

Design and Access Statement for Outline Planning

Application of Proposed Residential Development Cleator

Revision A

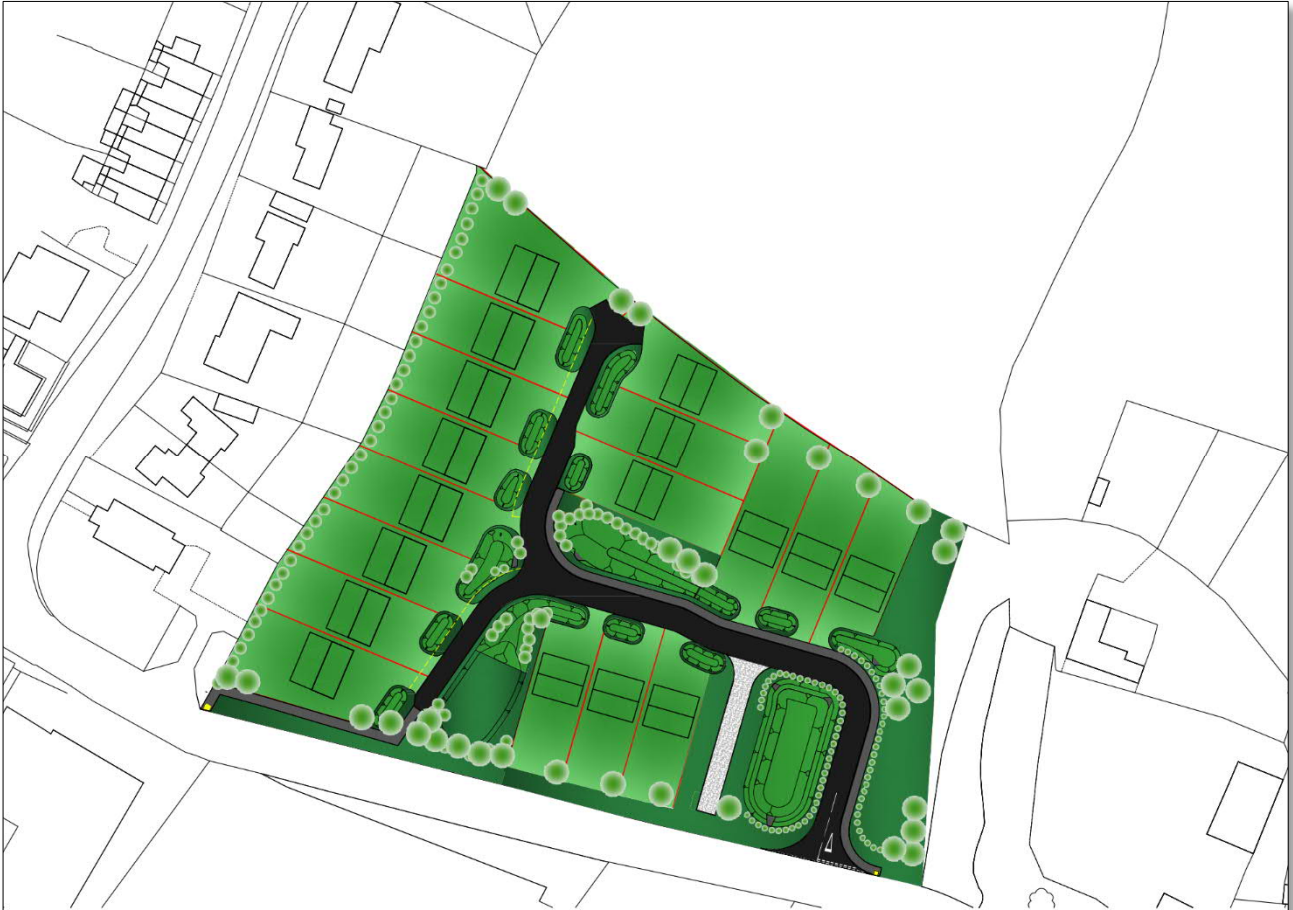


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1 Introduction

This design and access statement has been prepared to support the outline planning application for a residential housing development in Cleator.

