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Conceptual Design Statement

Development at

Railway Cutting, Heckmondwyke, WF16 0LW

Project: 18-453

Issue Status	Draft	Initial & date	Final	Initial & date		Initial & date
Report Author:	NM	July 2018	NM	July 2018		
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APPENDIX A – Drawings

1 BRIEF:

Instructions were given to Holdgate Consulting Limited by Ernest Gordon Ltd to produce a conceptual statement for the proposed development at railway cutting, Heckmondwyke, West Yorkshire, WF16 0LW and prepare a report on the findings.

This report is to assess the existing site and possible impact of the proposed new housing development on the adjacent retaining walls to form the final ground levels and sloped embankments.

2 LIMITATIONS OF INSPECTION AND REPORT:

(a) The report shall be for the use and benefit of the addressee only and no liability is accepted to any third party who may seek to rely on the whole or any part of this report.

(b) Comments are restricted to those elements of the structure which are load bearing and/or provide stability to the building. Whereas mention may be made in the report of the condition of the fabric generally, we have not carried out an exhaustive survey of the fabric except where deterioration or damage to such items may have caused or may in the future cause, damage to or loss of integrity of the structure.

(c) Comments are restricted to those elements of the structure which were readily available for visual inspection and exclude all items or elements which were covered in any way by, for example, fittings, fixtures, carpets, floor coverings, furniture or stored goods etc. or any items which are buried. No "opening up" of the structure or exposure of foundations took place.

(d) The roof was inspected externally from ground level as there was no safe access to the loft space.

(e) It is not practical to itemise every defect and minor defects which are obvious to the layman, and are not generally noted unless they are symptomatic of a more serious underlying structural fault.

(f) The inspection does not include any of the following services in or to the building and the services of appropriate experts should be sought if deemed necessary :-

1. Gas
2. Electricity
3. Water Supply
4. Telephones
5. Plumbing
6. Heating and Ventilating
7. Drainage
8. Any other items of Mechanical or Electrical Plant

(g) The detection and eradication of timber infestation and rising damp are specialist matters and as such are outside the scope of this report.

(h) Although mention may be made in this report, we have not carried out an exhaustive survey as to whether hazardous or deleterious materials such as asbestos is used in the construction of the buildings, neither have we carried out any tests or other investigation to determine the presence or otherwise of methane gases or other noxious substances of any kind whatsoever on the site.

3 PREAMBLE:

3.1 Location and Orientation

The site is located to the North of B6117 forming a rectangular site along the old Spen Valley Ringway railway line. The site has steep embankments on either side of the old railway line and is currently covered by overgrown hedges and trees. Access to the site is from a public path along Horton Street to the top of the embankment. Access to the lower ground level and southern areas is gained from under the B6117 bridge located to the south of the site.



3.2 Date of Inspection

The visual walkover survey was carried out on 10 July 2018. The weather was dry and overcast.

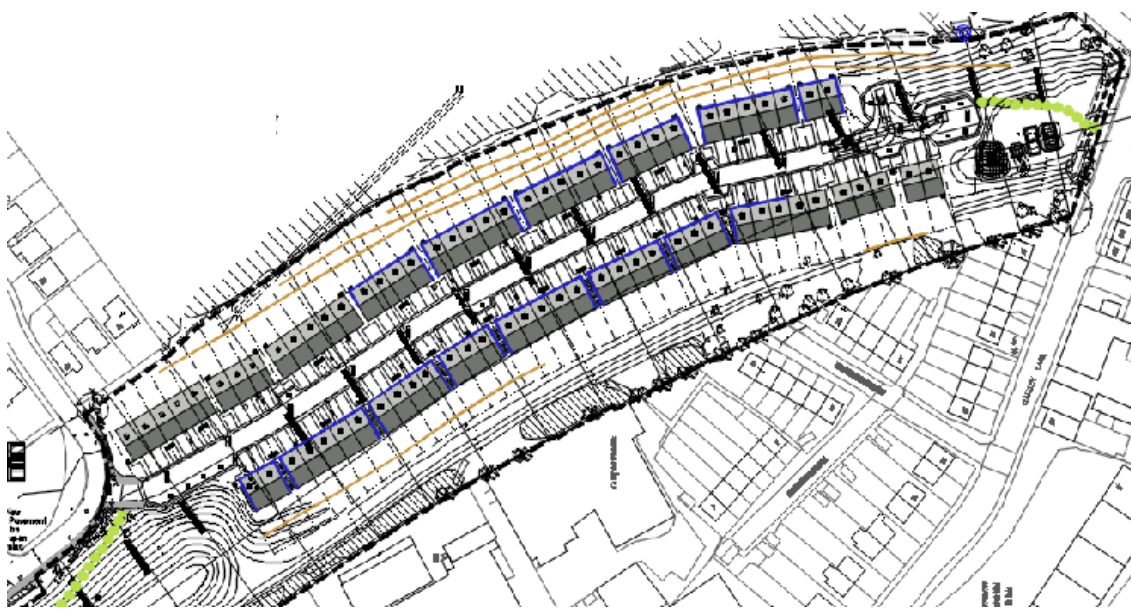
4 BRIEF DESCRIPTION OF THE BUILDING AND SURROUNDINGS:

The existing site has the old railway line from Ravensthorpe to Leeds, running through the length of the site from the junction of Brunswick Street and Horton Street down to the B6117 highway bridge located to the south east of the site. The steep banking to either side of the old railway line varies in height along the site with a maximum height of approximately 25m to the public footpath located along the north east site boundary.

The site currently has a mixture of residential and industrial buildings with a public footpath from Horton Street and runs along the site boundary up to Walkley Terrace.

4.1 Proposed development

It is proposed to construct a new residential development comprising of 74 residential properties along the new access road. The access road is to be formed by cut and fill along the site to form the access road from Horton Street.



5 CONCEPTUAL DESIGN STATEMENT

The proposed levelling of the site will require several retaining walls to be formed. It is proposed to form a series of gabion basket walls along the north east boundary with the adjacent public footpath. The gabion baskets (shown on SK01, SK02 & SK04) will be located to the rear of plots No. 4 to 38 to suit the varying retained height of the footpath. The plots will also have a raised rear garden as shown on sections on SK03 with a reinforced concrete retaining wall and raft type foundations.

The new plots from No. 46 to 74 are located south of the access road will have a lower rear garden with gabion baskets located along the gardens of No. 59 to 74. These gabion baskets will be up to a maximum retained height of 2.0m. The plots will be situated onto filled ground with a retaining wall towards the access road and built on piled foundations down to competent bearing strata.

The remaining plots are to be built off piled ground beams down to suitable bearing strata. The ground conditions are to be confirmed following further site investigations to ascertain the ground conditions and carry out detailed design for all the foundations.

A new highway retaining wall is to be formed adjacent to the new access from Horton Street with the adjacent site to be sloped to suit a maximum 1 in 2 slope gradient.

5.1 Design criteria

Permanent and long term loads:

Dead loads - TBC

Imposed loads – 1.5KN/m² (Residential)

2.5KN/m² (Garage)

10.0KN/m² (Highways)

5.2 Design standards and codes of practice

Design of structure to be in accordance with the latest relevant sections of the British Standards, Euro Codes and Building Regulations.

5.3 Safety considerations:

The safety issues that have been considered are:

- 1) Potential road closures
- 2) Risk of collapse during excavation/levelling works/demolition
- 3) Working at height
- 4) Risk of contamination

In light of these issues the design has taken into account measures to mitigate their possible effects.

Those parts of the design that require consideration of safety issues that are not covered by CDM and are site specific are:

Risk	Mitigation
Keeping emergency exit routes clear	Consider phasing/hours of working to ensure that emergency exit routes are not blocked during construction work
Live carriageway alongside works area. Collision between work force and vehicles	Implement effective traffic management with appropriate signage.
Damage to existing adjacent structures due to increased loading, Increase in risk of settlement due to additional load	A load assessment during the detailed design stage will determine any scale of risk.
Risk of collapse above public areas. Collapse of structure due to construction activities	A load assessment during the detailed design stage will determine any scale of risk. Removal of any unstable structure/wall by contractor. Method statement for demolishing works to be provided by contractor.
Contamination i.e. asbestos	Commission new surveys where required.
Working at height	Safe systems of work, use of appropriate PPE and suitable site protection to be provided. Method statements to be provided by contractor prior to commencement.

5.4 Clearances

No specific requirement for a track clearance is envisaged.

5.5 Maintenance requirement

No unusual access requirements or maintenance techniques are required.

6 CONCLUSION

The proposed new development will reduce the overall height difference across the site by utilising a cut and fill exercise to form a shallower slope for the new access road and proposed residential dwellings. The proposed construction will include altering the ground levels around the proposed buildings with the provision of cavity filled retaining walls to the plots and a number of gabion basket walls to the site boundaries to provide stability to the slopes.

The plots to be situated over the filled area of the site are to be built off piled foundations onto suitable bearing strata which is to be confirmed following further on site investigation works.

We trust this is sufficient for your needs, if however you require further information please do not hesitate to contact us.

