4-8 SEDGEMERE ROAD

PRE-DEMOLITION AUDIT

PROJECT NO. 24-050 DOC NO. D014

DATE: JULY 2025

VERSION: V1.1

CLIENT: ABBEY WOOD SEDGEMERE LIMITED

Velocity Transport Planning Ltd

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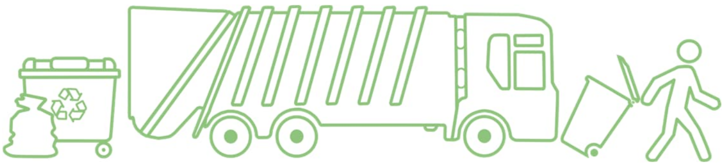

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1 PROJECT INTRODUCTION

1.1 INTRODUCTION

1.1.1 This Pre-Demolition Audit (PDA) has been prepared by Velocity Transport Planning, on behalf of Abbey Wood Sedgemere Ltd (hereafter referred to as 'the Applicant') to support the redevelopment of 4-8 Sedgemere Road (hereafter referred to as the 'site'). The local planning authority is London Borough of Bexley (LBB).

1.2 COMPETENCY – PROJECT MANAGER

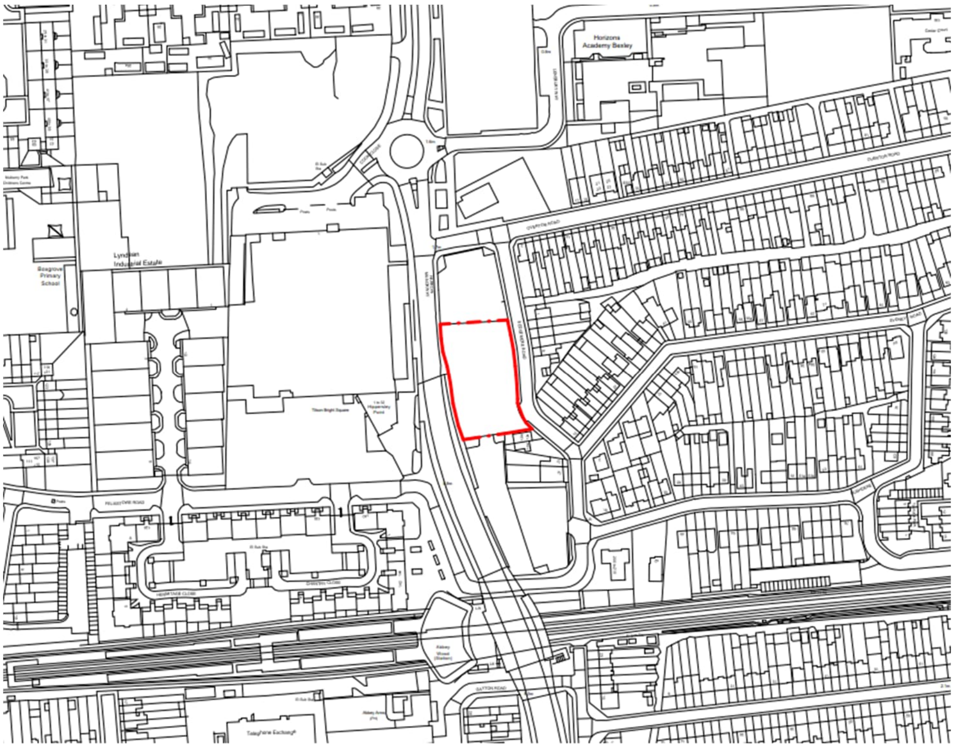
1.2.1 The project manager was Peter Hambling who is a Chartered Waste Manager working for the past 12 years within the resource and waste management industry. His background began in environmental compliance and his experience includes contract management, waste stream analysis, collection methodologies and infrastructure development. With experience working for a construction waste contractor, commercial waste contractor and within a local authority as well as development planning, he has comprehensive understanding of the subject matter.

1.3 PROJECT SCOPE

1.3.1 The scope of the project includes total demolition of the existing structures.

1.3.2 Figure 1-1 below shows the location of the site bounded by Overton Road and BP Garage to the north, Sedgemere Road to the east, Felixstowe Road Cark Park to the south and Harrow Manorway to the west.

Figure 1-1 Site Location



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

1.3.4 This report identifies materials and components for potential reuse or recycling from structures and hard landscaped areas due for demolition once all furniture and loose items have been removed.

1.3.5 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.

1.3.6 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):

- Architectural plans
- Site surveys; and
- Photographs.

1.4 EXISTING SITE

1.4.1 The site measures 0.272 hectares (ha) and is located within a small cluster of low-level industrial structures situated around a residential housing, a car park, a petrol garage and is adjacent to A2041 and a large Sainsburys supermarket. The existing units are accessed from Sedgemere Road.

1.4.2 The site is currently brownfield land and does not have any heritage assets or buildings of architectural value.

1.4.3 Figure 1-2 below shows a photograph of the site viewed from Sedgemere Road taken as part of the site visit in March 2024.

Figure 1-2 Photo of the Existing Site

1.5 EXISTING STRUTURES

1.5.1 The site incorporates the following existing buildings:

- 4 Sedgemere Road;
- 6 Sedgemere Road; and
- 8 Sedgemere Road.

1.5.2 Figure 1-3 below shows an aerial view of the existing structures on site.

Figure 1-3 Site Plan

1.6 AIMS AND OBJECTIVES

1.6.1 The aims and objective of the PDA are as follows:

- 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.

1.7 AUDIT METHODOLOGY

1.7.1 This PDA is based on a non-intrusive survey methodology; a site visit was conducted on Wednesday 6th March 2024.

1.7.2 A thorough inspection was made of the structures and external areas where possible, though access was not permitted internally.

1.7.3 Where details of construction methodology were not included on the plans, appropriate assumptions have been made to facilitate the audit results, based on industry knowledge.

1.7.4 Where information is not available to inform the audit results, suitable assumptions have been made using relevant published material and prior knowledge based on industry experience.

1.7.5 Following the site visit and desktop study, the information was analysed to identify the principal material types present within the buildings. 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.

1.8 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 of 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 Embodied carbon means all the CO_2 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 includes 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.

1.8.7 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 The Design Approach established as part of the redevelopment process and included with the submitted Circular Economy Statement has been acknowledged and applied as part of this PDA.

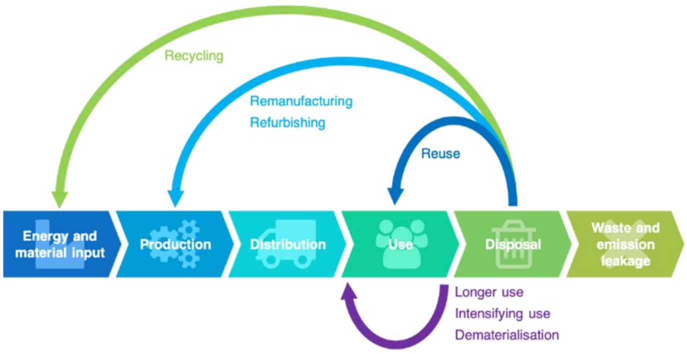
1.9.2 APPENDIX B includes the agreed Design Approach from the Circular Economy Statement.

1.9.3 During the audit process, materials and components will be reviewed for their suitability for reuse or recycling, either on- or off-site.

1.9.4 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.

1.9.5 Figure 1-4 below shows a visual representation of the principles of a circular economy.

Figure 1-4 Circular Economy Process[1]



1.9.6 An integral part of this process is maintaining materials further up the waste hierarchy during the demolition process.