The dwelling layout shown on the various drawings is a concept design for discussion with the local authority and to inform the surrounding residents of the intention of the development.

The current layout has been driven by the proposed SuDS scheme, it was necessary to provide a fairly well-developed SuDS scheme at this stage, to ensure the development fitted around the SuDS and not the opposite, see Section 6 for more details on the SuDS.

It is our client's intention to provide serviced plots which will then be sold as individual self-build dwellings. The design and appearance of the dwellings will be managed using a design code, which is a legally binding document stipulating various key parameters that must be adhered to. This ensures a reasonably consistent architecture throughout the development. Key parameters, e.g., maximum storeys, colour of roof, wall finish will be determined as part of reserved matters.

2 Use

The development will be residential only.

3 Amount

The current layout shows 17No. dwellings, final number and layout will be determined through discussion with the local authority as part of reserved matters.

4 Layout

4.1 Access Road

Access to the development is located close to the existing access at the southeast corner, (the lowest part of site), the road then turns west round the edge of the main detention pond, before ascending east to west through the development and then branching off north and south to provide access to the dwellings located along the western boundary, (the highest part of site), see drawings 1005-PL-001 and 1005-PL-002.

The road will be designed in accordance with Cumbria Development Design Guide, with ease of movement of the various residents through the development a priority.

Surface water will be drained using swales that link to 4No. detention ponds situated around the development, see drawing 1005-PL-004 for drainage layout.

4.2 Dwellings

The layout of the dwellings travelling through the development from the entrance, begin with the approach to the westward bend, with a row of 3 detached dwellings located along the northern edge of the development. Turning west, another row of 3 detached dwellings sit to the left along the south boundary. Continuing west, 8 detached dwellings are sighted along the high western edge of the development, which is a similar density of the existing 6 dwellings overlooking the development. Finally, a row of 3 detached dwellings sit to the right as the road turns towards the northern edge of the boundary, see drawings 1005-PL-001 and 1005-PL-002.

The site topography descends west to east, which helps minimise the impact on the current view of the existing 6 dwellings. To further protect the view of the existing 6 dwellings, the proposed 8 dwellings, sited along the western boundary, will be split level, with single storey rear elevations, which is in keeping with the existing bungalows that overlook the site.

With above ground SuDS being utilised for the access road surface water drainage, there will be no surface water pipe conveyance system available to the dwellings, encouraging the use of above ground sustainable drainage solutions e.g., rain gardens, rain harvesting, helping to set the theme of sustainability as the preferred approach throughout all aspects of the development.

4.3 Surface Water Drainage

There will be no piped conveyance surface water infrastructure upstream of the flow control manhole, which is located close to the access road entrance, see drawing 1005-PL-004 for layout. On site surface water drainage will be provided purely by SuDS elements, consisting of rainwater harvesting, rain gardens, swales, channels and detention ponds. The suitability of soakaways will be determined once ground investigations have been undertaken.

The main SuDS elements to be provided as part of the services infrastructure installation, will be the swales and the detention ponds. The swales are adjacent to the dwelling driveways and access road and are the link between the detention ponds. The 4No. detention ponds consist of the main pond situated directly upstream from the flow control manhole, and 3No. secondary detention ponds installed further upstream, which help to slowdown the movement of the surface water flowing across the development. Detailed design of the SuDS components as well the maintenance plan will be undertaken as part of reserved matter.

The development location has been checked for flooding and is within flood zone 1 with a low probability of flooding, see Appendix 1.

4.4 Recreational Area

A recreational area approximately 180m² will be provided, see drawing 1005-PL-002 for layout, this space is another great opportunity to improve the green infrastructure and bring the residents closer to nature.

From a health and safety standpoint, the close proximity of the main road that runs adjacent to the south boundary, is a concern with children making use of the recreational area. Possible solution would be a gate at the development boundary, closing off the footpath and providing controlled access and egress, details of which will be covered as part of reserved matters.

