



PARAGON HIGHWAYS

POTENTIAL RESIDENTIAL DEVELOPMENT OF 5 NEW DWELLINGS KERESFORTH HILL ROAD, DODWORTH

Introduction

I refer to the parcel of land located on the north side of Keresforth Hill Road opposite the Gilroyd Lane junction on the far east side of the village of Dodworth, and the potential to provide a residential development of around 5 dwellings. I have now had the opportunity to visit the site to carry out an initial appraisal of the potential access issues associated with the development.

Local Highway Network

Keresforth Hill Road provides part of a local distributor route (B6099) between Dodworth and Barnsley (via the A6133). The road is subject to moderate traffic volumes throughout the day and generally meets or exceeds the road geometry requirements for a conventional street within the South Yorkshire Residential Design Guide. The road is subject to a 30mph speed limit to the west side site frontage and a 40mph speed limit along the central and east side site frontage, although actual traffic speeds are envisaged to be lower when approaching the site from the east given the bend in the road prior to the Gilroyd Lane junction. The road also contains street lighting to a suitable standard. Keresforth Hill Road therefore appears suitable for the day to day use by pedestrians, cyclists and motorised traffic.

Site Sustainability

The site is considered to be located within a sustainable location within the village of Dodworth close to its local facilities and essential services. Keresforth Hill Road provides a continuous pedestrian link to these nearby services and also to schools and employment opportunities and within cycling distance of the site within Barnsley Town Centre. Bus services are available on Keresforth Hill Road adjacent to the site with numerous and frequent bus services to Barnsley Town Centre and neighbouring settlements. Barnsley Interchange is located within cycling distance allowing for multi modal journeys to other local and national destinations. Therefore, the site generally conforms to current Government directives for ensuring developments are located within sustainable locations.

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Potential Development

Site Access

The proposed site access is located to the west of the Gilroyd Lane junction and would take the form of a simple junction arrangement that would meet the Council's requirements within South Yorkshire Residential Design Guide in terms of horizontal and vertical alignment. The proposed access for the site is located adjacent to the 30mph/ 40mph speed limit terminal signs, which would have to be relocated to accommodate the access. Given the location of the Gilroyd Lane junction it is suggested that the speed limit terminal signs be relocated to the far east side of the site, and therefore reduce traffic speeds prior to the Gilroyd Lane junction potentially providing a road safety improvement.

Based on the indicative access location visibility splays at the access junction with Keresforth Hill Road of 2.4m x 90m could be provided to the west (critical direction), which meets the visibility splay requirements within Design Manual for Roads and Bridges for 30mph speed limit roads (equivalent to actual speeds of 37mph). To the east side of the site visibility splays of around 2.4m x 75m could be provided. A radar speed survey has been carried out at the site access and revealed that the 85th percentile wet weather speed of vehicles approaching from the west is 33.8mph, and 35.8mph approaching from the east, with these readings taken at the decision points. The speed survey results are provided below. Using the visibility requirements within Design Manual for Roads and Bridges, the actual traffic speeds require splays of 2.4m x 90m in both directions, which is achievable within the critical direction (approaching from the west). It is acknowledged that circa 2.4m x 75m can be provided to the east of the access, therefore only a slight shortfall of 15m in this direction. As traffic speeds are proven to be lower than 37mph I believe there is also an argument for Manual for Streets and less onerous visibility standards. It should be noted that the potential relocation of the 30mph speed limit could reduce the visibility requirements further minimising the visibility requirements to the east.

The proposed access would need to provide a suitable turning area within the site to accommodate a large fire appliance, which appears to be achievable on the indicative layout, and appears to provide car parking to meet Barnsley Council's current requirements. Whilst the site does slope towards the Keresforth Hill Road and steepens to the far west side of the site, the potential gradients of the internal road and drives should meet the vertical alignment parameters within the South Yorkshire Residential Design Guide.

Conclusion

Given the above I think there is a good case for a residential development at the site given that there is only a slight shortfall in visibility 'Y' distance to the east of the potential site access, and that traffic speeds are lower than 37mph regardless of the indicated 40mph speed limit.

Date 16.03.2018

File Ref 1410/ LO

Appendix A – Speed Survey Results

SPEED SURVEY

LOCATION Keresforth Hill Road Dodworth

DIRECTION OF TRAVEL From Barnsley

SPEED (MPH)	NO. OF READINGS	SPEED (MPH)	NO. OF READINGS	SPEED (MPH)	NO. OF READINGS	SPEED (MPH)	NO. OF READINGS
1		26	1	51		76	
2		27	1	52		77	
3		28	1	53		78	
4		29	4	54		79	
5		30	6	55		80	
6		31	6	56		81	
7		32	11	57		82	
8		33	10	58		83	
9		34	17	59		84	
10		35	8	60		85	
11		36	15	61		86	
12		37	7	62		87	
13		38	7	63		88	
14		39	4	64		89	
15		40	5	65		90	
16		41	4	66		91	
17		42	1	67		92	
18		43		68		93	
19		44	2	69		94	
20		45		70		95	
21		46		71		96	
22		47		72		97	
23		48		73		98	
24	1	49		74		99	
25		50		75		100	

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DUAL CARRIAGEWAY?

MEAN SPEED 34.6126126

SINGLE CARRIAGEWAY? Y

STANDARD DEVIATION 3.68577406

WET ROAD SURFACE? N

85th PERCENTILE 38.2983867

85th PERCENTILE WET WEATHER SPEED 35.8133867 ✓



ABACUS
TRAFFIC SURVEYS
14 CLIFF HILL COURT,
HOLMFIRTH, HD9 1JF

JOB NUMBER
DATE OF SURVEY
START TIME
FINISH TIME

22/02/2018
10:30
12:30

SPEED SURVEY

LOCATION Keresforth Hill Road Dodworth
DIRECTION OF TRAVEL From Dodworth

SPEED (MPH)	NO. OF READINGS	SPEED (MPH)	NO. OF READINGS	SPEED (MPH)	NO. OF READINGS	SPEED (MPH)	NO. OF READINGS
1		26	4	51		76	
2		27	7	52		77	
3		28	3	53		78	
4		29	4	54		79	
5		30	12	55		80	
6		31	11	56		81	
7		32	12	57		82	
8		33	12	58		83	
9		34	10	59		84	
10		35	9	60		85	
11		36	6	61		86	
12		37		62		87	
13		38	6	63		88	
14		39	2	64		89	
15		40	1	65		90	
16		41	2	66		91	
17		42	1	67		92	
18		43		68		93	
19		44	1	69		94	
20		45		70		95	
21		46		71		96	
22		47		72		97	
23		48		73		98	
24		49		74		99	
25		50		75		100	

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DUAL CARRIAGEWAY?

MEAN SPEED 32.6116505

SINGLE CARRIAGEWAY? Y

STANDARD DEVIATION 3.75273236

WET ROAD SURFACE? N

85th PERCENTILE 36.3643828

85th PERCENTILE WET WEATHER SPEED 33.8793828 ✓