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## INTRODUCTION

This report contains the results of a Stage 2 Safety Audit carried out on the above scheme. The Audit was carried out at the request of Norfolk County Council Highways Group .

The Audit Team membership was as follows:-

Kevin Allen BEng (Hons), I Eng, MCIHT, MSoRSA  
(Audit Team Leader)

Project Engineer,  
Network Analysis + Safety  
Norfolk County Council

Julian Fonseca MCIHT, MSoRSA  
(Audit Team Member)

Project Technician,  
Network Analysis + Safety  
Norfolk County Council

Specialist Advisors:-

Sandy Reid

Area Casualty Reduction Officer  
Norfolk County Council

The Audit took place at County Hall on 29 August 2012. The audit comprised an examination of the Safety Audit submission document and a site inspection by the Audit Team Leader.

The terms of reference are as described in Environment, Transport and Development Highways Service Manual Procedure SP03-07. The Auditors have examined and reported only on the road safety implications of the scheme as presented and have not verified the compliance of the design to any other criteria.

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## **ITEMS RAISED AT PREVIOUS AUDIT**

A previous Stage 1 Audit was carried out on 9 November 2011. All safety issues raised have been addressed.

## **ITEMS RAISED AT THIS STAGE 2 AUDIT**

### **1.0 General**

#### **1.1 Comment – VRS provision**

It is noted that a VRS is provided to protect the culvert at chainage 270. However, substantial embankments run alongside the new link road to the east of this point that have only a post and rail fence as protection. Please confirm that a RRRAP or Local VRS policy has been used to assess the risk presented by the embankment and non-VRS provision is adequate.

### **2.0 Alignment**

#### **2.1 No comment**

### **3.0 Junctions**

#### **3.1 Problem – Sideswipe collisions at A149 roundabout**

The northeast bound approach to the A149 roundabout has a 2 lane entry feeding in to a 3 lane circulatory carriageway. This will create ambiguity as to which lane straight ahead traffic should use, with a consequent risk of sideswipe collision. This is particularly the case as the offside circulatory markings guide northeast bound drivers in to a 'U' turn manoeuvre.

Recommendation

Extend hatching at the southwest side of the central island clockwise to the southeast bound entry to the roundabout. This will ensure northeast bound drivers only use 2 circulatory lanes and avoid ambiguity. It will also improve entry guidance for southeast bound drivers.

#### **4.0 Non-motorised Users**

##### **4.1 Problem – Pedestrian/cyclist conflict**

The audit submission states that shared use facilities are to be 3.0m wide including 0.3m deterrent strip. However, the facility on the west side of Scania Way, approaching the 5 arm roundabout (Dwg. KLMD-SSI1-CI-1200-1A) appears to scale 2.0m in total, which is inadequate for shared use.

##### **Recommendation**

Provide a nominal 2.7m + 0.3m deterrent strip shared use facility wherever possible. An absolute minimum of 2.0m + 0.3m deterrent strip is acceptable over short distances with straight alignment and good forward visibility.

##### **4.2 Problem – Inconsistent guidance for partially sighted users**

Tactile paving has been provided at the 2 pedestrian refuge islands to the north of the new link road (dwg. KLMD-SSI1-CI-1200-2A). Whilst this will aid partially sighted users at these crossing points, no further tactile paving has been provided on the pedestrian link to the supermarket, although further junctions will need to be crossed. This inconsistent guidance is likely to be confusing for partially sighted users, increasing the risk of vehicle conflict.

##### **Recommendation**

Assess whether Scania Way is likely to be used by partially sighted users and provide a consistent approach to tactile paving, as isolated use is unlikely to be of benefit. It is

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recommended that discussion takes place with the 'Planning Performance and Partnerships' Project Officer to identify the likely needs of partially sighted users.

## **5.0 Signs, Lighting and Markings**

### **5.1 Problem – Inadequate guidance on approach to roundabout.**

All arms of the 5 arm Scania Way roundabout are wide enough to permit 2 lane entry. However, all arms have lane separation road markings except the east arm of the roundabout. This provides inconsistent guidance and increases the likelihood of tail end or sideswipe collisions on this approach to the roundabout.

#### **Recommendation**

Provide lane separation road markings on the entry at the east arm of the Scania Way 5 arm roundabout.



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## AUDIT TEAM STATEMENT

We certify that this audit has been carried out in accordance with Norfolk County Council Environment, Transport and Development Procedures.

Signed (ATL)

Kevin Allen

Dated

*7 September 2012*

Signed

Julian Fonseca

Dated

*07/09/2012*

## RESPONSE SHEET

Problem (para no.)	Agree/ Disagree	Reasons/Proposals

To:- Team Manager (Network Analysis + Safety): fao Kevin Allen

From.....

Signed.....Project Engineer Dated: .....

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