APPENDIX A - DRAWINGS



New estate road (min 5.5m wide) is utilised as a shared surface to reduce vehicle speed within the development.

The kerb is to be edged with contrasting coloured tarmac providing a 600mm wide strip to both sides along the full length. Dropped crossings provide level access onto each drive from the public highway.

Every dwelling has an integral garage and an off road parking space to the front of the dwelling. The drive is to be finished with SUDS compliant Tegular blocks, with fine gravel fill to the joints. Paths to the front doors of the dwellings will be a contrasting coloured paving stone, again with gravel filled joints to ensure a free draining surface.

The turning head to the South end of the access road has been designed and laid out by VA solutions to provide adequate turning facilities for a fixed axle refuse truck, see Transport Assessment for details.




Note: All layouts of the dwellings and car parking is subject to Reserved matter applications for design, layout, materials and numbers.

600mm Overall perimeter edging to the adopted highway forming the shared surface.

Private drives to be finished with Tegular Blocks providing a SUDS compliant surface.

Private paths from the highway to the entrance door finished with paving to provide SUDS compliant surface.

Private gardens, lawns or low level planting to ensure open views along the development.

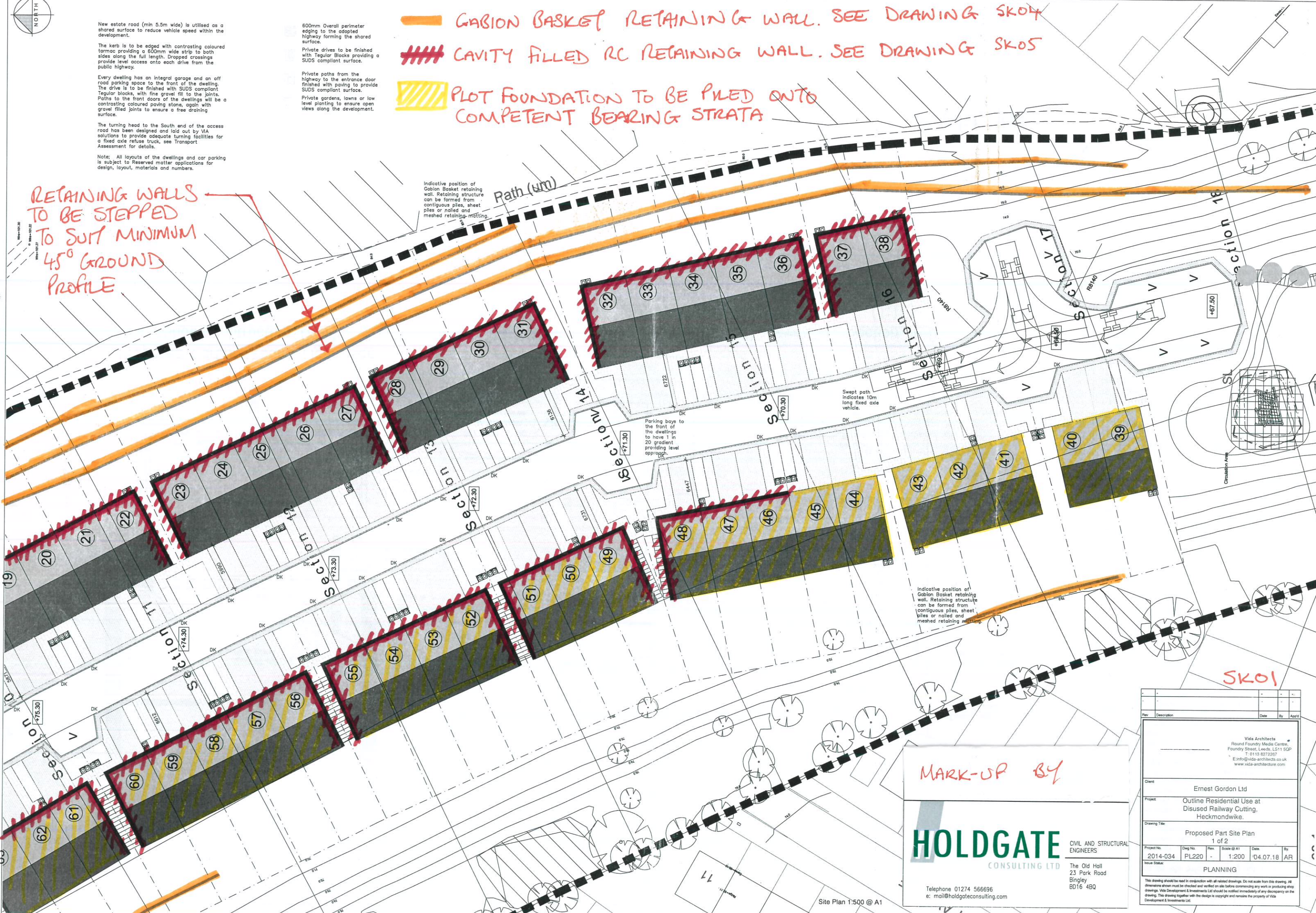
-  GABION BASKET RETAINING WALL. SEE DRAWING SK04
-  CAVITY FILLED RC RETAINING WALL. SEE DRAWING SK05
-  PLOT FOUNDATION TO BE PILED ONTO COMPETENT BEARING STRATA

