



Ref: A102063
Date: 6th January 2020

Mr G Beattie
Alpha Design
by email

Dear Glen,

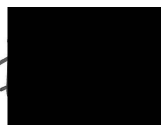
**PROPOSED DEVELOPMENT: ELIZABETH CRESCENT, WHITEHAVEN
STAGE 1 ROAD SAFETY AUDIT AND DESIGNER'S RESPONSE**

I write following the Stage 1 Road Safety Audit undertaken by an independent team within WYG for the proposed highway improvements at Victoria Road/Bay Vista in association with a proposed residential development of up to 50 units at Elizabeth Crescent.

A Stage 1 Audit was previously undertaken in June 2019 on an earlier iteration of the proposals. Following discussions with Highway officers at Cumbria County Council the scheme was then amended and an updated Audit requested.

The Audit for the current proposals is attached and makes a total of 4 minor recommendations. Our Designer's Response to the points raised is summarised in the note below.

Yours sincerely,



Eleanor Bunn
Transport Planner
For and on behalf of WYG

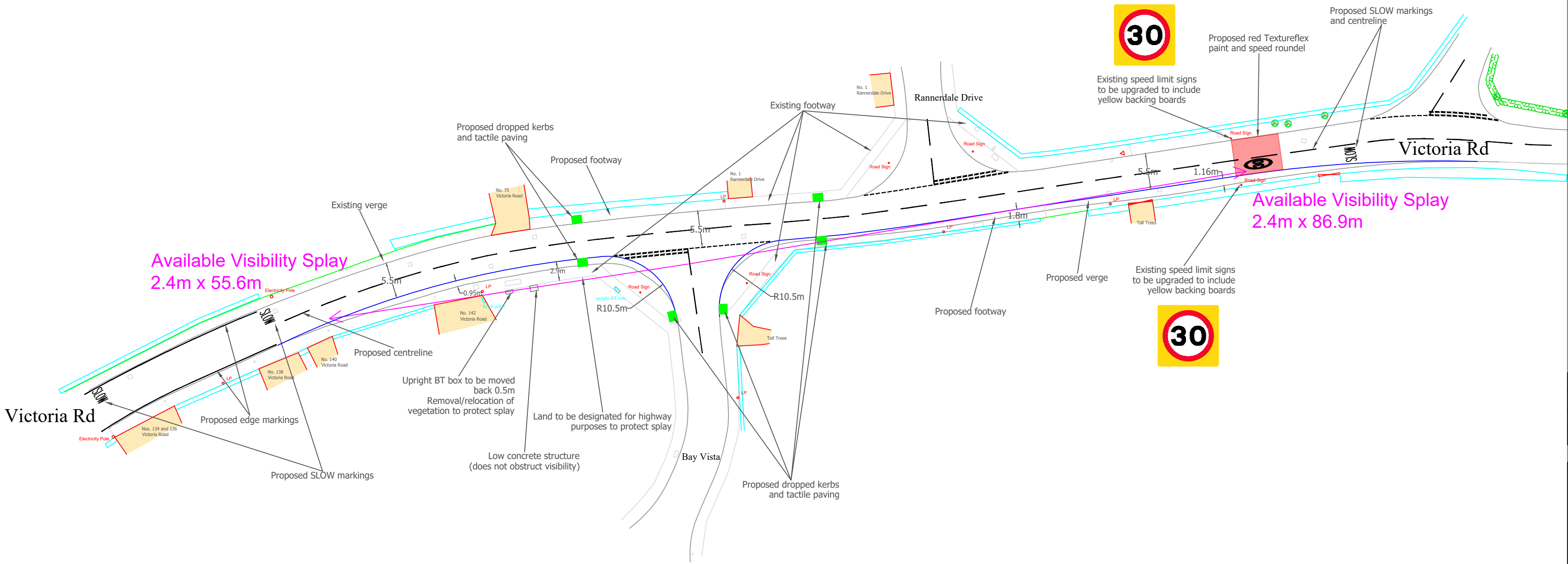
Enc A102063/C001D
Stage 1 Road Safety Audit



