Our Ref: 16-0406.03_002mohL

17th August 2021

Rachel Reaney c/o
Yelcon Construction
3 The Gateway North,
Marsh Lane,
Leeds,
LS9 8 AX

Woodwalk, Barnsley - Allocation HS69 - Pre-App Ref: 1316034599257257

Dear Rachel

Further to the recently supplied reports, please see below a summary of the work we've undertaken to date, and thoughts around the high wall.

Coal Mining Risk Assessment - *Coal Mining Risk Assessment by Delta-Simons (Report Ref. 16-0406.01, dated 23rd June 2016);*

Considering the past use of the site as an opencast mine, and presence of shallow coal seams in the area, we have undertaken a CMRA. This included obtaining, and georeferencing the opencast mine abandonment plan. This indicates that c. 2/3rds of the site was situated within the area affected by open cast mining. The report confirms that whilst there are risks associated with coal mining are considered high, subject to appropriate investigation and assessment, there are likely technically and economically viable solutions which could be implemented which could successfully facilitate development onsite. As such, development of the site was not considered to be precluded due to risks associated with coal mining activities.

Site Investigation – *Geo-Environmental Assessment, Wood Walk, Hoyland, Barnsley by Delta Simons (report ref: 16-0406.03, issue 4, dated 17th August 2021);*

Subsequent to the CMRA, we have undertaken a site investigation to identify the location of the former opencast high wall on site (pink locations on the plan included in Appendix A). The highwall was located with a very good alignment/agreement with the abandonment plan. TT101 in the south west of the site identified a shallow dip between the interface of the Made Ground and underlying bedrock. This is consistent with the nature of the opencast which was excavated from surface in the southwest, following the outcrop of the Melton Field coal seam which dips gently to the east. The lowest part of the opencast, c 25mbgl is, understood to be present in the north-eastern corner of the site. Based on the information shown on the abandonment plan, high walls with a c.45° angle from the surface are found along the southern and eastern edges of the open cast with a much shallower angle along the south west.

Additional investigation was undertaken in August and September of 2020 comprising cable percussive and rotary boreholes inside and outside of the opencast to assess the nature of the fill and surrounding ground conditions. Additionally, area load tests, simulating c.150% of an anticipated raft bearing pressure, were established to assess the settlement characteristics of the backfill with recorded settlement to date appearing relatively small (c.11mm).

Consideration has been given to the potential for differential settlement to occur across the line (and slope) of the highwall (cognisant with Section 15.5.2 of CIRIA C758). Outside of the opencast, superficial deposits are absent with weathered bedrock present immediately below topsoil. Inside the opencast, up to 25m of fill is present. As such, foundations spanning this zone would be subject to differing settlement characteristics and therefore potential for damaging differential settlement to occur.

Whilst there are potential engineering solutions, e.g. piling, there are numerous difficulties associated with this (e.g. ensuring appropriate keying in to the highwall slope, ensuring no lateral loads to the piles resulting in snapping, ensuring no deflection of the pile off a sub horizontal surface etc) as well as excessive costs to both sufficiently investigate and implement the requisite solution. Furthermore, from prior experience, warranty providers are not likely to be comfortable with this as an approach even if a technically feasible, and an economically viable solution, is identified.

Our current proposed engineering solution, is therefore to excavate and re-engineer the top 3m of fill within the opencast and use reinforced rafts for plots within the opencast. Outside the opencast, plots will be able to use traditional shallow strip footings founded on weathered bedrock. Plots will be positioned such that the zone of influence from foundations do not intersect with the high wall, or unimproved ground and as such, this creates a no build zone around the permitter of the former opencast highwall and northern periphery thus reducing potentially developable area. The current proposed site layout (attached as Appendix B) reflects our understanding around this. Cross sections through the opencast based on the abandonment plan data are included as Appendix A.