RETAINING WALLS TO BE STEPPED TO SUIT MINIMUM 45° GROUND PROFILE

Indicative position of Gabion Basket retaining wall. Retaining structure can be formed from contiguous piles, sheet piles or nailed and meshed retaining matting.

Parking bays to the front of the dwellings to have 1 in 20 gradient providing level approach.

Indicative position of Gabion Basket retaining wall. Retaining structure can be formed from contiguous piles, sheet piles or nailed and meshed retaining matting.



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Rev	Description	Date	By	Appr
<p>Vida Architects Round Foundry Media Centre, Foundry Street, Leeds, LS11 5GP T: 0113 8272007 E: info@vida-architects.co.uk www.vida-architecture.com</p>				
Client: Ernest Gordon Ltd				
Project: Outline Residential Use at Disused Railway Cutting, Heckmondwike.				
Drawing Title: Proposed Part Site Plan 1 of 2				
Project No:	2014-034	Draw No:	PL220	Scale @ A1:
Rev:	-	1:200	Date:	04.07.18
By:	AR	Revise Status:		
PLANNING				
<p>This drawing should be read in conjunction with all related drawings. Do not scale from this drawing. All dimensions shown must be checked and verified on site before commencing any work or producing shop drawings. Vida Development & Investments Ltd should be notified immediately of any discrepancy on the drawing. This drawing together with the design is copyright and remains the property of Vida Development & Investments Ltd.</p>				

Site Plan 1:500 @ A1



New estate road (min 5.5m wide) is utilised as a shared surface to reduce vehicle speed within the development.

The kerb is to be edged with contrasting coloured tarmac providing a 500mm wide strip to both sides along the full length. Dropped crossings provide level access onto each drive from the public highway.

Every dwelling has an integral garage and an off road parking space to the front of the dwelling. The drive is to be finished with SUDS compliant Tegular blocks, with fine gravel fill to the joints. Paths to the front doors of the dwellings will be a contrasting coloured paving stone, again with gravel filled joints to ensure a free draining surface.

The turning head to the South end of the access road has been designed and laid out by VIA solutions to provide adequate turning facilities for a fixed axle refuse truck, see Transport Assessment for details.

Note: All layouts of the dwellings and car parking is subject to Reserved matter applications for design, layout, materials and numbers.

Possible location of Mine Shaft, identified as approximate location on the Mining Report. The exact location is to be determined on site prior to detailed ground works being established.

Plots 1 to 8 are to have minimal cut work carried out and is to utilize the level section of the site.

Indicative position of Gabion Basket retaining wall. Retaining structure can be formed from contiguous piles, sheet piles or nailed and meshed retaining matting.

Possible location of Mining Adit, identified as approximate location on the Mining Report. The exact location is to be determined on site prior to detailed ground works being established.

Parking bays to the front of the dwellings to have 1 in 20 gradient providing level approach.

Rear gardens laid out on filled land, with the level graded against the existing banking.

Rear garden to plot 73 & 74 to be graded down to fall away into the existing cutting.

- 600mm Overall perimeter edging to the adopted highway forming the shared surface.
- Private drives to be finished with Tegular Blocks providing a SUDS compliant surface.
- Private paths from the highway to the entrance door finished with paving to provide SUDS compliant surface.
- Private gardens, lawns or low level planting to ensure open views along the development.

GABION BASKET RETAINING WALL. SEE DRAWING G SK04

CAVITY FILLED RC RETAINING WALL. SEE DETAIL SK05

PLOT FOUNDATIONS TO BE PILED ONTO COMBINATION BEARING STRATA

NEW HIGHWAY RETAINING WALL EXTENT TBC.

SK02

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Rev.	Description	Date	By	Appr.