1.9.7 Figure 1-5 below shows the waste hierarchy, which prioritises reuse over recycling.

Figure 1-5 Waste Hierarchy

1.9.8 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.

1.9.9 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;

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

- Value of recovered materials or components;
- Availability of specialist contractors; and
- Volume or quantity of materials available.

1.9.10 Embodied carbon values will be calculated for the materials identified within this PDA and these should be considered within the context of WLC.

1.9.11 Energy is required to demolish a building, then remove, process, and dispose of waste materials generated by the process, with further CO_2 potentially released through associated chemical processes.

1.9.12 Building a new replacement requires more materials and energy, creating more embodied carbon.

1.9.13 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 DEMOLITION PROPOSALS

2.1 PROPOSALS

2.1.1 Demolition Proposals include total demolition of the structures at 4-8 Sedgemere Road.

2.1.2 The buildings slated for total demolition lack any notable historic or architectural significance and are not compliant with current environmental standards.

2.1.3 The Energy Strategy for the Proposed Development will be is in line with the principles of the Energy Hierarchy, that is “Be Lean”, “Be Clean”, “Be Green” and “Be Seen”.

2.1.4 The Proposed Development will need to comply with Building Regulations Part L requirements, achieving a 67% reduction in regulated CO_2 emissions under Part L1 and a 30% betterment of target CO_2 emissions under Part L2.

2.1.5 The Proposed Development will aim to optimise the health and wellbeing of residents and visitors alike through good levels of internal daylight, thermal comfort, safety and security.

2.1.6 Figure 2-1 below shows the extent of demolition proposed for the existing structures on site.

Figure 2-1 Demolition Proposals

2.1.7 Deconstructing the existing structures to reclaim components or materials (rather than traditional demolition) is considered unfeasible due to the typology of the buildings and proximity to a number of sensitive neighbouring uses.

2.1.8 Further, the construction methodology of the buildings (which predominantly comprises of materials joined by solid binders and adhesives) means that materials are typically challenging to demount without causing damage to them.

2.1.9 It is also understood that the nature of the existing structures limits the opportunity to create spaces of the desired quality suitable for the proposed residential and commercial uses.

2.1.10 The development proposals comparatively represent significant improvements in terms of energy efficiency, future climate adaptation and overall quality for occupiers.

2.1.11 The new development proposals will represent a move towards methods of construction that incorporate circular economy principles.

2.1.12 The following section will provide a summary of existing structures and hard landscaping for each section scheduled for demolition.

2.2 BUILDING DESCRIPTIONS

2.2.1 The following section provides details of the existing structures on site, which vary in form and composition with surround by hardstanding.

2.2.2 For the purposes of the audit, the existing structures have been separated in to the following three distinct groups:

- 4 Sedgemere Road;
- 6 Sedgemere Road; and
- 8 Sedgemere Road.

4 SEDGEMERE ROAD

2.2.3 The existing structure at 4 Sedgemere Road currently operates as a storage facility for a commercial heating company.

2.2.4 Externally the main building is two-storeys in height with two smaller low-level extensions to the north and with a box cable corrugated metal roof.

2.2.5 To the west of the building is a brick façade with roller shutter doors fronting onto Harrow Manorway.

2.2.6 The structure is comprised of breeze blocks encased in concrete and the ground comprises of concrete slab hardstanding.

2.2.7 Figure 2-2 to Figure 2-5 below shows the external façades of 4 Sedgemere Road.

Figure 2-2 4 Sedgemere Road (Western Elevation)

Figure 2-3 4 Sedgemere Road (North-eastern Elevation)

Figure 2-4 4 Sedgemere Road (Eastern Elevation)

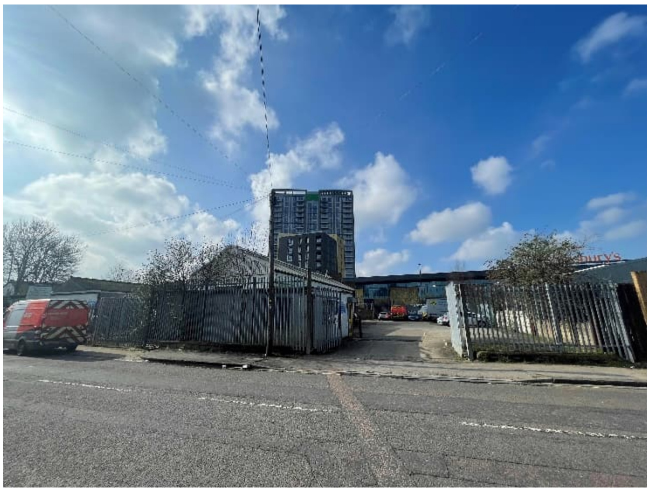


Figure 2-5 4 Sedgemere Road (Southern Elevation)

6 SEDGEMERE ROAD

2.2.8 The existing structure at 6 Sedgemere Road currently operates as a car repair workshop.

2.2.9 Externally it comprises of a main building with an extended entrance in the centre of the northern façade, a two-storey extension to the west of and a small single storey extension to the east.

2.2.10 The structure has a number of roller shutter doors to the north of the structure and an asymmetrical roof comprised of corrugated metal roof sheeting.

2.2.11 The structure is comprised of breeze blocks encased in concrete and the ground comprises of concrete slab hardstanding.

2.2.12 Figure 2-6 to Figure 2-8 below shows the extrernal facades of 6 Sedgemere Road.

Figure 2-6 6 Sedgemere Road (South-western Elevation)

Figure 2-7 6 Sedgemere Road (North-eastern Elevation)

Figure 2-8 125 6 Sedgemere Road (South-eastern Elevation)

8 SEDGEMERE ROAD

2.2.13 The existing structures at 8 Sedgemere Road currently operates as a storage facility for an exhibition company.

2.2.14 Externally the main building with a number of extensions to the south and with a box gable and skillen roof comprised of corrugated metal and a flat asphalt roof and the main access is via large steel concertina sliding doors.

2.2.15 The main structure is anticipated to comprise of a typical brick construction the ground comprises of concrete slab hardstanding.

2.2.16 Figure 2-9 to Figure 2-11 below shows the external façades of 8 Sedgemere Road.

Figure 2-9 8 Sedgemere Road (South-western Elevation)

Figure 2-10 8 Sedgemere Road (Western Elevation)

Figure 2-11 8 Sedgemere Road (Eastern Elevation)

3 PRE-DEMOLITION AUDIT RESULTS

3.1 REUSE AND RECLAMATION POTENTIAL

3.1.1 As per the objectives for the PDA, opportunities for reclamation of the materials have been considered throughout the development design and audit process.

3.1.2 This section will outline any potential opportunities identified for reuse of material on site, as well as the limitations associated.

LIMITATIONS

3.1.3 Given the structure and composition of the buildings within the scope of the PDA, it is anticipated that the opportunities for reuse of some of the materials on-site is limited. The following limitations have been considered as part of assessing whether any elements of the structures are suitable for reuse on-site:

- The buildings could only be surveyed externally, and it was not possible to understand any opportunities for reuse internally;
- The materials used as part of the construction of the existing buildings are predominantly low quality in nature;
- A survey confirmed presence of asbestos containing material in a number of locations on site:
  - Space heaters;
  - Electrics;
  - Sink pads;
  - Cement roofs;
  - Ceiling panels; and
  - Textured coatings.
- Structures have not been built for disassembly – extracting potentially reusable elements is not feasible in many instances; and
- It would not be possible to prove that light fittings were safe and compliant without individual testing and certifying by an electrician; and
- It is unlikely that windows and glazing will meet current thermal or sound insulation standards.

