



Husum Way, Kidderminster
Our Ref: 27181-GEO-0401 Rev A
Mineral Recovery Plan – September 2023

Introduction

Mewies Engineering Consultants Limited (M-EC) was commissioned by Living Space Housing Ltd (Solihull) to undertake an Incidental Mineral Recovery Plan to support a proposed residential development located at Husum Way, Kidderminster and enable discharge of associated planning conditions. A site location plan is presented in **Appendix A**.

The proposed development is residential comprising up to 48 dwellings with associated infrastructure, private gardens, areas of public open space and an attenuation basin. A proposed development plan is included in **Appendix B**.

This report has been prepared for Living Space Housing Ltd (Solihull) and their appointed agents only and should not be relied upon by any third party without the written permission of M-EC. This document should be read in its entirety, including all associated drawings and appendices. M-EC cannot be held responsible for any misinterpretations arising from the use of extracts that are taken out of context.

Existing Relevant Site Information

The following reports should be read in conjunction with this letter:

- 'Phase I Desk Study – Husum Way, Kidderminster,' prepared by Georisk Management, report number 21152/1, dated October 2021;
- 'Phase II Geo-environmental Assessment – Husum Way, Kidderminster,' prepared by Georisk Management, report number 21152/2, dated November 2021; and
- 'Husum Way, Kidderminster – Minerals Assessment,' prepared by M-EC, report reference 27181-04-LR-01 Rev B, dated June 2022.

The following civil engineering drawings, have been used to prepare the mineral recovery plan:

- 'Husum Way, Kidderminster – External Levels Plan,' prepared by Mucklow and Harris, drawing number 21045-100 Rev A, dated October 2021;
- 'Husum Way, Kidderminster – Drainage Plan Option 1', prepared by Mucklow and Harris, drawing number 21045-102, dated October 2021;
- 'Husum Way, Kidderminster – Foundation & Ground Floor Plan,' prepared by Mucklow and Harris, drawing number 21045-001, dated May 2022; and
- 'Living Space, Kidderminster – Cut & Fill Report External (Group Depths),' prepared by L. Healy Ltd., dated 21st March 2023.

The cut and fill drawing indicates that there is a net deficit of subsoil of 1,401.56m³, which will need to be imported to the site and a net surplus of topsoil of the order of 3,145m³.

Objective

The objective of this Mineral Recovery Plan is to support the discharge of Condition 15 of the associated planning conditions and shall include details relating to the following:

- An estimation of the volume of on-site mineral resources of national and local importance (including sand and gravel) that will be extracted during the normal course of the development that would meet specifications for use on site;
- Details of the likely volume of these resources that will be used within the development and how they will be

used; and

- An outline of the form and content of a report to be provided annually to the LPA and MPA recording the amount of minerals of national and local importance extracted each calendar year, including the quantity of these resources that were used on site and for what purpose.

Scope of Works

The following scope of works has been undertaken in preparing this report:

- Review of the civil engineering drawings provided and assessment of the volume of mineral resource that will be derived during foundation and infrastructure construction for the proposed development;
- Assessment of the nature of materials extracted and review of the viability for re-using the material as engineered fill or as a mineral resource;
- Provision of an example form to be used by the developer to detail to the Local Planning Authority (LPA) and Mineral Planning Authority (MPA) the amount of mineral resource extracted and subsequently re-used on the site; and
- Preparation of a mineral recovery plan (this report) to support the discharge of the associated planning condition.

Site Setting

Site Description

The site covers an area of approximately 2.1ha and comprises an undeveloped open field bordered by hedgerows and trees to the east, south and west.

The site is bordered by Husum Way to the west with residential housing beyond, by the A456 to the north, residential properties to the west and a railway line within a cutting to the south. Further undeveloped open land lies to the north, west and south beyond the aforementioned features.

Geology

British Geological Survey (BGS) mapping indicates that north-western areas of the site are underlain by superficial sand and gravel deposits of the Kidderminster Station Member. Bedrock geology comprises sandstone of the Wildmoor Sandstone Member.

Kidderminster Station Member deposits have been recorded across the site during the ground investigation to depths of between 0.70m and 1.40m bgl beneath a consistent layer of natural topsoil. The Wildmoor Sandstone Member was encountered beneath the Kidderminster Station Member and to the maximum depth of the investigation (3.00m bgl). These strata comprised medium dense to dense, locally clayey, silty sand with sandstone lithorelicts. Bands of stiff clay with mudstone lithorelicts were locally encountered within this formation beneath southern and eastern areas of the site.

