

Materials Compliance Statement Phase 1B (North) Reserved Matters Application

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PROJECT:
Brent Cross Extension

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Glossary

BXC = Brent Cross Cricklewood

CRL = Cricklewood Regeneration Ltd

GLA = Greater London Authority

LBB = London Borough of Barnet

DSF = Development Specification and Framework

1. Introduction

Planning Permission Ref No. C/17559/08 for the comprehensive redevelopment of the Brent Cross Cricklewood (“BXC”) Regeneration Area was granted in October 2010 (the “2010 Permission”). A Section 73 (“S73”) application Ref No. F/04687/13 to develop land without complying with conditions attached to permission Ref No. C/17559/08 was granted by the Council on 23 July 2014 (“2014 Permission”).

Appendix 8 of the Development Specification and Framework (DSF) sets out the agreed protocol for construction materials.

Planning Condition 2.1 requires that Reserved Matters Applications (RMAs) are accompanied by a document which identifies compliance with Appendix 8 of the DSF.

This report responds to Planning Condition 2.1 and sets out how RMA Phase 1B (North) complies with Appendix 8 of the DSF. Phase 1B North comprises of the following residential and non-residential elements:

- Plots 102, 103, 104, 106, 107, 108 and 109 which provide retail (Class A1-A5), leisure (Class D2) and community floorspace (Class D1)
- Plots 105 and 110 /111 are multi storey car parks
- Plot 101 – Energy Centre
- Plot 113 - 52 new build homes in a 4 storey block.

This document sets out the manner in which construction of Phase 1B (North) including the open spaces (Western and Eastern Riverside Parks and Sturgess Park) complies with the relevant parameters and principles in relation to the selection of new construction materials.



2. Development Commitments

The following Planning Conditions are applicable to the RMA application.

Condition 2.1 (f) (ii)

A statement shall be submitted to and approved by the LPA, which demonstrates compliance with the relevant parameters and principles in relation to the selection of new construction materials, as set out in the Development Specification & Framework (Appendix 8).

3. Development Materials

The construction materials proposed for the development will comply with the BXC protocol for Construction Materials as set out in Appendix 8 of the DSF. The following table sets out how the requirements in Appendix 8 of the DSF are proposed to be incorporated in the development.

3.1. Reclaimed and recycled materials

	Development Plots	Open Space and Public Realm
<p>Where reasonably possible, reclaimed goods and materials, and building components with reclaimed content will be used. This will be facilitated by the following means:</p> <ul style="list-style-type: none"> Contractors will be required to achieve a target of 10% recycled content (by value) in construction, verified using the WRAP toolkit. 	<p>Wherever possible materials for new construction will have a recycled content of at least 10%. Suitable materials will be specified during detailed design stage and implemented by the contractor as construction progresses. The recycled content will be verified using the Net Waste Tool available from, and run by WRAP (Waste and Resources Action Programme).</p> <p>The recycled content of the development has been investigated using the WRAP Designing out Waste Tool for Buildings and the WRAP Designing out Waste Tool for Civil Engineering. A 10% target can be achieved for the development. See Appendix 1 for details.</p>	
<ul style="list-style-type: none"> Contractors will be required to use the WRAP recycled content toolkit to establish the value of recycled content materials used in construction. 	<p>The contractor will be required to establish the value of recycled content materials used in construction. It is the intention that the contractors use the WRAP “Net Waste Tool” which has replaced the WRAP “Recycled Content Toolkit”.</p>	
<ul style="list-style-type: none"> Making use of recycled content materials (e.g. steels from certain sources; recycled crushed aggregate; recycled polymers). 	<p>Steel will be used for most of the structural components. Steel typically has a 40% recycled content.</p> <p>Recycled crushed aggregates and recycled polymers will be used where practicable.</p>	<p>Recycled crushed aggregates will be used where practicable as sub base to paved areas and footways.</p>
<ul style="list-style-type: none"> Where possible, any fill material will be crushed demolition waste. 	<p>Whilst there is limited demolition waste, where possible this will be used for fill material.</p>	<p>As above, and where possible this will be used for fill material.</p>
<ul style="list-style-type: none"> When low-strength concrete is used, e.g. foundations, the concrete mix will be made using at least 15% recycled crushed aggregate. 	<p>The contractor will be required to procure low strength concrete with at least 15% recycled crushed aggregate.</p>	<p>Where practicable the contractor will be required to construct foundations to street furniture and play equipment utilising low</p>