OPPORTUNITIES FOR RETENTION AND REUSE

ROLLER SHUTTER DOORS

3.1.4 Both 4 and 6 Sedgemere Road included external roller shutter doors and it would be expected that these would be demounted for refurbishment and reuse on another project nearby.

3.1.5 Figure 3-1 below shows the roller shutter doors on 6 Sedgemere Road.

Figure 3-1 Roller Shutter Doors

BRICKS

3.1.6 A small proportion of the site it comprised of bricks including a small number of minor extensions and the western façade of 4 Sedgemere Road. Whilst the volume of bricks onsite it limited, it is anticipated that there may be a value to these bricks if recovered as part of the demolition process.

3.1.7 Though dependent on the exact demolition methodology, it is anticipated that due to the location of the brickwork on the external façades, it could be possible to recover the bricks for reuse.

3.1.8 Figure 3-2 below shows the external brickwork from a portion of the façade of 4 Sedgemere Road.

Figure 3-2 Brickwork Facade – 4 Sedgemere Road

3.1.9 Recovery of bricks may be restricted to those which are unpainted and adhered to asbestos containing materials.

3.2 OVERALL VOLUMES OF WASTE PRODUCED FROM DEMOLITION

3.2.1 Where elements of the buildings on site are not suitable for reuse, the materials generated by the demolition process have been estimated and separated by type.

3.2.2 The tonnage of recyclable material present within the existing structures has been calculated based on best-practice recycling rates for each of the material types.

3.2.3 Table 3-1 below shows the estimated weight of materials generated by the demolition process.

Table 3-1 Summary of Demolition Waste Generated

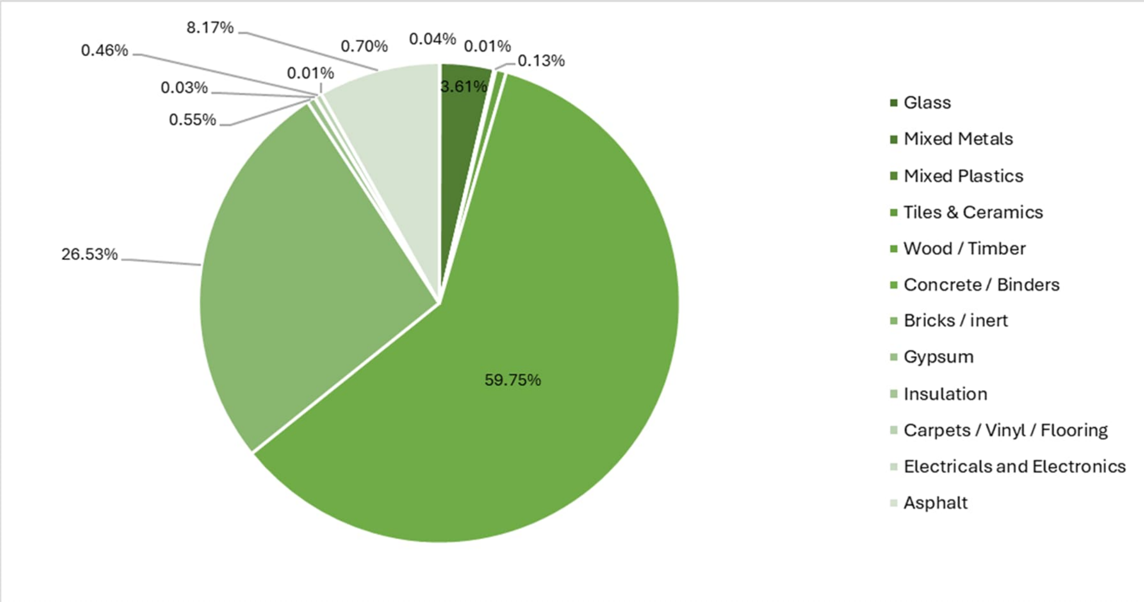
Material	Best Practice Recycling Rate (%)	Tonnes	% By Weight	Recycled Material (Tonnes)	Material for Disposal (Tonnes)
Glass	100	0.54	0.04	0.54	0.00
Mixed Metals	100	44.5	3.61	44.51	0.00
Mixed Plastics	95	0.1	0.01	0.11	0.01
Tiles & Ceramics	100	1.6	0.13	1.58	0.00
Wood / Timber	95	8.7	0.70	8.24	0.43
Concrete / Binders	100	737.3	59.75	737.27	0.00
Bricks	100	327.4	26.53	327.36	0.00
Gypsum	95	6.8	0.55	6.44	0.34
Insulation	95	0.3	0.03	0.32	0.02
Carpets / Vinyl / Flooring	95	5.7	0.46	5.43	0.29
Electricals and Electronics	90	0.2	0.01	0.14	0.02
Asphalt	100	100.8	8.17	100.81	0.00
Total		1,233.8	100	1,232.7	1.1

3.2.4 For the purposes of the audit, it is assumed that all recycling would be conducted as per best practice off-site, and that all unrecyclable material would be diverted from landfill.

3.2.5 The overall recycling rate for the demolition waste generated on-site is therefore considered to be 99.91%.

3.2.6 Figure 3-3 below shows the percentage of each waste stream by weight, as per Table 3-1.

Figure 3-3 Waste Streams by Weight (%)



3.3 EMBODIED CARBON CALCULATIONS

3.3.1 The embodied carbon for the demolition of the site has been calculated using data the ICE Database[2], assumptions of which can be found in Table 3-2 below.

[2] https://circularecology.com/embodied-carbon-footprint-database.html

Table 3-2 Energy Consumed to Make Building Material

Material	kg/CO_2e	Assumption
Glass	1.44	General
Mixed Metals	1.99	Steel Rebar
Aluminium		
Mixed Plastics	3.1	PVC General
Tiles & Ceramics	0.24	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
Carpets / Vinyl / Flooring	3.19	Vinyl
Electricals and Electronics	2.73	Steel - Finished Cold-Rolled Coil
Asphalt	0.08	Relevant EPD Sourced

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

Table 3-3 Embodied Carbon Arisings

Material	Volume (m^3)	Tonnes	CO_2 Equiv (t)	% Weight	% Embodied Carbon
Glass	0.2	0.5	0.8	0.0	0.3
Mixed Metals	17.8	44.5	88.6	3.6	32.9
Mixed Plastics	0.1	0.1	0.4	0.0	0.1
Aluminium	0.9	1.6	0.4	0.1	0.1
Tiles & Ceramics	21.7	8.7	4.3	0.7	1.6
Wood / Timber	368.6	737.3	75.9	59.8	28.2
Concrete / Binders	204.6	327.4	68.7	26.5	25.6
Bricks	11.3	6.8	2.6	0.5	1.0
Gypsum	3.4	0.3	0.4	0.0	0.2
Insulation	4.4	5.7	18.2	0.5	6.8
Carpets / Vinyl / Flooring	0.1	0.2	0.4	0.0	0.2
Electricals and Electronics	45.8	100.8	8.1	8.2	3.0
Asphalt	0.2	0.5	0.8	0.0	0.3
Total	678.9	1,233.8	268.9	100.0	100.0

4 KEY DEMOLITION PRODUCTS

4.1 IDENTIFICATION OF KEY DEMOLITION PRODUCTS

4.1.1 This section of the report discusses the KDPs that have been identified for the sites following analysis of the PDA findings. The KDPs present on site represent an estimated 98.19% by weight of all waste occurring on site.

4.1.2 The two KDPs identified are as follows:

- Inert Materials; and
- Mixed Metals

4.2 BEST PRACTICE METHODOLOGIES

4.2.1 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 SalvoWeb[3] or Globechain[4] 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;

[3] https://www.salvoweb.com/

[4] https://globechain.com/

- 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.