4.5 Foul Water Drainage

A sewage treatment plant was the preferred solution; however, the project has faced some resistance from the Environmental Agency and residents, who would prefer a connection to a public sewer system. The closest sewer connection is approximately 200m from the entrance of the development with a 10m rise in elevation, therefore a pumped system will be utilised to tie-in to the public sewer, see drawing 1005-PL-004 for proposed layout. The closest tie-in foul water manhole is in a lane that runs parallel with and between Ennerdale Road and Princes St, see Appendix 2 for existing public sewer layout. Further investigation works will be required to ascertain the suitability of this manhole and the diameter of the existing pipe, which will be carried out as part of reserved matters.

5 Scale

The development area is 1.15ha, 17No. dwellings are proposed, therefore the number of dwellings per hectare is 14.7, which is low density and in keeping with the existing dwellings located east, west and south of the development.

To minimise the impact on the existing 6 dwellings along the west boundary, the 8 proposed dwellings located on western boundary will be split level, a 2-storey front elevation and single storey to the rear. All other proposed dwellings will be 2-Storey front and back, the dwelling footprints shown on drawing 1005-PL-002 consist of 9.5m front and rear elevations and 8.5m side elevations.

6 Landscaping

The abundance of green and blue infrastructure is an excellent opportunity to provide a rich and biodiverse environment for the residents, an essential part of creating a high quality and enjoyable urban space.

The ponds and the recreational area are key components in providing a meaningful greenspace, allowing the landscape design to have maximum impact, by creating a space that wildlife can flourish in, and residents can enjoy a healthy and relaxing environment.

A detailed landscape design will be undertaken as part of reserved matters.

7 Appearance

The architecture of the dwellings will be in keeping with the local vernacular and will be detailed within the design code as part of reserved matters.

8 Access

8.1 Pedestrian

There will be pedestrian only access at the southwest of the development, this reduces the distance to local amenities considerably for some residents. There is a slight health and safety concern with the footpath being so close to the recreational area, increasing the risk of a child wandering out of the development. There is also the security aspect to consider, with the potential for non-residents accessing the development from the footpath. Initial thoughts are to install a gate which will help control access and egress, final details will be provided as part of reserved matters.

The main access located to the southeast of the development also provides pedestrian access and egress, and with the footpath terminating on the low side of the access road junction, the sight lines for crossing the road are much improved. All footpaths will be constructed in accordance with Cumbria Development Design Guide.

8.2 Vehicle

The junction of the access road is located to the southeast of the development providing good sightlines along the existing C4017 in both directions. The existing highway has a 60mph speed limit which would require 215m sight lines which are not available with layout of the road. However, an access appraisal speed survey has been undertaken for a separate application, Ref No 4/21/2202/001, which found the 24-hour 85th percentile speeds to be 32mph westbound (travelling uphill) and 31mph eastbound (travelling downhill). The recommended visibility splays using the Manual for Streets and considering the approx. 7% gradient of the road, where 41.1m to the left (looking downhill) and 46.2m to the right (looking uphill). It can be seen from drawing 1005-PL-003 that those splays are achievable. See Appendix 3 for the Access Appraisal Report

The new junction will be constructed in accordance with Cumbria Development Design Guide.

Appendix 1



Flood map for planning

Your reference	Location (easting/northing)	Created
Call for Land	302873/514554	14 Jan 2020 6:55

Your selected location is in flood zone 1, an area with a low probability of flooding.

This means:

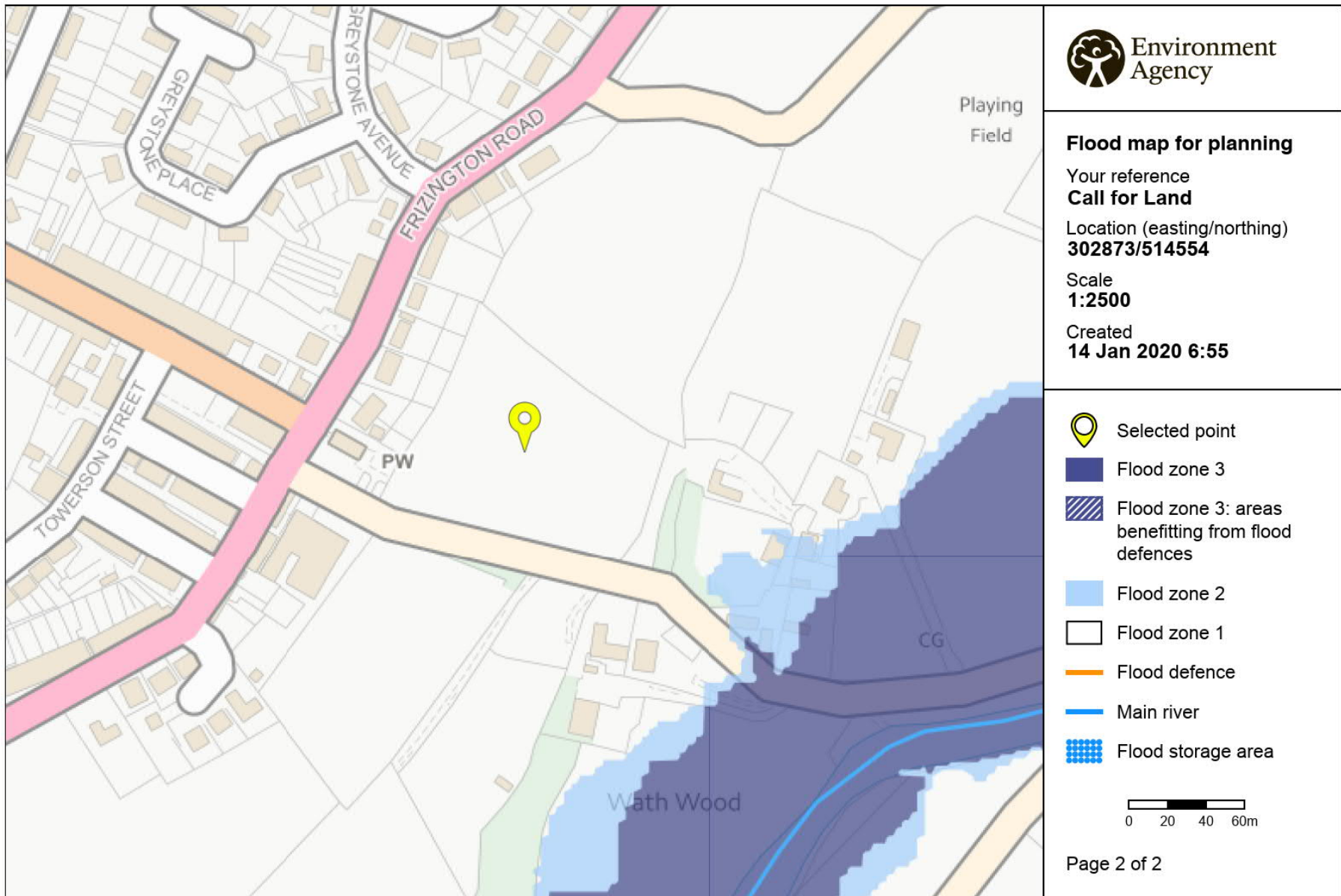
- you don't need to do a flood risk assessment if your development is smaller than 1 hectare and not affected by other sources of flooding
- you may need to do a flood risk assessment if your development is larger than 1 hectare or affected by other sources of flooding or in an area with critical drainage problems