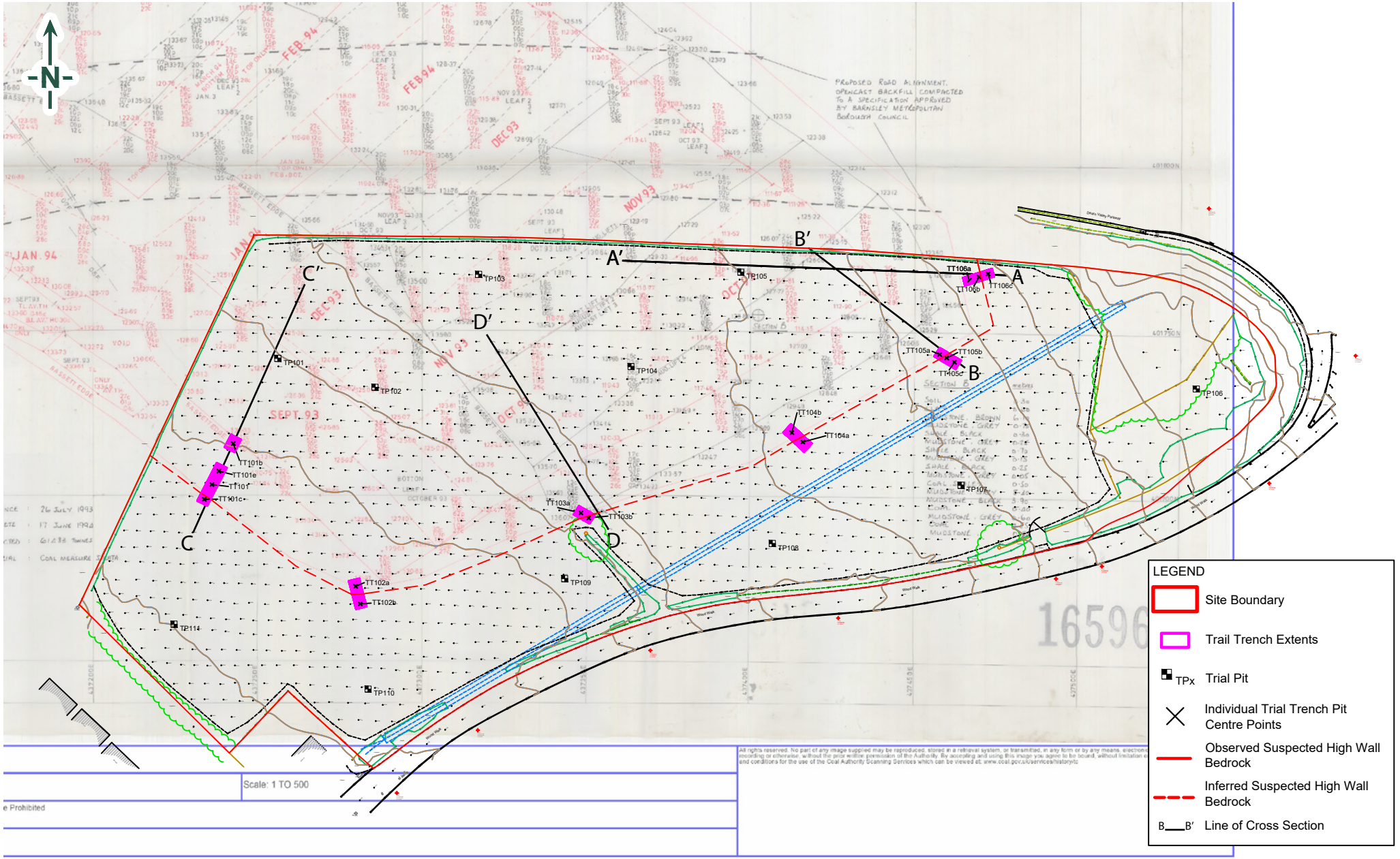
Yours sincerely,
Delta-Simons

Michael O'Halloran
Associate
Mike.OHalloran@deltasimons.com

Enclosures:

Appendix A Former Opencast Extent Plan & Cross Sections

Appendix B *Proposed Site Plan* by Enjoy Design Ltd (Drawing No. 00-001, Rev P4, dated 05/07/21)