**PROPOSED DEVELOPMENT: VICTORIA ROAD/BAY VISTA, WHITEHAVEN
STAGE 1 ROAD SAFETY AUDIT AND DESIGNER'S RESPONSE**

Audit Reference	Problem Summary and Recommendation	Designer's Response
3.1	<u>Location:</u> The junction of Victoria Road with Bay Vista. <u>Summary:</u> The existing roadside features could compromise mutual visibility at the junction. The land to the west of the junction is to be designated for highway purposes in order to protect the visibility splay and the upright BT box that lies partially within the splay is to be set back. However, there are currently overhanging tree branches and shrubbery close to the splay that could compromise visibility (especially when in full growth), but are not specified for treatment. The absence of mutual visibility at the junction could increase the risk of turning collisions involving both vehicles and pedestrians. <u>Recommendation:</u> It is recommended that the detailed design drawings specify the removal or relocation of trees and shrubbery that could compromise visibility, taking into account the potential for re-growth.	<u>Response:</u> Recommendation is accepted and has been included on the updated drawing, C001D.
3.2	<u>Location:</u> The pedestrian crossing point on Bay Vista. <u>Summary:</u> The location of the crossing could increase the risk of vehicles colliding with pedestrians. The dropped crossing point on the east side of the road is located to coincide with the end of the angled footway, but is within the existing driveway serving Tall Trees. The location of the crossing could increase the risk of collisions between waiting pedestrians and vehicles entering or leaving the driveway. In addition, motorists beginning the turn into the driveway might brake suddenly to allow pedestrians to clear the driveway, with the attendant risk of tail end strikes from following vehicles. <u>Recommendation:</u> It is recommended that the crossing is located outside the extents of the driveway. If it is installed to the north, short sections of footway	<u>Response:</u> Recommendation is accepted and has been included on the updated drawing, C001D.

	may need to be constructed to connect the existing angled footways to the crossing points.	
3.3	<u>Location:</u> The junction of Victoria Road with Bay Vista. <u>Summary:</u> The incorrect pattern of tactile paving could increase the risk of vehicles colliding with pedestrians. Although only schematic at present, the drawing shows shapes for the tactile paving at the pedestrian crossing points that could be construed as two or three rows. If specified and installed as such, they could be interpreted by visually impaired pedestrians as crossings remote from a junction rather than inset from it. This could make them unaware of the possibility of encountering turning vehicles and increase the risk of collisions. <u>Recommendation:</u> It is recommended that the tactile paving at each crossing point is specified as a depth of 400-450 mm (a single row of paving) – the pattern for that of an inset crossing – as the detailed design progresses. However, if the recommendation in 3.2 above is accepted and progressed, and the crossing is located to the south of the driveway serving Tall Trees, the pattern for that crossing should be specified as that remote from a junction.	<u>Response:</u> Recommendation is accepted. The pattern of tactile paving will be specified to the appropriate crossing types during the detailed design stage.
3.4	<u>Location:</u> Victoria Road. <u>Summary:</u> Differential grip could lead to pedestrians slipping and falling. The scheme involves a new section of footway and a footway widening. If a different type of surface finish is used for the new areas of footway compared with the existing, it is possible that, in wet or freezing conditions, the two finishes could look similar but exhibit different degrees of slip resistance, increasing the risk of slips and falls as users move from one surface to another. <u>Recommendation:</u> It is recommended that the existing and new surface materials have similar properties in terms of slip resistance in wet or freezing conditions.	<u>Response:</u> Recommendation is accepted and surface materials will be specified at the detailed design stage.



- KEY**
- Proposed Kerblines
 - Visibility Splays
 - Private Driveways
 - Proposed Tactile Paving and Dropped Kerbs
 - Proposed Red Textureflex

D	ALTERATIONS FOLLOWING RSA1			EB	NB	NB	06.01.20
C	ALTERATIONS TO ROAD MARKINGS & TACTILE PAVING			CGQ	NB	NB	03.12.19
B	ADDITIONAL WESTERN GATEWAY FEATURES ADDED			EB	NB	NB	13.09.19
A	TAPER EXTENDED EAST. PAINT & DROP KERBS ADDED			EB	NB	NB	15.08.19
REV	DESCRIPTION			BY	CHK	APP	DATE

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Project:

ELIZABETH CRESCENT
WHITEHAVEN

Drawing Title:

PROPOSED JUNCTION ALTERATIONS
VICTORIA ROAD/BAY VISTA

Scale @ 1:500	A2	Drawn EB	Date 03.06.19	Checked NB	Date 03.06.19	Approved NB	Date 03.06.19
Project No. A102063	Office 91	Type 18	Drawing No. C001			Revision D	

