Wharncliffe Side Proposed Green Belt Development

Preliminary Infrastructure Feasibility Assessment

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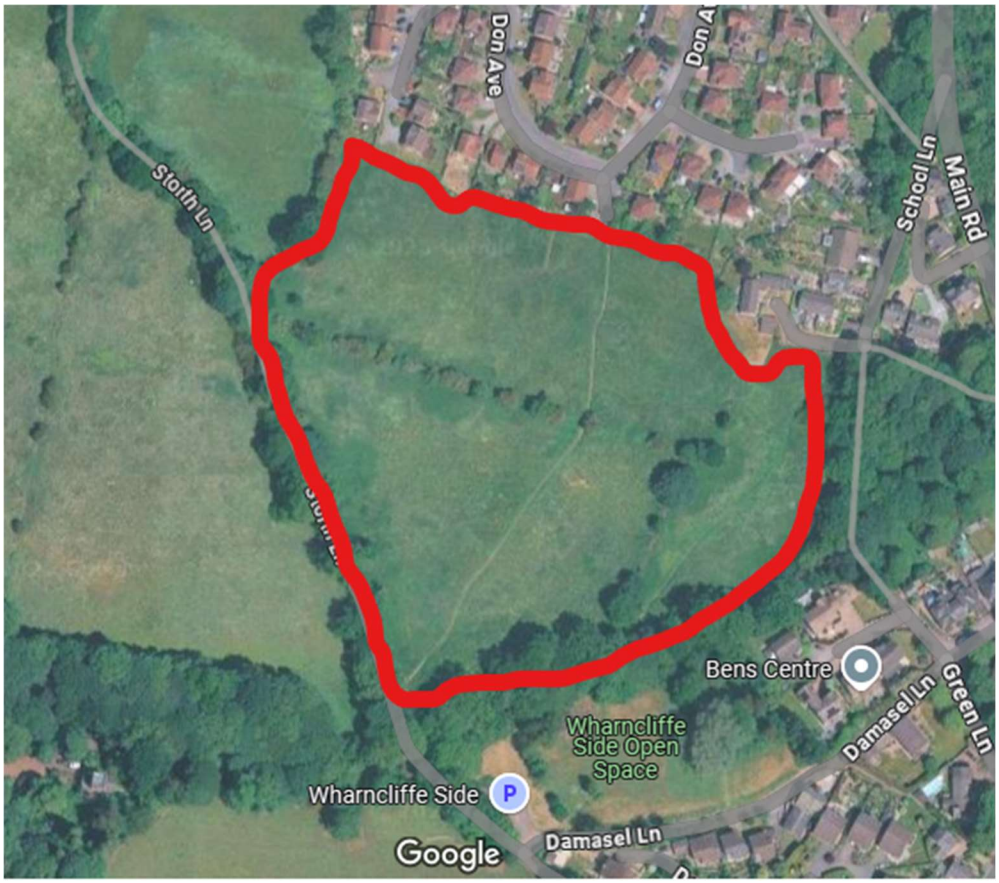
1 Introduction

Thank you for taking the time to read this document. The aim is to produce an initial broad assessment of the infrastructure relating to the proposed development of Green Belt land known locally as the ‘Horse Field’ in Wharncliffe Side, Sheffield. Please note that any assumptions, figures or references below are based on my own knowledge, fellow villagers and my own research. It is therefore recommended that any of the information below is cross referenced and confirmed.

2 Proposed Development

The ‘Horse Field’ is located between Don Avenue and Storth Lane. The land currently has several Public Footpaths running through it, plus a bridleway to the West, with Don Avenue, Storth Lane & School Lane all terminating at different corners of the field. The field is currently designated as Green Belt Land and is owned by Sheffield City Council. However, under directives from Central Government to alleviate the housing crisis and having already earmarked all available Brown Field sites in the City, Sheffield City Council have reviewed Green Belt land across the city and deemed several areas to be suitable for the development of residential properties. The grand total of proposed developments will see 38,000 new homes built over a total of 256 hectares across Sheffield by the year 2039.

In Wharncliffe Side, the proposed development is for 103 homes, with a minimum of 30% being affordable homes. An approximate site boundary can be seen in the image below.



