

**Building Control Consult**  
Level 6, River Park House, 225 High Road, Wood Green, London N22 8HQ  
**Tel:** 020 8489 5504  
**Fax:** 020 8489 5229  
**Email:** building.control@haringey.gov.uk  
**www.haringey.gov.uk**



Head of Building Control Robert McIver

**Haringey Council**

## **ORLIT HOMES TUNNEL GARDENS 1-29 & BLAKE ROAD 73/75/77/79 N11**

# **STRUCTURAL ASSESSMENT SURVEY REPORT**



**31st July 2015**

**Prepared for:**  
Thomas Farrell  
Homes For Haringey  
Decent Homes Strategic Manager  
Broadwater Farm Depot  
108C Gloucester Road

**Prepared by:**  
Steve Hollyman  
Structural Engineer  
Building Control  
River Park House

---

**Client Name :** Haringey Council

**Location :** Orlit Homes Tunnel Gardens and Blake Road

**Description :** General Survey Report

**Project No :** BCC/T12

---

## CONTENTS

### INTRODUCTION

1. DESCRIPTION OF THE PROPERTIES
2. OBSERVATIONS
3. CONCLUSIONS & RECOMMENDATIONS
4. ESTIMATED COSTS

### APPENDIX

- A. PHOTOGRAPHS
- B. SKETCHES

Issue	Date	Description	Created By	Reviewed by
1	31 <sup>st</sup> July 2015	Report	SH	JY

---

**Client Name :** Haringey Council

**Location :** Orlit Homes Tunnel Gardens and Blake Road

**Description :** General Survey Report

**Project No :** BCC/T12

---

## **INTRODUCTION**

Further to your last email dated 24<sup>th</sup> July 2015, our Engineer, Mr Steve Hollyman, has inspected the estate, in particular No 12, to assess the structural condition of these non traditional precast concrete cavity walled houses. We have been asked to assess the condition as structures with likely remedial costs avoiding works which would be considered under the Decent Homes improvement works.

There are 32 homes in total arranged as 16 semi- detached 2 storey units. The homes were built on/around 1949 and are close to the top of Blake Road just south of the rail tunnel under.

The house No's are 1-27 and 29 Tunnel Gardens arranged as 3/5 etc to 27/29 and 4/6 etc to 24/26. No1 backs with 77 Blake Road and No 2 with 79 Blake Road and 73/75 Blake Road are paired. No 28 Tunnel Gardens is a separate traditional built house.

The houses were all built as council owned but several are now sold to leaseholders.

The houses have 3 bedrooms separate bath/wc upstairs with a through lounge and kitchen downstairs.

They all have flat concrete roofs.

There are drawings of the exact construction details but we have not been able to obtain a copy to date.

A concrete cover meter to indicate reinforcement was used in the survey.

Many of the houses have a plastic paint coating applied externally.

Some have extra insulation on the flat concrete roof applied.

No 12 is empty and has less alterations than others which allows a better understanding of the construction.

---

**Client Name :** Haringey Council

**Location :** Orlit Homes Tunnel Gardens and Blake Road

**Description :** General Survey Report

**Project No :** BCC/T12

---

## 1. DESCRIPTION OF THE HOUSES.

The fitness for purpose, condition and hence their remaining life depends mainly on an understanding of the construction and materials used. Thus the drawings mentioned above would have useful.

The houses have cavity walls. The outer skin is formed with concrete units mainly 1.22m by 0.4m and likely 130mm thick all bedded with mortar. The units are unreinforced but other narrow units about 75mm high at window heads etc, are reinforced and likely attached to the window and door frames. Window and door frames are reinforced concrete boxes attached to wall units.

There are corner column units formed in vertical sections and columns centrally located along the party wall and centrally to the house. The external walling protrudes 25mm beyond the base walling above ground level hence forming an edge drip.

The inner cavity walls were not exposed but assumed either to be similar but more likely full height panels each shaped to form door /window openings and others with specific details i.e. chimney breast and cupboards.

The floors are formed with timber mainly except the kitchen/hall downstairs which is ground bearing concrete. The ceiling void is deep being 300mm and this suggests that timbers span in 2 separate directions.

Likewise there is a void under the concrete roof formed with timbers and plasterboard.

There are several ground and first floor through cavity vents but no under floor ground floor vents visible.

