

ASHBY FARM, DUCKS HILL ROAD, NORTHWOOD

PRE-DEMOLITION AUDIT

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1 PROJECT INTRODUCTION

1.1 INTRODUCTION

- 1.1.1 This Pre-Demolition Audit (PDA) has been prepared by Velocity Transport Planning on behalf of Holland & Holland ('the Applicant') to support a planning application for the development at Ashby Farm, Ducks Hill Road, Northwood, HA6 2SS (hereafter referred to as the 'Site'). The local planning authority is the London Borough of Hillingdon (LBH).
- 1.1.2 The purpose of the PDA is to identify and quantify where the key materials and components are present within the existing building, and to further identify the potential recycling or reuse strategy for them.
- 1.1.3 The information in this report will help to demonstrate the benefits of recycling and re-use of Key Demolition Products (KDPs) based on economic value, the number of units and viability of deconstruction, as well as potential schemes for re-use and recycling of these materials.
- 1.1.4 The findings and values contained in this report represent the best estimate of the materials and components based on the information available for the structures within the scope of the project. Estimates were made using the following information (where available):
- ⊙ Site surveys; and
 - ⊙ Photographs.

1.2 COMPETENCY – PROJECT MANAGER

- 1.2.1 The project manager was Richard Botting who is a Chartered Waste Manager working for the past 30 years within the construction, resources and waste management industries. His background began in waste management and his experience includes site and contract management, quarrying, building and civil engineering, site development and practical waste management in high density living environments. With experience working for a waste contractor, construction contractor and a multinational waste collection equipment supplier, he has comprehensive understanding of the subject matter.

1.3 AIMS AND OBJECTIVES

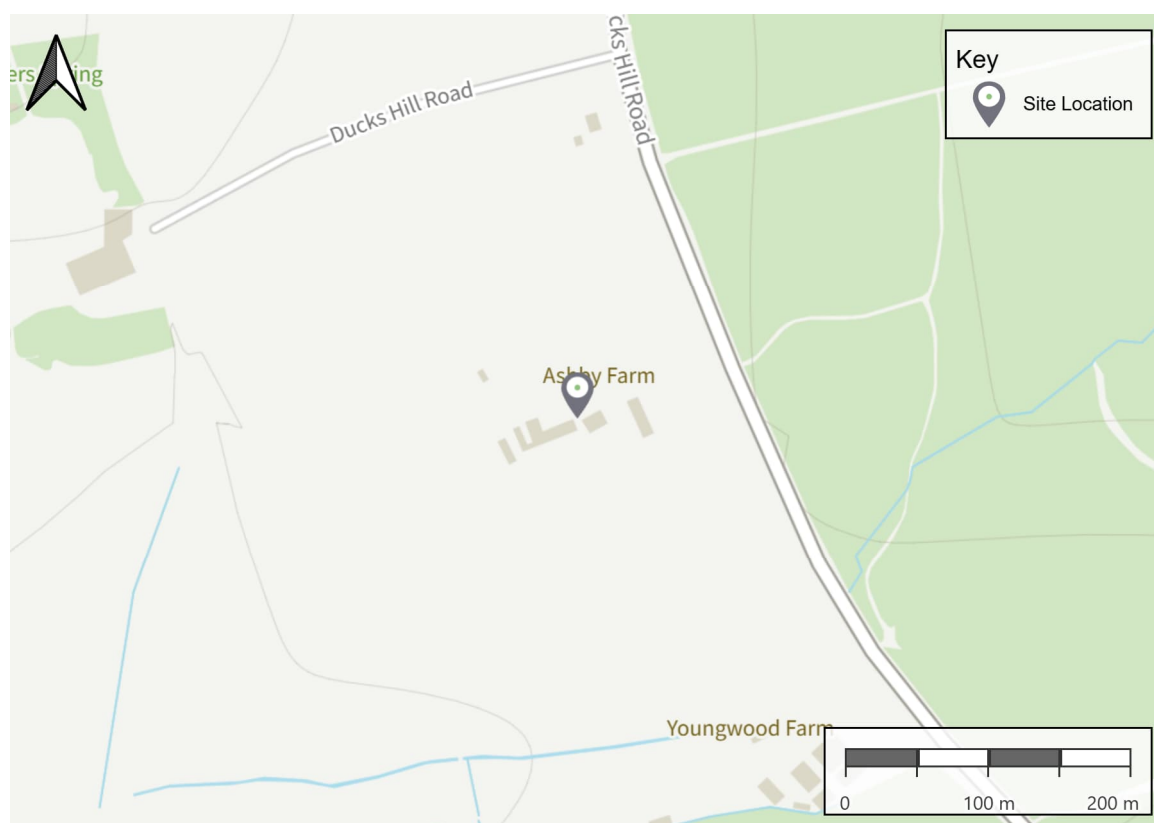
- 1.3.1 The PDA will cover the following content:
- ⊙ Provide a brief overview of the existing buildings and their condition;
 - ⊙ Identification and quantification of the key materials where present on the project;
 - ⊙ Potential applications and any related issues for the re-use and recycling of the key materials in accordance with the waste hierarchy;
 - ⊙ Identification of local re-processors or recyclers for recycling materials;
 - ⊙ Identification of overall recycling rate for all Key Demolition Products (KDPs);
 - ⊙ Identification of reuse targets where appropriate; and
 - ⊙ Identification of overall landfill diversion rate for all key materials.



