



traffic engineering and transport planning

aaprojects

**Penistone Grammar School, B6462
Huddersfield Road, South Yorkshire
Highway Condition Survey (Pre-works)**

January 2019

Armstrong House,
The Flemingate Centre,
Beverley,
East Yorkshire
HU17 0NW

📞 01482 679 911

✉ info@local-transport-projects.co.uk

🌐 www.local-transport-projects.co.uk

Registered No. 5295328

aaprojects

Penistone Grammar School, B6462 Huddersfield Road, South Yorkshire

Highway Condition Survey (Pre-works)

January 2019

Client Commission			
Client:	aaprojects	Date Commissioned:	January 2019

LTP Quality Control					
Job No:	LTP/3567/1	File Ref:	B6462 Huddersfield Road, Penistone - Route Condition Survey (Before) Final Issue 1		
Issue	Revision	Description	Originated	Checked	Date
1	-	Final for planning submission	RP	TK	29/01/19
			Authorised for Issue:		TK

LTP PROJECT TEAM

As part of our commitment to quality the following team of transport professionals was assembled specifically for the delivery of this project. Relevant qualifications are shown and CV's are available upon request to demonstrate our experience and credentials.

Team Member	LTP Designation	Qualifications
Tony Kirby	Director (Project Manager)	IEng MSc MCIHT FIHE
Ryan Penn	Senior Engineer	BA(Hons) MIHE MCIHT MSoRSA

The contents of this document must not be copied or reproduced in whole or in part without the written consent of Local Transport Projects Ltd.

PENISTONE GRAMMAR SCHOOL, B6462 HUDDERSFIELD ROAD, SOUTH YORKSHIRE HIGHWAY CONDITION SURVEY (PRE-WORKS)

CONTENTS

1.	INTRODUCTION	2
1.1	Introduction	2
1.2	Survey team and methodology	2
2.	ROUTE DESCRIPTION	4
2.1	Survey extents	4
3.	SUMMARY	5
3.1	Summary	5

FIGURES

Figure 1: Extents of survey	4
-----------------------------------	---

APPENDICES

Appendix 1 – Highway Condition Survey	
---------------------------------------	--

I. INTRODUCTION

I.1 Introduction

- 1.1.1 Local Transport Projects (LTP) Ltd has been commissioned to undertake a highway condition survey on a 530m section of the B6462 Huddersfield Road in Penistone, South Yorkshire, between the A628 Barnsley Road junction and the centre line of the junction with Netherfield.
- 1.1.2 The survey is associated with the planning approval (ref: 2018/1266) to provide a two-storey extension and associated works at Penistone Grammar School which was approved by Barnsley Metropolitan Borough Council (BMBC) on 21st December 2018. The requirement for a highway condition survey is outlined within condition number 8 of the planning approval as follows:
- 1.1.3 *“Prior to any works commencing on-site, a condition survey (including structural integrity) of the highways to be used by construction traffic shall be carried out in association with the Local Planning Authority. The methodology of the survey shall be approved in writing by the Local Planning Authority and shall assess the existing state of the highway. On completion of the development a second condition survey shall be carried out and shall be submitted for the written approval of the Local Planning Authority, which shall identify defects attributable to the traffic ensuing from the development. Any necessary remedial works shall be completed at the developer’s expense in accordance with a scheme to be agreed in writing by the Local Planning Authority.”*
- 1.1.4 This document sets out the background information to the site which includes a location plan, brief description of the site and a summary of key findings. The completed ‘pre-works’ visual inspection survey and digital photographic references are provided in Appendix 1.
- 1.1.5 As per planning condition 8, upon completion of the school development, a second highway condition survey will be undertaken to determine if there are highway defects attributable to the traffic ensuing from the construction of the development.

I.2 Survey team and methodology

- 1.2.1 The ‘pre-works’ survey was undertaken on Wednesday 23rd January 2019 by the following LTP staff:
- Tony Kirby IEng MSc MCIHT FIHE – Director; and
 - Ryan Penn BA(Hons) MIHE MCIHT MSoRSA – Senior Engineer.
- 1.2.2 Prior to the start of the survey, a site meeting was held with Chris Sanderson, Engineer (Highways Development Control) at BMBC. The full survey route was walked and the survey methodology agreed.