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Messrs Bowe

**Land off Elizabeth Crescent, Whitehaven
Victoria Road/Bay Vista - Proposed Junction Alterations
Stage 1 Road Safety Audit**

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Report No. A102063/RSA1

Date: December 2019

REPORT CONTROL

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Victoria Road/Bay Vista - Proposed Junction Alterations

Clients: Messrs Bowe

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1	16/12/19	Issued	A Green
2			



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1. INTRODUCTION

- 1.1. This report results from a Stage 1 Road Safety Audit carried out on potential highway improvements at the junction of Victoria Road with Bay Vista (also known as Rosemary Close), Whitehaven, associated with a proposed housing development of up to 50 homes off Elizabeth Crescent to the south. In the vicinity of the junction the roads are subject to a 30mph speed limit and are street lit. There have been no recorded accidents in the 5 years 2014-2018 inclusive (CrashMap Database).
- 1.2. Briefly, the works subject to audit comprise the following: -
- amendments to the kerblines at the junction and on Victoria Road, bringing the give way line forward with an associated reduction in width of Victoria Road and new centreline hazard markings;
 - a widened footway on the south side of Victoria Road to the east of Bay Vista;
 - a new length of footway on the north side of Victoria Road to extend the existing footway westwards;
 - new length of verge on the south side of Victoria Road between Rannerdale Drive and the tie-in to the existing verge to the east;
 - new uncontrolled pedestrian crossings on Victoria Road and Bay Vista with dropped kerbs and tactile paving;
 - upgrading of the existing speed limit boundary (30mph/national speed limit) on Victoria Road, to include 30mph speed limit signs with yellow backing boards and red Textureflex road marking with a 30mph roundel;
 - new 'slow' markings on Victoria Road to face motorists on the eastbound approach to the junction;
 - minor relocations of street furniture.
- 1.3. The measures are designed to improve visibility at the junction with the secondary target of reducing vehicle approach speeds on Victoria Road on the junction approaches.
- 1.4. The Road Safety Audit was requested by Nick Bunn of WYG Cockermouth (the Design Organisation) on behalf of the client, Messrs Bowe and took place in the offices of WYG and on-site during December 2019. The Audit Team had previously visited the site together on the afternoon of Thursday 13 June during which the weather was overcast and cool and the road

surfaces were dry. Traffic flows were light and Victoria Road was subject to temporary traffic control in the form of traffic signals in the vicinity of the junction. Some pedestrian activity was evident but no cycle movements were observed. An additional site visit was made by the Audit Team Leader on the afternoon of Saturday 14 December.

- 1.5. The Audit Team membership was as follows: -

Kevin Nicholson BSc, CMaths, MCIHT, FSoRSA, HE Certificate of Competency
Associate Director, WYG (Newcastle)

Richard Pearson BSc (Hons), CMILT, MCIHT, MSoRSA, HE Certificate of Competency
Principal Engineer, WYG (Edinburgh)

- 1.6. The terms of reference for this audit are as described in GG 119 in the Design Manual for Roads and Bridges. The Team has reported only on the road safety implications of the proposals and has not examined or verified the compliance of the design to any other criteria. However, and without being prescriptive, the Audit Team might refer to a design standard or technical guidance where this would help to clarify a safety problem or recommendation. In addition, there may be alternative methods of addressing a problem that would be equally acceptable in achieving the elimination or mitigation of a problem, and these should be considered in the light of the recommendations in this report.
- 1.7. The detail provided for the audit is shown in Section 5. All comments and recommendations are referenced to the design drawings and related documents and the locations of the items raised by the audit are shown on the plan in Section 6.
- 1.8. Where relevant within this report traffic signs will be described either by their reference numbers on the drawings or by their diagram number within the Traffic Signs Regulations and General Directions 2016 (TSRGD).
- 1.9. Within this report the generic term "pedestrians" can include walking pedestrians, wheelchair users, mobility scooter users, dismounted cyclists, the blind, partially sighted and mobility impaired. Reference may be made to specific groups where appropriate.

2. ITEMS RAISED BY PREVIOUS ROAD SAFETY AUDITS

- 2.1 A Stage 1 Road Safety Audit was carried out on an earlier drawing revision for the proposals in June 2019. Any issues from that earlier audit that are considered to be still relevant and unresolved will be raised again in this report.

3. ITEMS RAISED BY THIS STAGE 1 ROAD SAFETY AUDIT

3.1. PROBLEM

Location: The junction of Victoria Road with Bay Vista.