1.4 EXISTING SITE AND CONTEXT

- 1.4.1 Ashby Farm is located off Ducks Hill Road, within the semi-rural outskirts of Northwood in the London Borough of Hillingdon. The Site occupies gently sloping ground surrounded by open farmland and tree boundaries.
- 1.4.2 The Site is currently an agricultural farm and equestrian centre with a range of stables, farm buildings and temporary structures.
- 1.4.3 One existing derelict domestic property stands to the north of the proposed development.
- 1.4.4 The farmyard appears mainly flat and of an un-metalled surface.
- 1.4.5 The Site location is shown in Figure 1-1 below.

Figure 1-1 Site Location



1.5 PROJECT SCOPE

- 1.5.1 The scope of the PDA includes the assessment of existing structures within the Site.
- 1.5.2 The existing structures on the Site include multiple stables varying in size, small shed-like structures and a staff rest room building.
- 1.5.3 This parcel of land includes hardstanding, lighting fixtures, and other external features.
- 1.5.4 The PDA will subsequently identify materials and components associated with any demolition of the structures and categorise them in their regard to their position within the waste hierarchy.



1.6 AUDIT METHODOLOGY

- 1.6.1 This audit is based on a non-intrusive survey methodology; a site visit was conducted on Tuesday 7th October 2025 by the project team.
- 1.6.2 Following the site visit and desktop study, the information was analysed to identify the principal material types present within the structures. These materials were consolidated and established as the KDPs with total quantities provided in addition to recommendations for their reuse, recycling, or disposal. These recommendations are based on assumptions regarding material conditions and should be considered indicative, subject to refinement by the appointed demolition contractor.
- 1.6.3 It is worth noting that during the site visit we were unable to access the majority of structures as they were occupied.

1.7 HAZARDOUS MATERIALS

- 1.7.1 It is unknown when some of the main structures were completed, so it is anticipated that asbestos may be present in a number of the building components.
- 1.7.2 It is assumed that all Asbestos Containing Material (ACM) will be removed by an appropriately trained and licensed contractor in advance of redevelopment.

1.8 KEY DEFINITIONS

- 1.8.1 To inform the audit process and results, key definitions were established.
- 1.8.2 Reclamation is reuse of a material or product in the same form. An example of reclamation is the removal of carpet tiles from an office for reuse in another location.
- 1.8.3 Recycling is reprocessing of a material or product for an alternative use. An example of recycling is crushing of house bricks (on- or off-site) for use within secondary aggregate materials.
- 1.8.4 Closed loop recycling is the process by which a product is used, recycled, and then made into a new product again without losing any of its material properties. An example of materials suitable for closed loop recycling are aluminium cans, which can be reprocessed multiple times into the same product.
- 1.8.5 Open loop recycling is where the recycled materials are converted into both new raw materials and waste product. Typically, materials recycled through open-loop recycling go on to be used for purposes different from their former purpose. This means that the input into the recycling process is converted to a new raw material, which can be used as an input into another manufacturing process. An example of open loop recycling is plastic water bottles that are reprocessed to provide material for sleeping bags or fleece jackets.
- 1.8.6 Circular economy is defined in the London Plan Policy S17 'Reducing waste and supporting the Circular Economy' as one where materials are retained in use at their highest value for as long as possible and are then reused or recycled, leaving a minimum of residual waste. The end goal is to retain the value of materials and resources indefinitely, with no residual waste at all. This is possible, requiring transformational change in the way that buildings are designed, built, operated, and deconstructed.
- 1.8.7 Embodied carbon means all the CO₂ emitted in producing materials and is estimated from the energy used to extract and transport raw materials, as well as emissions from manufacturing processes. The embodied carbon of a building can include all the emissions from the construction materials, the building process, all the fixtures and fittings inside and the deconstruction or demolition process at the end of life.

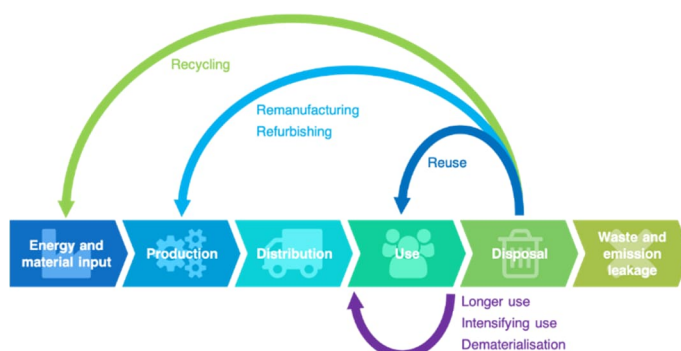


- 1.8.8 Whole Life-Cycle Carbon (WLC) emissions are the carbon emissions resulting from the materials, construction, and the use of a building over its entire life, including its demolition and disposal.

1.9 CIRCULAR ECONOMY

- 1.9.1 During the audit process, materials and components will be reviewed for their suitability for reuse or recycling, either on- or off-site.
- 1.9.2 The contractor responsible for the demolition process should approach it from the perspective of a circular economy, which gives priority to reuse of materials or components on-site over recycling.
- 1.9.3 Figure 1-2 below shows a visual representation of the principles of a circular economy.