Site Plan Provided by Client

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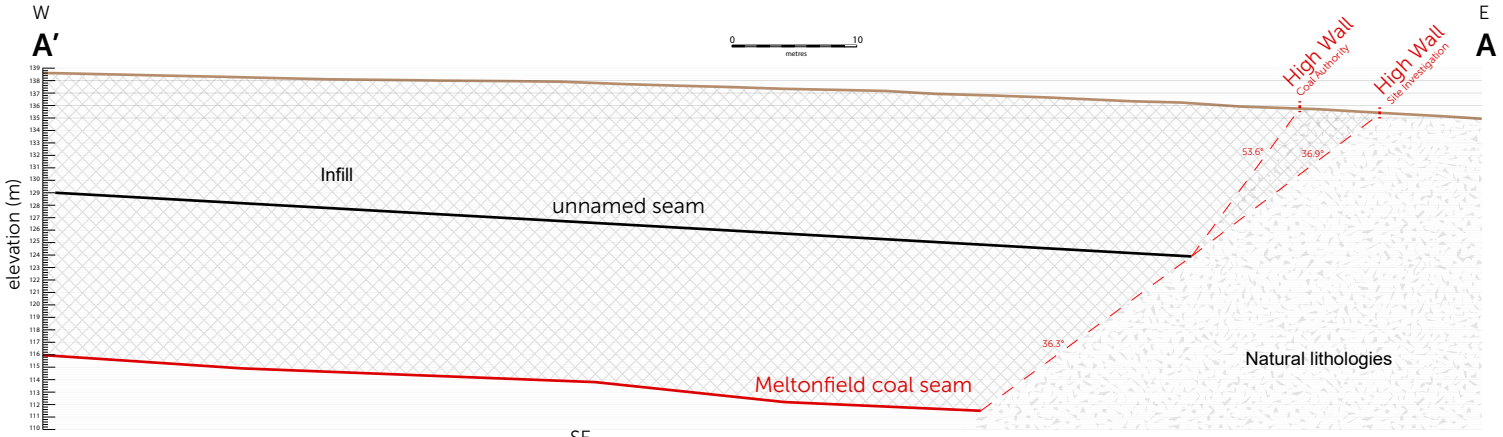
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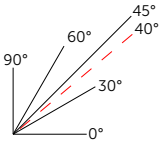
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Exploratory Hole Location Plan & Coal Authority Opencast Mining Extent Map Overlay
Wood Walk
Barnsley

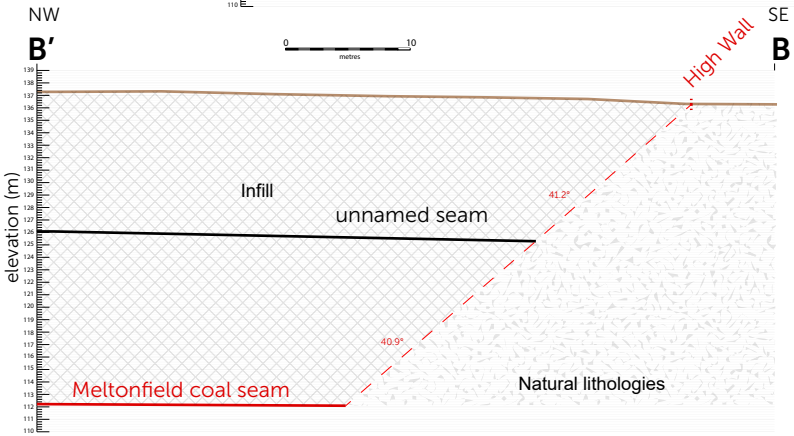
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CHECKED BY: JK	REVISION: 1
DATE: 23 April 2020	