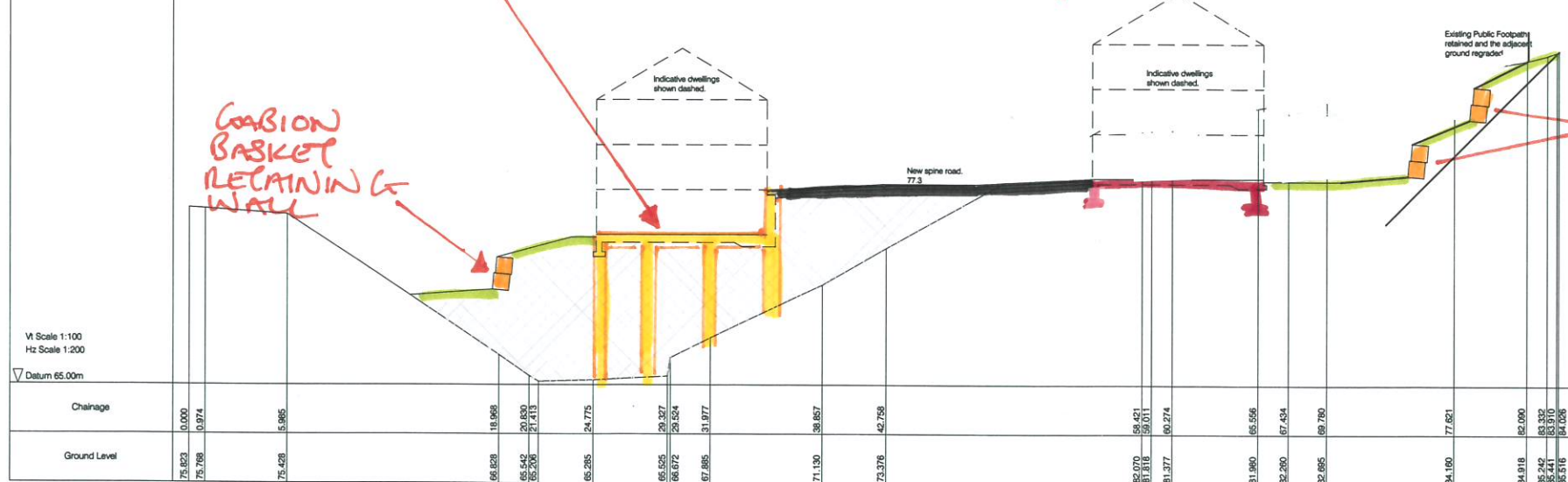
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Client: Ernest Gordon Ltd
 Project: Outline Residential Use at Disused Railway Cutting, Heckmondwike.
 Drawing Title: Proposed Part Site Plan 1 of 2
 Project No: 2014-034 Dep No: PL220 Rev: 1:200 Date: 04.07.18 By: AR
 Issue Status: PLANNING

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Section 8

PILED GROUND BEAM / RETAINING WALL BASE. TO BE CONFIRMED FOLLOWING S.I.