		strength concrete with at least 15% recycled crushed aggregate
<ul style="list-style-type: none"> Wherever possible, concrete will incorporate a proportion of Pulverised Fuel Ash (PFA) or Ground Granulated Blast Furnace Slab (GGBS) as a cement replacement. 	The contractor will be required to use cement replacements wherever possible.	N/A
<ul style="list-style-type: none"> Where appropriate, high recycled-content building materials and products will be used. In particular this is most likely to include various plastic products such as pipes and floor coverings. 	Where practicable high recycled content building materials and products will be specified. This will be specified during the detailed design stage. The work package performance specifications-will include statements on the requirement for the use of recycled materials that complies with the requirement of the Materials Compliance Statement. These will also refer to the Green Guide to Specification 2009 and the project obligations to obtain the BREEAM rating	Where practicable and in agreement with LBB consideration will be given to utilising play equipment manufactured from recycled plastics
<ul style="list-style-type: none"> Contractors will be encouraged to use reclaimed goods and materials especially by means of a Material Information Exchange (e.g. Salvo). 	The contractor will be encouraged to use reclaimed goods or materials or by sourcing through material information exchange platforms – provided that the specified requirements (including the durability for the design life appropriate to the particular item) are satisfied. The work package performance specifications-will include statements on the requirement for the use of recycled materials that complies with the requirement of the Materials Compliance Statement. These will also refer to the Green Guide to Specification 2009 and the project obligations to obtain the BREEAM rating.	

3.2. Proscribed Construction Materials

	Development Plots	Open Space and Public Realm
<p>Certain construction materials will be proscribed based on environmental considerations:</p> <ul style="list-style-type: none"> No materials proscribed in the Montreal Protocol will be used in the construction or fit-out of buildings. In particular, refrigerants and insulation materials must have zero Ozone Depletion Potential (OPD). 	<p>The contractor will be prohibited from using materials proscribed in the Montreal Protocol.</p> <p>Refrigerants and insulation materials will be selected to have a zero Ozone Depletion Potential.</p>	N/A
<ul style="list-style-type: none"> No peat or natural weathered limestone will be used in buildings or landscaping. 	<p>The proposed design does not include any peat or natural weathered limestone products.</p>	<p>No peat or natural weathered limestone will be used in the installation and construction of the landscape areas.</p>

3.3. New Construction Materials

	Development Plots	Open Space and Public Realm
<p>Where possible, construction materials should be selected with regard to the environmental impact associated with their use. This will favour the following approaches:</p> <ul style="list-style-type: none"> Sourcing materials from as close to the site as possible, to reduce the emissions of greenhouse gases from vehicles and reduce long distance transportation. 	<p>Materials will be specified from local sources (<500km radius) wherever possible.</p> <p>During the detailed design stages this will be a key consideration for material selection and specification.</p> <p>The work package performance specifications will include statements on the requirement for materials sourcing that complies with the Materials Compliance Statement.</p>	<p>The contractor will be required to consider the local sourcing of materials where practicable.</p> <p>However, the local sourcing of materials should not take precedent over the suitability of the material for the intended use, with particular reference to quality and durability.</p>
<ul style="list-style-type: none"> At least 90% of timber and timber products will be sourced from Forest Stewardship Council (FSC) sources and the balance from known temperate sources. 	<p>The contractor will be required to procure at least 90% of timber and timber products will be sourced from Forest Stewardship Council (FSC) sources</p>	<p>All tropical hardwood to be used in construction of street furniture to be FSC certified with a full chain of custody.</p>



<ul style="list-style-type: none"> Insulation materials will be selected that have zero potential to reduce the ozone layer (“zero ODP”). 	<p>The contractor will be required to procure insulation materials that have zero potential to reduce the ozone layer. All timber will be legally and responsibly sourced to the Government’s Buying Standards to meet BREEAM requirements.</p>	<p>N/A</p>
<ul style="list-style-type: none"> Refrigerants will be selected that have zero potential to reduce the ozone layer (“zero ODP”). 	<p>The contractor will be required to procure refrigerants with zero potential to reduce the ozone layer.</p>	<p>N/A</p>
<ul style="list-style-type: none"> Materials (e.g. paints and floor coverings) used inside the buildings will be selected to ensure they do not emit Volatile Organic Compounds (VOCs). 	<p>Interior materials will be specified, wherever possible, not to emit VOC’s. Where this is not possible materials will be specified to be low VOC in accordance with the BREEAM Hea 02 credit.</p>	<p>N/A</p>
<ul style="list-style-type: none"> Insulation materials will have as low a Global Warming Potential (GWP) as possible, subject to their availability and commercial constraints. The target will be to use materials with a GWP of less than 5. 	<p>The contractor will be required to procure insulation materials with a GWP of less than 5.</p>	<p>N/A</p>
<ul style="list-style-type: none"> Wherever possible, all materials used for the construction and fitting out of buildings will be selected from the A to C rated options given in “The Green Guide to Specification”, published by the BRE (2009). The principal exception will be where new methods of construction are proposed that are not covered by this guide. 	<p>This will be implemented, unless such materials are not available which would enable the buildings to perform as required. This caveat is acceptable within the full wording of this requirement in the BXC08.</p> <p>The work package performance specifications will refer to the Green Guide to Specification 2009 and the project obligations to obtain the required BREEAM rating.</p>	<p>N/A</p>