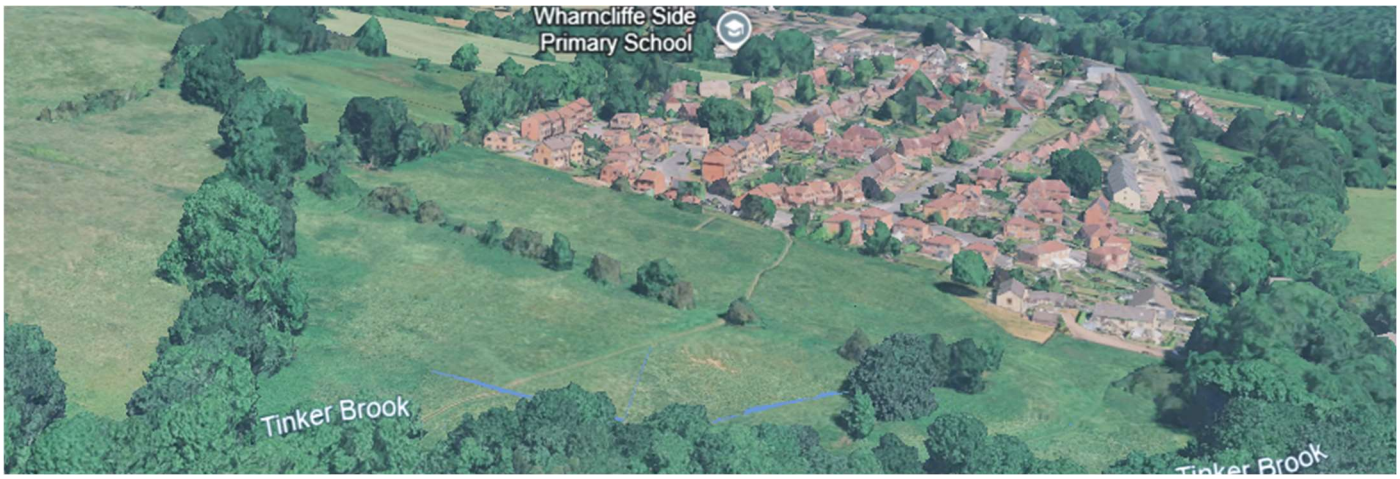
3 The Site

The site itself sits in essentially the middle of the two halves of Wharncliffe Side, with residential homes located along the northern boundary. There are several access points to the field, where public footpaths run across the field and intersect.

Around 3 edges of the site, mature trees create a natural border, with the 4th edge created by residents' gardens and fences. There are trees located in the centre of the site, and from an initial glance they would appear to be mature height Hawthorns. The trees around the edge of the site are of mixed height with some up to approximately 15m. It is recommended that a survey of Tree Protection orders is carried out around the perimeter and throughout the site.

The site slopes at an even gradient from the Bridleway to the West (Storth Lane) down towards School Lane in the East at the bottom. Without a topographical survey to reference, it is estimated that the existing gradient is approximately 1:10 over 200m at the field's longest point.

The Tinker Brook runs down from Glen Howe Park beyond the southwestern corner of the site, and along the southern boundary of the site, before it eventually crosses under Main Road and into the River Don.



4 Earthworks

From the description of the site above, along with the pictures shown, it is apparent that extensive earthworks and excavation will be required to make this site habitable. The existing trees and shrubbery throughout the site will require removing and excavating, and it will also be required that all topsoil is stripped away.

Due to the gradient of the field, it is likely that a 'cut & fill' exercise will be required – it will determine how much earth is 'cut', and how much is 'filled'. By doing this, level construction platforms will be created.

From an environmental perspective, undisturbed earth contains carbon. When it is excavated and brought to the surface, the carbon oxidises with oxygen and forms C02, therefore, for any such excavation, additional C02 is released into the atmosphere.

For earthworks to take place, plant vehicles such as diggers, lorries and dumpers will be required to be transported to the site. Surplus excavated material is then carted away or placed elsewhere on the site.