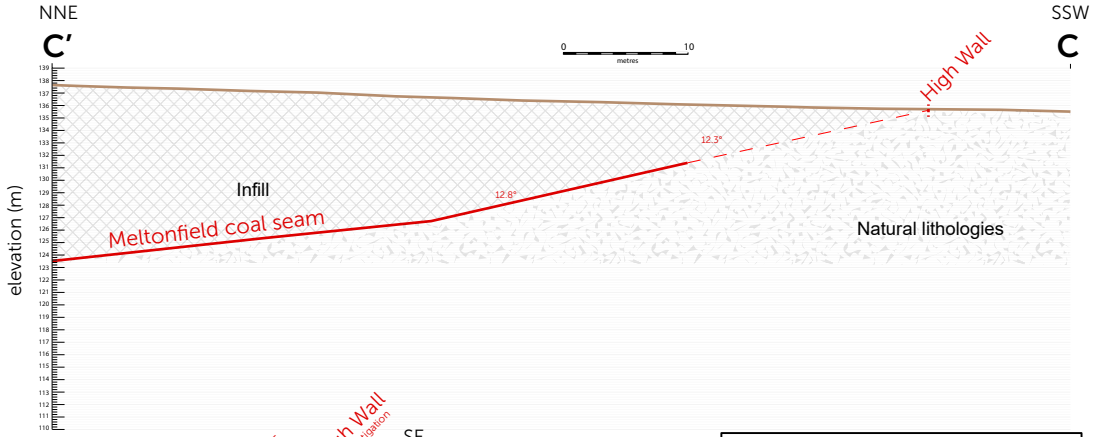
PROJECT NO: 16-0406.02

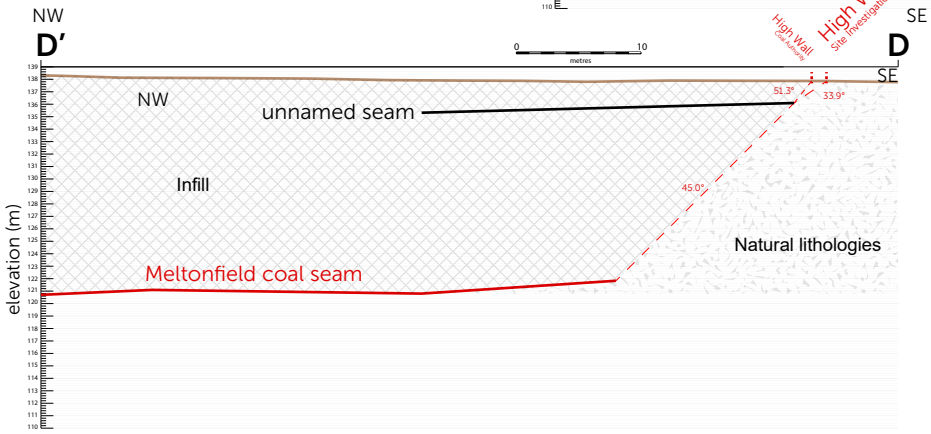
FIGURE NO: 3a

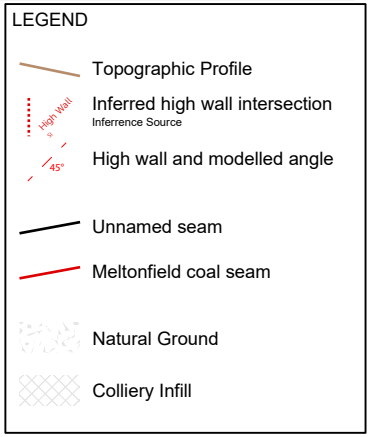












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Opencast Cross Section
Wood Walk
Barnsley

DRAWN BY: MS	SCALE: Not to Scale	PROJECT NO: 16-0406.02
CHECKED BY: MOH	REVISION: 2	FIGURE NO:
DATE: 7th May 2020		

Gross Site Area

Name	Area m²	Area ft²	Area Ac.	Area ha.	Percentage
Overall Site Plan	36057 m²	388116 ft²	8.9 acres	3.6 hectare	100%