Mineral Planning Context

The management of mineral resources is detailed in the Worcestershire Minerals Local Plan, Policy MLP 31: 'Safeguarding Locally and Nationally Important Mineral Resources'. Policy MLP 31 requires a sequential approach to be taken to mineral extraction, considering the following possible outcomes:

1. Extracting all the resource within the proposed development site;
2. Where extracting all the resource is not possible or would prevent a suitable landform for subsequent development, consider whether a proportion of the resource could be extracted;
3. Consider any opportunities for "incidental recovery" of the mineral resources.

As highlighted in the Minerals Assessment, the full or partial extraction of the mineral resource would not be

economically or environmentally viable for the proposed development and consideration would need to be given to the incidental recovery of the mineral resource as part of the ongoing development process.

Mineral Resources

The Cut and Fill report included in **Appendix C** indicates that there would be a net deficit of subsoil of approximately 1,401.56m³ which would need to be imported to raise site levels. A surplus of Topsoil of 3,145m³ has been calculated, which should be marketed for re-use on nearby development sites.

Classification testing in accordance with the requirements of the Specification for Highway Works – Series 600 Earthworks will be required to confirm the suitability of the material for re-use within the proposed development; however, based on the material descriptions provided within the Phase II Geo-environmental Assessment, it is likely that both the Kidderminster Station Member and weathered strata of the Wildmoor Sandstone Formation would fall within the specification of either Class 1A (well graded granular material) or Class 1B (uniformly graded granular material). In accordance with Worcestershire County Council’s Highway Specification, Class 1 material could be used to raise levels and establish the formation for the adoptable roads and private drives.

Mineral Records

A requirement of Condition 15 of the associated planning conditions is that an outline of a form or report should be provided to the LPA and MPA, detailing the amount of mineral resource extracted each calendar year and the amount that was subsequently used on the site. An example form has been provided in **Appendix D**; however, this should be amended by the appointed contractor to reflect the proposed use of the mineral resource on-site.

Conclusion

The results of the earthworks calculations indicate that there is a net deficit of subsoil which will need to be imported to raise site levels. Subject to confirmatory classification testing in accordance with the requirements of Series 600, the material derived from the Kidderminster Station Member and Wildmoor Sandstone Member is likely to be suitable to provide the formation for adoptable roads and private drives, reducing the requirement to import aggregate to the site.

This report should be submitted to the Local Planning Authority and Mineral Planning Authority for approval.

REGISTRATION OF AMENDMENTS

Date	Rev	Comment	Prepared By	Checked By	Approved By
April 2023	-	First issue	Christopher Wall MSc BSc (Hons) AMIEEnvSc Senior Geo-Environmental Engineer	David Torrance BSc (Hons) CGeol FGS Associate Director – Geo-Environmental	David Torrance BSc (Hons) CGeol FGS Associate Director – Geo-Environmental
September 2023	A	To include Cut and Fill information provided by the client	Christopher Wall MSc BSc (Hons) AMIEEnvSc Senior Geo-Environmental Engineer	David Torrance BSc (Hons) CGeol FGS Associate Director – Geo-Environmental	David Torrance BSc (Hons) CGeol FGS Associate Director – Geo-Environmental

Appendices

- A. Site Location Plan
- B. Proposed Site Layout
- C. Cut & Fill Report
- D. Example Mineral Extraction Log



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APPENDICES



APPENDIX A

M-EC
The Old Chapel
Station Road
Hugglescote
Leicestershire
LE67 2GB



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SITE LOCATION PLAN

Project: Husum Way, Kidderminster
File Ref: 27181
O.S. Grid Ref: 385177, 277196
Postcode: DY10 3NS





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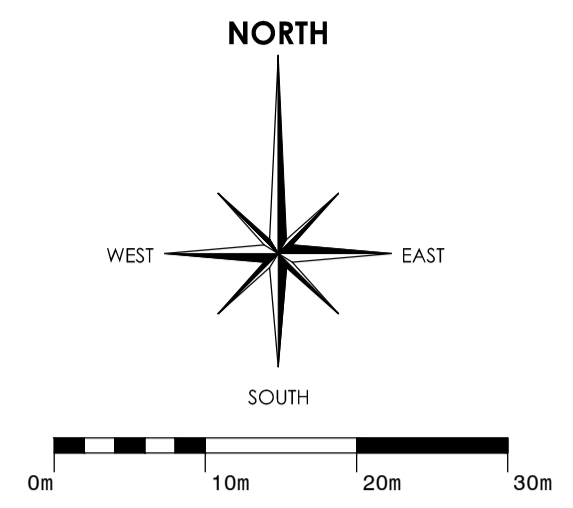
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APPENDICES