4.3 INERT MATERIALS

4.3.1 The predominant KDP on site has been identified as inert materials, representing 94.58% of the total material on site. The inert materials are a group of materials that are handled and processed in the same manner during demolition and subsequent processing.

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

- Floor slabs;
- Structural building frames;
- External façades; and
- Areas of hard landscaping.

4.3.3 Figure 4-1 below shows examples of inert materials present on site.

Figure 4-1 KDP - Inert Materials

Table 4-1 below summarises the quantities of these materials on site generated by the demolition process, categorised by European Waste Catalogue (EWC) code.

Table 4-1 Quantity of Inert Materials

Material	EWC Code	Tonnage	Recommended Processing (%)	
			Reclamation	Recycling
Concrete / Hardcore	17 01 07	737.3	0	100
Bricks / Inert	17 01 02	327.4	0	100
Tiles and Ceramics	17 01 03	1.6	0	100
Asphalt	17 03 02	100.8	0	100
Total		1,167	0	100

RECOMMENDATIONS

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

4.3.5 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.

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

4.3.7 Figure 4-2 shows an example crusher being loaded with inert materials.

Figure 4-2 Example Crusher

4.3.8 Crushed materials could be used for engineered fill on- or off-site, and at 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.

4.3.9 The most efficient method of processing the materials would be to phase the demolition to allow space for on-site crushing, though this may not be possible due to the small footprint of the sites and the proximity to neighbouring residential properties.

4.3.10 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.

4.3.11 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.

4.3.12 If it is not possible to crush the inert materials on site, they would be transferred an appropriately licenced nearby facility for processing and subsequent use.

4.3.13 It is anticipated that crushed inert material would be transported in 32-tonne tipper lorries.

4.3.14 Figure 4-3 below shows a 32-tonne tipper lorry being loaded with crushed concrete.

Figure 4-3 Example 32-Tonne Tipper Lorry

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

4.4 METALS (FERROUS/NON-FERROUS)

4.4.1 The second KDP on site has been identified as metals, with use across all structures for a number of purposes, representing 3.61% of the total material on site by weight.

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

- Structural building frames;
- Doors and windows;
- External fixings;
- Floors;
- Rooves; and
- Pipes and ducting.

4.4.3 Figure 4-4 below shows examples of metals present on site.

Figure 4-4 KDP – Metals Materials

4.4.4 Table 4-2 below summarises the quantities of metals on site generated by the demolition process, including the EWC code.

Table 4-2 Quantity of Metals

Material	EWC Code	Tonnage	Recommended Processing (%)	
			Reclamation	Recycling
Mixed Metals	17 04 07	44.5	0	100

RECOMMENDATIONS

4.4.5 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 and external areas.

4.4.6 Whilst there is a small potential that some of the metals, this is considered unlikely due to logistical constraints. Reuse of these elements would likely require designated locations to transfer directly to at the time of demolition.

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

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

4.4.9 An example 40yd^3 container is shown in Figure 4-5 below.

Figure 4-5 Example 40yd^3 Roll-On Roll-Off Container

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

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

4.5 LOCAL LICENCED WASTE CARRIERS

4.5.1 Table 4-3 below details a selection of licenced waste carriers local to the site that could be contracted to facilitate removal of waste materials.

Table 4-3 Local Waste Carriers

Waste Contractor	Waste Carrier Licence	Address	Contact	Distance (Miles)	EWC Codes
Norris Greenwich	CBDU89511	Station Approach, Orpington, BR5 2NB	01689806420	7.8	17 – Construction and Demolition Waste (01-09)
Bywaters	CBDU100793	Bywaters (Leyton) Twelvetrees Crescent E3 3JG	07721 647392	9.3	
Powerday PLC	CBDU123332	32 Stephenson Street Canning Town London E16 4SA	02089604646	9.3	

5 SUMMARY AND CONCLUSIONS

5.1 SUMMARY

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

5.1.2 This report identifies materials and components for potential reuse or recycling from structures due for demolition once all furniture and loose items have been removed.

5.1.3 This report helps to demonstrate the benefits of recycling and re-use of identified KDPs based on economic value, the number of units and viability of deconstruction.

5.1.4 The scope of the project includes the parts of the structure due for demolition to facilitate redevelopment of 4-8 Sedgemere Road, located within the administrative boundary of LBB.

5.1.5 The two KDPs on site identified are as follows:

- Inert Materials; and
- Metals

5.1.6 The two KDPs present on site represent an estimated 98.19% of all waste occurring on site.

5.1.7 There are a number of waste carriers within the local area licenced to carry waste materials from site.

5.2 CONCLUSION

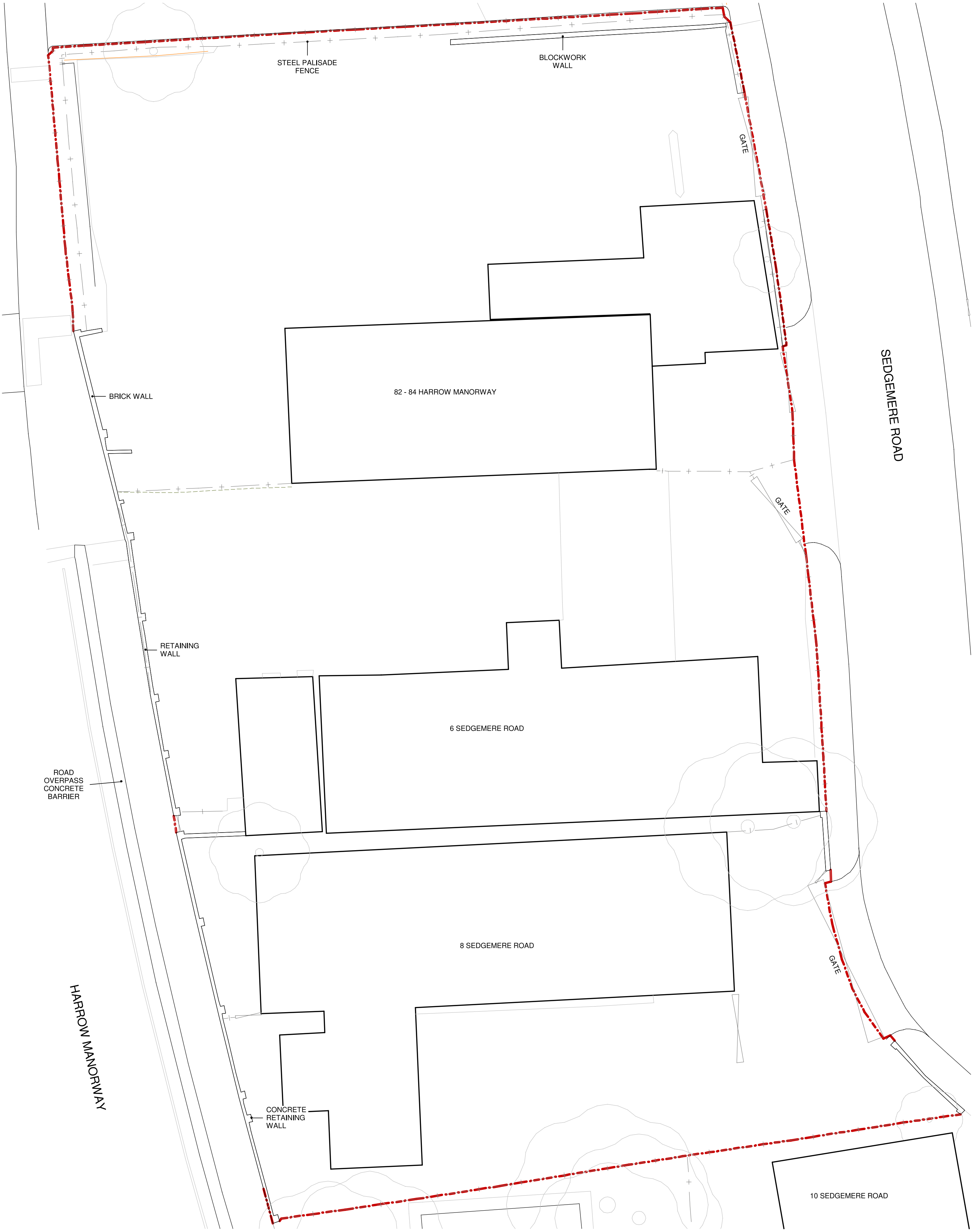
5.2.1 This Pre-Demolition Audit has taken into account the need to lessen the overall impact of waste generation through the reclamation and recycling of materials from the demolition phase of the project.