Figure 1-2 Circular Economy Process¹



- 1.9.4 An integral part of this process is maintaining materials further up the waste hierarchy during the demolition process.
- 1.9.5 Figure 1-3 below shows the waste hierarchy, which prioritises reuse over recycling.

Figure 1-3 Waste Hierarchy



¹ *Circular business models: A review (2020) M. Geissdoerfer et al.*



- 1.9.6 It is anticipated that some components or materials generated by the demolition process may be suitable for reuse or recycling, maintaining them further up the waste hierarchy.
- 1.9.7 The decision to reuse or recycle materials or components generated by the demolition process will typically need to consider the following:
- ⦿ Removal process, including demounting or deconstructing;
 - ⦿ On-site safety;
 - ⦿ Short term storage of materials or components on-site;
 - ⦿ Long term storage of materials or components on- or off-site;
 - ⦿ Value of recovered materials or components;
 - ⦿ Availability of specialist contractors; and
 - ⦿ Volume or quantity of materials available.
- 1.9.8 Embodied carbon values will be calculated for the materials identified within this PDA and these should be considered within the context of WLC.
- 1.9.9 Energy is required to demolish a building, then remove, process, and dispose of waste materials generated by the process, with further CO₂ potentially released through associated chemical processes.
- 1.9.10 Building a new replacement requires more materials and energy, creating more embodied carbon.
- 1.9.11 Negative impacts associated with embodied carbon as part of the demolition process could potentially be mitigated and offset through the following measures:
- ⦿ Reusing or recycling of building materials;
 - ⦿ Using construction products that are made from locally available raw materials, through energy efficient and low emission processes and by manufacturers local to the construction site;
 - ⦿ Transporting materials with low carbon vehicles;
 - ⦿ Designing the construction process to minimise waste and reuse or recycle products where possible;
 - ⦿ Using systems and products that have long life spans; and
 - ⦿ Designing the building to be able to change its use over time to minimise future refurbishments.



2 OVERVIEW OF THE EXISTING STRUCTURES

2.1 INTRODUCTION

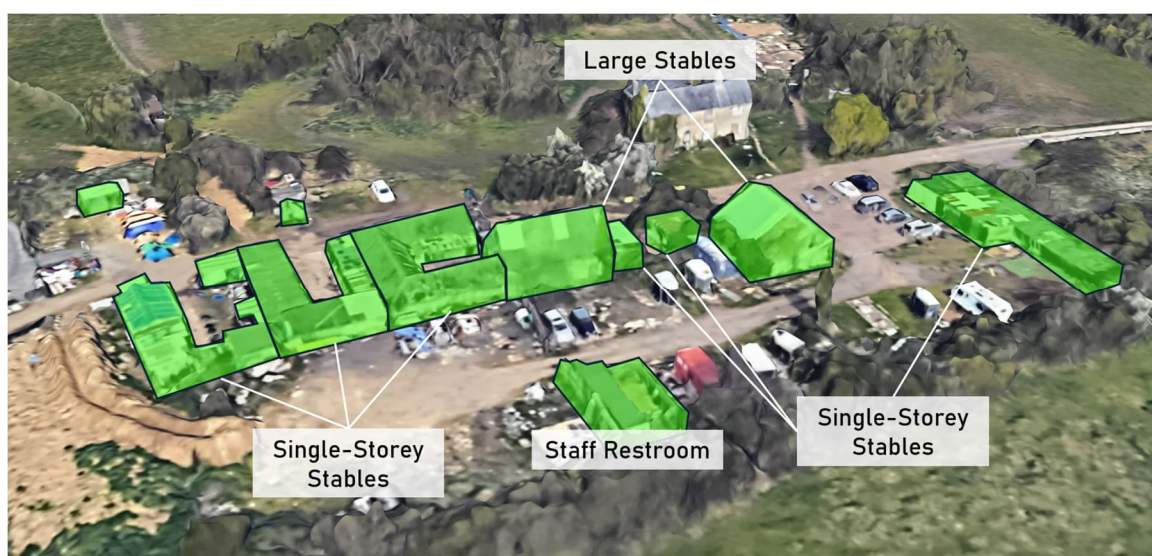
2.1.1 This section provides an overview of the existing structures on the Site.

2.2 OVERVIEW OF EXISTING STRUCTURES

2.2.1 The main portion of the Site is approached via a narrow internal road which is accessed from A4180 Ducks Hill Road.

2.2.2 Figure 2-1 below shows the existing structures within the scope of the audit at the Site.

Figure 2-1 Aerial View of Ashby Farm



2.3 EXISTING STRUCTURES

2.3.1 The following section outlines the existing structures on the Site. Several structures outlined in this section were inaccessible during the site visit, including the single-storey stables, due to their continued use as equestrian facilities.

2.3.2 The Site comprises a range of stables and associated ancillary buildings. These include two larger two-storey stable blocks, as well as several smaller stables ancillary facilities and maintenance sheds distributed across the Site.

2.3.3 For the purposes of this PDA, the structures on the Site have been grouped as follows:

- ⊙ Large stables;
- ⊙ Single-storey stables; and
- ⊙ Ancillary structures including staff rest room, external areas and hardstanding.



