

London Borough of Camden

**Chalcots Estate, London**

## Outline Specifications for Planning Submission

Document Ref: 259493-ARUP-ZZ-DOC-SPE-0001

Issue 2 | March 2018

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 259493-00

**Ove Arup & Partners Ltd**  
13 Fitzroy Street  
London  
W1T 4BQ  
United Kingdom  
[www.arup.com](http://www.arup.com)

**ARUP**

# Contents

	Page
<b>1 Introduction</b>	<b>1</b>
1.1 Purpose of this document	1
1.2 The project	1
<b>2 Façade systems</b>	<b>2</b>
2.1 EWS-A: Aluminium rainscreen cladding	2
2.2 EWS-B: Aluminium window system	3
<b>3 Thermal Performance criteria</b>	<b>5</b>
3.1 Thermal transmittance	5

# 1 Introduction

---

## 1.1 Purpose of this document

This document has been prepared during RIBA stage 3 and has been published as part of a package of documents being submitted for the purposes of planning approval.

The technical design of the façade and further co-ordination of the façade design will be carried out through RIBA stage 4.

The content of this document is intended to assist the planning approval process in terms of communicating the technical character of the façade systems.

## 1.2 The project

The general characteristics of the project are described below. Please also refer to the architectural drawings and detail drawings for a full understanding of the scope and the design.

The project is/includes:

- A refurbishment of five existing high rise, naturally ventilated residential buildings.
- Located on the Chalcot Estate, in the borough of Camden, London. The works will be undertaken on Bray, Burnham, Dorney, Taplow & Blashford Towers.
- Four towers (Bray, Burnham, Dorney & Taplow) that are 23 floors high with an existing concrete primary frame, and common floorplate throughout.
- One tower (Blashford) that is 19 floors high with an existing concrete primary frame, with a different floor arrangement.
- Glazed aluminium windows and opaque an overclad rainscreen system.

## 2 Façade systems

The following façade systems, their components and their materials are described in this section of the Specification.

- EWS-A: Aluminium rainscreen cladding
- EWS-B: Aluminium window system

### 2.1 EWS-A: Aluminium rainscreen cladding

a)	Extent / location	Blashford, Burnham, Bray, Taplow, Dorney, on all elevations
b)	System narrative	<ul style="list-style-type: none"> <li>• 4mm thick solid aluminium hook-on (four sided folded) rainscreen system.</li> <li>• Insulation (mineral rockwool) fixed to the backing wall (depending on locations, primary structure). Thickness as required to achieve specified thermal performance;</li> <li>• Drained and ventilated cavity behind rainscreen, min. nominal 50mm wide;</li> <li>• Open joints;</li> <li>• Cavity trays to be provided above horizontal fire stops;</li> <li>• Panels to be individually replaceable without de-installing adjacent panels</li> </ul>
c)	Support / restraint	<ul style="list-style-type: none"> <li>• Aluminium or stainless steel brackets and vertical rails (spanning one floor) with “hook-on” aluminium cassette panel.</li> <li>• Thermal break at brackets.</li> <li>• Vertical and horizontal joints between panels and lateral restraint bracket every floor.</li> </ul>
d)	Components	<ul style="list-style-type: none"> <li>• Solid aluminium panels. Minimum panel thickness to be 4mm. All corners shall be welded, not bent;</li> <li>• Aluminium or stainless steel substructure, guiderails and brackets and fixings.;</li> <li>• Thermal insulation, mineral rockwool;</li> <li>• Vertical and horizontal cavity barriers;</li> <li>• Aluminium flashings, copings and membranes.</li> </ul>

e)	Materials & finishes	<ul style="list-style-type: none"> <li>• PPC finish RAL 9002 Grey White.</li> </ul>
f)	Fire / Smoke Seals	<p>Cavity barriers:</p> <ul style="list-style-type: none"> <li>• around any openings (windows / boiler flues);</li> <li>• within external wall cavity at every compartment floors and compartment wall between apartments;</li> <li>• at the top of cavities;</li> </ul>
g)	Interfaces	<ul style="list-style-type: none"> <li>• Interface with windows, coping detail at roof and first floor façade type (brick).</li> <li>• Interfaces include boiler flues &amp; gas pipes.</li> </ul>

## 2.2 EWS-B: Aluminium window system

a)	Extent / location	Blashford, Burnham, Bray, Taplow, Dorney, on all elevations
b)	System narrative	<ul style="list-style-type: none"> <li>• Proprietary thermally broken aluminium window system, 4-side captive and rebated glass support system;</li> <li>• Including operable windows, 4 options being considered all with a similar external appearance: bottom hung open inwards, top hung open outwards, tilt &amp; turn open inwards and tilt &amp; turn open outwards;</li> <li>• Vision areas incorporate double glazed insulated glass units;</li> <li>• Opaque areas incorporate aluminium spandrel panels, with mineral wool insulation;</li> </ul>
c)	Support / restraint	<ul style="list-style-type: none"> <li>• Aluminium or stainless steel brackets are fixed to the existing concrete walls</li> </ul>
d)	Components	<ul style="list-style-type: none"> <li>• Proprietary aluminium window system, thermally broken extrusions;</li> <li>• Proprietary operable window system, thermally broken extrusions;</li> <li>• Insulated glass units with a selective solar coating and a low E coating,</li> </ul>

		<ul style="list-style-type: none"><li>• Aluminium spandrel panels, glazed in into window system.</li><li>• Mineral wool insulation;</li><li>• Fire stops;</li><li>• Aluminium flashings, copings and membranes.</li></ul>
e)	Materials & finishes	PPC finish RAL 9002 Grey White.
f)	Fire / Smoke Seals	Fire stops: <ul style="list-style-type: none"><li>• At every compartment floor;</li></ul>
g)	Interfaces	<ul style="list-style-type: none"><li>• Interface with aluminium rainscreen cladding, coping detail at roof and first floor façade type (brick).</li></ul>

## 3 Thermal Performance criteria

---

### 3.1 Thermal transmittance

The overall area weighted average U-value including centre pane U-values, framing U-values, all edge effects, interfaces and thermal bridges, shall be:

- Aluminium rainscreen cladding            0.30 W/m<sup>2</sup>.K
- Aluminium windows                            1.60 W/m<sup>2</sup>.K

These values comply with the minimum requirements as defined in Approved Document L1B.