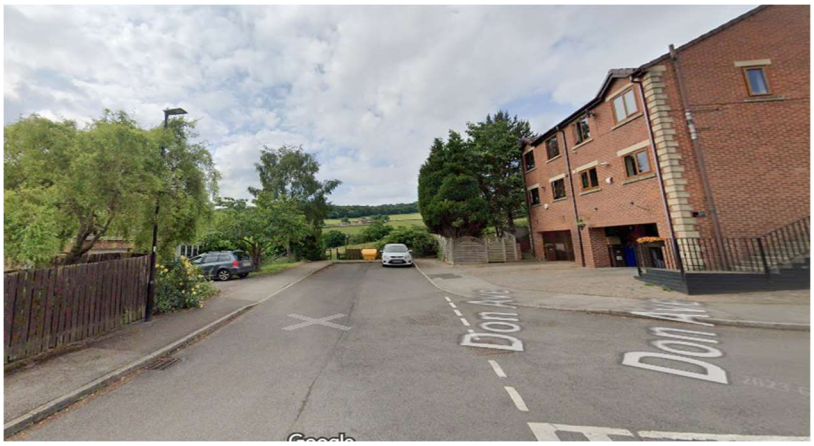
5 Roads & Entrances

5.1 Existing Roads

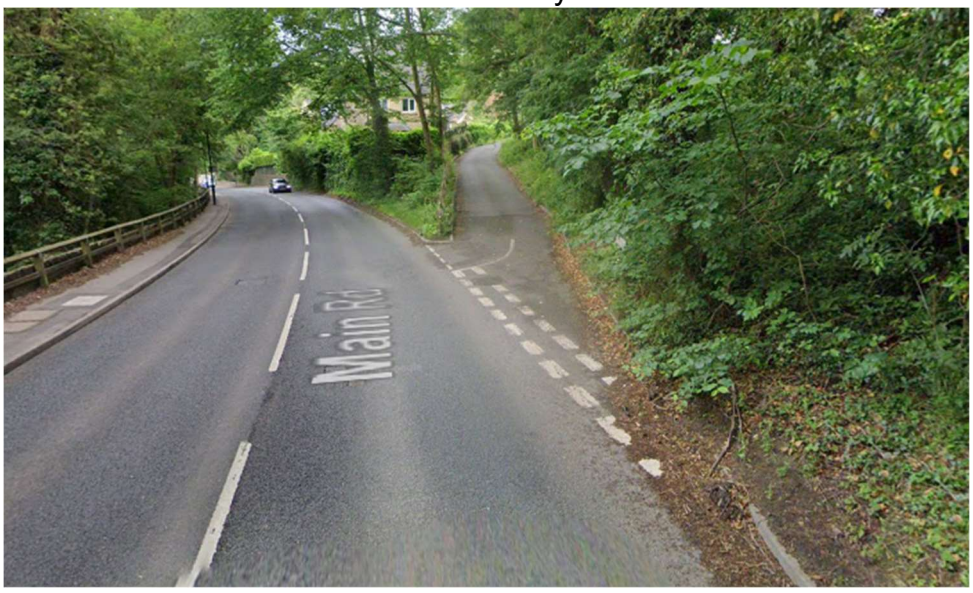
- Don Avenue – Located to the North of the site is Don Avenue, where one of the footpaths can be accessed. Don Avenue is a cul-de-sac, with one entrance in and out via Brightholmlee Lane.
- School Lane – Single lane road which forks off Main Road and ends at the bottom of the Eastern Side of the field.
- Storth Lane – Located to the Southwest of the site where the tarmac road ends at the bottom of the entrance to Glen Howe Park, from where it continues as a rough bridleway along the West side of the site. It should also be noted that a small bridge is located at the end of the lane which passes over the Tinker Brook.

5.2 Entrance Assessment

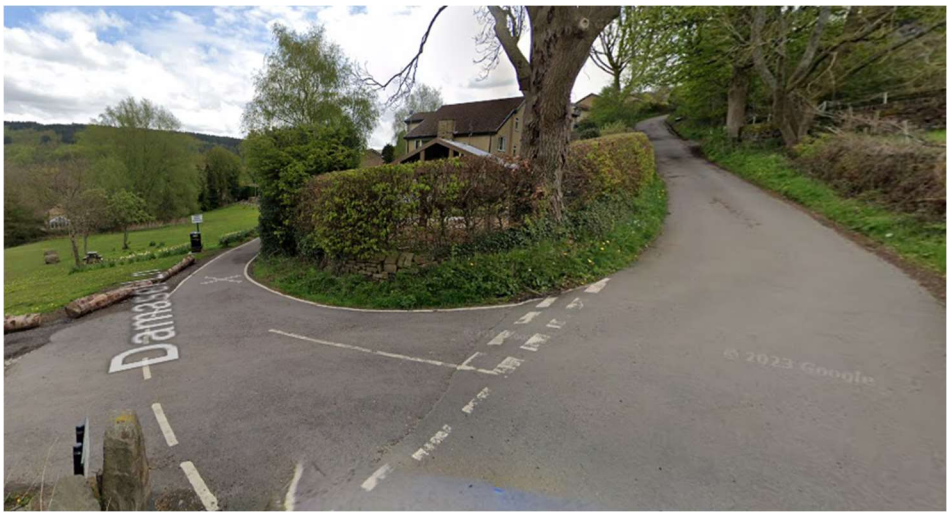
- Don Avenue – the road terminates at the edge of the field. Don Avenue isn't wide enough to accommodate parked vehicles whilst maintaining 2-way traffic. Double Yellow lines would be required to be installed, which would be objected to by the residents. Due to currently being a quiet road, children often play and walk there, so the introduction of lorries and plant vehicles will post a serious safety concern to both pedestrians and road users. There is also the concern that lorries delivering plant vehicles and machinery to site won't be able to manoeuvre through the narrow streets, as ambulances or delivery vehicles already struggle to make it through.

