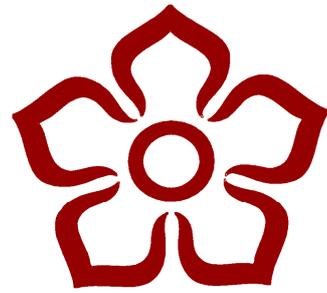


Projects Group

- [Redacted]



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REPORT
OF
**BRAUNSTONE HALL ROOFING
AREAS**

for
Leicester City Council

Project Nr. 80607

April 2012

Property

Projects



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SUMMARY

This report has been commissioned by the Property Department, Leicester City Council at the request of [REDACTED], from the Property Management section.

The purpose of the survey is to ascertain the condition of the roof areas to Braunstone Hall and advise on further courses of action if required.

The roofing areas are described in their current condition and proposed repairs identified, along with related information on the performance of the roof, followed by conclusions and recommendations.

The report also outlines costs for repairs to the roof structure with estimated costs for repair or replacement of the roof finishes amounting to [REDACTED] and replacement of substitute materials in lead amounting to [REDACTED].

1.0 INTRODUCTION

Braunstone Hall is located centrally to Braunstone Park which is approximately half a mile from Hinckley Road (A47). The building is Grade II listed of architectural Historic interest and was built in 1775 as the residence of the Winstanley family.

The building is typical of Georgian period design and architecture and various extensions were added to the property as time progressed. The current side entrance was built in 1911 and the building was used as a school from 1931 with a variety of alterations carried out in 1948.

From July 1996, the school was closed and has remained vacant since. The property has been a target for vandals, arsonists and thieves with consequential damage.

The intention of the local authority has been to protect the building, keep it safe, water tight and secure.

2.0 INSTRUCTIONS

We are acting upon your instruction dated 6th February 2012 to carry out a condition survey on the roofs and report on costs for repair.

2.1 Limitations towards the survey

The report concerns the condition of roof finishes to Braunstone Hall which were inspected between 13th and 27th February 2012. It must be acknowledged that defects can occur following the inspection and the surveyor cannot be held liable for these.

No intrusive investigation took place. The report was based upon visual inspection with the aid of access equipment. Some areas of the building were inaccessible and could not be inspected. Information from these areas has been dictated by historical data and by being viewed from afar.

The advice given in respect of repairs has been made without the aid of samples or detailed investigation.

2.2 Theft

The property has been subjected to periods of lead theft numerous times since being vacated. Substitute material such as mineral felt or ubiflex flashings were used as a replacement for lead in the following locations:-

- a) Main roof to hall's central flat area, flashings and parapets.
- b) East Wing Roof's flat area and flashings
- c) The Quadrangle's valley flashings
- d) Quadrangle's connecting toilet and link roofs
- e) Lantern skylight to central flat area of main roof to hall

Currently the affected areas are in sound condition and no rainwater leaks are apparent. The product has a ten year warranty and may last much longer. However, there may be a requirement to replace the substitute material with an original material such as lead.

3.0 ROOF AREAS

3.1 Main roof to hall

The roof covering to the main hall is of Swithland slate. It is a traditional design allowing the rainwater to flow towards the gutters. Centrally to the roof is a central flat area which contains a glazed skylight. Water to this flat area is disposed of by a secret lead lined box gutter. It was noted internally that water staining to the ceiling is apparent (Photo 6). The water staining is likely to be as a result of the gutter overflowing from a blockage within the gutter.

The roof covering is generally in satisfactory condition (Photo 3). However, there is slate slipping in isolated areas as evidenced in Photo 9. This photo shows internal damage likely caused by slate slippage on the roof above. These will require re-fixing or replacement.

3.1.1 Chimneys

There are 7 no. brick built chimneys which are in fair condition. There is minor spalling to facework of top courses. It is recommended the flaunching is renewed and repointing of brickwork is carried out.

3.1.2 Gutters

To the perimeter of the building there was previously a lead-lined parapet gutter which has been replaced in part by felt. It is recommended that the gutter is completely re-lined with lead and followed by a gutter cleaning regime.

3.1.3 Central Flat Area to the Roof

Access is available via a door leading onto the roof. The area is covered with felt (Photo 2) and is partially covered by a lantern skylight (Photo 1).

There are currently 3 no. glazing panels to the lantern light which are broken and replacement glazing is required. The lantern skylight has been stripped of lead and is currently temporarily lined with self-adhesive materials e.g. flashband to prevent rainwater leaks.

3.2 Lower classroom roof

The lower roof is covered with Swithland slates and clay hip & saddle back ridge tiles. The roof is in sound condition other than the following points:-

- Debris on roof.
- Damaged slates in isolated areas.
- Damaged eaves guttering
- Missing rainwater down pipes

It is recommended the roof is cleared of debris, damaged slates are replaced and missing rainwater downpipes replaced.

3.3 East Wing roof

This is a slate covered roof with felt rolled ridges. The covering is generally in good condition but the following is noted:-

- The flashings and ridges are currently of a temporary material.
- The flat area in between the East Wing and Hall is covered with a temporary felt material.

It is recommended that these two areas are returned to lead as per its original material.