APPENDIX B

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LEGEND

- Existing Trees to be retained
- Trees to be removed
- INDICATIVE TREES AND SHRUBS
REFER TO FPCR LANDSCAPE PROPOSALS
- ORNAMENTAL SHRUBS AND HEDGES
REFER TO FPCR LANDSCAPE PROPOSALS
- GRASS- PRIVATE AMENITY
- NEW STREETS - TARMAC
- PARKING - TARMAC
PARKING 5M X 2.5M SPACES
- PATHWAYS - MARSHALLS
450X 450 GRAY PAVING SLABS
- GRAVEL FOOTPATH
WITH TIMBER EDGING
- 2.1m high brickwork boundary wall topped with brick on edge.
- 1.8m high close-boarded fence rear garden fences
- 1.8m high lockable timber gate.
- 240 litre general waste bin.
- 240 litre garden waste bin.
- Recycle bin.

Rev.	Date	Description	Drawn	Check

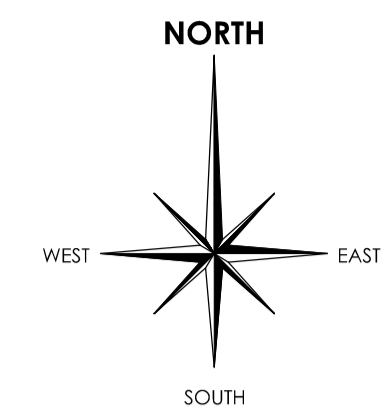


Contract
PROPOSED RESIDENTIAL DEVELOPMENT, HUSUM WAY KIDDERMINSTER
 Sheet Title
SITE LAYOUT- SHEET 1 OF 2

Client
 Living Space
 Scale
 1:250 @A1
 Date
 01.11.21
 Drawn By
 JDW
 Checked By
 WDW
 Drawing Number
 2103-P- 03 B



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Rev.	Date	Description	Drawn	Check



Contract
PROPOSED RESIDENTIAL DEVELOPMENT, HUSUM WAY KIDDERMINSTER
 Sheet Title
SITE LAYOUT- SHEET 2 OF 2

Client
 Living Space
 Scale
 1:250 @A1
 Date
 01.11.21
 Drawn By
 JDW
 Checked By
 WDW
 Drawing Number
 2103-P- 04B



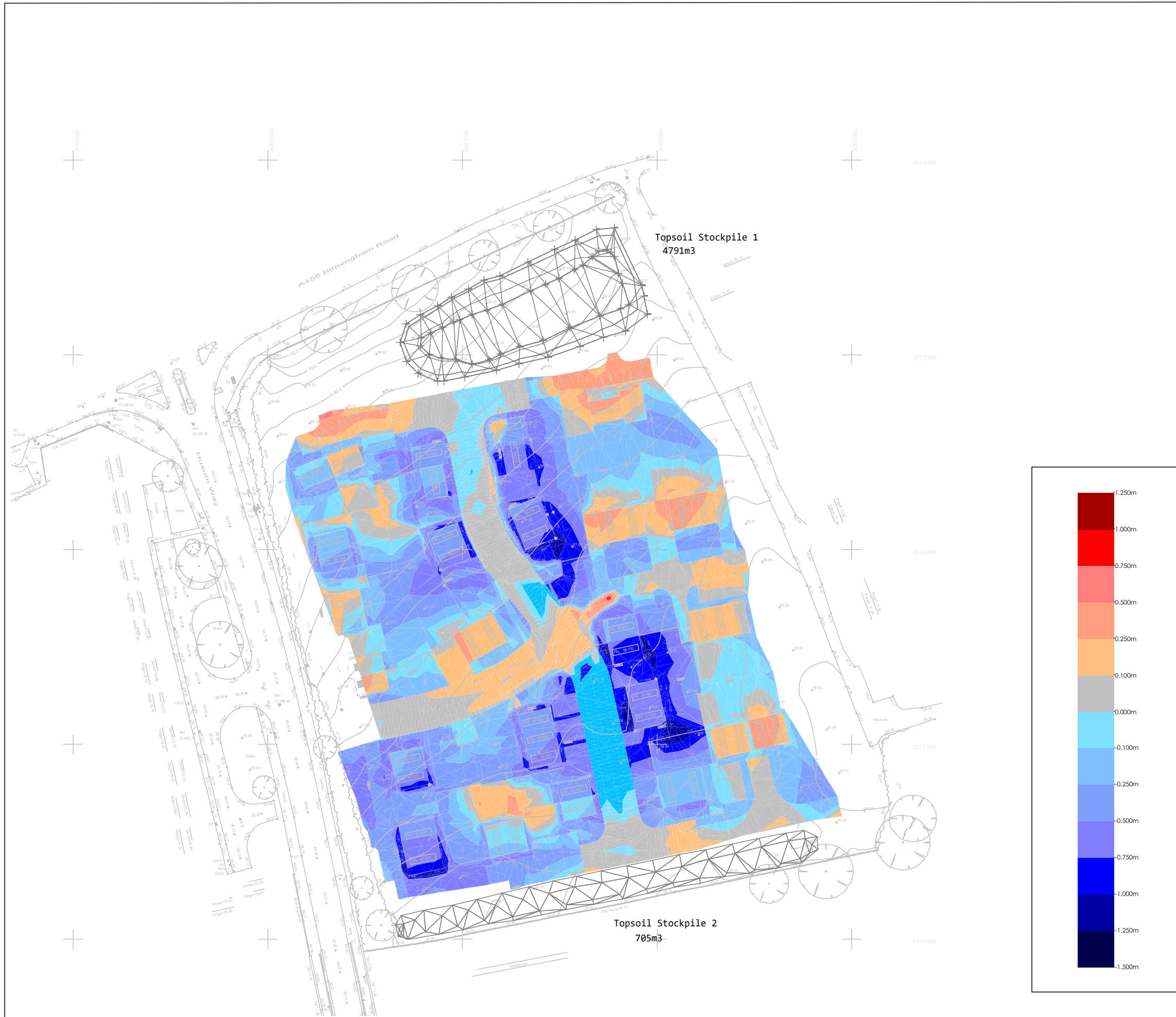
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APPENDICES