Summary: The existing roadside features could compromise mutual visibility at the junction.

The land to the west of the junction is to be designated for highway purposes in order to protect the visibility splay and the upright BT box that lies partially within the splay is to be set back. However, there are currently overhanging tree branches and shrubbery close to the splay that could compromise visibility (especially when in full growth), but are not specified for treatment. The absence of mutual visibility at the junction could increase the risk of turning collisions involving both vehicles and pedestrians.

RECOMMENDATION

It is recommended that the detailed design drawings specify the removal or relocation of trees and shrubbery that could compromise visibility, taking into account the potential for re-growth.

3.2. PROBLEM *(read in conjunction with 3.3 below)*

Location: The pedestrian crossing point on Bay Vista.

Summary: The location of the crossing could increase the risk of vehicles colliding with pedestrians.

The dropped crossing point on the east side of the road is located to coincide with the end of the angled footway, but is within the existing driveway serving Tall Trees. The location of the crossing could increase the risk of collisions between waiting pedestrians and vehicles entering or leaving the driveway. In addition, motorists beginning the turn into the driveway might brake suddenly to allow pedestrians to clear the driveway, with the attendant risk of tail end strikes from following vehicles.

RECOMMENDATION

It is recommended that the crossing is located outside the extents of the driveway. If it is installed to the north, short sections of footway may need to be constructed to connect the existing angled footways to the crossing points.

3.3. **PROBLEM** *(read in conjunction with 3.2 above)*

Location: The junction of Victoria Road with Bay Vista.

Summary: The incorrect pattern of tactile paving could increase the risk of vehicles colliding with pedestrians.

Although only schematic at present, the drawing shows shapes for the tactile paving at the pedestrian crossing points that could be construed as two or three rows. If specified and installed as such, they could be interpreted by visually impaired pedestrians as crossings remote from a junction rather than inset from it. This could make them unaware of the possibility of encountering turning vehicles and increase the risk of collisions.

RECOMMENDATION

It is recommended that the tactile paving at each crossing point is specified as a depth of 400-450 mm (a single row of paving) – the pattern for that of an inset crossing – as the detailed design progresses. However, if the recommendation in 3.2 above is accepted and progressed, and the crossing is located to the south of the driveway serving Tall Trees, the pattern for that crossing should be specified as that remote from a junction.

3.4. **PROBLEM**

Location: Victoria Road.

Summary: Differential grip could lead to pedestrians slipping and falling.

The scheme involves a new section of footway and a footway widening. If a different type of surface finish is used for the new areas of footway compared with the existing, it is possible that, in wet or freezing conditions, the two finishes could look similar but exhibit different degrees of slip resistance, increasing the risk of slips and falls as users move from one surface to another.

RECOMMENDATION

It is recommended that the existing and new surface materials have similar properties in terms of slip resistance in wet or freezing conditions.

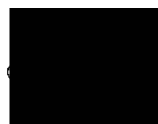
4. AUDIT TEAM STATEMENT

We certify that this Road Safety Audit has been carried out in accordance with GG 119.

ROAD SAFETY AUDIT TEAM LEADER

Kevin Nicholson
Associate Director
WYG
116 Quayside
Newcastle upon Tyne

Signed:

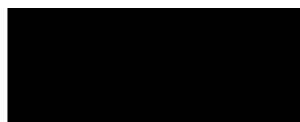


Date: 17/12/19

ROAD SAFETY AUDIT TEAM MEMBER

Richard Pearson
Principal Engineer
WYG
The Cube
45 Leith Street
Edinburgh

Signed:



Date: 17/12/19

5. DRAWINGS AND DOCUMENTS SUBMITTED FOR AUDIT

DRAWING OR DOCUMENT NUMBER	PROJECT AND DRAWING TITLE	DATE
A102063-C001 REVISION C	ELIZABETH CRESCENT, WHITEHAVEN PROPOSED JUNCTION ALTERATIONS VICTORIA ROAD/BAY VISTA	03.12.19
A102063	LAND OFF ELIZABETH CRESCENT, WHITEHAVEN TRANSPORT STATEMENT	12.06.19
-	TRAFFICSENSE LTD 7-DAY AUTOMATIC TRAFFIC COUNTS VICTORIA ROAD AND ELIZABETH CRESCENT	4-10/02/17

6. LOCATION PLAN OF ITEMS RAISED BY THIS AUDIT