VI Scale 1:100
HZ Scale 1:200
Datum 65.00m

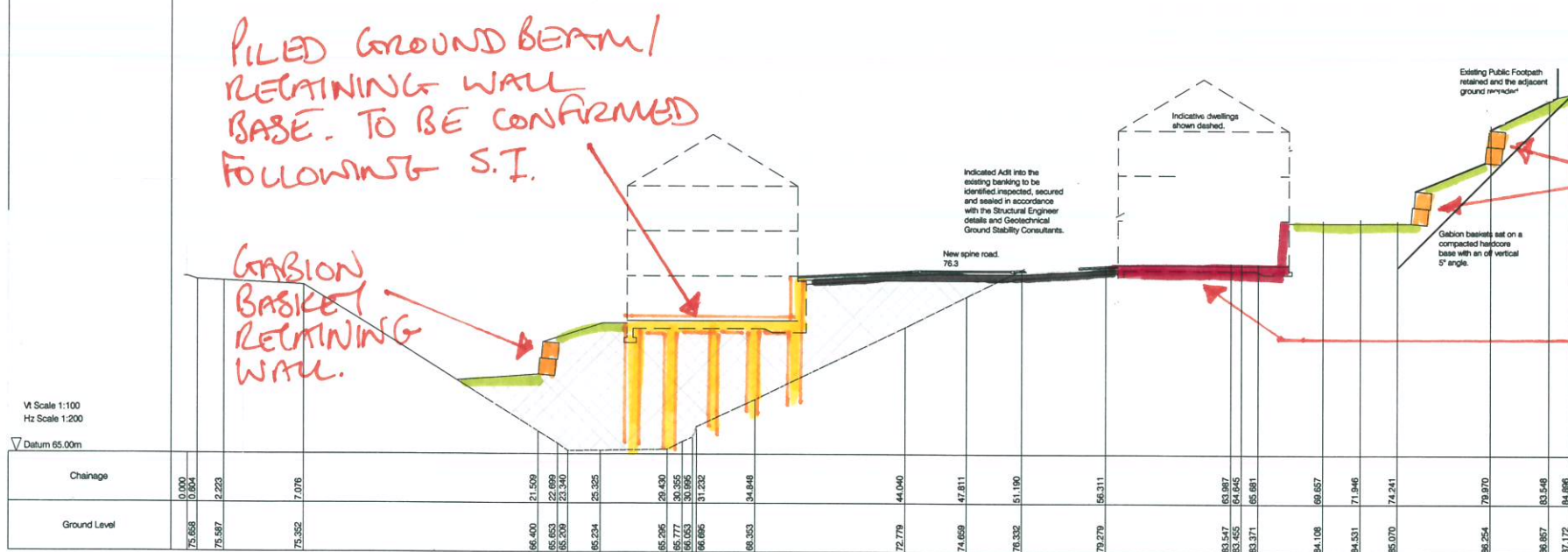


GABION BASKETS

Proposed area of fill brought into the railway cutting.
Proposed area of cut ground from the railway cutting.
PROPOSED EXTERNAL GROUND LEVEL

Section 9

PILED GROUND BEAM / RETAINING WALL BASE. TO BE CONFIRMED FOLLOWING S.I.



VI Scale 1:100
HZ Scale 1:200
Datum 65.00m

GABION BASKET

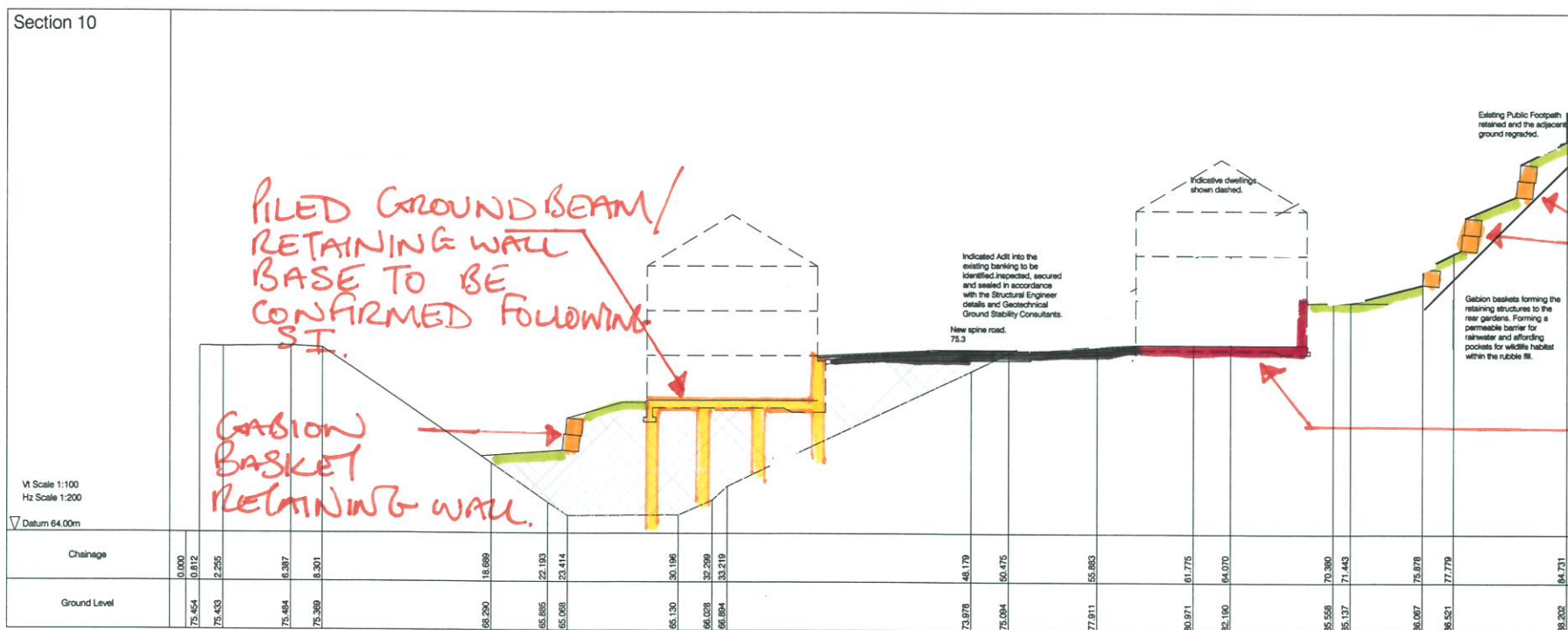
RC RAFT WITH CAVITY FILLED RETAINING WALL

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Section 10

PILED GROUND BEAM / RETAINING WALL BASE TO BE CONFIRMED FOLLOWING S.I.



