



Transport Planning Consultant

Transport Note

Construction of two detached dwellings

On land off Rowley Hill, Lepton.

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Introduction

Highways Development Control Support Ltd has been appointed to provide a Transport Note to Kirklees Council Planning Authority in respect of proposals to construct two / three detached dwellings off Rowley Hill, Lepton.

This statement supports a Planning Application to be made by Northern Design Partnership.

The Transport Note will cover the following;

- The local highway network
- The current use of the site
- The proposed use of the site
- Traffic generation
- Accessibility of the site for future residents
- The impact of the development on the local highway network in relation to vehicular trips

This statement will make reference to

- Kirklees Council Local Plan in relation to Policy PLP 21 Highway Safety and Access and Policy PLP 22 Parking.
- Department for Transport Guidance - Manual for Streets and Manual for Streets 2 in relation walkable neighbourhoods and Stopping Sight Distances (SSD) / Visibility.





Policy Context

Kirklees Council Local Plan PLP 21 Highway safety and access states ***“Proposals shall demonstrate that they can accommodate sustainable modes of transport and be accessed effectively and safely by all users.***

New development will not be permitted if it adds highway safety problems or, in the case of development which will generate a substantial amount of trip generation, cannot be served adequately by the existing highway network.

Proposals shall demonstrate adequate information and mitigation measures to avoid a detrimental impact on highway safety and the local highway network. Proposals shall also consider any impacts on the Strategic Road Network.

All proposals shall:

- a. Ensure the safe and efficient flow of traffic within the development and on surrounding highway network;***
- b. In locations where development is otherwise considered acceptable, new infrastructure or improvements on or off site may be required to ensure safe access from the highway network to the development site for pedestrians or disabled people, cyclists, public transport users, and private vehicles which will not materially add to highway safety problems or reduce the efficiency of the highway network;***
- c. Be accompanied by a supporting Transport Assessment or Transport Statement where the development would generate significant trip generation, providing detail as to impact on highway safety, air quality, noise and light restrictions;***
- d. Take into account changes in site levels and topography to ensure the development can be accessed easily and safely by all sections of the community and by different modes of transport;***
- e. Take into account the features of surrounding roads and footpaths and provide adequate layout and visibility to allow the development to be accessed safely;***
- f. Take into account access for emergency, service and refuse collection vehicles;***
- g. Have provision for electric vehicle charging points within the site layout;***
- h. Provide on-site safe, secure and convenient cycle parking/ storage facilities to encourage sustainable travel modes.***



Kirklees Council Local Plan PLP 22 Parking states ***“The provision of parking will be based on the following principles:***

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- a. In town, district and local centres, car parks close to the main shopping area will be for short stay use and peripheral car parks for long stay use;***
- b. Long stay parking in town centres will be reduced progressively in conjunction with improvements to sustainable transport opportunities, where appropriate;***
- c. Provision of non-residential parking in town centres will not be permitted unless it can be demonstrated that it is required for operational reasons. Where such provision is permitted appropriate arrangements will need to be put in place to provide management arrangements consistent with public parking in the centre;***
- d. Provision of residential parking schemes within town centres for private/motorcycles/and cycles will be permitted; where appropriate and where schemes can be shown to enhance residential developments in the town centre;***
- e. Car parking provision in new developments will be determined by the availability of public transport, the accessibility of the site, location of the development, local car ownership levels and the type, mix and use of the development.***
- f. New developments will incorporate flexibly designed minimum parking spaces for private cars, considering a range of solutions, to provide the most efficient arrangement for safe, secure and visually unobtrusive car parking within the site including a mix of on and off street parking in accordance with current guidance;***
- g. Provision will be made to meet the needs of cyclists for cycle parking in new developments;***
- h. Provision will be made to accommodate the needs of disable people for the parking of vehicles.***

Kirklees Highways Development Deliver Application advice Note refers to Kirklees Car Parking standard for residential development

- ***2-3 bedrooms – 2 spaces,***
- ***4 + bedrooms - 3 spaces***
- ***1 cycle space per dwelling***

Garage measurements internal

- ***6.0m x 3.0m (single)***
- ***6.0m x 6.0m (double)***
- ***1 electric vehicle charging point per dwelling (normally in the garage)***



The local highway network

The site is located off Rowley Hill, a single lane carriageway that links Rowley Lane (B6433) and Penistone Road (A629) with Station Road in Lepton to the north.

