Your Ref:

Our Ref: LNMS/508/2013

Highways Agency

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**EM Highway Services Limited** 

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11th February 2014

Dear Sir,

Re: A404 Bisham Roundabout PPP (De-scoped scheme) – Stage 1 Road Safety Audit – LNMS/508/2013

Please find enclosed a copy of the Final Stage 1 Road Safety Audit report for the A404 Bisham Roundabout PPP (De-scoped scheme) reference LNMS/508/2013.

I have passed one copy of the Final report and this letter to the EM Design Team and the Highways Agencys Archives.

I trust the report is acceptable, but if you would like to discuss the content please contact me.

Yours faithfully



- Traffic and Road Safety Engineer
For and on behalf of EM Highway Services Limited

Cc EM Highway Services EM Highway Services

RoadSafetyAudit@highways.gsi.gov.uk

Enc: Draft Stage 1 Road Safety Audit Ref LNMS/508/2013



# Area 3

A404 Bisham Roundabout PPP (De-Scoped Scheme)
Stage 1 Road Safety Audit
LNMS/508/2013

February 2013

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# **Document Control**

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Stage 1 Road Safety Audit

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Area 3 A404 Bisham Roundabout PPP (De-scoped Scheme) Stage 1 Road Safety Audit



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Area 3 A404 Bisham Roundabout PPP (De-scoped Scheme) Stage 1 Road Safety Audit



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# 1 Introduction

# 1.1 Project Client

This report results from a Stage 1 Road Safety Audit carried out on the A404 Bisham Roundabout at the request of Project Sponsor for the Highways Agency. The Audit was carried out during daylight hours on the 6<sup>th</sup> December 2013. Since the issue of the draft report there has been a change in project sponsor and therefore this final audit is issued on the instruction of Project Sponsor, Highways Agency.

#### 1.2 Terms of Reference

The Terms of Reference are as described in the Highways Agency's Design Manual for Roads and Bridges document HD 19/03 'Road Safety Audit'. The Audit Team has examined and reported only on road safety implications of the scheme as presented and has not examined or verified the compliance of the scheme to any other criteria. However, to clearly explain a safety problem or the recommendation to resolve a problem the Audit Team may have referred to a design Standard without touching on technical audit.

# 1.3 Scheme Description and Purpose

The Highways Agency's Pinch Point Programme (PPP) is an initiative announced by the Government focusing on delivering smaller scale improvements (to a maximum individual value of £10m) to the Strategic Road Network in England that can help to stimulate growth in the local economy, in particular the delivery of local housing and employment opportunities.

The A404 Bisham Roundabout was put forward as part of the PPP. The roundabout is the only at-grade junction on the A404 between the M40 (Junction 4, Handy Cross) and M4 (Junction 8/9, Maidenhead).

High levels of congestion occur daily at the roundabout, impacting upon junctions to the north (Marlow) and south (Maidenhead). The improvement aims at reducing congestion and addressing poor journey time reliability on the A404 approaches to Bisham roundabout.

The outcome of initial options study for the improvement recommended the conversion of the existing priority roundabout into a 4-way signalised junction. This option was developed to preliminary design stage.

However, following a review of the original recommended option, the Highways Agency have instructed that the scheme be de-scoped.



# New Scope of Works:

The scope of the revised option involves the following work:

- Carriageway widening on the A404 northbound and southbound to accommodate left turn flares onto Marlow Road and the A308 respectively
- Realignment of Under the Wood link road access from the A308 to tie in with the new junction layout
- Realignment of the uncontrolled pedestrian crossing point on the north-eastern side of the junction to tie in with the new junction arrangement
- Pavement construction
- · Associated earthworks works
- · Traffic signs and road markings as appropriate
- · Drainage works to suit the new junction layout
- Installation of appropriate visual traffic calming measures to effect speed reduction where applicable
- · Street lighting improvements
- Landscaping

## 1.4 Audit Team Membership

The Audit Team membership as approved by the Project Sponsor for this audit was:

	MCIHT, MIHE, MSoRSA
Audit Team Leader	EM Highway Services Limited
	MIHE, RegRSA (IHE), MSoRSA
Audit Team Member	EM Highway Services Limited

#### 1.5 Audit Brief

The documents were made available to the Audit Team by the Design Team on the instructions of the Project Sponsor. The documents forming the Audit Brief are listed in full in Appendix A. Generally, the Brief comprised of the documents listed below.

Scheme Drawings

No Departures from Standards were identified at this stage of the design process.