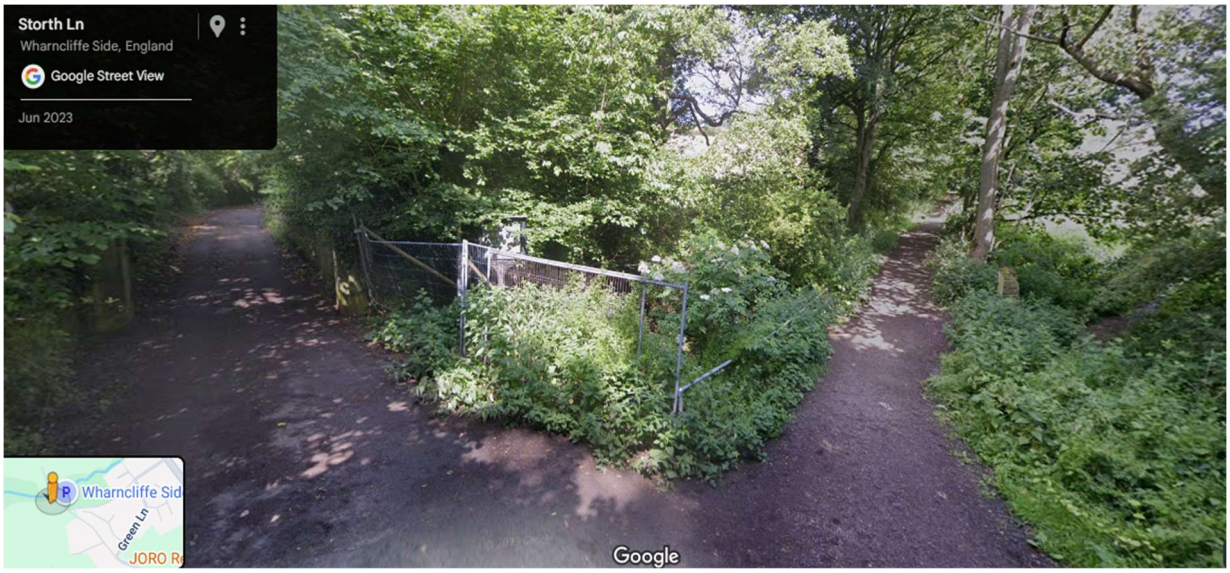


- School Lane – The sharp 30-degree angle from Main Road onto School Lane already poses a challenge to residents. Construction vehicles, lorries and plant vehicles approaching from the South along Main Road will be unable to negotiate the extremely acute turn into School Lane (and out of) without encroaching on the other side of the road, which is a safety factor and will have a severe impact on the already congested road. The only approach will be by coming from the north along Main Road, to approach School Lane at a shallow angle, enforcing all site traffic to approach from the north will add to journey time. It should be noted that School Lane is too narrow to allow the 2-way flow of site vehicles.



- Storth Lane – A narrow lane connecting to Green Lane and Damasel Lane, which is already unsuitable for 2-way traffic, let alone construction vehicles. There is also a busy carpark and children's play area which comes with its own risks. Storth Lane then becomes a gravel track before bending round into the entrance of Glen Howe Park, where there is a private dwelling. The lane then forks over a bridge and terminates at the edge of the Horse Field where it becomes a bridleway. Due to its current condition and location, Storth Lane would be an unsuitable access as residents will require access to their properties, emergency services couldn't make it into Glen Howe Park, and the bridleway used by cyclists, horse riders, walkers and local farmers would be obstructed.





