

**PERSIMMON HOMES DEVELOPMENT  
WYKHAM PARK, BANBURY  
SECTION 38 WORKS  
STAGE 1/2 ROAD SAFETY AUDIT**

SA 3981  
February 2023



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REV	ISSUE STATUS	PREPARED BY/DATE	CHECKED BY/DATE	APPROVED BY/DATE
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2	FINAL	LB 10 February 2023	PH 10 February 2023	GW 10 February 2023

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## 1.0 INTRODUCTION

1.1 This report is a Stage 1/2 Road Safety Audit (RSA) carried out on the designs of the Section 38 works associated with the Wykham Park development located off Bloxham Road, Banbury at the request of Persimmon Homes.

1.2 The RSA team, staff members from Waterman Aspen, present at the RSA were:

Liam Bourne  
Audit Team Leader

Pete Howarth  
Audit Team Member

We confirm that no member of the Audit Team has been involved with the design process and that at least one member of the Audit Team holds the Highways England Certificate of Competency.

1.3 The Audit Team visited the site together on Tuesday, 31 January 2023. The weather during the site visit was overcast with a mostly dry carriageway surface.

1.4 The RSA brief issued to the team comprised of various elements listed at Appendix Two.

1.5 The scheme has been examined and this report compiled only with regard to the safety implications for road users of the scheme as presented. It has not been examined or verified for compliance with any other Standards or criteria. However, in order to clearly explain a safety problem or the recommendation to resolve a problem, the Audit Team may on occasion have referred to a design standard for information only. Any audit comments should not be construed as implying that a technical audit has been undertaken in any respect.

1.6 All of the problems described in this report are considered by the RSA team to require action in order to improve the safety of the scheme and minimise collision occurrence. However, if any of the problems or recommendations within this Road Safety Audit report is not accepted, a copy of the signed exception report from the Overseeing Organisation should be sent to the Road Safety Audit Team Leader.

1.7 Any recommendations included within this report should not be regarded as being prescriptive design solutions to the problems raised. They are intended only to indicate a proportionate and viable means of eliminating or mitigating the identified problem, in accordance with GG119, and in no way imply that a formal design process has been undertaken. There may be alternative methods of addressing a problem which would be equally acceptable in achieving the desired elimination or mitigation and these should be considered when responding to this report.

## **2.0 PROPOSALS**

2.1 The scheme proposes to construct the Section 38 works associated with a residential development known as Wykham Farm, Banbury.

## **3.0 RECORDED INJURY ACCIDENT HISTORY**

3.1 No collision data has been submitted to the Audit Team to review as part of this report.

## **4.0 DEPARTURES FROM STANDARD**

4.1 No departures from standard have been highlighted within the Audit Brief.

## **5.0 DOCUMENTS AND INFORMATION NOT PROVIDED**

5.1 The following information was not provided within the audit brief and therefore has not been considered with the audit:

- Previous Road Safety Audits
- Street lighting designs
- Existing or proposed levels
- Landscape and planting proposals
- Highway construction details
- Traffic signs and road markings

## **6.0 MATTERS ARISING FROM THIS STAGE 1/2 ROAD SAFETY AUDIT**

### **6.1 Problem**

**Location:** Turning heads throughout development

**Summary:** **Risk of vehicle and pedestrian collisions**

There are several locations throughout the proposals submitted for audit where large vehicles, such as refuse lorries, are overrunning areas and footway. If a refuse lorry is overrunning a footway, then there will be a risk of collisions with pedestrians.

#### **Recommendation**

It is recommended that all the carriageways are tracked with computer aided design software to ensure vehicles which will travel through the development regularly can do so without overrunning areas.

### **6.2 Problem**

**Location:** Speed control measures throughout the development

**Summary:** **Risk of loss of control collisions**

The drawings submitted for audit show very little in the way of traffic calming or speed control measures throughout the site. It is noted that there are areas of block paving, but these have flush kerbs either side and no change in level to slow down vehicles. There are long straight carriageways within the development on which vehicles could travel at excessive speed along, which will increase the risk of collisions through the site.

#### **Recommendation**

It is recommended that speed control measures be installed throughout the development.

### 6.3 Problem

**Location:** Transitions from shared spaces to bituminous footways

**Summary:** **Risk of vehicle and pedestrian collisions**

There do not appear to be any facilities proposed to inform pedestrians that they are transitioning from a traditional footway to a shared space carriageway where they may encounter vehicles. This is of particular concern to partially sighted users who may not be aware of the change of environment and could lead to an increased risk of pedestrians colliding with vehicles.

#### **Recommendation**

It is recommended that clear guidance, such as tactile paving etc, be provided at the entrances to shared space areas to inform pedestrians of the change of environment.