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

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

APPENDIX A

INFORMATION SOURCES



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Rev:	Notes:	Date:	Dwn:	Iss:

Purpose of Issue:
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Client:
Abbey Wood Sedgemere Limited

Project Name
Sedgemere Road, Abbey Wood
4-8 Sedgemere Road, London, SE2 9SW

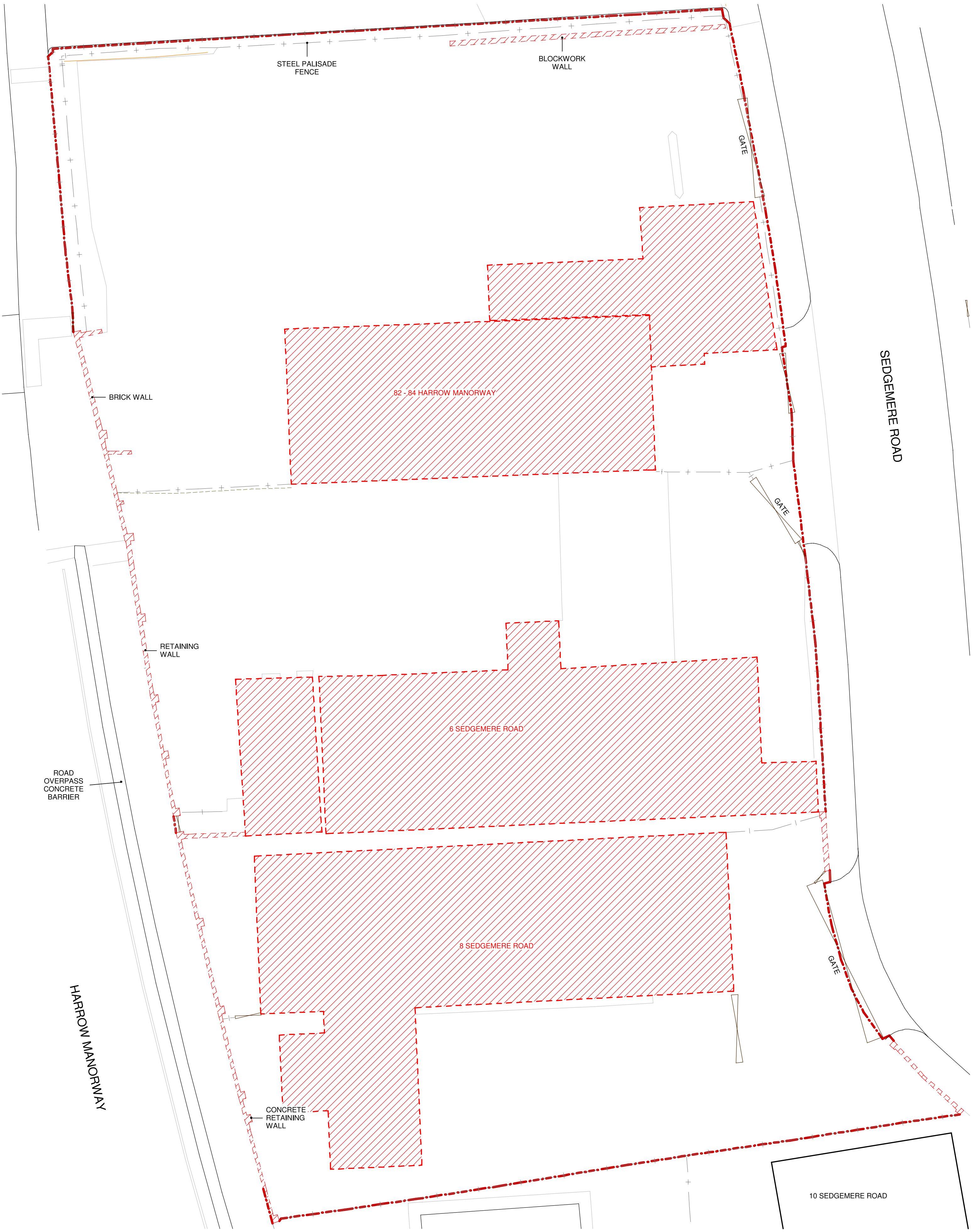
Drawing Title:
Existing Ground Floor

Drawn by: TT
Issued by: BM

GRID Project No: 22048
Scale @A1: 1 : 100

Drawing No: SDG-GRID-ZZ-00-DR-A-PL010
Proj. Auth. Zone Lvl Type Disc. Dwg No.

Revision:



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Drawing Title:
Existing Ground Floor Demolition

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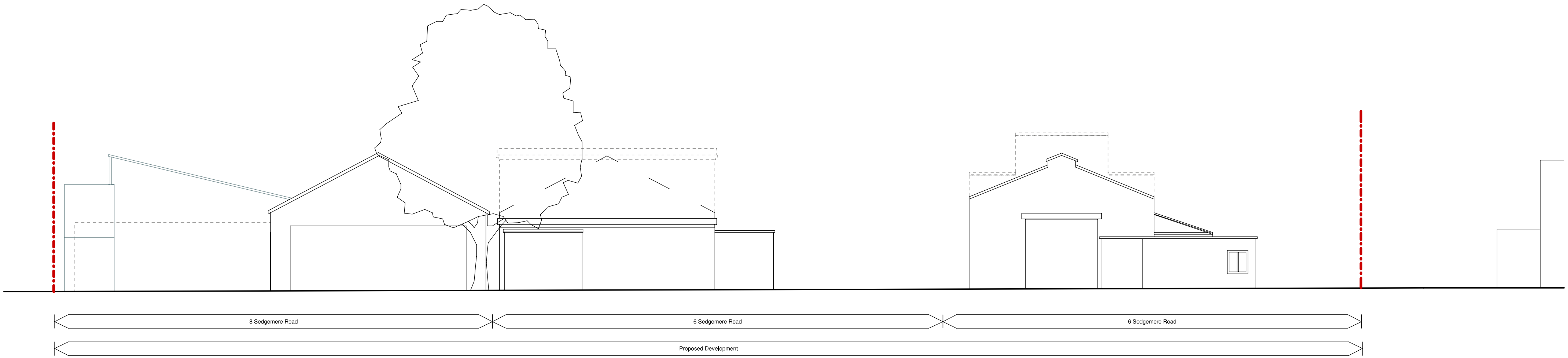

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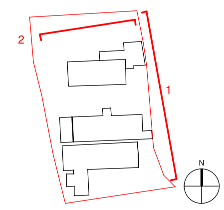