The roof is formed likely with 100-125mm thick precast reinforced concrete.

The units are precast to the perimeter of the roof and it seems likely that it is also precast. There is no roof access. The roof falls to the centre.

The wall units at junctions appear non connected i.e. party wall and kitchen wall to outer wall and vertical cracks are present.

Some houses had rusty Crittal windows, others upvc replacement and some had concrete or plastic entrance canopies fitted.

---

<b>Client Name :</b>	<b>Haringey Council</b>
<b>Location :</b>	<b>Orlit Homes Tunnel Gardens and Blake Road</b>
<b>Description :</b>	<b>General Survey Report</b>
<b>Project No :</b>	<b>BCC/T12</b>

---

## 2. OBSERVATIONS

### External

Generally the properties appear in a fairly good condition externally and the condition is equivalent to conventional brick cavity houses. There are some fine cracks up-to 2mm wide between separate units and movement particularly at corner units. There were occasional cracked units but not many.

The external roof overhang soffit –only to No 12- had exposed rusty reinforcement, the other house presumably have been maintained and repaired. Some houses had cracked wall plinths but these were not common or appeared to be an issue.

A concrete cover survey showed good cover 30-50mm to reinforcement and no issues with bursting concrete etc due to rust.

### Internal

The floors appear well supported and No 12 has a plasterboard defect in the stair area. The entrance door edges crack where the plaster adjoins from the wall panels. Other windows have a similar defect but this is a minor issue. The units have steel power conduits in the concrete but these are embedded at 30mm plus and no problems exist.

There are vertical cracks at the wall corners where units appear not to be connected.

There is no measured or recorded dampness issues.

No 11 has a car impact damage which has fractured a unit by the front door. Other units have some diagonal cracks but none appear to be causing issues. One unit is ivy covered No 21.

---

**Client Name :** Haringey Council

**Location :** Orlit Homes Tunnel Gardens and Blake Road

**Description :** General Survey Report

**Project No :** BCC/T12

---

### **3. CONCLUSIONS & RECOMMENDATIONS**

The houses need localised external repairs mainly as follows:  
As these repairs are not related to structural integrity they can be carried out by bricklayers not precast repair specialists.

- 1) Externally cracked joints particularly around corners.
- 2) Cracked units require resin injection and making good.
- 3) Exposed reinforcement to No 12 soffit requires repair as does the damaged unit to the front of No 11.
- 4) The units need external air bricks front and rear to give under ground floor ventilation. (there are no known problems though)
- 5) Internally the issues are re-plastering around window /door frames and better inter panel connections.

Whilst the Decent Homes aspects are not intended to be covered here these could include (implementation partially affects the structural issues above) the following;

- 1) Complete external insulated render to reduce u values.
- 2) Insulated roof with either a new shallow pitch rafter system taking water to the outer edges with gutters and down pipes and drains or good quality felt on new insulation.
- 3) New bath suites
- 4) Complete replacement windows with double glazed upvc.
- 5) New concrete paths and drain survey and replacement as necessary.
- 6) Upgrade /check of heating and electricity installations.

**John Yiangou**  
**Structural Engineering Manager**  
**Building Control**  
**Haringey Council**

---

**Client Name :** Haringey Council

**Location :** Orlit Homes Tunnel Gardens and Blake Road

**Description :** General Survey Report

**Project No :** BCC/T12

---

**ESTIMATED COSTS (Per house)**

Mobile Scaffold erection and cutting out 40% @ £4,500 £1800  
and re-pointing joints as necessary.

External Resin repairs £750

Specific repairs to No 12/11 incl scaffold £5,000/32\*2 £350  
Double for un- surveyed works

Install 6 airbricks 3 front and rear make good £700

Internal ties to walls screw fixed and making good £1000  
but excluding re-plastering

Protection/miscellaneous works £400

Total £5,000

Prepare walls fill clean and apply paint 100m2 £2,000

Allow £7,000 per unit - 32 units c £225,000

**Client Name :** Haringey Council  
**Location :** Orlit Homes Tunnel Gardens and Blake Road  
**Description :** General Survey Report  
**Project No :** BCC/T12

---

## **APPENDIX A:**

### **PHOTOGRAPHS & SKETCH**

---

**Client Name :** Haringey Council

**Location :** Orlit Homes Tunnel Gardens and Blake Road

**Description :** General Survey Report

**Project No :** BCC/T12

---

Photo 1 : Typical front corner damage.