Notes

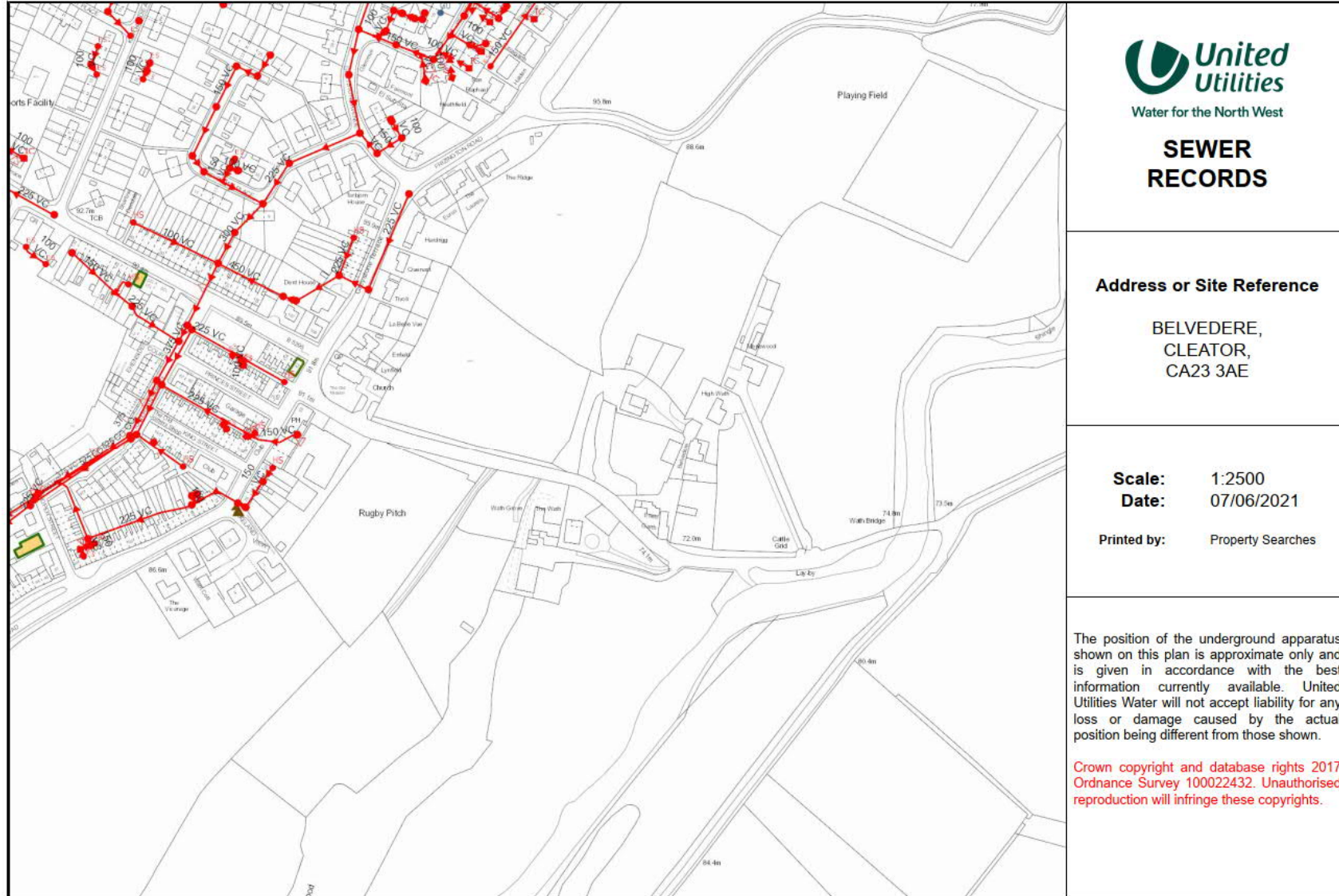
The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

The Open Government Licence sets out the terms and conditions for using government data. <https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/>



Appendix 2



Appendix 3



Our Ref: 784-B030858

Date: 29 July 2021

Mr S Blacker
SRE Associates

By email

Dear Simon

BELVEDERE, CLEATOR MOOR – ACCESS APPRAISAL

As requested, we have undertaken the necessary work to provide advice on access to your client's property at Belvedere, Wath Brow, Cleator Moor. The proposal is to construct one additional dwelling house in the grounds of the existing farm, utilising an existing access close to a bend on the C4017. An application was submitted (ref number 4/21/2202/001) to the LPA which received a no objection response from Cumbria Highways. The consultation response noted that the existing access would need to be widened to at least 4.1m for the first 10m so that two cars can pass without either having to wait on the public highway. It is noted that no visibility splays were provided with the application, therefore 215m has been requested as the C4017 is a national speed limit road. There is a condition included in the permission which states:

"The development shall not commence until visibility splays providing clear visibility of 215 metres measured 2.4 metres down the centre of the access road and the nearside channel line of the carriageway edge have been provided at the junction of the access road with the county highway."

Due to the width and alignment of the road, the presence of a footway, and the location of the access close to a bend drivers proceed at speeds considerably lower than the national speed limit, therefore 215m visibility splays are not appropriate. A speed survey has been undertaken and this letter summarises the results and calculates the visibility splays, thereby providing information to amend the condition.