Rowley Hill varies in width between 4.5m reducing down to 3.7m at its narrowest point.

There are limited footways along its length.

Rowley Hill is subject to a 30-mph speed limit and benefits from street lighting.

Rowley Hill is not part of any bus route; the nearest bus stops are located on Rowley Lane some 110m south east of the development site.

The photo below shows the site fronting Rowley Hill.



Photo 1 – Site frontage off Rowley Hill



Personal Injury Collisions

Details of recorded road traffic incidents within the vicinity of the site on Rowley Hill were requested from CrashMap for the five year period between 2018 and 2022 (verified).

There were no personal injury accidents recorded on Rowley Hill.

Vehicle speeds on Rowley Hill

A limited speed survey was carried out on Tuesday 28th May 2024 between 10.24hrs and 12.00hrs to determine the 85th percentile speeds on Rowley Hill in both directions.

The 85th percentile speeds are used to determine sight lines based on free-flowing traffic speeds in both directions.

A Speed Survey was undertaken for vehicles travelling north west uphill from Rowley Lane and south east downhill towards Rowley Lane.

The results of the speed survey are shown below:

	Rowley Hill uphill away from Rowley Lane	Rowley Hill downhill towards Rowley Lane
85 th % ile speed (kph)	29.84kph	29.29kph
Visibility requirements m (MfS)	23m	23m

Full details of the survey data can be found in appendix 1 and 2 showing the collection of speeds, weather conditions and necessary calculations used in determining the stopping sight distances.

Site access arrangements

The site does not benefit from any historical vehicular access but access arrangements for site clearance has commenced.



The current use of the site

The land has no lawful use.

The proposed use of the site

The proposal is for the construction of two new dwellings served from a private shared access with either a single or double garage. Internal dimensions being either of 3.0m x 6.0m (single) or 6.0m x 6.0m (double). Both will include electric vehicle charging.

Both dwellings can accommodate at least 3 vehicles within their own curtilage and therefore complies with Local Plan PLP 22.