Photo 2: Paint Blistering uneven joints

---

**Client Name :** Haringey Council  
**Location :** Orlit Homes Tunnel Gardens and Blake Road  
**Description :** General Survey Report  
**Project No :** BCC/T12

---



Photo 3: Damaged arises.



Photo 4: Typical face-work house 12.

**Client Name :** Haringey Council  
**Location :** Orlit Homes Tunnel Gardens and Blake Road  
**Description :** General Survey Report  
**Project No :** BCC/T12

---



Photo 5: Typical corner damage.



Photo6: Unit 11 car damage.

---

**Client Name :** Haringey Council

**Location :** Orlit Homes Tunnel Gardens and Blake Road

**Description :** General Survey Report

**Project No :** BCC/T12

---



Photo 7: Blistered paint.



Photo 8: Under floor timberwork

---

**Client Name :** Haringey Council  
**Location :** Orlit Homes Tunnel Gardens and Blake Road  
**Description :** General Survey Report  
**Project No :** BCC/T12

---



Photo9: As above

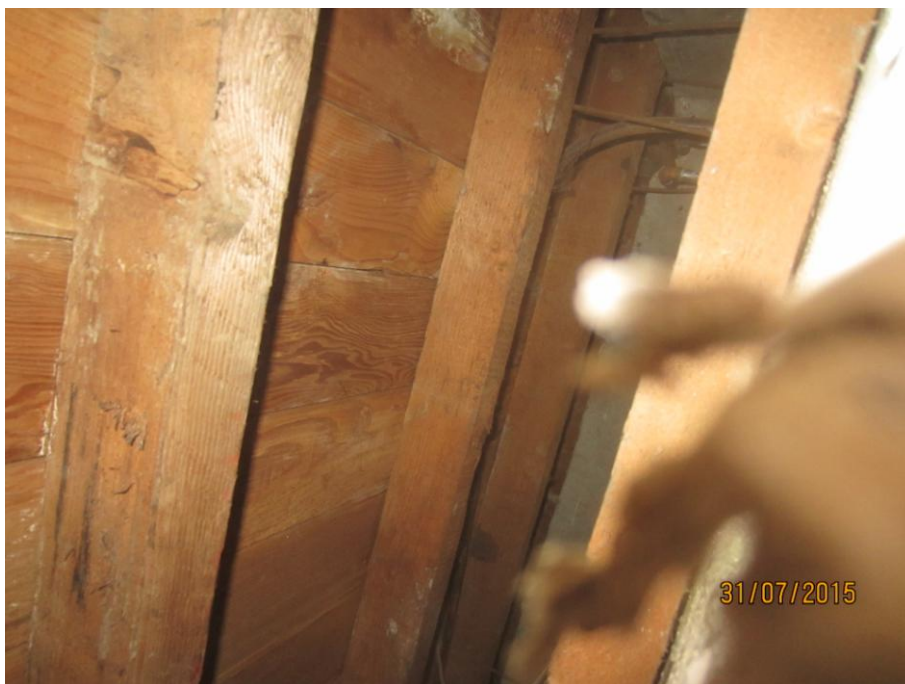


Photo 10: damage at window wall junction.

---

**Client Name :** Haringey Council

**Location :** Orlit Homes Tunnel Gardens and Blake Road

**Description :** General Survey Report

**Project No :** BCC/T12

---



**LOCATION PLAN**

**Client Name :** Haringey Council

**Location :** Orlit Homes Tunnel Gardens and Blake Road

**Description :** General Survey Report

**Project No :** BCC/T12



This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office  
© Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. LBH 100019199 (2011)  
31-Jul-2015

Scale 1: 2023

INTERNAL USE ONLY

**Client Name : Haringey Council**

**Location :** Orlit Homes Tunnel Gardens and Blake Road

**Description :**                      **General Survey Report**

**Project No : BCC/T12**

HARINGEY COUNCIL

## Structures Group

Project TUNNEL GALLOWS
$$x = 0.2 \leq 100.552$$

### Subject

## calculation sheet

Project No.	Sheet No.
_____	_____

Prepared by BADate 31/7/15

Checked by \_\_\_\_\_

Date \_\_\_\_\_

Revision \_\_\_\_\_

Date \_\_\_\_\_