### 6.4 Problem

**Location:** Visibility splay opposite plot 131

**Summary:** **Risk of side impact collisions**

The visibility splay for the junction opposite plot 131 is shown through visitor parking bays and outside of the area being offered for adoption. If a vehicle were parked in these bays, then there will be a risk of a side impact collision due to the reduced visibility at the junction. If the boundary treatment of the private areas adjacent to the highway changed, then there will also be a risk of a side impact collision due to the reduced visibility at the junction.

#### **Recommendation**

It is recommended that all visibility splays are adequate for the speed of the road, are free of obstructions and are within land being offered for adoption so they can be maintained in perpetuity.

## 6.5 Problem

**Location:** Grasscrete turning head by plot 29

**Summary:** **Risk of rear end collisions**

The turning head by plot 29 is noted as being constructed as grasscrete. The majority of drivers will not realise that this area which appears to be grass is for them to turn in and may opt to reverse back down the road to the nearest junction. This will lead to a risk of other vehicles colliding with the rear of the reversing vehicles.

### **Recommendation**

It is recommended that a traditional turning head is installed which is of adequate size to allow regular highway users, such as refuse lorries, to turn in without overrunning the adjacent footways.

## 6.6 Problem

**Location:** Attenuation basins throughout the development

**Summary:** **Risk of vehicle occupant drowning**

The drainage drawings submitted for audit show several attenuation features throughout the development adjacent to the carriageways. It is noted that some of these ponds are over 2.0m deep. If an errant vehicle were to enter the pond it may overturn as travelling down the side slopes (gradients unknown) and the occupants could drown if the ponds were holding water at that time.

### **Recommendation**

It is recommended that some form of fencing is included in the design alongside the ponds.



## 6.7 Problem

**Location:** Block paved areas throughout the development

**Summary:** **Risk of pedestrian slips, trips and falls**

The block paved shared space areas have 25mm kerb faces along the channel lines. These kerbs are above the recommended guidance of a 0-6mm kerb face for a crossing point, meaning pedestrians could potentially trip on them. This creates the further issues of whether these areas actually likely to operate as shared spaces as there is a clear channel line along the edges denoting a carriageway area for drivers of vehicles. If they are not treated as shared spaces by users, then the margins along either side of carriageways are, in most cases, not of adequate width to be a footway. In summary, the block paved areas are not shared spaces and are not wide enough to operate as traditional carriageway and footways. This could lead to pedestrians tripping on the 25mm kerbs or collisions with vehicle who think that they're on a carriageway rather than a shared space.

### Recommendation

It is recommended that either that the block paved areas are designed as true shared spaces without the 25mm kerb face or that the design reverts to a traditional arrangement of footways and carriageways, both of which would need to be of sufficient width to fulfil the roles.

## 6.8 Problem

**Location:** Footway running alongside the attenuation basins through the development

**Summary:** **Risk of pedestrian slips, trips and falls or pedestrian and vehicle collisions**

The footway running alongside the attenuation basins does not link into the wider footway network through the site. There are locations with links through to the adjacent carriageway but no uncontrolled pedestrian crossing points with tactile paving have been provided at these locations. These could lead to pedestrians tripping on full height kerbs or pedestrian collisions with vehicles whilst they are walking in the carriageways.

### Recommendation

It is recommended that this section of footway be integrated into the wider highway network with suitable pedestrian facilities at the access points.

## 6.9 Problem

**Location:** Footway running alongside the attenuation basins through the development

**Summary:** **Risk of pedestrian drowning**

The footway running alongside the attenuation basins does not appear to have any fencing to prevent pedestrians falling into them. As the basins are over 2m deep in places there could be a risk of drowning. It is noted that the side slopes are between 1:3 and 1:4 but the gradient alongside the footway it is not clear.

### **Recommendation**

It is recommended that the basins either be guarded or of a suitable gradient so that, if a pedestrian were to enter, they could climb out again unaided.

## **APPENDIX ONE**

### **7.0 AUDIT TEAM STATEMENT**

## AUDIT TEAM STATEMENT

We certify that the audit has been carried out in accordance with the requirements set out in GG119. The problems identified have been noted in this report together with associated safety improvement suggestions which we recommend should be studied for implementation.

## AUDIT TEAM LEADER

Liam Bourne MCIHT HA Cert Comp  
Senior Road Safety Engineer  
Waterman Aspen  
5th Floor  
1 Cornwall Street  
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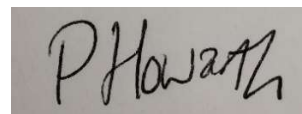
A handwritten signature in blue ink, appearing to read 'Liam Bourne'.

Signed.....

