

# Sevenairs Consulting Ltd

**Pennine Service Station, Bradley Road, Bradley, West Yorkshire**

**Road Safety Audit Stage 3**

July 2021



# Document Control

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## Report Title:

Pennine Service Station, Bradley Road, Bradley, West Yorkshire – Road Safety Audit Stage 3

## Date of Site Visit

4th July 2021

## Document Reference

2021-07 Bradley RSA3 – Revision 0

## Report Prepared By:

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## On behalf of

Paragon Highways – Office 20/21 The Rear Walled Garden, Nostell Estate, Wakefield WF4 1AB

## Highway Authority / Overseeing Organisation

Kirklees Council

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## Document History:

Revision	Date	Description	By
0	06.07.2021	For Issue	HV

# Introduction

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## Commissioning and Scope

This report results from a Stage 3 Road Safety Audit carried out at the site of a development at Pennine Service Station on Bradley Road, in Bradley, West Yorkshire, at the request of Paragon Highways Limited on behalf of the developer of the site.

The Road Safety Audit Brief was supplied by Leigh Ogden, Director, Paragon Highways Limited on behalf of the developer.

The Road Safety Audit Brief was approved by Leigh Ogden, Director, Paragon Highways Limited on behalf of the developer.

The Road Safety Audit team membership approved by Leigh Ogden, Director, Paragon Highways Limited on behalf of the developer, and was as follows:

<b>The Audit Team</b>	Haydn Vernals FCIHT FIHE CMILT MSoRSA, Road Safety Team Leader in accordance with GG119 and Directive 2008/96/EC (Certificate of Competency)  Colin Blue, Road Safety Team Member in accordance with GG119 and Directive 2008/96/EC (Certificate of Competency)
<b>Audit Observers</b>	None

The audit team understand that West Yorkshire Police and Kirklees Council would not typically attend small sites such as this, as such, an invitation was not extended to either to be at the site visit.

A site visit took place comprising of the RSA team on Sunday 4th July 2021 between 15:30 and 16:00 hours during daylight. The weather was raining and the road surface was wet. Traffic conditions were light and free flowing, with some pedestrians observed but no cycles observed. A site visit during the hours of darkness took place on the same day between 22:45 and 23:00 hours.

The main project is the development of the site for reintroduction of a petrol filling station, with an associated small convenience store. The scope of this audit is to review the site access and a new pedestrian refuge to the east of the development.

The RSA took place in July 2021 at the Sevenairs Consulting Office in Sheffield and was undertaken in accordance with the RSA brief provided by Leigh Ogden, Director, Paragon Highways Limited on behalf of the developer. The audit comprised of an examination of the documents provided as outlined in the audit brief and the scheme as proposed on site.

No departures from standard have been brought to the attention of the RSA team with regard to the scheme as designed.

## Documents Supplied

- E-mail proposal background
- 1903 101 Rev C – Construction and Lining
- 1903 102 Rev B – Kerbing
- 1903 103 Rev A – Visibility and Tracking
- 1903 104 Rev A – Typical Sections

## Terms of Reference

The terms of reference of this Road Safety Audit are as described in GG119 Road Safety Audit. The Audit Team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the designs to any other criteria.

Each of the auditors' responses is classified as a 'Problem' that is likely to result in a significant road safety hazard. All comments and recommendations are referenced to the detailed design drawings and the locations have been indicated on the plan at the end of the report.

Where recommendations are made, these do not comprise design decisions, and it remains the responsibility of the Design Team to incorporate any changes into the scheme, and consider any interactions between design elements.

## Problems Raised at the Stage 1/2 RSA

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### **PROBLEM – B-01**

**Location:** A6107 Bradley Road

**Summary:** Skid Resistance – Poor skidding resistance may increase the risk of loss of control or skidding related collisions at the pedestrian refuge crossing.

*The drawings do not indicate that any resurfacing is to be provided on the approaches to the proposed pedestrian refuge crossing. Collision data indicates three collisions near the site in the last five years, two serious, within 200m, suggesting a higher investigatory level being appropriate at this site. Traffic data available on the DfT traffic count website suggests a low two-way commercial vehicle flow of between 251-500 per day. Insufficient skidding resistance may increase the risk of loss of control or skidding related collisions on the approach to the crossing.*

### **RECOMMENDATION**

*It is recommended that with reference to DMRB CD236, bituminous material with a minimum PSV of 68+ is used in the vicinity of the proposed pedestrian refuge crossing (Site Category K). It is recognised that the use of high friction surfacing may be a more cost-effective solution in this location.*

### **AUDIT RESPONSE**

*Not accepted, the carriageway appears to contain a suitable surface and skid resistance. None of the collisions mentioned involve pedestrian movements across the road using the existing refuge islands.*

**Status at this Stage 3 Road Safety Audit – Open:** Google Street View suggests that Bradley Road was resurfaced at some point between 2009 and 2012. There is a risk that the skidding resistance provided at that time has reduced in the decade since that time. This increases the risk that the skidding resistance performance on the approach to this new pedestrian refuge falls short of the skidding resistance performance that is recommended and may increase the risk of loss of control or skidding related collisions on the approach to the crossing

**RECOMMENDATION** – It is recommended that the surface approaching the pedestrian crossing is objectively tested to ensure adequate skidding resistance is available on the approaches to the refuge where approaching vehicles may need to stop suddenly for pedestrians crossing injudiciously.

### **PROBLEM – B-02**

**Location:** A6107 Bradley Road

**Summary:** Pedestrians – Location of pedestrian refuge crossing may increase the risk of collisions between pedestrians and motorised users accessing driveways.

