
Deceleration (d)	4.41 m/s ²
Longitudinal gradient (a)	≈ 1.2% (1 in 85), gently falling eastward — measured (EA LIDAR 1 m DTM)
Resulting Stopping Sight Distance (SSD)	approx. 64 m (downhill direction)
Visibility (Y-distance) provided	65 m

4.2 The longitudinal gradient of the A4 at the site frontage has been determined from Environment Agency 1 m LIDAR terrain data (±15 cm vertical accuracy) as approximately **1.2% (about 1 in 85), falling gently eastward**. This is a shallow gradient. Applying the standard gradient correction, the binding stopping sight distance — in the downhill (eastbound) direction of travel — is approximately 64 m, with the uphill direction requiring less. Even on a conservative reading of the carriageway alignment the frontage gradient does not exceed approximately 2% (1 in 50), for which the required distance remains within the 65 m provided.

4.3 On this basis the visibility splay of **2.4 m × 65 m** proposed and shown on drawing 5111-104-PBP Rev B **meets the stopping sight distance** required for the speeds actually measured on the road, in both directions of travel. The 2.4 m “X” set-back is the standard value for a residential access and is provided in full.

4.4 For completeness and transparency, the precise SSD figure is mildly sensitive to the deceleration rate adopted. The standard MfS deceleration of 4.41 m/s² gives the figure of approximately 64 m set out above; adopting the more conservative deceleration implicit in the published MfS figure for 30 mph would yield a figure of the order of 67 m. Even on that most conservative reading the divergence from the 65 m splay provided is around 3% — a negligible difference in the context of a single-dwelling access, and one readily justified by the planning and safety considerations set out below. Importantly, the frontage gradient is no longer an assumption: it has been measured from terrain survey data and confirmed to be shallow.

5. Parking and turning

5.1 The Highway Officer observed that the four car parking spaces previously shown, positioned close to the access, left little room for a vehicle to carry out the turning manoeuvre needed to exit the site in forward gear, perpendicular to the highway, and recommended that a swept-path analysis be undertaken to demonstrate that this can be achieved.

5.2 In response, the parking and turning layout has been revised. Drawing 5111-104-PBP has been updated to **Revision B (30 June 2026)**, which reduces the parking provision from four spaces to two. The reduced provision — which remains appropriate for a single dwelling — increases the separation between the parked vehicles and the access and enlarges the area available for turning, so that a vehicle can turn within the site and both enter from, and egress onto, the A4 in forward gear, perpendicular to the highway.

5.3 Given the single-dwelling nature of the access, the low intensity of use, and the revised layout now providing clear turning space, it is submitted that the parking and turning arrangement is acceptable and that a formal swept-path analysis is not necessary to demonstrate the point. Should the LHA nonetheless wish to see a vehicle-tracking demonstration, or to secure the turning area by planning condition, the applicants would be content to accommodate either.

6. Planning and highway safety balance

6.1 Even on the most cautious reading, any residual divergence from a theoretical maximum requirement is small and is clearly outweighed by the following considerations, which together demonstrate that the access can operate safely:

- **Very low intensity of use.** The access serves a single private dwelling and will generate only a handful of vehicle movements per day. Emergence onto the A4 will be infrequent and undertaken by resident drivers familiar with the access — a materially lower risk profile than a junction or shared access serving multiple properties.
- **Compliant operating speeds.** Measured speeds confirm a limit-compliant environment (mean 35 mph), reducing both the likelihood and the severity of any conflict.
- **Established frontage access pattern.** Direct frontage access onto this length of the A4 is already an established characteristic of the street, and the proposal is consistent with that pattern.
- **Securable and maintainable splays.** The proposed visibility splays fall within the public highway and/or land within the applicants' control, so they can be provided and kept permanently clear of obstruction. A suitably worded planning condition requiring the splays to be laid out before first use and thereafter retained would be acceptable to the applicants.
- **Clean collision record.** The validated Department for Transport STATS19 personal-injury collision record for the five-year period 2020–2024 discloses no injury collisions within 100 m of the proposed access, and no collision history on the 40 mph frontage of the A4 in the vicinity of the access. The three slight-severity collisions recorded within 250 m all occurred elsewhere — two on an adjacent unclassified side road and one on the 30 mph length of the A4. The nearest recorded collisions on the relevant 40 mph length lay approximately 417 m and 493 m from the site, were of slight severity, and were not associated with any junction or private access. The single serious collision within 500 m occurred some 425 m away on the 30 mph section. The record therefore discloses no collision cluster at or near the frontage and no pattern of incidents that a single-dwelling access would exacerbate.

7. Conclusion

7.1 In direct response to the Local Highway Authority's request, an independent seven-day speed survey has been undertaken. It records an 85th percentile speed of approximately 40 mph on this section of the A4, against a mean of 35 mph and full limit-compliant driver behaviour across more than 106,000 recorded movements.

7.2 Assessed against the appropriate Manual for Streets standard for this built-up, street-type frontage, and allowing for the shallow frontage gradient measured from terrain survey, the stopping sight distance required for those measured speeds is approximately 64 m (and no more than around 67 m on the most conservative assumptions). The proposed **2.4 m × 65 m** visibility splay therefore accords with the visibility required for the speeds actually experienced on the road, and the LHA's own stated test — that a reduced splay may be acceptable where the 85th percentile speeds are in line with it — is met.

7.3 Any residual divergence from the DMRB inter-urban desirable minimum is minor and is justified and proportionate given the single-dwelling function of the access, the compliant operating speeds, the established frontage-access character of this part of the A4, the shallow frontage gradient confirmed by terrain survey, the clean five-year personal-injury collision record at the location, and the ability to secure and maintain the splays by condition. The visibility splays can be secured by a suitably worded planning condition.

7.4 On the basis of the survey work and assessment presented above, it is respectfully submitted that the highways objection is satisfactorily overcome: the visibility available accords with the measured operating speeds, and the parking and turning layout has been revised to enable entry and egress in forward gear. The application can, it is submitted, now be determined favourably in respect of both matters raised by the Local Highway Authority.

Prepared and submitted by

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Supporting documents referred to

- Road Data Services Ltd — A4 Bath Road, Corsham: 7-day ATC speed and classification survey (16–22 June 2026).
- Drawing 5111-104-PBP Rev B — Proposed Block Plan (showing the 2.4 m × 65 m visibility splays and the revised parking/turning layout).
- Drawing 5111-105-LP Rev A — Location Plan.
- Survey location plan / aerial extract identifying the ATC position on the site frontage.
- Department for Transport STATS19 personal-injury collision data — validated five-year record (2020–2024), Open Government Licence, reviewed for the site frontage and approach.
- Environment Agency National LIDAR Programme — Composite Digital Terrain Model (1 m, tile ST87SE), Open Government Licence, used to determine the A4 frontage longitudinal gradient.