Site Constraints/Considerations

Name	Area m²	Area ft²	Area Ac.	Area ha.	Percentage
High Wall	8245 m²	88743 ft²	2.0 acres	0.8 hectare	83%
Existing Woodland	1664 m²	17907 ft²	0.4 acres	0.2 hectare	17%
Grand total	9908 m²	106651 ft²	2.4 acres	1 hectare	100%

Developable/P.O.S Area

Name	Area m²	Area ft²	Area Ac.	Area ha.	Percentage
Public Open Space	4213 m²	45351 ft²	1.0 acres	0.4 hectare	16%
Developable Area	22487 m²	242053 ft²	5.6 acres	2.2 hectare	84%
Grand total	26701 m²	287404 ft²	6.6 acres	2.7 hectare	100%

Accommodation Schedule

House Type	Quantity	Bedrooms	Area m²	Area ft²
TypeH (3Nr.)_TheBeamsley	12	2	850.4 m²	9154 ft²
TypeH (4Nr.)_TheBeamsley	4	2	284.5 m²	3062 ft²
TypeJ&K_Eastern_Kelham	18	2	1187.5 m²	12782 ft²
	34 (40.5%)		2322.3 m²	24998 ft²
TypeA(Detached)_Ingleborough	1	3	87.5 m²	942 ft²
TypeA_Ingleborough	8	3	689.0 m²	7417 ft²
TypeB_Lilac	4	3	363.0 m²	3907 ft²
TypeG_Whernside	7	3	656.9 m²	7071 ft²
	20 (23.8%)		1796.4 m²	19337 ft²
TypeC_Laurel	9	4	1049.4 m²	11296 ft²
TypeD_Sandringham	6	4	752.4 m²	8099 ft²
TypeE_Harewood	3	4	371.1 m²	3994 ft²
TypeF_Winterley	2	4	262.2 m²	2822 ft²
TypeL_Buckden	10	4	1305.8 m²	14056 ft²
	30 (35.7%)		3741.0 m²	40268 ft²
Grand total	84 Units		7859.8 m²	84602 ft²

00 Series General Arrangement Notes

1. Any areas indicated on the plans are approximate. They relate to the likely areas of the building at the current state of the design and are calculated using the stated eg(NIA) method from the Code of MEasuring Practice 5th Edition RICS/ISVA. Any decision to be made on the basis of these predictions, whether as to project viability, pre-letting, lease agreements or the like, should include due allowance for design development and building tolerances. Floor areas are subject to Planning, Building Control and other statutory approvals.

2. Any structural, services or fit out detail shown is for coordination only, refer to relevant Consultants/Clients information for details.

3. Refer to Enjoy NBS for full outline performance specification of Architectural Elements.

4. THE CONTENT OF THIS DRAWING IS FOR DESIGN INTENT AND REQUIRES FURTHER DESIGN DEVELOPMENT AND COORDINATION WITH ALL RELEVANT CONSULTANTS, SUB-CONTRACTORS, SPECIALIST DESIGNERS AND STATUTORY AUTHORITIES.

- Attenuation Area_ **1,424m²**
- Broadleaf Plantation Area_**1,277m²**
- Existing Hedgerow removed_ **0 linear m**
- Proposed Hedgerow added / relocated_ **36 linear m**

Key

- Vegetation - Existing
- New Hedgerow
- Vegetation - Removed
- Public Open Space
- Attenuation

Affordable houses *

Dearne Valley Parkway

Plot 33 Plot 34 Plot 35 Plot 36 Plot 37 Plot 38 Plot 39 Plot 40 Plot 41 Plot 42 Plot 43 Plot 44 Plot 45 Plot 46 Plot 47 Plot 32 Plot 31 Plot 30 Plot 29 Plot 28 Plot 15 Plot 06 Plot 16 Plot 07-08 Plot 17-18 Plot 09-10 Plot 19-20 Plot 11-12 Plot 21-22 Plot 13 Plot 23 Plot 14 Plot 01 Plot 02 Plot 03 Plot 04 Plot 05 Plot 24 Plot 25 Plot 26 Plot 27 Plot 48 Plot 49 Plot 50 Plot 51 Plot 52 Plot 53 Plot 54 Plot 55 Plot 56 Plot 57 Plot 58 Plot 59 Plot 60 Plot 61 Plot 62 Plot 63 Plot 64-65 Plot 66-67 Plot 68-69 Plot 70 Plot 71 Plot 72 Plot 73 Plot 74 Plot 75 Plot 76 Plot 77 Plot 78 Plot 79 Plot 80 Plot 81 Plot 82 Plot 83 Plot 84