The site is located to the east of Cleator Moor village, as shown in Extract 1 below.



Extract 1: Google Maps – Site Location

The site has an existing access from the C4017, as shown in Extract 2 below. The C4017 runs east from a priority junction with the A5086 Trumpet Road in Cleator Moor. It serves some residential properties, a number of farms and a few rural lanes, it also provides a connection to the nearby village of Ennerdale Bridge. In the vicinity of the site it is approx. 5.5m wide with a 1.8m footway on the southern side.



Extract 2: Google Streetview – Existing Access

A traffic survey was undertaken at the access by Traffic Sense Ltd. An Automatic Traffic Counter (ATC) was installed and recorded a full week of data between 20th and 26th July 2021, inclusive of both. The full ATC report is attached. The ATC recorded average 24-hour 85th percentile speeds of:

- 32mph westbound (travelling uphill)
- 31mph eastbound (travelling downhill)

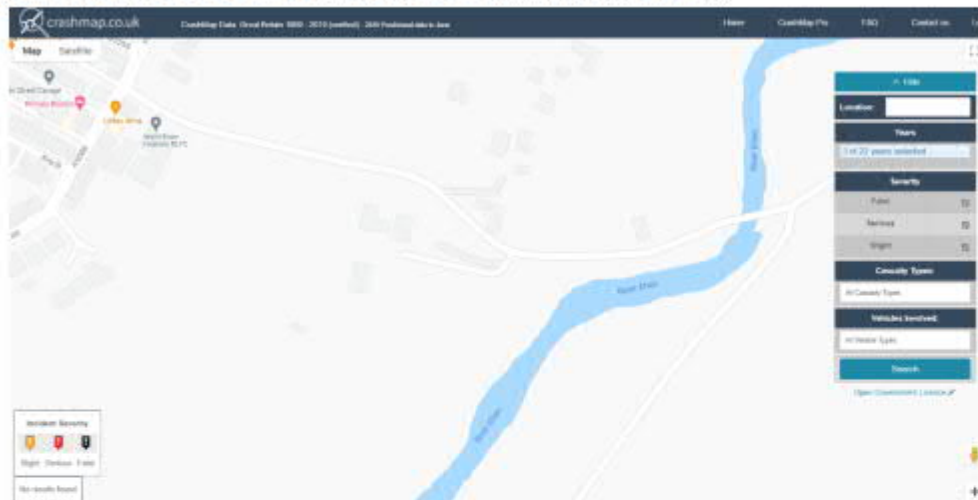
As the 85th percentile speeds are below 37mph, Manual for Streets has been used for determining the recommended visibility splays. There is an approx. 7% gradient on the road, this has been taken into account in the calculations. From a 2.4m set-back distance, the recommended visibility splays are:

- 41.1m to the left (looking downhill)
- 46.2m to the right (looking uphill)

Traffic volumes were recorded, with an average daily of 1531 vehicles, and an average of 60 vehicles in the AM peak hours. Using TRICS, 1 dwelling house would be expected at most to generate 1 trip in each network peak hour. This increase is immaterial and can be easily accommodated on the local road network.

The MfS recommended visibility splays are deliverable at the existing access, from a 2.4m set-back distance, as shown on the attached Tetra Tech Drawing 784-B030858/C001. The splays can be delivered wholly within first party land with the removal/relocation of the current boundary treatments.

From a review of Crashmap, it can be seen that the area local to the site access has a very good safety record. There have been no personal injury accidents reported in the area in the most recent 3-year period available, 2018-2020 inclusive, as shown in Extract 3 below.



Extract 3: Crashmap – Reported Accidents

In conclusion, the appropriate MfS visibility splays for the recorded 85th percentile traffic speeds of 32mph and 31mph are calculated at 41.1m and 46.2m, taking account of the gradient. These can be provided from a 2.4m set-back distance within the first party land at the existing access; the planning condition should be amended accordingly. The existing access will be widened as per the consultation response.

Yours sincerely



Eleanor Bunn
Transport Planner
For and on behalf of TetraTech Europe

Enc ATC results
Tetra Tech Drawing 784-B030858/C001