1.2.3 The survey has been undertaken through:

- a Coarse Visual Inspection (CVI) that was undertaken through a video survey of the route in both directions; and,
- a Detailed Visual inspection (DVI) that included digital photographs of identified defects.

1.2.4 The DVI covering the following elements:

- Establishment of chainages at intervals along the route;
- Identification of defects within the carriageway, including:
 - Rutting (identified by linear measure or chainage location);
 - Cracking of surface (identified by chainage location and area of highway effected);
 - Cracking of surface (located by chainage and area of highway effected);
 - Significant failures to carriageway located by chainage and description;
 - Disintegration of edge of carriageway, including verge over-run (located by chainage); and
 - Any other significant areas of carriageway that may affect the integrity of the pavement construction during the development period.

1.2.5 It should be noted that the above does not constitute a detailed structural analysis and as such cannot guarantee that the pavement construction would not deteriorate further under heavy usage, which can only be monitored periodically.

2. ROUTE DESCRIPTION

2.1 Survey extents

- 2.1.1 The extents of the survey area on the B6462 Huddersfield Road is indicated within Figure 1 below. The length of the route is approximately 530m and extends from the centre line of the Netherfield junction in the north to the A628 Barnsley Road junction to the south. The existing vehicular access to Penistone Grammar School is located towards the northern end of the survey area, approximately 50m south of the Netherfield junction.
- 2.1.2 The B6462 Huddersfield Road is a two-lane single carriageway that is subject to a 30mph speed limit and benefits from a system of street lighting. A footway is provided throughout the route's western side, with the footway intermittent on the eastern side. Huddersfield Road is a bus route and a number of Heavy Commercial Vehicles (HCVs) were observed to use the route.

Figure 1: Extents of survey



Source Imagery: Copyright Google Earth Pro (License Key-JCPMR5M58LXF2GE)

3. SUMMARY

3.1 Summary

- 3.1.1 The detailed findings of the DVI are provided in Appendix 1 with associated digital photograph references.
- 3.1.2 The key findings of the survey are:
- Across the route, approximately two thirds of the identified defects were located on the western side of Huddersfield Road.
 - Minor transverse cracks are the most common defect along the route, followed by minor long cracks and minor crazing.
 - At those locations along the route that had been patched, general cracking around the patches was observed. At these locations it would appear that sealing at the edge of patches was not provided.
 - Three significant defects (2 instances of crazing and 1 pothole) were identified.
 - Although there are some defects along the route, as shown in Appendix 1, the general condition of the Huddersfield Road carriageway was good.

Appendix I – Highway Condition Survey

Highway Condition Survey

Site:	B6462 Huddersfield Rd, Penistone
Date:	Wed 23 January 2019 (14:00-15:00)
Section:	A629 Barnsley Road to Netherfield (surveyed south-north)

LTP Ref:	3567/RP/V1
Weather Conditions:-	Dry / Fine
Road Surface:-	Damp from earlier rain

Defect Severity:		
Major		
Signicant		
Minor		

Ref.	Chainage	Defect										Position in Carriageway						Defect										Photo Ref (DSC03...)		
		Crazing	Pothole	Spalling	Diagonal Crack	Trans Crack	Long Crack	VOR	Fatting	Edge Det	Other/Notes	F/V	K/C	Shoulder	Crown C	L Crown	Shoulder	K/C	F/V	Crazing	Pothole	Spalling	Diagonal Crack	Trans Crack	Long Crack	VOR	Fatting		Edge Det	Other/Notes
1	0+00					X																		X						840
2	0+00 - 0+08								X																					841
3	0+11 - 0+15						X																							842
4	0+11 - 0+14																										X	Damaged channel	843	
5	0+15 - 0+21																			X										844
6	0+28 - 0+31	X																		X										845
7	0+43																							X	X			Crack at edge of patch	846	
8	0+49 - 0+76	X																		X										847, 850
9	0+51 - 0+52					X					Crack around patch													X						848
10	0+56					X																		X						849
11	0+65 - 0+72				X						Cracks along diagonal patch												X							851
12	0+71					X					Cracks around patch													X						852
13	0+72		X								SIGNIFICANT DEFECT																			853
14	0+72 - 0+75																								X			Cracks around patch	854	
15	0+74					X																								855
16	0+78					X	X																	X	X			Cracks around patch	856	
17	0+87 - 0+92	X																												857
18	0+98					X																								858