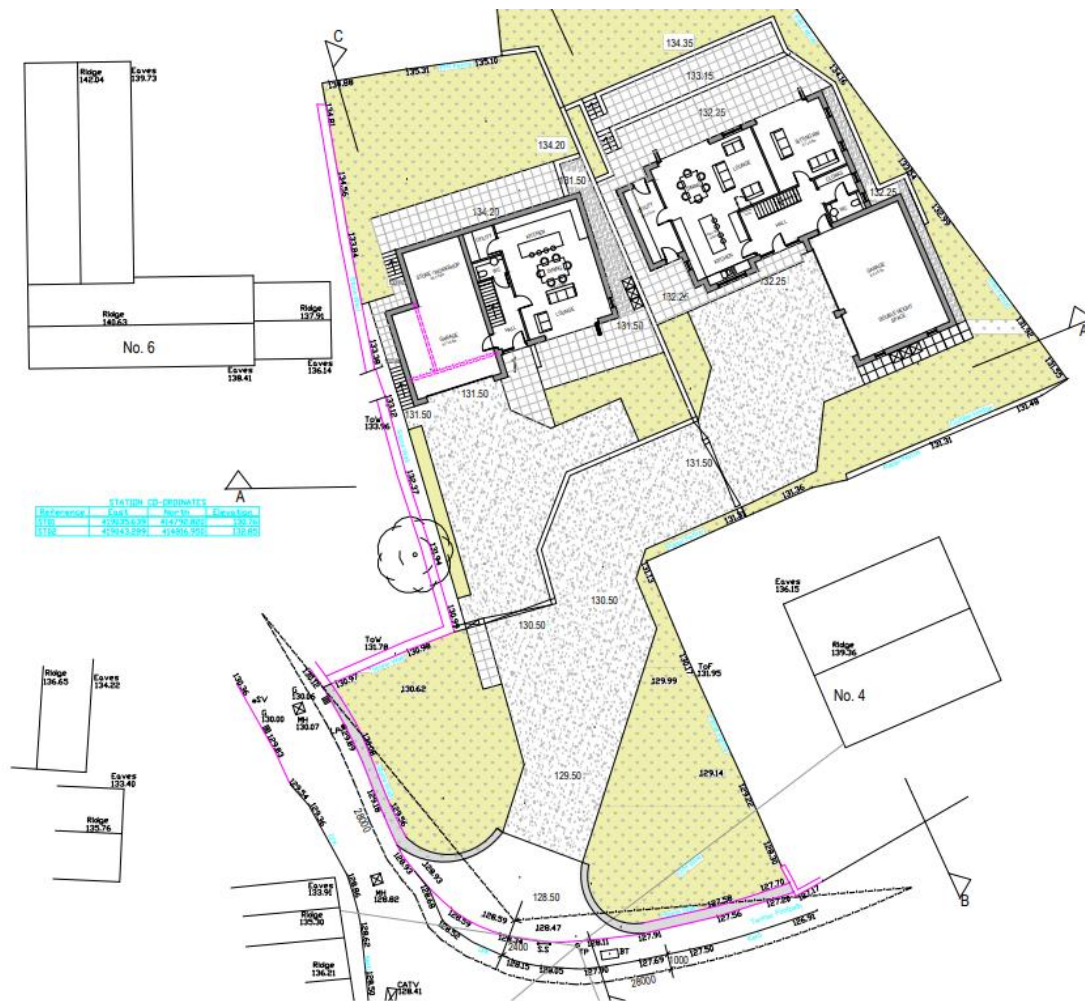
The access will be 6.0m wide reducing down to 4.5m in width including internal turning for a private vehicle.

The existing wall fronting Rowley Hill will be lowered to no more than 900mm above carriageway level.

This will allow sightlines of 28m looking uphill and 28m looking downhill which are considered to be commensurate with vehicle speeds and the necessary stopping distances required as per Manual for Streets guidance.

The layout of the development is shown on Northern Design Partnership drawing no 2326 01 Proposed Site Plan, see extract on page 10.





Extract 1 - Northern Design Partnership dwg no 2326 01

A communal refuse bin collection point some 10m within the site is proposed to reduce any need for a refuse vehicle to enter the site.

Access for a fire appliance is met in terms of ensuring access to all parts of the dwellings is met within 45m and less than 20m reversing distance from Rowley Hill. This complies with the West Yorkshire Fire and Rescue guidance, section 3.5.



Traffic generation

Typical traffic generation from a privately owned dwelling such as the ones proposed is approximately 0.8 trips during the peak hour. This is based on an out of town / edge of town location.

During the morning peak hour (8-9am) this represents 2.0 vehicle movements outbound and a similar figure inbound during the evening peak (5-6pm). This compares to a typical traffic generation in region of 12 - 16 vehicle movements over a 24 hour period.

Accessibility of the site for future residents

The development site is located approximately 1km south east of local amenity such as convenience stores and local health centres, take aways and hardware stores on Highgate Lane in Lepton. Bus stops are located both on Rowley Lane some 175 metres to the east and on Penistone Road some 800 and 980m west of the site.

Manual for Streets refers to acceptable walking distances.

It states “Walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes (up to about 800m) walking distance of residential areas which residents may access comfortably on foot. However, this is not an upper limit and walking offers the greatest potential to replace short car trips, particularly those under 2km. Manual for Streets encourages a reduction in the need to travel by car through the creation of mixed use neighbourhoods with interconnected street patterns, where daily needs are within walking distance of most residents”

Pedestrian movement along Rowley Hill is by means of part on footway and carriageway due to the intermittent footway along its length.

Cycling is more accessible and affordable than the car and there are health benefits to the uptake of cycling as a whole. Cycling allows people to reach destinations like Huddersfield as opposed to using a private car particularly if the trip is less than 5km.