VI Scale 1:100
HZ Scale 1:200
Datum 64.00m

GABION BASKET

RC RAFT WITH CAVITY FILLED RC RETAINING WALL

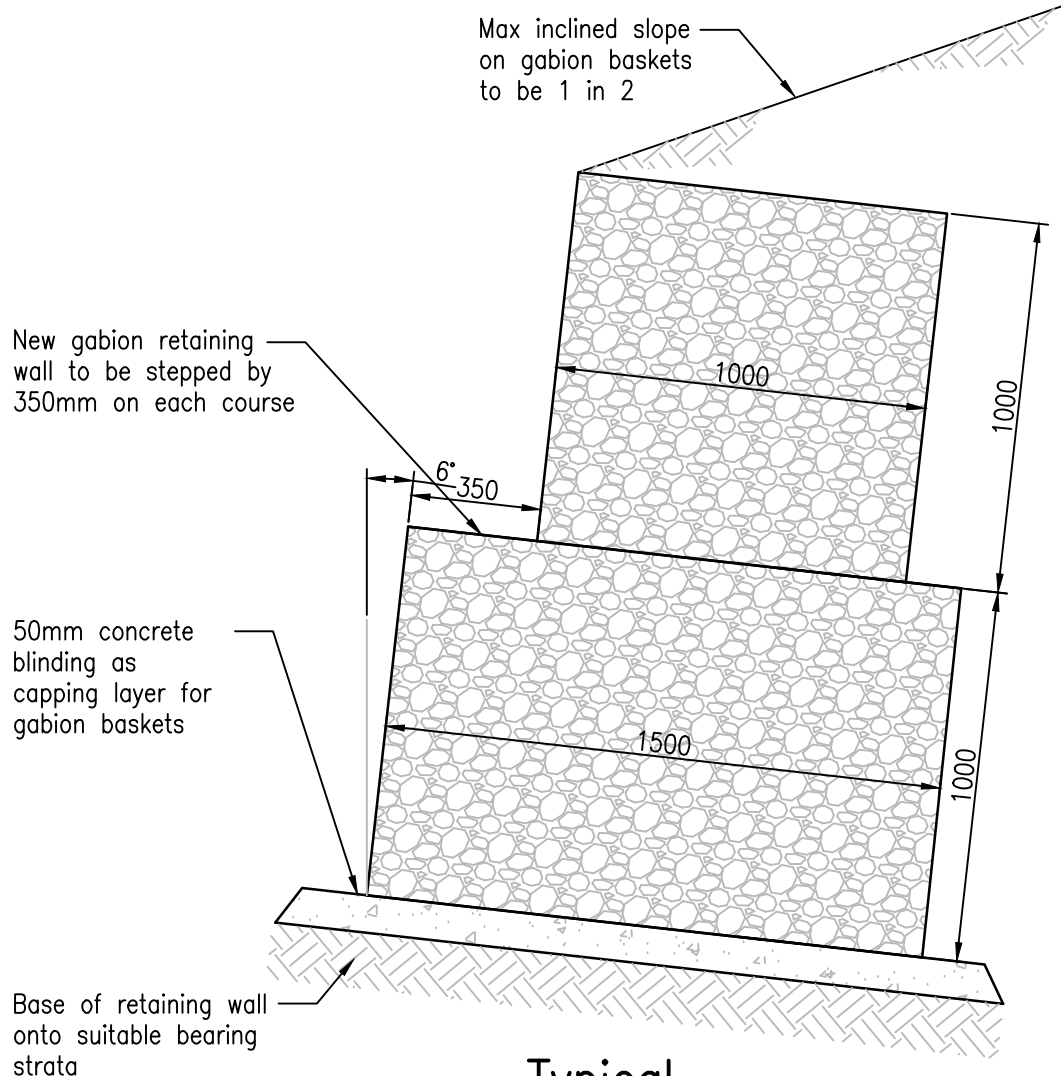
SK03

Rev	Description	Date	By	Appr

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Client: Ernest Gordon Ltd
Project: Outline Residential Use at Disused Railway Cutting, Heckmondwike.
Drawing Title: INDICATIVE SITE REGRADING SECTIONS 8 to 10
Project No: 2014-034
Dwg No: PL205
Rev: -
Scale: @A1
Date: 26.04.18
By: AR
Issue Status: PLANNING

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Typical
Gabion Wall
(1:20)