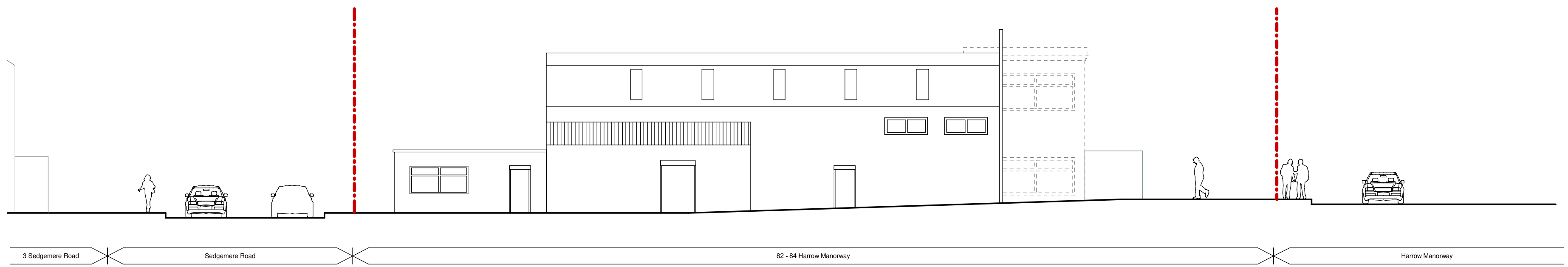

2 Existing North Elevation
1 : 100

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Drawing Title:
Existing North & East Elevations

Drawn by:
TT

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BM

GRID Project No:
22048

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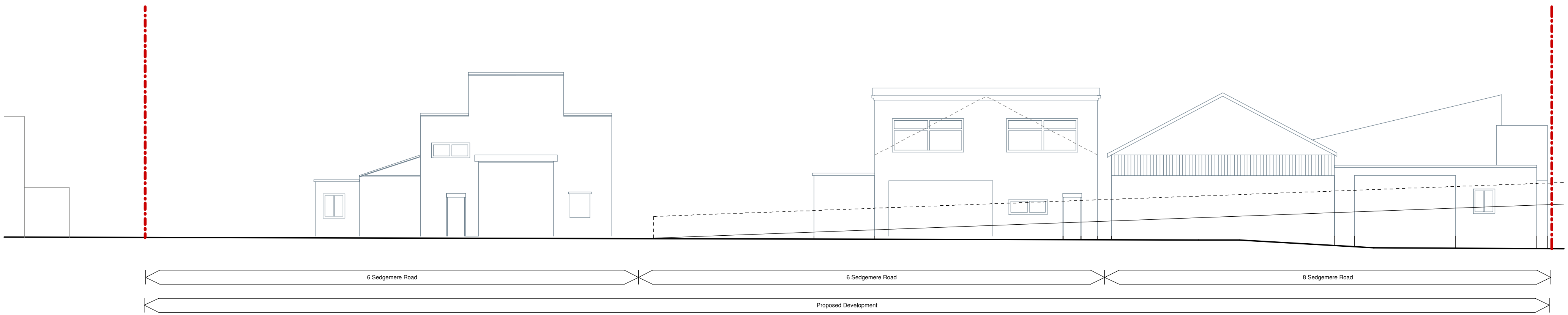

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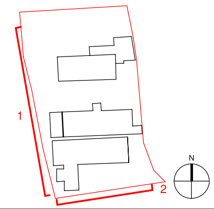

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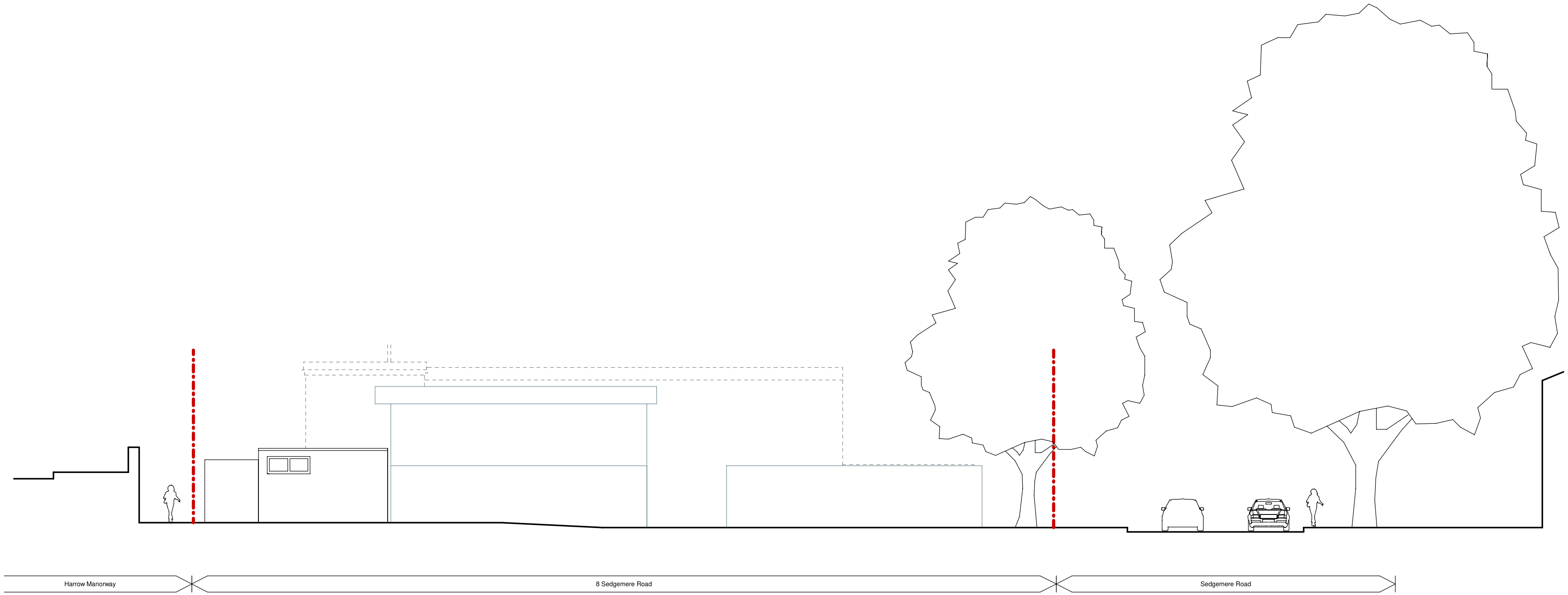

2 Existing South Elevation
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Drawing Title:
Existing South & West Elevations

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Issued by:
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22048

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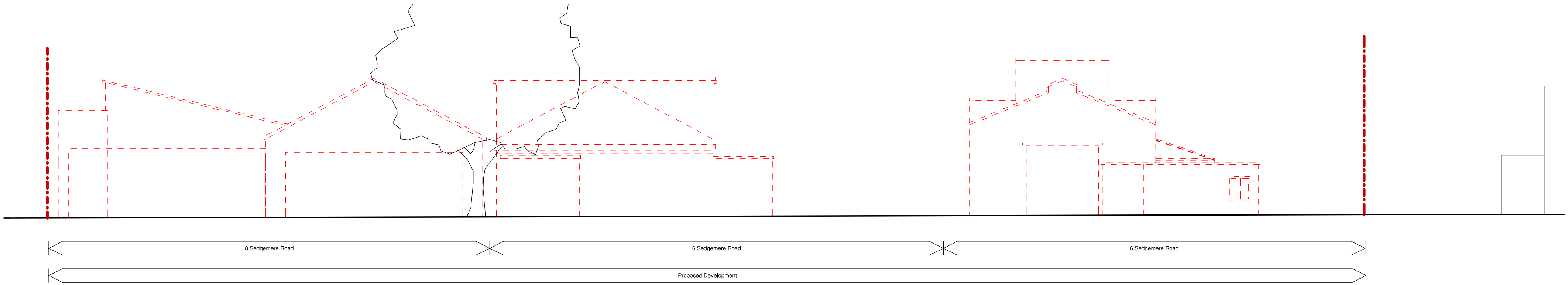