This mode of travel is considered to be a worthwhile alternative to the use of a private vehicle for future residents.



In terms of local bus services, there are several bus services that pass nearby the site Monday to Friday on Rowley Lane and Penistone Road. These services are as follows:

Bus Service	Route	Daily frequency
Rowley Lane D2 Denby Darts	Huddersfield – Shepley - Denby Dale Railway Station - Huddersfield	07:54, 10:13, 12:13, 14:35, 16:37, 17:37
Rowley Lane K78	Grange Moor - King James School	7.56am and 3.22pm
Penistone Road D1 Denby Darts	Huddersfield – Skelmanthorpe – Denby Dale - Huddersfield	06:52, 09:12, 11:12, 13:12, 15:34, 18:32
D3 Denby Darts	Huddersfield – Denby Dale - Huddersfield	06:52, 09:12, 11:12, 13:12, 15:34, 18:32

With reference to the previous table, it is clear the development is well placed in relation to the opportunity to use public transport as part or all of a trip to the likes of Shepley, Denby Dale Railway Station, Skelmanthorpe and Huddersfield Town Centre.





Visibility Requirements

As previously stated, visibility at the the proposed access is 28m up hill and 28m down Rowley Hill.

Rowley Hill is subject to a 30mph speed (48km/h) and is reasonable to assume that Manual for Streets is applicable in terms of applying the relevant stopping sight distances (SSD's).

Section 7.5.1 provides guidance on stopping sight distances (SSDs) for streets where 85th percentile speeds are up to 60 km/h.

The extract below refers to table 7.1 showing the necessary stopping sight distnaces commensure with the relevant speed limit which in this case are 23.0m

Table 7.1 Derived SSDs for streets (figures rounded).

Speed	Kilometres per hour	16	20	24	25	30	32	40	45	48	50	60
	Miles per hour	10	12	15	16	19	20	25	28	30	31	37
SSD (metres)		9	12	15	16	20	22	31	36	40	43	56
SSD adjusted for bonnet length. See 7.6.4		11	14	17	18	23	25	33	39	43	45	59

Extract 1 – table 7.1 Manual for Streets – Stopping Sight Distances

The 85th % ile wet weather speeds have been identified as 29.29 kph downhill on Rowley Hill towards Rowley Lane and 29.84 kph travelling up Rowley Hill.

	Rowley Hill travelling downhill (South east bound)	Rowley Hill travelling uphill (North west bound)
85 th % ile speed	29.29kph	29.84kph
Visibility requirements (MfS)	23.00m	23.00m
Available visibility (post development)	28.00m	28.00m



Taking this guidance into account, there does not appear to be any evidence that would suggest the creation of a new access in the location shown would lead to any road safety concerns. As a result, the proposed access arrangements accord with Kirklees Council Local Plan PLP 21 Highway safety and access.

The impact of the development on the local highway network in relation to vehicular trips

The amount of additional traffic movements as a result of the development would be in the region of 2 vehicles in the morning peak and 2 vehicles during the evening peak hour. Over a 24 hour period the traffic generated by a single dwelling would be in the region of 12 – 16 movements.

It is therefore difficult to quantify whether the traffic generation as a figure is detrimental to highway safety to such an extent that it's contrary to Policy PLP21 of the Kirklees Local Plan.

Rowley Hill and the surrounding highway network are more than adequate in terms of accommodating the additional traffic generated by the development. The typical fluctuations in peak hour traffic along Rowley Hill are considered to exceed the 1 traffic movement associated with each single dwelling.

Based on the above, there are no compelling reasons to suggest the development would compromise highway safety and therefore it would be difficult to substantiate a reason for refusal based on highway safety grounds.