LARGE STABLES

- 2.3.4 Within the scope of the audit, two structures have been identified as large stables. Both appear to be two storeys and feature timber-framed facades. Sections of the lower walls incorporate concrete blocks, painted white. In parts, corrugated steel has been used for later repairs on the facades. Corrugated steel, composite sheeting and a trussed timber framework comprise the roof space. Two small timber doors feature within one façade of the structures to allow for farm animal access. Minor lighting fixtures are installed around the perimeter of the stables.
- 2.3.5 Figure 2-2 to Figure 2-4 below show the external facades of the large stables and the corrugated steel which has been used for later repairs.

Figure 2-2 Large Stable Frontage



Figure 2-3 Large Stable Frontage - Concrete Blocks



Figure 2-4 Repaired Façade – Large Stable

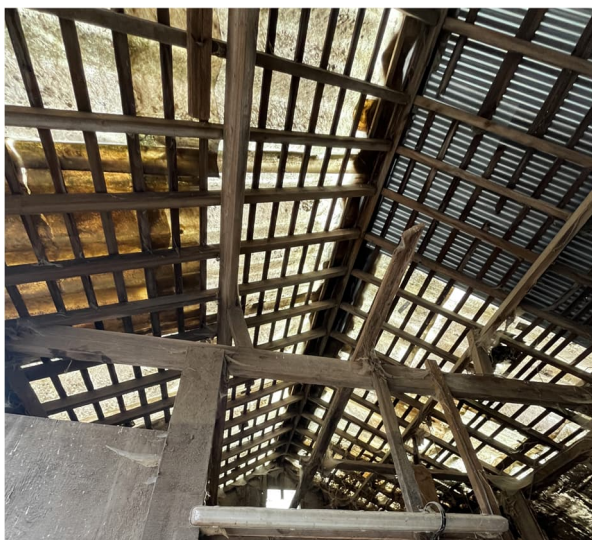


- 2.3.6 Timber partitions and beams feature within the large stables, providing individual stalls for horses.
- 2.3.7 The majority of the floorspace of each stable consists of concrete hardstanding.
- 2.3.8 Figure 2-5 and Figure 2-6 below show the interior of one of the large stables, including the exposed trussed framework.

Figure 2-5 Timber Stalls - Large Stable



Figure 2-6 Trussed Timber Roof



SINGLE-STOREY STABLES

- 2.3.9 Several single-storey stable buildings are situated across the Site, each constructed in a similar manner. These stables are single-storey structures and feature timber-clad facades. Roof coverings comprise a mix of composite and corrugated metal sheeting and slate tiles, while the lower sections of the facades consist of a brickwork.
- 2.3.10 Each single-storey stable features timber stable doors, single glazed windows, and some external floodlighting fixtures.
- 2.3.11 All stables on site display high levels of wear and deterioration.
- 2.3.12 Figure 2-7 to Figure 2-9 show examples of the single-storey stables throughout the Site.

Figure 2-7 Northernmost Single-Storey Stable Frontage



Figure 2-8 Westernmost Single-Storey Stable



Figure 2-9 Brick Wall Feature - Single-Storey stable



ANCILLARY STRUCTURES, EXTERNAL AREAS AND HARDSTANDING

- 2.3.13 Access to the Site is gained via a galvanised steel farm gate, supported by two timber posts on either side of the entrance track. The gate is positioned along the main approach from Ducks Hill Road and serves as the primary entrance to the Site.
- 2.3.14 The steel gate is shown in Figure 2-10 below.



Figure 2-10 Steel Farm Gate



- 2.3.15 The northern boundary of the Site features two small sheds. The facades are made up of timber cladding, which show high levels of deterioration. Roofing of the sheds comprise of bitumen and corrugated metal sheeting. A standalone shed is shown in Figure 2-11 below.

Figure 2-11 Timber Shed



- 2.3.16 A standalone staff rest room structure is situated on the southern boundary of the Site. The main structure is predominantly timber and comprises a bitumen and timber roof, double-glazed PVC windows, glass and uPVC entrance doors and some external lighting fixtures.
- 2.3.17 A section of timber fencing extends from the eastern elevation, enclosing a small garden space by a timber gate.
- 2.3.18 The staff rest room is shown in Figure 2-12 below.



Figure 2-12 Staff Rest Room



2.3.19 Concrete hardstanding surfaces are present through the central yard spaces between stables. The hardstanding displays significant wear, surface cracking, and patch repairs.

2.3.20 Figure 2-13 below shows the concrete hardstanding on the Site.

Figure 2-13 Concrete Hardstanding



3 DEMOLITION PROPOSALS

3.1 EXTENT OF DEMOLITION

3.1.1 The demolition proposals include the complete demolition of all structures within the scope of the audit, including all hardstanding.

3.1.2 Figure 3-1 below shows the extent of the demolition proposals for the structures in red.

Figure 3-1 Demolition Proposals



- 3.1.3 Elements of the structures within the scope of the audit are constructed in a manner that does not facilitate repurposing specific elements or reclamation of materials, with demolition considered the only viable option.
- 3.1.4 The development proposals comparatively represent significant improvements in terms of energy efficiency, future climate adaptation and overall quality for residents.
- 3.1.5 The new development proposals will represent a move towards methods of construction that incorporate circular economy principles.
- 3.1.6 On-site works would include complete demolition of the existing structures to facilitate the construction of the Site redevelopment.