# 1.6 Site Visit

The audit took place at EM's Easton Lane office during December2013 and the site was examined by the Audit Team together on the 6<sup>th</sup> December 2013, during the hours of



daylight. The weather during the site visit was sunny and dry and the road surface was dry. No significant congestion was observed during the site visit.

## 1.7 Problem Locations

Unless general to the scheme, each problem location has been described with reference to the detailed design drawings as well as being marked or listed on the A3 size plan located in Appendix B.

## 1.8 Audit Administration

This Audit Report has been submitted to the Audit Project Sponsor as a draft for checking, consideration and approval. The Audit Project Sponsor is responsible for agreeing with the Audit Team Leader the form of the final version of the report and for instructing that the report is presented in its final form.

Safety issues identified during the audit and site inspection which the Terms of Reference exclude from this report, but which the audit team wishes to draw to the attention of the Audit Project Sponsor, will be set out in a separate letter. These issues could include maintenance items and operational issues.



# 2 Items raised at this Stage 1 Road Safety Audit

# 2.1 Local Alignment

## **2.1.1 PROBLEM**

Location: Southbound approach to Bisham Roundabout and Entrance/Exit to Under

the Wood

Summary: The proposed plans show the new lane 1, left turn only, to be in close

proximity of Under the Wood, this could lead to unexpected vehicle

manoeuvres resulting in conflict.

**Details:** The proposed plan given to the audit team, shows a new lane 1, left turn only being constructed, this is in very close proximity to the entrance/ exit to Under the Wood and appears to have little deflection to slow vehicles down. The audit team are concerned that this may become a free-flow lane (see item 2.1.2) if the majority of the traffic is travelling on the A404. Also with this new lane being in close proximity to Under the Wood, it leaves very little time for vehicles to exit from Under the Wood, which could lead to sideswipe incidents. Vehicles turning left from the A404 towards Marlow Road, may not be expecting vehicles to slow into Under the Wood, again conflict will occur.

#### RECOMMENDATION

The Audit team recommends that this approach to the roundabout is left as two lanes.



## **2.1.2 PROBLEM**

**Location:** Southbound approach to Bisham Roundabout

**Summary:** The proposed plans show the new lane 1, left turn only, however, drivers

are positioned that they have to look almost behind them which could lead

to conflict

**Details:** The proposed plan given to the audit team, shows a new lane 1, left turn only being constructed, from the plan, it appears that the motorist in this lane will have to look behind him, to see what is on the roundabout due to the angle of the approach proposed. This could lead to drivers, not spotting vehicles and possibly not stopping at this stop line which would lead to driver conflict.

# **RECOMMENDATION**

Ensure that motorist have a full clear view of the roundabout with having the need to look behind them.

## 2.2 Non-Motorised User Provision

## 2.2.1 PROBLEM

**Location:** NMU path/ existing provision north of Bisham Roundabout

Summary: NMU now have to cross three lanes via an uncontrolled crossing, which

could lead to conflict.

**Details:** By adding the extra lane to the exit for the roundabout means that NMU's on the footpath, are now required to cross 3 lanes of busy traffic. With Lane 1 being left turn only and with no deflection, this could lead to a fast exit from the roundabout, motorists will perhaps not be expecting NMU's crossing at this location.

## RECOMMENDATION

The Audit team recommends that the approach to the roundabout is left as two lanes.

End of list of Problems identified and Recommendations offered in this Stage 1 Audit



# 3 Audit team statement

I certify that this audit has been carried out in accordance with HD 19/03.

# **AUDIT TEAM LEADER**

MCIHT, MIHE, MSoRSA

Traffic and Road Safety Engineer Signed:

**EM Highway Services Limited** 

Dated: 10<sup>th</sup> February 2014 Easton Lane Depot

M3 Junction 9

Winchester

Hampshire

SO23 7TY

## **AUDIT TEAM MEMBER**

MIHE, RegRSA (IHE), MSoRSA

**EM Highway Services Limited** 

**Enfield Design Centre** 

Mollison Avenue

Enfield

EN7 3NJ



# 4 Appendices

# 4.1 Appendix A

Drawings and documents forming the Audit Brief:

**Drawings:** 

3/009308/SK/100/009 A Layout 8

**Documents:** 

Road Safety Audit Brief



# 4.2 Appendix B

Problem Location Plan -

Area 3 A34 River Itchen Northbound Interceptor Stage 3 Road Safety Audit