Highwall - No-Build Zone

Highwall - Tall Build Zone

Highwall - Old Zone

Highwall - Normal Zone

New access to and from the site

Bin collection point

Existing woodland area

P.O.S

SHARED SURFACE

PRIVATE DRIVE

Ash Tree Retained

Root Protection Area

Existing Tree Retained

New Hedgerow added

Over head power lines to be re-routed (below ground) as indicated

Wood Walk

90532 Visibility Splay

37540 Visibility Splay

<SEWER ZONE>

Vegetation cut back

Overhead power line post to be removed and power lines to be sunk below ground

Single Garage

Double Garage

Type A The Ingleborough 3Bed 927ft² x 2 Semi Detached No Garage

Type B The Lilac 3Bed 977ft² Detached Ext. Garage

Type C The Laurel 4Bed 1255ft² Detached Ext. Garage

Type D The Sandringham 4Bed 1350ft² Detached Ext. Garage

Type E The Harewood 4 Bed 1331ft² Detached Ext. Garage

Type F The Winterley 4Bed 1372ft² Detached Ext. Garage

Type G The Whernside 3Bed 1010ft² Detached Ext. Garage

Type H (Typcial) The Beamsley 2Bed 763ft² x 3 Terrace

Type J/K The Easton/The Kelham 2Bed 685ft²/734ft² x 3 Apartments

Type L The Buckden 4Bed 1406ft² Detached Int. Garage

Typical Elevation Typical Section Example Image

Typical Plan Indicated on plan -

Knee Rail

Typical Elevation Typical Section Example Image

Typical Plan Indicated on plan -

Perimeter and Separating wall with infill fence panel

Typical Elevation Typical Section Example Image

Typical Plan

Perimeter and Separating 1.8m fence Indicated on plan -

Perimeter and Separating Acoustic 2.5m fence Indicated on plan -

Proposed Site Plan

1 : 500

1 : 200
0 2 4 6 8 10m

1 : 500
0 10 20 30m

N

Contractor must verify all dimensions on site before commencing any work or shop drawings. If this drawing exceeds the quantities taken in any way the Architects are to be informed before the work is initiated. Only figured dimensions to be taken from this drawing. Do not scale off this drawing. Drawings based on Ordnance Survey and / or existing record drawings - design and drawing content subject to Site Survey, Structural Survey, Site Investigations, Planning and Statutory Requirements and Approvals. Authorised reproduction from Ordnance Survey Map with permission of the Controller of Her Majesty's Stationery Office. Crown Copyright reserved. Enjoy Design Ltd.

Notes.

Rev.	Des.	By	Date	Ch.
P4	2 spaces shwon on Plots 28, 38, 39, 76, 77. Road aligned to tracking at Plot 2 bend.	WD	08.07.2021	WD
P3	Boundary treatments added, minor adjustments made to housing areas to now comply with the Nationally Described Housing Standards/South Yorkshire Design Guide & GIA areas added.	WD	24.06.2021	MH
P2	Plot 27 revised to Type C. Garage added	WD	10.06.2021	
P1	Draft Planning	WD	Date 1	

Status: Planning

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Client: Yelcon Ltd		Job No: 18,030
Project: Wood Walk, Hoyland, Barnsley		
Title: Proposed - Site Plan		
Date: 05/07/21	Scale: As indicated@A1	Checked by: WD
Drawing No: 00-001	Drawn By: MH	Revision: P4

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