4 PRE-DEMOLITION AUDIT RESULTS

4.1 REUSE AND RECLAMATION POTENTIAL

4.1.1 As per the objectives for the PDA, during the on-site audit, opportunities for reclamation of the materials were considered.

4.1.2 This section will outline any potential opportunities identified for reuse of materials on the Site, as well as the associated limitations.

4.1.3 Reuse targets will be agreed and included within the contractor specification for the demolition works package.

LIMITATIONS

4.1.4 Given the structure and composition of the structures within the scope of the PDA, it is anticipated that the opportunities for reuse are extremely limited. The following limitations have been considered as part of assessing whether any elements of the structure are suitable for reuse:

- ⦿ It was not possible to survey the interior of all structures;
- ⦿ The materials used as part of the buildings are predominantly low quality in nature;
- ⦿ The structures on-site display high levels of deterioration, and little upkeep; and
- ⦿ Due to the limited access, the age and quality of the structures on the Site, we can assume that there will be limited opportunities for reuse.

OPPORTUNITIES FOR REUSE

BRICK PAVING

4.1.5 The foot of a large stable on site features brick paving which appears to be in reasonable condition. Though dependent upon the exact demolition methodology, it is anticipated that the bricks should be considered for reuse on other projects.

4.1.6 This will be dictated by the demolition methodology, condition of the bricks and market conditions at the time of the process.

4.1.7 Figure 4-1 below shows the brick paving at the foot of the northern façade of a large stable on site.



Figure 4-1 Brick Paving



TIMBER PANELS

- 4.1.8 The majority of the elevations of structures within the scope of the audit feature timber panels or cladding, which should be considered for reuse. Although many of the timber panels are of poor quality, there is still an opportunity to reuse those that are still in good condition.
- 4.1.9 Due to the method of construction of the stables, the structures could, in theory, be dismantled. The recovery of such panels will depend on the exact demolition methodology. Given the modular nature of the timber panels and framing, they could be reused on other similar projects.
- 4.1.10 Similarly, the standalone staff rest room features a similar construction method. The cladding and fencing panels that feature on this structure are in good condition and if dismantled carefully, should be considered for reuse on other projects.
- 4.1.11 Figure 4-2 and Figure 4-3 below show the timber panels and cladding used on the stables and staff rest room, respectively.

Figure 4-2 Timber Panels - Stables



Figure 4-3 Timber Cladding - Staff Rest Room



STEEL FARM GATES

- 4.1.12 There are multiple steel farm gates situated on Ashby Farm, one of which is used to gain entry to the Site via the main entrance. The farm gates, which are supported by two timber posts, are in good condition and should be considered for reinstatement for their original purpose within other similar developments.
- 4.1.13 Figure 4-4 below shows an example steel gate on Ashby Farm.

Figure 4-4 Steel Farm Gate



4.2 OVERALL VOLUMES OF WASTE PRODUCED FROM DEMOLITION

- 4.2.1 Where elements of the structures are not suitable for reuse, the materials generated by the demolition process have been estimated and separated by type.
- 4.2.2 The tonnage of recyclable material present within the existing structures have been calculated based on best-practice recycling rates for each of the material types.
- 4.2.3 It should be noted that totals within this section may not sum due to rounding.
- 4.2.4 Table 4-1 below shows the estimated weight of materials generated by the demolition process.



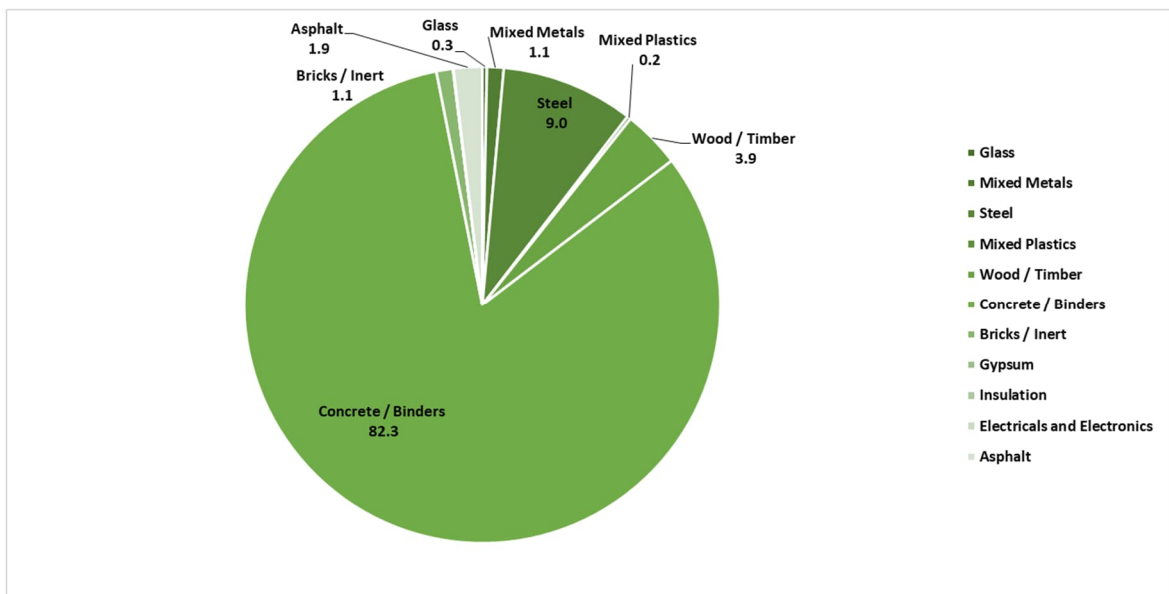
Table 4-1 Summary of Demolition Waste Generated