Conclusions

- The development proposals are to construct two single detached dwellings in a vacant site that's currently a grass field.
- Access will be directly from Rowley Hill into a private shared drive arrangement with internal turning for private vehicles.
- The 85th % ile speeds have been identified as 18.20 mph (29.29 kph) travelling downhill on Rowley Hill and 18.54 mph (29.84kph) travelling up Rowley Hill; with reference to table 7.1 in Manual for Streets, the visibility requirements for a vehicle exiting the site are 23.0m looking in both directions.
- Visibility in each direction is commensurate with vehicle speeds passing the site frontage
- The traffic generation from two single dwellings is negligible in terms of its impact on the surrounding highway network.
- Fire Appliance access is achievable and meets the standards as required by the West Yorkshire Fire Brigade.
- Refuse collection will be on Rowley Hill at the point of access itself whereby the bin collection for both dwellings will be within 10 m of where such a vehicle will stop.
- The development site is located approximately 1km from the local shopping area in Lepton.
- Cycling as a means of access is a credible alternative as opposed to using a private car to access Lepton Centre.
- The site benefits from having bus stops with easy walking distance and there are a number of bus services stopping on Rowley Lane and Penistone Road linking the site with Huddersfield Town Centre and Denby Dale Railway Station throughout the day.
- The site is considered to comply with Kirklees Local Plan Policy 21 and 22.
- As a result, there are no highway related reasons why the development should not be granted planning approval.

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October 2024



Appendices





Appendix 1 – Speed Survey Data – Rowley Hill – Travelling downhill (South east bound)

Speed Survey Results		Summary Statistics			
Speed (mph)	Frequency	Value	mph	kph	(m/s)
10	3	Mean	15.25	24.54	6.82
11	2	Median	15.25	24.54	6.82
12	2	85th Percentile	18.20	29.29	8.14
13	1	15th Percentile	10.30	16.58	4.60
14	1	Standard Deviation	3.57	5.74	1.59
15	2	Stopping Sight Distance Parameters			
16	4	Parameter	Value		
17	3	v	8.14	v = speed (m/s)	
18	2	t	1.5	t = driver perception-reaction time (seconds)	
19	2	d	4.41	d = deceleration (m/s ²)	
20	0	a	-5	a = longitudinal gradient (%)	
21	0	Calculated SSD(m)	20.67		
22	2	MFS Visibility Requirement (m)	23		
23	0	DMRB Visibility Requirement (m)	n/a		
24	0				
25	0				
26	0				
27	0				
28	0				
29	0				
30	0				
31	0				
32	0				
33	0				
34					
35					
36					
Total Measurements	24				
Survey Details					
Time:	10.24 - 12.00hrs				
Date:	28/05/2024				
Road /Location	Down Rowley Hill towards Rowley Lane				
Direction:	South east				
Weather:	Damp				
Surveyor	Tim Robinson				
Speed Limit	30mph				



Appendix 2 – Speed Survey Data – Rowley Hill – Travelling uphill (North west bound)

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Speed Survey Results		Summary Statistics			
Speed (mph)	Frequency	Value	mph	kph	(m/s)
5	0	Mean	15.36	24.73	6.87
6	0	Median	14.00	22.53	6.26
7	0	85th Percentile	18.54	29.84	8.29
8	0	15th Percentile	11.30	18.19	5.05
9	1	Standard Deviation	3.35	5.38	1.50
10	1	Stopping Sight Distance Parameters			
11	1	Parameter	Value		
12	1	v	8.29	v = speed (m/s)	
13	3	t	1.5	t = driver perception-reaction time (seconds)	
14	4	d	4.41	d = deceleration (m/s ²)	
15	1	a	5	a = longitudinal gradient (%)	
16	0	Calculated SSD(m)	19.43		
17	1	MFS Visibility Requirement (m)	23		
18	3	DMRB Visibility Requirement (m)	n/a		
19	5				
20	1				
21	0				
22	0				
23	0				
24	0				
25	0				
26	0				
27	0				
28	0				
29					
30					
31					
Total Measurements	22				
Survey Details					
Time:	10:24 - 12:06hrs				
Date:	28/05/2024				
Road /Location	Rowley Hill uphill				
Direction:	North wset bound				
Weather:	Damp				
Surveyor	Tim Robinson				
Speed Limit	30mph				