1 Existing East Elevation - Demolition
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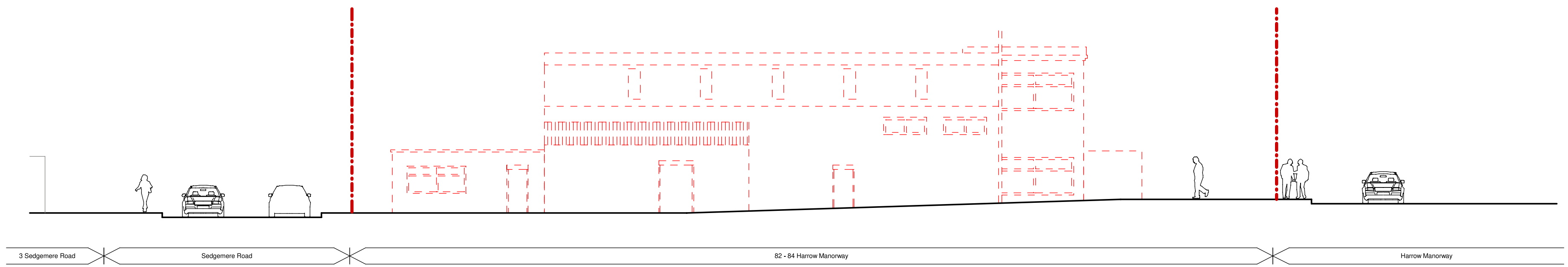

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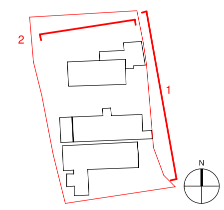

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Project Name
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4-8 Sedgemere Road, London, SE2 9SW

Drawing Title:
Existing North & East Elevations Demolition

Drawn by:	Issued by:
TT	BM
GRID Project No:	Scale @A1:
22048	1 : 100

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SDG-GRID-ZZ-XX-DR-A-PL014
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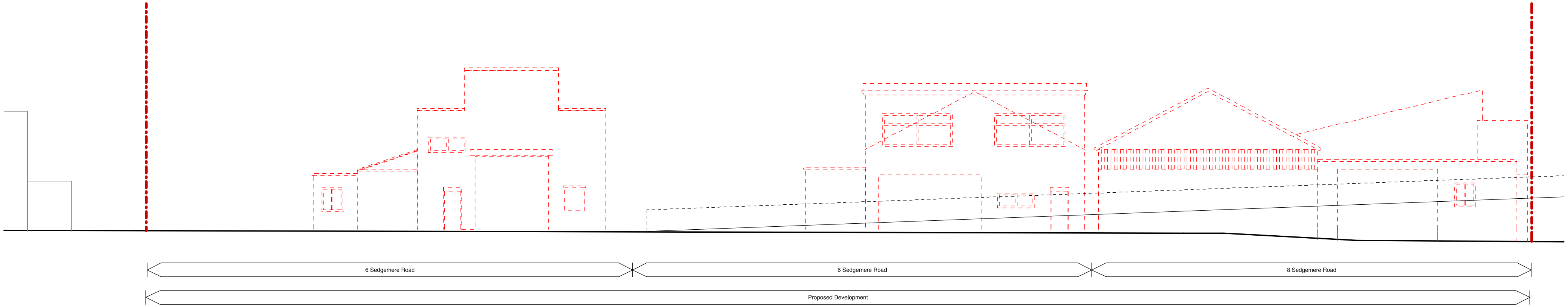

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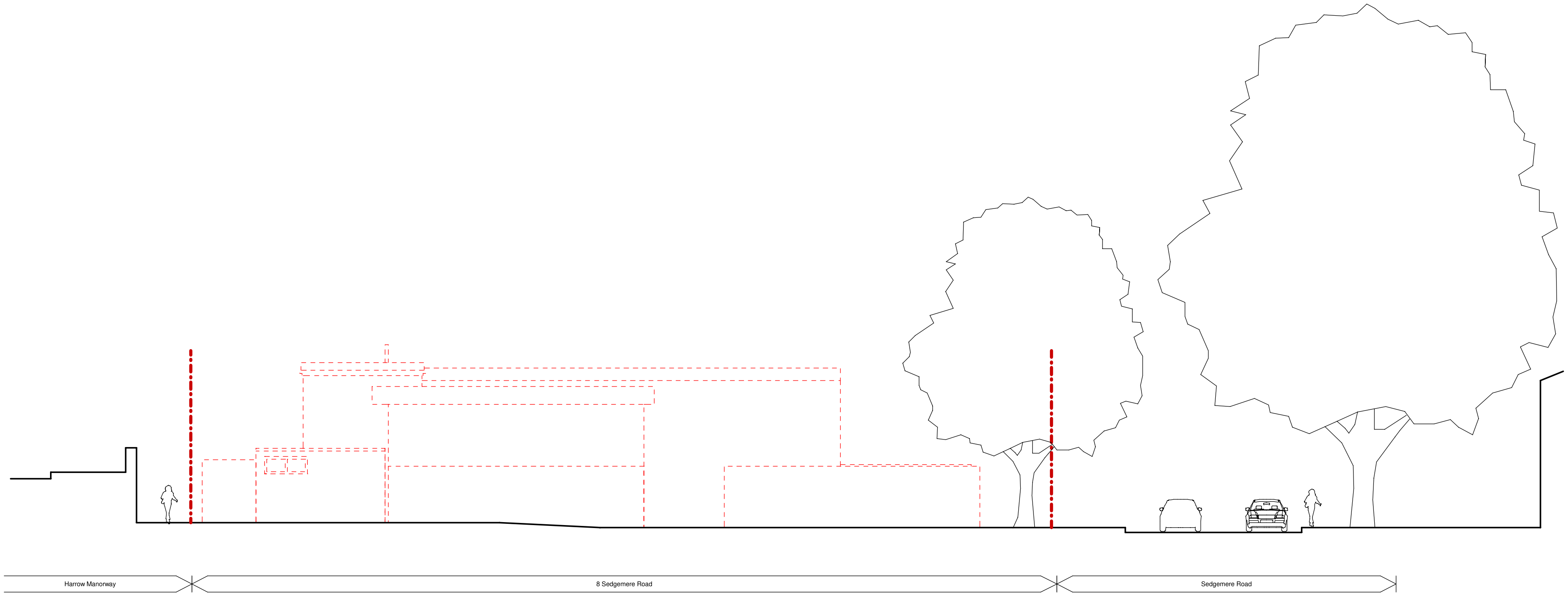

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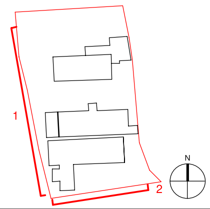

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Drawing Title:
Existing South & West Elevations Demolition