Material	Best Practice Recycling Rate (%)	Potential Reuse Rate (%)	Tonnes	% By Weight	Recycled Material (Tonnes)	Potential Reused Material (Tonnes)	Material for Disposal (Tonnes)
Glass	100	1	1.1	0.3	1.1	0	0
Mixed Metals	100	5	3.8	1.1	3.8	0.2	0
Steel	100	20	30.2	9	30.2	6	0
Mixed Plastics	95	1	0.8	0.2	0.8	0	0
Wood / Timber	95	5	13.2	3.9	12.5	0.7	0.7
Concrete / Binders	100	0	276	82.3	276	0	0
Bricks / Inert	100	25	3.8	1.1	3.8	0.9	0
Gypsum	95	0	0	0	0	0	0
Insulation	95	0	0	0	0	0	0
Electricals and Electronics	90	0	0.1	0	0	0	0
Asphalt	100	0	6.5	1.9	6.5	0	0
Totals*			335.5	100	334.8	7.9	0.7

*Totals may not sum due to rounding

- 4.2.5 For the purposes of the audit, it is assumed that all recycling would be considered as per best practice off-site, and all unrecyclable material would be diverted from landfill.
- 4.2.6 The overall recycling rate for the demolition waste generated on site is estimated to be 99.9%.
- 4.2.7 Figure 4-5 below shows the percentage of each waste stream by weight, as per Table 4-1.

Figure 4-5 Waste Streams by Weight (%)



4.3 EMBODIED CARBON CALCULATIONS

4.3.1 The embodied carbon for the demolition of the Site has been calculated using data from the ICE Database², assumptions of which can be found in Table 4-2 below.

Table 4-2 Energy Consumed to Make Building Material

Material	kg/CO ₂ e	Assumption
Glass	1.44	General
Mixed Metals	1.99	Steel Rebar
Mixed Plastics	3.1	PVC General
Wood / Timber	0.493	Timber - Average of all Data - No Carbon Storage
Concrete / Binders	0.103	General
Bricks	0.21	General
Gypsum	0.39	Plasterboard
Insulation	1.28	Mineral Wool Insulation
Electricals and Electronics	2.73	Steel - Finished Cold-Rolled Coil
Asphalt	0.08	Relevant EPD Sourced

4.3.2 Applying the tonnage of demolition waste summarised in Table 4-1 to the metrics detailed in Table 4-2, Table 4-3 produces the estimated embodied carbon arisings for the Site.

Table 4-3 Embodied Carbon Arisings

Material	Volume (m3)	Tonnes	CO ₂ Equiv (t)	% Weight	% Embodied Carbon
Glass	0.4	1.1	1.5	0.3	1.4
Mixed Metals	1.5	3.8	7.6	1.1	7
Steel	3.9	30.2	60.2	9	55.6
Mixed Plastics	0.6	0.8	2.5	0.2	2.4
Wood / Timber	33	13.2	6.5	3.9	6
Concrete / Binders	138	276	28.4	82.3	26.3
Bricks / Inert	2.4	3.8	0.8	1.1	0.7
Gypsum	0.1	0	0	0	0
Insulation	0.2	0	0	0	0
Electricals and Electronics	0.1	0.1	0.1	0	0.1
Asphalt	3	6.5	0.5	1.9	0.5
Totals*	183.1	335.5	108.2	100	100

*Totals may not sum due to rounding

4.3.3 The total estimated embodied carbon emissions associated with the construction of the structures surveyed was determined to be approximately 108.2 tCO₂e.

² <https://circularecology.com/embodied-carbon-footprint-database.html>



- 4.3.4 This figure reflects the embodied carbon generated were the existing structures to be constructed today using the materials identified by the PDA.



5 KEY DEMOLITION PRODUCTS

5.1 IDENTIFICATION OF KEY DEMOLITION PRODUCTS

- 5.1.1 This section of the report discusses the KDPs that have been identified for the Site following analysis of the PDA findings. The KDPs present represent an estimated 99.3% of all waste occurring on the Site.
- 5.1.2 Inert materials, mixed metals and wood/timber were found to make up the majority of demolition waste on the Site.

5.2 BEST PRACTICE METHODOLOGIES

- 5.2.1 There are some general methods of good practice to be considered during any demolition project looking to maximise the reuse and recycling of materials. These measures include the following:
- ⦿ Agree targets for reclamation and recycling as part of the demolition management plan;
 - ⦿ During the demolition phase, details of the actual materials arising, and the waste management methods used should be recorded to compare actual with forecast and to assess performance against the targets set.
 - ⦿ Following completion of the project, any barriers to achieving the targets should be reviewed to ensure that in future projects these barriers can be overcome.
 - ⦿ Early promotion of available materials for reclamation through appropriate channels, particularly community projects;
 - ⦿ Contact local architectural salvage contractors to discuss if there are items they would be interested in reclaiming;
 - ⦿ Provide space on site for reclaimed materials in addition to segregated containers per waste stream;
 - ⦿ Use resources such as SalvoWeb³ or Globechain⁴ that provide a directory of business dealing with salvaged items;
 - ⦿ Provide separate containers per waste stream on site to maximise recycling rates;
 - ⦿ Ensure demolition operatives are appropriately trained to recognise materials and understand how to segregate them correctly;
 - ⦿ Where it is not possible to recycle materials due to their composition, seek a commercial waste contractor who diverts waste from landfill and sends residual waste for energy recovery.