Site:	B6462 Huddersfield Rd, Penistone
Date:	Wed 23 January 2019 (14:00-15:00)
Section:	A629 Barnsley Road to Netherfield (surveyed south-north)

LTP Ref:	3567/RP/V1
Weather Conditions:-	Dry / Fine
Road Surface:-	Damp from earlier rain

Defect Severity:		
Major		
Signicant		
Minor		

Ref.	Chainage	Defect										Position in Carriageway						Defect										Photo Ref (DSC03...)	
		Crazing	Pothole	Spalling	Diagonal Crack	Trans Crack	Long Crack	VOR	Fatting	Edge Det	Other/Notes	F/V	K/C	Shoulder	Crown C	L Crown	Shoulder	K/C	F/V	Crazing	Pothole	Spalling	Diagonal Crack	Trans Crack	Long Crack	VOR	Fatting		Edge Det
19	0+99 - 1+08						X																						859
20	1+20 - 1+22					X	X			Cracks around patch																			860
21	1+28 - 1+36	X								Red patch crazing full width																			861
22	1+36 - 2+05						X			Cracking on joint																			862
23	1+37 - 1+83																								X	X	Verge area	863	
24	1+69					X																	X						864
25	1+71 - 1+74	X																											865
26	1+84									Excess tarmac																			866
27	1+88 - 1+89				X		X																						867
28	1+92 - 1+96						X			Cracks at patch																			868
29	2+13 - 2+16					X													X										869
30	2+18					X				Cracks at patch																			870
31	2+52 - 2+70						X			Crack at centreline																			871
32	2+81 - 2+84	X																											872
33	3+00 - 3+01					X	X			Cracks at patch																			873
34	3+08 - 3+17					X	X			Cracks at patch																			874
35	3+53 - 3+63	X								Crazing. SIGNIFICANT DEFECT																			875
36	3+68 - 3+96	X								Crazing. SIGNIFICANT DEFECT									X										876, 878

Site:	B6462 Huddersfield Rd, Penistone
Date:	Wed 23 January 2019 (14:00-15:00)
Section:	A629 Barnsley Road to Netherfield (surveyed south-north)

LTP Ref:	3567/RP/V1
Weather Conditions:-	Dry / Fine
Road Surface:-	Damp from earlier rain

Defect Severity:		
Major		
Signicant		
Minor		

Ref.	Chainage	Defect										Position in Carriageway								Defect										Photo Ref (DSC03...)
		Crazing	Pothole	Spalling	Diagonal Crack	Trans Crack	Long Crack	VOR	Fatting	Edge Det	Other/Notes	F/V	K/C	Shoulder	Crown C	L Crown	Shoulder	K/C	F/V	Crazing	Pothole	Spalling	Diagonal Crack	Trans Crack	Long Crack	VOR	Fatting	Edge Det	Other/Notes	
37	3+70					X																	X							877
38	4+03						X																	X						879
39	4+08 - 4+15						X																							880
40	4+47 - 4+77						X				Crack at centreline																			881
41	4+69 - 4+72		X																X											882
42	4+73					X																	X							883
43	4+75																							X			Cracks along site access (also see video)		884	
44	4+83					X	X				Patch / crack																			885
45	4+86					X																	X							886
46	5+01 - 5+04	X																												890
47	4+99 - 5+08																													891
48	5+08	X									Crazing around service cover																			892
49	5+12 - 5+15					X																								893
50	5+20 - 5+21					X					Crack at patch																			894
51	5+27					X					Crack at patch																			895
	SURVEY ENDS 5+30																													