Appendix 1

The recycled content of the Phase 1B (North) development has been investigated using the Waste and Resources Action Programme (WRAP) Designing Out Waste Tool for Buildings and the WRAP Designing Out Waste Tool for Civil Engineering. These tools allow an early stage and high level analysis of a development's recycled content. The tools set out standard and good practice levels of materials performance in construction and civil engineering projects.

Recycled content is defined in ISO 14021: Environmental label and declarations as *'the proportion, by mass, of recycled material in a product or packaging. Only pre-consumer and post-consumer materials shall be considered as recycled content'*

Benefits of using recycled content include:

- Demonstrating performance against corporate responsibility and sustainability policies without incurring a cost premium.
- Reducing virgin material use.
- Reducing materials cost – for example where locally reprocessed demolition materials are cheaper than virgin materials.
- Meeting the requirements of planning authorities.
- Making reclamation and recycling more economic.
- Satisfying the values held by employees.
- Complementing other aspects of sustainable design.

WRAP defines the differing practice levels within their tools as;

- i. **Standard practice** – The likely level of recycled content in a given specification if no request is made for recycled content.
- ii. **Good practice** – A higher level of recycled content which is better than that for standard products but is still readily available in the market place at no additional cost. The recycled content of these products may not necessarily be as high as current technology or market conditions allow.

It should be noted that the Designing Out Waste Tool (DoWT) is the only online building software currently available for evaluating recycled content of construction projects and it is no longer supported by WRAP.

The Civil Engineering version of the DoWT has also been used and although the scope of its evaluation is limited for the external landscaping for a project of this type, it does provide a reasonable estimate of recycled content.

Evaluation

The high level evaluation of the recycled content uses data from the RIBA stage 2 cost plan, as this is the most accurate estimation of material use available at this early design stage.

The recycled content levels have been broken down into four categories to match the overarching development use types present in the development application:

1. Retail and Leisure
2. Hotel
3. Residential
4. Open Space / Public Realm (using the recycled content civil engineer infrastructure tool)

The areas of each development are indicative for recycled content evaluation purposes.



Results

Retail and Leisure (Approximate Area for assessment: 42,000m²)

Level	Recycled content
Baseline	26%
Good practice	34%
Potential improvement	7%

The high-level evaluation of the retail and leisure development shows a recycled content of 26% is achieved. Should good practice measure be adopted then a 34% recycled content could be achieved.

Hotel (Approximate Area for assessment: 1,579m²)

Level	Recycled content
Baseline	23%
Good practice	27%
Potential improvement	4%

The high-level evaluation of the retail and leisure development shows a recycled content of 23% is achieved. Should good practice measure be adopted then a 27% recycled content could be achieved.

Residential Areas (Approximate area for assessment 1,260m²)

Level	Recycled content
Baseline	13%
Good practice	15%
Potential improvement	2%

The high-level evaluation of the residential shows a recycled content of 13% is achieved. Should good practice measure be adopted then a 15% recycled content could be achieved.

Overall

The approximate area weighted average recycled content for the buildings 25.5%, surpassing the 10% requirement

Infrastructure

Level	Recycled content
Baseline	10%
Good practice	41%
Potential improvement	31%

The high-level evaluation of the landscaped areas shows a recycled content of 10%. Good practice measures will be targeted meaning a 41% recycled content could be achieved.



Conclusion

The assessment has been carried out using the high level DoWT tools based on early stage cost information. A more detailed assessment will be undertaken using the net waste tool during the detailed design stage of the project.

The early stage and high level assessment shows that the 10% recycled content target can be achieved in all the building types for the development.

The external recycled content is estimated to achieve a 10% recycled content, however there is scope to find products with improved levels of recycled content to achieve 41%. Good Practice measure will be targeted as they are deemed achievable by WRAP at no extra cost (subject to specification, procurement and financial review). These options will be continually reviewed during the developed design stages to ensure the targets are met.