Therefore, all three potential access points to the site will require severe adjustments to make them suitable. In addition, all three points will require traffic management, and all come with their own safety and environmental concerns, such as pedestrians or tree removal.

6 Drainage

As this is a Green Belt site, there is currently no drainage running through the field. The field currently acts as a natural drainage system, as any water is absorbed by the ground, trees or naturally runs into the Tinker Brook. The installation of any new drainage and appending it to existing drainage systems would be challenging, as both Don Avenue and School Lane are dead ends, with residents requiring access to their homes.

6.1 Surface Water

As stated above, the field acts as natural drainage. If it is developed, all-natural drainage will be removed, which will result in further run-off on to School Lane and Main Road. There is no existing drainage, so surface water will be required to either

be pumped into the Don Avenue systems or diverted into School Lanes' or Main Roads' system.

There is also a land drain that runs the length of the field adjacent to gardens to the North of the field. It can be assumed that this is to divert water run off from the fields above. The ground around this pipe is also boggy and damp, so there is some concern as to if properties are built here, where is all this water going to go, as already, natural drainage with the assistance of a land drain isn't suitable. There are several other areas reported where ground water sits in residences gardens, which is another concern to removing further natural drainage.

6.2 Foul Water Drainage

Again, there is no existing foul water drainage, so foul water will need to be pumped off the site into one of the above-mentioned systems. This also comes with its own health and safety factors such as contamination, blockages and leaks.

6.3 Streams & Rivers

If surface water is directed to the Tinker Brook, this could result in contaminating the brook or contributes to flooding on Main Road. In heavy rainfall, Tinker Brook already runs at maximum capacity, so adding additional surface water would only cause further issues downstream. As has been witnessed several times in the last 20 years, the River Don already struggles with managing the volume of water from several reservoirs, existing residential areas and smaller streams. By taking away another large area of natural drainage on the site, this will only contribute to the volume of water that the River Don already struggles to hold.

7 Utilities

There are no existing utilities within the field, other than an overheard powerline. Like the drainage, a full utilities network would be required to be installed.

7.1 Water

Clean water would be required to be connected from one of the existing surrounding systems.

7.2 Gas

Gas would be required to be connected from one of the existing surrounding systems.

7.3 Electricity

There is an overhead power line that runs from North to South across the bottom of the site, which will be required to be relocated or buried. However, since it passes over the Tinker Brook and through woodland, this would appear to be a considerable challenge.

8 Miscellaneous

Below are several further comments which don't fit into any of the above-mentioned categories.

8.1 Emergency Services

Due to this field being the flattest around, on the rare but unfortunate occasion, the air ambulance has used the field to land to safely transport patients in urgent need of medical attention. If this field is taken away there are very few other options available for an air ambulance to land. Fire engines have a challenge accessing the field and surrounding areas as it is. If construction vehicles are blocking or congesting the roads, this will cause problems. Residents of connecting roads may also require medical attention, with some requiring 24-hour access to their homes, which is already seen as been a challenge to due existing residential parking.

8.2 Traffic

Emerging from Green Lane, School Lane or Brightholmlee Lane on to Main Road is already challenging and dangerous. With inadequate visibility lines and lack of traffic calming measures, the increase of construction vehicles during the build phase, and then the number of cars associated with 100+ homes will only make matters worse.

All 3 lanes terminate at the field, so parking for contractors, plant vehicles and existing residents will be congested and nearly impossible. A lot of pedestrians also use these lanes, from dog walkers to school children, who will all be put at risk from the above.

8.3 Public/Pedestrian Access to Glen Howe Park

Currently, public access to users of Glen Howe Park from Wharncliffe Side is generally along Don Avenue and across the field to the bottom of the park where the entrance is located adjacent to Storth Lane.

Due to the other access via the footpath from Damasel Road, it is unsuitable for people with pushchairs, bicycles and wheelchair users. The only other viable route is along Main Road, down the narrow footpath and along to the bottom of Green Lane. This is a fast busy road and there is no safe crossing point at the junction of Main Road and Green Lane. Whilst the proposal states there will be footpaths and access in the final development, there will be none during the construction phase.

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