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Issued by: BM

GRID Project No: 22048

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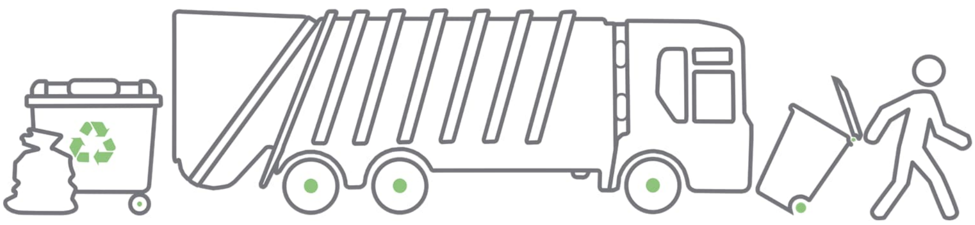
APPENDIX B

DESIGN APPROACH

VELOCITY

4-8 Sedgemere Road Circular Economy Design Approaches

Circular Economy Design Approaches for Existing Structures / Buildings		Applicant Response
Is there an existing building on the site?		Yes
Is it technically feasible to retain the building(s) in whole or in part?		No
Is it technically feasible to recover the 'residual value' of the buildings elements or materials?		No
The preferred strategy is:		**NEW BUILDING**
The preferred strategy is:		**DEMOLISH/DECONSTRUCT AND RECYCLE**
Circular Economy Design Approach	**Phase/Building/Area/Layer**	**Strategic Response**
Retain and Retrofit		Refurbishment is not currently proposed for the existing building. Full demolition of the existing building is proposed. The Pre-redevelopment audit (PRA) has been prepared in accordance with the Greater London Authority (GLA) Circular Economy Guidance to understand whether elements of the existing structures on site can be retained, refurbished, or incorporated into the site. The scope of the PRA includes an assessment of a number of structures, including a car repair workshop, ancillary storage space and workshop buildings surrounded by hard standing. The PRA considers three scenarios for the existing buildings and structures: 1.Light refurbishment: reuse of the existing structures on site in their current form with cosmetic enhancements and additional minor repairs to the fabric of the building as necessary. No significant structural changes, but full strip out and replacement or upgrade of individual elements such as glazing and Mechanical, Electrical and Plant (MEP) systems where feasible to facilitate any proposed change of use. 2.Refurbishment and extension: reuse of the existing structures on site with horizontal extension. Improvements may include removal of existing features to facilitate addition of new elements. Refurbishment work as per light refurbishment scenario. 3.Full redevelopment: full demolition of structures to ground level to facilitate construction of a new building The audit states that Scenario 1 is unsuitable to take forward and should be disregarded. Whilst scenario 2 is only marginally worse performing with regard to WLC than Scenario 3, it does not meet the development brief and would likely be economically unviable. Scenario 3 is considered to be the only viable option, with the lowest WLC per sqm of the three options. Further detail behind the recommendations and WLC modelling can be found in the report [Ref: 240607 Sedgemere Pre Redevelopment Audit DRAFT 0.1].
Partial Retention and Refurbishment		Repurposement is not currently proposed for the existing building. Full demolition of the existing building is proposed. The Pre-redevelopment audit (PRA) has been prepared in accordance with the Greater London Authority (GLA) Circular Economy Guidance to understand whether elements of the existing structures on site can be retained, refurbished, or incorporated into the site. The scope of the PRA includes an assessment of a number of structures, including a car repair workshop, ancillary storage space and workshop buildings surrounded by hard standing. The PRA considers three scenarios for the existing buildings and structures: 1.Light refurbishment: reuse of the existing structures on site in their current form with cosmetic enhancements and additional minor repairs to the fabric of the building as necessary. No significant structural changes, but full strip out and replacement or upgrade of individual elements such as glazing and Mechanical, Electrical and Plant (MEP) systems where feasible to facilitate any proposed change of use. 2.Refurbishment and extension: reuse of the existing structures on site with horizontal extension. Improvements may include removal of existing features to facilitate addition of new elements. Refurbishment work as per light refurbishment scenario. 3.Full redevelopment: full demolition of structures to ground level to facilitate construction of a new building The audit states that Scenario 1 is unsuitable to take forward and should be disregarded. Whilst scenario 2 is only marginally worse performing with regard to WLC than Scenario 3, it does not meet the development brief and would likely be economically unviable. Scenario 3 is considered to be the only viable option, with the lowest WLC per sqm of the three options. Further detail behind the recommendations and WLC modelling can be found in the report [Ref: 240607 Sedgemere Pre Redevelopment Audit DRAFT 0.1].
Disassemble and Reuse	Site, Structure, Skin, Space	The pre-demolition audit has identified f items that have the potential for direct re-use in the proposed development - this is to be reviewed by the design team and further surveys may be required to confirm implementation is feasible. Re-use of demolition materials will be prioritised, the concrete and brick waste will be crushed and it is possible that it can be used as recycled aggregate in the new construction. Reuse of excavation waste such as existing soil for the proposed landscape planters and balancing level changes on site.
Demolish and Recycle	Site, Structure, Skin, Space	Where direct reuse of demolition and excavation materials are not possible, recycling will be undertaken.
Circular Economy Design Approaches for New Buildings, Infrastructure and Layers		**Applicant Response**
Is the whole building designed to have a short life on its current site? (e.g. less than 10 yrs)		No
Is it foreseeable that the building will need to change use/function within its design life?		No
All developments should apply the 6 Circular Economy principles, including:		**Designing for DISASSEMBLY and ADAPTABILITY, MATERIAL REUSE ON-SITE and/or RECYCLING should be maximised**
Circular Economy Design Approach	**Phase/Building/Area/Layer**	**Strategic Response**
Building relocation		N/A
Component or material reuse	Superstructure, Skin	The structural design will incorporate a maximum of 50% cement replacement within the concrete mix, and use recycled aggregate where possible. Recycled steel will also be used where possible for the reinforcement bars. The facade is made of highly recyclable elements and the terracotta rainscreen used on the residential facade can be reused.
Adaptability	Superstructure, Skin	The structural grid of the development minimises internal columns by arranging columns along the perimeter and uses minimal shear walls which allows the internal spaces to be reconfigured. Future uses have been considered in the design of the structural loading so there is suitable capacity for adaptation. The facade comprises of removable rainscreen peices which can be easily changed if required. Apartment plans are of a similar depth to hotel rooms we're currently designing on other projects to allow for this. The window fenestration to apartment rooms provide a rhythm and regularity to serve a hotel room layout. The living room windows could be replaced with a split configuration for this to be subdivided into two rooms
Flexibility	Superstructure, Skin	Current structural design could allow for future uses such as a hotel or an office with low loading, would be possible to increase the design loading to account for future uses by designing in additional steel reinforcement. The facade comprises of removable rainscreen peices which can be easily changed if required.
Replaceability	Site, Superstructure, Skin, Service	Building is designed to 60 year life but will last much longer in reality. The facade comprises of removable rainscreen peices which can be easily changed if required. Pre-fabrication will be maximised in the construction of the facades which will assist in terms of sustainability, wastage and site logistics. The balconies have been designed as pre-fabricated components to allow for easy dismantling/removal. The brick facades have been designed with the potential to be constructed in traditional hand laid brickwork nut also from brick slip panel systems. These can be removed in sections. MEP layout ensures that kit can be easily replaced and maintained. Landscape pavers can be easily lifted and removed should they need replacing.
Disassembly	Site, Superstructure, Skin	Structural design is optimised for low embodied carbon using post tensioned concrete structure rather than dissembly. The facade comprises of removable rainscreen peices which can be easily changed if required. Landscape pavers can be easily lifted and removed should they need replacing.
Longevity	Site, Superstructure, Skin	Concrete frame will be heavily durable and significantly outlast 60 year design life. The facade comprises of removable rainscreen peices which can be easily replaced or fixed. Landscape items are robustly specificied using natural stone and steel materials.



VELOCITY