³ <https://www.salvoweb.com/>

⁴ <https://globechain.com/>



5.3 INERT MATERIALS

5.3.1 The predominant KDP has been identified as inert materials, representing 85.3% of the total material on site.

5.3.2 The inert materials are a group of materials that are handled and processed in the same manner during demolition and subsequent processing.

5.3.3 The inert materials generated by the demolition process are located within the following elements on site:

- ⦿ Slabs;
- ⦿ Hardstanding; and
- ⦿ Paving.

5.3.4 Figure 5-1 below shows examples of inert materials present on site.

Figure 5-1 KDP Example – Inert



5.3.5 Table 5-1 below summarises the quantities of these materials on site generated by the demolition process, categorised by European Waste Catalogue (EWC) code.

Table 5-1 Quantity of Inert Materials

Material	EWC Code	Tonnage	Recommended Processing (%)	
			Reclamation	Recycling
Bricks / Inert	17 01 02	3.8	25	75
Concrete / Hardcore	17 01 07	276	-	100
Asphalt	17 03 02	6.5	-	100
Total		286.3		

RECOMMENDATIONS

5.3.6 Inert materials are the predominant KDP generated by the demolition process on the Site. The potential for reclamation of inert materials is relatively low due to their use, composition, and material qualities.

5.3.7 It is expected that all the inert materials generated by the demolition process will be recycled to form secondary aggregate either on- or off-site.

5.3.8 Inert materials are processed using a crusher which reduces their fraction size.

5.3.9 Figure 5-2 shows an example crusher being loaded with inert materials.



Figure 5-2 Example Crusher



- 5.3.10 Crushed materials could be used for engineered fill on- or off-site, and it is expected that the material would be processed in accordance with prevailing guidance to ensure the secondary aggregate meets all requirements with regard to material properties.
- 5.3.11 The most efficient method of processing the materials would be to phase the demolition to allow space for on-site crushing, with consideration for the proximity to neighbouring residential properties.
- 5.3.12 Crushing the inert materials on-site would reduce the number of vehicle movements associated with the demolition process. If the material is being used on-site as engineered fill, the requirement for imported material is decreased, and if it is being transferred for use off-site the volume of the material is reduced when loaded.
- 5.3.13 On-site crushing would be subject to the demolition contractor obtaining a permit from the relevant authority, to ensure operations would not adversely impact the environment with noise or dust generated.
- 5.3.14 If it is not possible to crush the inert materials on site, they would be transferred to an appropriately licensed nearby facility for processing and subsequent use.
- 5.3.15 It is anticipated that crushed inert material would be transported in 32-tonne tipper lorries.
- 5.3.16 Figure 5-3 below shows a 32-tonne tipper lorry being loaded with crushed concrete.

Figure 5-3 Example 32-Tonne Tipper Lorry



- 5.3.17 The landfill diversion rate for the inert materials on site would be anticipated to be 100%.

5.4 METALS (FERROUS/NON-FERROUS)

5.4.1 The second KDP has been identified as metals, with use across the structure for a number of purposes, representing 10.1% of the total material on site.

5.4.2 The metals generated by the demolition process are located within the following elements on site:

- ⦿ Access gates;
- ⦿ Roofing; and
- ⦿ Facades.

5.4.3 Figure 5-4 below shows an example of metals present on site.

Figure 5-4 KDP Example – Metal



5.4.4 Table 5-2 below summarises the quantities of metals on site generated by the demolition process, including the EWC code.

Table 5-2 Quantity of Metals

Material	EWC Code	Tonnage	Recommended Processing (%)	
			Reclamation	Recycling
Mixed Metals	17 04 07	3.8	5	95
Steel	17 04 05	30.2	20	80
Total		34.0		

RECOMMENDATIONS

5.4.5 Metal is the second most prevalent material expected to be generated by the demolition process. A number of metal types are to be found within the structures, fixtures, and fittings.

5.4.6 It is recommended that segregated containers for metal generated by the demolition process are used to ensure that all waste metal is captured.

5.4.7 Scrap metal is usually stored in skips or roll-on roll-off containers on site before transfer to an appropriately licensed facility.

5.4.8 An example 40yd³ container is shown in Figure 5-5 below.



Figure 5-5 Example 40yd³ Roll-On Roll-Off Container



5.4.9 Scrap metal has a value by weight and will generate a rebate based on the quality of the material.

5.4.10 The landfill diversion rate for the metals on site would be anticipated to be 100%.

5.5 WOOD / TIMBER

5.5.1 The third KDP has been identified as wood / timber, which represents 3.9% of the material on site.

5.5.2 Wooden materials generated by the demolition process are located within the following elements on site:

- Stable facades;
- Roof rafters and joists; and
- Doors.

5.5.3 Figure 5-6 below shows examples of wooden materials present on the Site.

Figure 5-6 KDP Example – Wood / Timber



5.5.4 Table 5-3 below summarises the quantities of wood / timber on site generated by the demolition process, including the EWC code.