Preliminary

-	13.07.18	NM	For Planning only
Mark	Date	Made by	Revision

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ENGINEERS

The Old Hall
23 Park Road
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Job Title
Development at Railway
Cutting, Heckmondwyke

Drawing Title

Gabion Basket Detail

Job No.
18-453

Date
13.07.18

Initials
NM

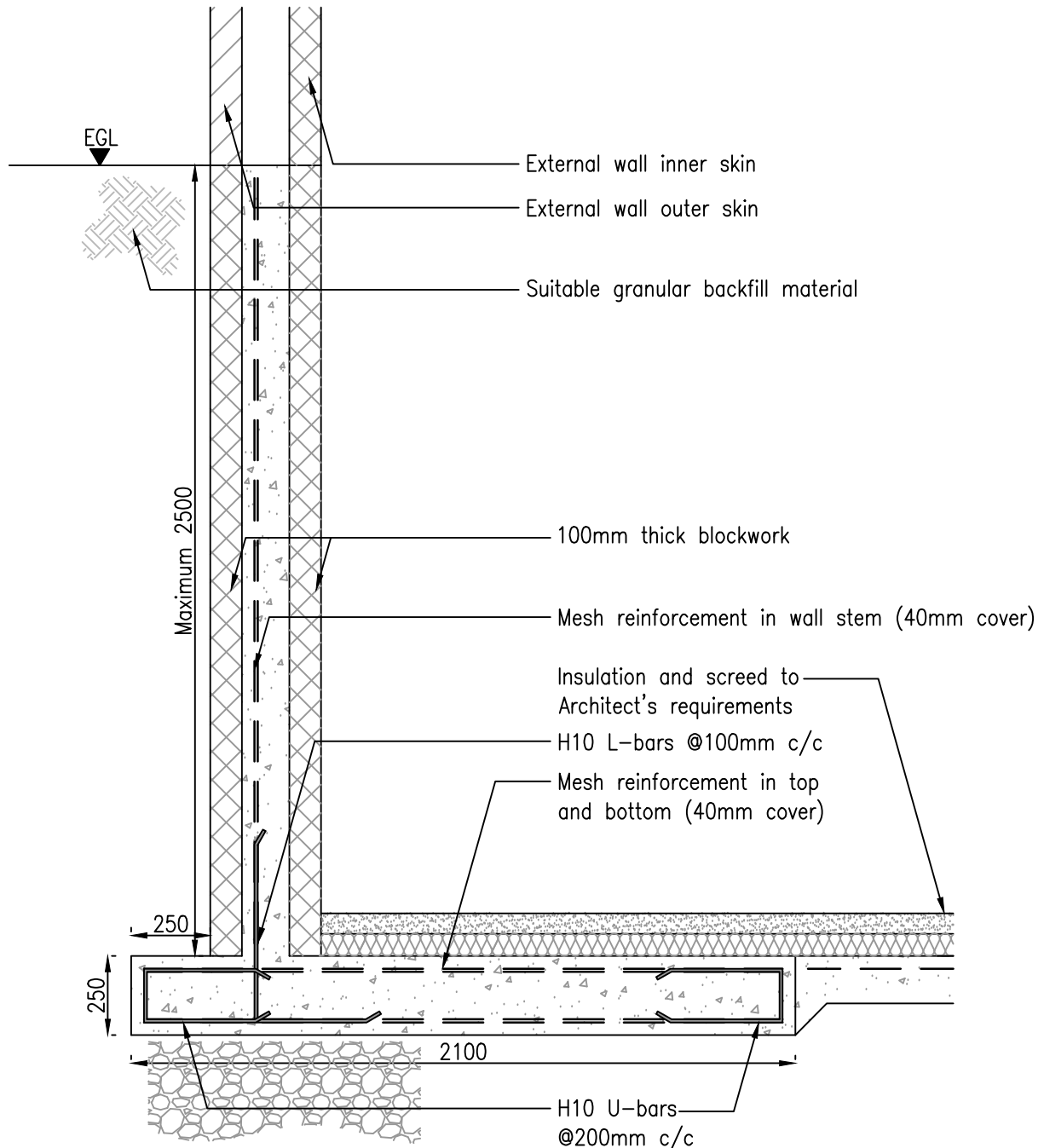
Drawing No.
SK04

Revision

-

Scale
As shown @A4

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Typical Section Through Retaining Wall @1:20

Preliminary

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The Old Hall
23 Park Road
Bingley
BD16 4BQ

Job Title
Development at Railway
Cutting, Heckmondwyke

Drawing Title
Typical Plot Retaining
Wall Detail

Job No. 18-453	Drawing No. SK05
Date 13.07.18	Revision -
Initials NM	Scale As shown @A4

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