*The proposed pedestrian refuge appears to be located in the middle of a shared driveway for two properties, this may increase the risk of pedestrians using the crossing point being struck by vehicles using the driveways and also damage to the tactile paving where the crossing lands on the southern side of the road, providing a further risk of trips and falls due to damaged tactile paving.*

### **RECOMMENDATION**

*It is recommended that the pedestrian crossing is relocated to a point that is removed from the influence of driveways.*

### **AUDIT RESPONSE**

*Accepted, the proposed pedestrian refuge island has been relocated from the existing driveways*

**Status at this Stage 3 Road Safety Audit – Closed:** The refuge island has been relocated. This problem is now considered closed.

### **PROBLEM – B-03**

**Location:** A6107 Bradley Road

**Summary:** Signs – Poor indication of access and egress may increase the risk of collisions in the junction mouth.

*Although a give way marking is provided, no vertical signing provision appears to have been made for indicating to all users as to which gap is to be used for vehicles entering and leaving the site. This lack of provision may increase the risk of collisions in the junction mouth.*

### **RECOMMENDATION**

*It is recommended that blue and white worded signs indicating IN, OUT, NO ENTRY etc are provided.*

### **AUDIT RESPONSE**

*Accepted, informatory upright signing will be provided*

**Status at this Stage 3 Road Safety Audit – Closed:** Although blue and white worded signs have not been provided, corporate branded signs indicating way in and no entry have been provided. This problem is now considered closed.

#### **PROBLEM – B-04**

**Location:** A6107 Bradley Road

**Summary:** *Lighting – Poor levels of carriageway illumination may increase the risk of pedestrian collisions during the hours of darkness*

*Although a site visit during the hours of darkness was not made, the audit team considered that carriageway surface illumination may be a risk at the pedestrian crossing point. This concern covers two issues, firstly the level of illumination along the main carriageway may not be sufficient to current standards to provide a satisfactory level of surface illumination at the point where pedestrians are directed to cross. Second, although the proposed location has a lighting column directly at the crossing point, this column raises through a tree canopy, which historical images on google street view suggests, obstructs the cast of illumination from the luminaire onto the carriageway surface below. Combined with the increased level of lighting from the proposed petrol filling station and associated shop, these issues may increase the risk that a crossing pedestrian is not sufficiently illuminated during the hours of darkness.*

#### **RECOMMENDATION**

*It is recommended that with consideration of Problem B-02 (refuge relocation), that the level of carriageway illumination provided at the pedestrian refuge is to the satisfaction of the highway authority street lighting team.*

#### **AUDIT RESPONSE**

*The pedestrian refuge has been relocated, subsequently there is an existing unobstructed lighting column located circa 15m away. The street lighting provision appears to meet main road standards and should adequately illuminate the proposed refuge island.*

**Status at this Stage 3 Road Safety Audit – Open:** Although the audit team acknowledge that the refuge has been relocated and is less affected by the tree canopy, there remains a risk from the light spill from the petrol filling station. Drivers with a lower quality of vision at night, typically most drivers over 40yrs of age, may find that pedestrians crossing at this location are not sufficiently illuminated during the hours of darkness. This may increase the risk of collisions involving pedestrians during the hours of darkness.

**RECOMMENDATION** – It is recommended that the level of carriageway illumination provided at the pedestrian refuge is to the satisfaction of the highway authority street lighting team.

### **PROBLEM – B-05**

**Location:** A6107 Bradley Road

**Summary:** Carriageway markings – Poor parking control may increase the risk of junction related collisions due to vehicle masking.

*The proposed site provides both a petrol filling station and an associated convenience store, that appears to be of a sufficient size to attract customers for just the store. A review of the planning application drawings suggests little onsite parking for non-fuel use, which may increase the risk of store customers parking on the main carriageway of Bradley Road to access the store both outside and inside the hours of operation of the mandatory with flow cycle lane. This may increase the risk of vehicles being parked for short periods in the access junction mouths and on Bradley Road within the access junction visibility, masking approaching vehicles, consequently increasing the risk of junction related collisions.*

### **RECOMMENDATION**

*It is recommended that waiting and loading restrictions are provided to protect the junction visibility of Tithe House Way and access visibility of the development.*

### **AUDIT RESPONSE**

*Not accepted, it is considered that the development provides suitable off street parking. The layout and parking has been agreed by Kirklees Council's Highways Officers as part of the Planning Approval process.*

**Status at this Stage 3 Road Safety Audit – Closed:** Activity at the petrol filling station has been low at the times of the site visits and during observations made when passing at other times. This problem is now considered closed.

## Problems Raised at this Stage 3 RSA

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### **PROBLEM – C-01**

**Location:** A6107 Bradley Road

**Summary:** Visibility – A free-standing advertising sign may increase the risk of visibility relation collisions

A free-standing advertising sign has been provided as part of the development. This sign is located such that it obscures inter-visibility between vehicles approaching and vehicles leaving the site and also perhaps more critically obscures inter-visibility between vehicles entering the site and pedestrians crossing the entry into the petrol filling station

### **RECOMMENDATION**

It is recommended that the free-standing advertising sign is removed from the highway verge.

# Audit Team Statement

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We certify that this Road Safety Audit has been carried out in accordance with GG119.

Road Safety Audit Team Leader

Signed:



Haydn Vernals FCIHT FIHE CMILT MSoRSA, Directive  
2008/96/EC (Certificate of Competency)

Date: 6th July 2021

Sevenairs Consulting Ltd  
20 High Bank, Thurlstone, Sheffield, S36 9QH

Road Safety Audit Team Member

Signed:



Colin Blue, Road Safety Team Member in accordance  
with GG119 and Directive 2008/96/EC (Certificate of  
Competency)

Date: 6th July 2021