Date: 01 February 2023

## AUDIT TEAM MEMBER

Peter Howarth MSc BSc (hons) FCIHT  
Senior Road Safety Engineer  
Waterman Aspen  
5th Floor  
1 Cornwall Street  
Birmingham  
B3 2DX

A handwritten signature in black ink, appearing to read 'P Howarth', enclosed in a grey rectangular box.

Signed.....

Date: 01 February 2023

## **APPENDIX TWO**

### **8.0 LIST OF DRAWINGS AND DOCUMENTS PROVIDED TO THE AUDIT TEAM**

**LIST OF DRAWINGS AND DOCUMENTS PROVIDED TO THE AUDIT TEAM**

22647-HYD-XX-XX-DR-C-0001 S38 Adoption Plan-0001 - P01  
22647-HYD-XX-XX-DR-C-0002 S38 Adoption Plan-0002 - P01  
22647-HYD-XX-XX-DR-C-0010 Highway General Arrangement-0010 - P01  
22647-HYD-XX-XX-DR-C-0011 Highway General Arrangement-0011 - P01  
22647-HYD-XX-XX-DR-C-0100 S104 Adoption Plan-0100 - P01  
22647-HYD-XX-XX-DR-C-0101 S104 Adoption Plan-0101 - P01  
22647-HYD-XX-XX-DR-C-0110 Flood Exceedance Plan-0110 - P01  
22647-HYD-XX-XX-DR-C-0111 Flood Exceedance Plan-0111 - P01  
22647-HYD-XX-XX-DR-C-0200 Longitudinal Sections-0200 - P01  
22647-HYD-XX-XX-DR-C-0201 Longitudinal Sections-0201 - P01  
22647-HYD-XX-XX-DR-C-0202 Longitudinal Sections-0202 - P01  
22647-HYD-XX-XX-DR-C-0203 Longitudinal Sections-0203 - P01  
22647-HYD-XX-XX-DR-C-0204 Longitudinal Sections-0204 - P01  
22647-HYD-XX-XX-DR-C-0205 Longitudinal Sections-0205 - P01  
22647-HYD-XX-XX-DR-C-0206 Longitudinal Sections-0206 - P01  
22647-HYD-XX-XX-DR-C-0300 Manhole Schedules-0300-P01  
22647-HYD-XX-XX-DR-C-0301 Manhole Schedules-0301-P01  
22647-HYD-XX-XX-DR-C-0302 Manhole Schedules-0302-P01  
22647-HYD-XX-XX-DR-C-0400 Highway Construction Details-0400 - P01  
22647-HYD-XX-XX-DR-C-0401 Highway Construction Details-0401 - P01  
22647-HYD-XX-XX-DR-C-0410 Adoptable Drainage Construction Details-0410-P01  
22647-HYD-XX-XX-DR-C-0411 Adoptable Drainage Construction Details-0411-P01  
22647-HYD-XX-XX-DR-C-0600 Drainage Layout-0604-P01  
22647-HYD-XX-XX-DR-C-0600 Drainage Layout-0605-P01  
22647-HYD-XX-XX-DR-C-0600 Drainage Layout-0606-P01  
22647-HYD-XX-XX-DR-C-0700 Surfacing Plan-0700-P01  
22647-HYD-XX-XX-DR-C-0701 Surfacing Plan-0701-P01  
22647-HYD-XX-XX-DR-C-0702 Surfacing Plan-0702-P01  
22647-HYD-XX-XX-DR-C-0703 Surfacing Plan-0703-P01  
22647-HYD-XX-XX-DR-C-0704 Surfacing Plan-0704-P01  
22647-HYD-XX-XX-DR-C-0705 Surfacing Plan-0705-P01  
22647-HYD-XX-XX-DR-C-0900 Swept Path Analysis (Refuse)-0900 - P01  
22647-HYD-XX-XX-DR-C-0901 Swept Path Analysis (Refuse)-0901 - P01  
22647-HYD-XX-XX-DR-C-0910 Swept Path Analysis (Fire)-0910 - P01  
22647-HYD-XX-XX-DR-C-0911 Swept Path Analysis (Fire)-0911 - P01  
22647-HYD-XX-XX-RP-0001-P01 Drainage Strategy  
P21-2662\_DE\_031-01E Planning Layout  
PHSM - SK01A - Refuse Vehicle Tracking Sheet 1  
PHSM - SK02A - Refuse Vehicle Tracking Sheet 2  
PHSM - SK03A - Refuse Vehicle Tracking - Turning Heads

## **APPENDIX THREE**

### **9.0 PROBLEM LOCATION PLAN**



**Expertly Done.**  
DESIGN | ECONOMICS | ENVIRONMENT | HERITAGE | LAND & PROPERTY | PLANNING | TRANSPORT & INFRASTRUCTURE

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