Table 5-3 Quantity of Wood

Material	EWC Code	Tonnage	Recommended Processing (%)	
			Reclamation	Recycling
Wood / Timber	17 02 01	13.2	5	85



5.5.5 It is assumed the remaining 5% of the wood will be sent for disposal or energy recovery.

5.5.6 Careful dismantling of some elements may allow them to be reclaimed (stables).

RECOMMENDATIONS

5.5.7 A high proportion (95%) of all wood / timber recovered from the Site should be able to be recycled or reclaimed.

5.5.8 It is possible to reclaim wood for reuse within another structure, though for this to be feasible the wood is required to be of high quality to justify the resource and space required to recover them on site.

5.5.9 Reclaimed wood materials should be sent to reclaim retailers or re-use community schemes.

5.5.10 Wooden products not able to be reclaimed should go to a wood reprocessor for chipping to be used in biomass boilers or other suitable energy schemes.

5.6 COST IMPACTS AND PROGRAMME IMPLICATIONS

5.6.1 The cost impacts and programme implications of reuse, recycling or disposal of products and materials depends on several factors.

5.6.2 The main cost factors include:

- ⊙ Quantity of materials;
- ⊙ Labour hours to remove products and materials;
- ⊙ Leasing equipment for processing on-site;
- ⊙ Accessibility;
- ⊙ Removal of hazardous materials;
- ⊙ Storage;
- ⊙ Logistics; and
- ⊙ Administration costs associated with planning, obtaining permits and complying with environmental legislation.

5.6.3 Although strip-out and deconstruction typically demands more labour and time, the potential cost savings from reusing and recycling materials can offset some of these initial expenses.

5.6.4 An appointed strip-out or demolition contractor will be able to provide a detailed breakdown of costs linked to recycling and reusing each product, along with potential savings associated with diverting waste away from landfills and other conventional disposal avenues.

5.7 WASTE HAULIERS AND PROCESSORS

5.7.1 The demolition waste generated on site will require haulage from site to licensed waste transfer or processing facilities.

WASTE PROCESSORS

5.7.2 Table 5-4 below details a selection of potential waste destinations and processors that could be contracted to receive waste materials.



Table 5-4 Processors and Waste End Destinations

Waste Contractor	Address	Materials	Recycling Rate	Distance (Miles)
Saint Gobain	Unit 3, 27 Industrial Estate, Bruncliffe Way, Morley, Leeds LS27 0HH	Glass	100%	185
Powerday PLC	Oasis Park, Stephenson Street, Canning Town, E16 4ST	Aggregates	100%	39.5
		Plasterboard	Unspecified	
		Metal	100%	
		Wood / Timber	Unspecified	
EMR	EMR Wandsworth, Pensbury Place London SW8 4TR	Steel	100%	22.7
		Mixed Metals	100%	
Cleaveland Steel and Tubes Ltd	Dalton Industrial Estate, Thirsk, North Yorkshire YO7 3JN	Steel	100%	232
Celsa Steel UK	Building 58, Castle Works - East Moors Road, Cardiff, CF24 5NN	Steel	100%	213

5.7.3

An appointed strip-out or demolition contractor will be also able to provide information relating to the destinations for processing and diverting waste materials from landfill.



6 SUMMARY AND CONCLUSIONS

6.1 SUMMARY

6.1.1 The purpose of the PDA is to identify and quantify where the key materials and components are present within the existing building, and to further identify the potential recycling or reuse strategy for them.

6.1.2 The information in this report demonstrates the benefits of recycling and re-use of the KDPs based on economic value, the number of units and viability of deconstruction, as well as potential schemes for re-use and recycling of these materials.

6.1.3 The three KDPs identified on the Site are as follows:

- ⦿ Inert Materials;
- ⦿ Metals; and
- ⦿ Wood / Timber

6.1.4 The three KDPs present represent an estimated 99.3% of all waste occurring on the Site.

6.1.5 The landfill diversion rate for the KDPs on site would be anticipated to be 100%.

6.1.6 There are a number of waste carriers within the local area licensed to carry waste materials from the Site.

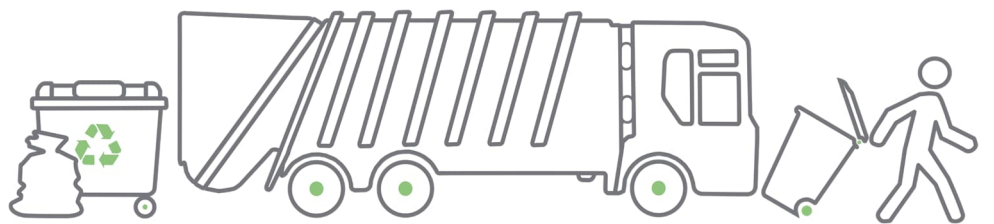
6.2 CONCLUSION

6.2.1 This Pre-Demolition Audit has taken into account the need to lessen the overall impact of waste generation through the reclamation and recycling of materials from the demolition phase of the existing structures on the Site.

6.2.2 This Pre-Demolition Audit has been prepared to demonstrate compliance with Policy SI 7 of the London Plan (2021).

6.2.3 The proposals set out in this strategy meet the requirements of relevant waste policy and follow applicable guidance.





VELOCITY