APPENDIX C



Cut & Fill Report External (Group Depths)

Prism Volume Results

Current DTM : externals
 Surface Type : Group Projected DTM
 Model : LD_TF_Levels Survey 15.03.20.03 (Swapped)

'Cut' is where "LD_TF_Levels Survey 15.03.20.03" is higher than "externals"

'Fill' is where "LD_TF_Levels Survey 15.03.20.03" is lower than "externals"

Total Area : 11985.70
 Not Used Area : 492.47

Group	Cut/Material Volume	Fill/Void Volume	Balance Volume
Drives	175.28	546.36	-371.07m3
Foundations	166.41	509.09	-342.68m3
Paths	13.65	347.66	-334.01m3
Topsoil	65.77	1720.56	-1654.79m3
Totals	421.12	3123.68	-2702.56 m3

Group	Material Average	Void Average	Group Depth
Drives	0.144	0.333m	0.410m
Foundations	0.197	0.385m	0.600m
Paths	0.124	0.407m	0.200m
Topsoil	0.092	0.359m	0.200m
Totals	0.146m	0.363m	

Remaining Arisings

Measured

Pond : 546m3
 Rising Main : 155m3

Estimates

Pump Station : 200m3
 Private Drainage Services : 200m3
Totals : 1301m3

Fill Shortfall : 1401.56m3

Topsoil Quantities

Stockpile 1 : 4791m3
 Stockpile 2 : 705m3

Totals : 5497m3

Site Requirements

	Depth	Volume
POS Areas	0.200m	1203m3
Garden Areas	0.200m	1149m3
Totals		2352m3

Surplus Topsoil : 3145m3

Living Space
Kidderminster

Drawing Revision
A
 Drawing By
PH
 Scale
1:1000
 Date
21/03/2023





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APPENDICES



APPENDIX D

Sand and Gravel Resource Extraction Log		Year:
Adoptable Roads		
Tonnage Extracted		
Tonnage Used		
Private Drives		
Tonnage Extracted		
Tonnage Used		
Plots + Garage		
Tonnage Extracted		
Tonnage Used		
Foundation Trenches		
Tonnage Extracted		
Tonnage Used		
Drainage		
Tonnage Extracted		
Tonnage Used		
Total Tonnage Extracted		
Total Tonnage Used		



CIVIL ENGINEERING



ACOUSTIC AIR



TRANSPORT



UTILITIES



FLOOD RISK & DRAINAGE



GEOMATICS



STRUCTURES



LIGHTING



GEO-ENVIRONMENTAL



EXPERT WITNESS



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