3.4 Link roof between Main Hall and Quadrangle

The main hall and quadrangle is a linked corridor between the two buildings. The roof is currently covered by felt to ensure the building remains watertight.

Connected between the two buildings is a secret lead gutter which is located in the roof space. This is in a good condition. However, the following points were noted:-

- Overgrown vegetation.
- External downpipes are disconnected

The guttering should be cleared regularly and free of debris and vegetation.

3.5 Quadrangle Roof

There is a continuous pitched roof around the quadrangle building (Photo 5). The roofs are covered with Swithland slate and clay ridge tiles. The areas surrounding the valleys are in good condition after recent work to them (Photo 4).

There are isolated areas of slipped slates. These should be replaced or refixed.

3.5.1 Gutters

To the inside face of the quadrangle is a lead lined parapet. This is in a fair condition. It is recommended that the guttering is regularly cleaned and inspected to maintain rainwater flow and disposed of effectively.

To the outside face there are cast iron eaves gutters which are showing signs of corrosion. The majority of the guttering requires replacement. The rainwater downpipes have been removed to prevent access by unauthorised persons; these should be reinstated in cast iron.

3.5.2 Chimneys

There are no. 5 Chimneys all in a sound condition. 4 no. have been capped off and are ventilated.

3.6 Kitchen/Toilet Roof

This roof has been partly removed and a temporary scaffold roof structure sits over the top to prevent rainwater ingress. The kitchen is in a poor condition and needs to be completely rebuilt after substantial damage from arson.

3.7 Toilets to quadrangle roof

This is an L-shaped lean-to roof connecting from the quadrangle. The original slate covering has been removed and a temporary covering of felt is in position to ensure the building remains water tight. It is recommended that this is returned to Swithland slate and lead flashings.

4.0 GENERAL ITEMS

4.1 Dry Rot

Dry rot has previously been present in the property. This is likely to have been caused by water penetration through leaking roofs, bad ventilation and high humidity (Photo 7).

No dry rot was apparent during the inspection. It is recommended that the building is regularly inspected for further rot and the roofs are kept in good order to avoid further rot.

4.2 Bats

Bats have previously been found to be roosting within the building. Bats are protected under the Wildlife and Countryside Act 1981. It is an offence to deliberately harm bats or to destroy, obstruct or disturb any place which bats use as a roost. Natural England should be contracted prior to any works that would affect the roosts within the building.

4.3 Vermin

There has been evidence that squirrels and rats have been present in the property. The squirrels have apparently been eradicated by a licensed company.

4.4 Insulation

Due to the age of the property, roof insulation is minimal (Photo 8). However as per the requirement of Building Regulations Part L, Schedule 1 should a roof be altered, insulation is required which provides a U value of (0.16 W/m².k at ceiling level and 0.18 W/m².k at rafters' level). Allowance must be made in any re-roofing of the roofs at Braunstone Hall.

4.5 Ventilation

Ventilation to Braunstone Hall should be increased. In particular, within the roof to allow better air circulation and prevent conditions allowing rot to reoccur.

4.6 Roof Spaces

Safe access to the roof space could not be made and inspected due to the poor condition of the floor structure to the Quadrangle area of the building.

Thereby it is recommended that further investigation takes place for a thorough assessment of the condition of the roof timbers.

5.0 COST IMPLICATIONS

5.1 Costs for roof repairs are as follows:-

Main roof to hall - [REDACTED]

Lower Classroom Roof - [REDACTED]

Quadrangle and connecting roofs - [REDACTED]

(Including Toilets and link roof)

Partially rebuild kitchen and recover roof - [REDACTED]

Cleaning and repairing rainwater system - [REDACTED]

Total - [REDACTED] (Costs include for access equipment)

No cost have been included for upgrading the roof e.g. insulation or ventilation

5.2 Cost of replacing temporary, substitute materials:

Costs including for access which are independent of items in 5.1 above

Main roof to hall - [REDACTED]

Lower Classroom Roof - [REDACTED]

East Wing - [REDACTED]

Quadrangle and connecting roofs - [REDACTED]

(Including Toilets and link roof)

Total - [REDACTED]

These above costs do not include fees or VAT and are estimated costs. These actual costs will be subject to the extent of the works carried out e.g. timber battens behind roof covering etc. and most competitive tender received.

6.0 CONCLUSION

Braunstone Hall is an important local landmark which is an excellent example of 18th century architecture. Due to its importance both architecturally and historically the building is Grade II listed.

The building's historic listing imposes restrictions as to what can be altered but the authority have been committed to keep the building secure and safe to prevent further damage which has been problematic with theft and vandalism occurring.

The roof finishes to the building are generally in sound condition and the roof finishes have been adequately maintained to prevent excessive rainwater ingress. However there are some slate slippages over the building with isolated areas of dampness which will require attention.

The building has been subject to dry rot infestation as a result of poor ventilation. The majority of the slate covered roofs are in a sound condition due to the past works to maintain the building in a weather tight condition.

The authority has undertaken temporary repairs, replacing substitute materials for non-ferrous metals. This is due to on-going lead thefts and subsequent resulting damage. This has been undertaken in consultation with the local planning authority to maintain a wind and weather tight roof.

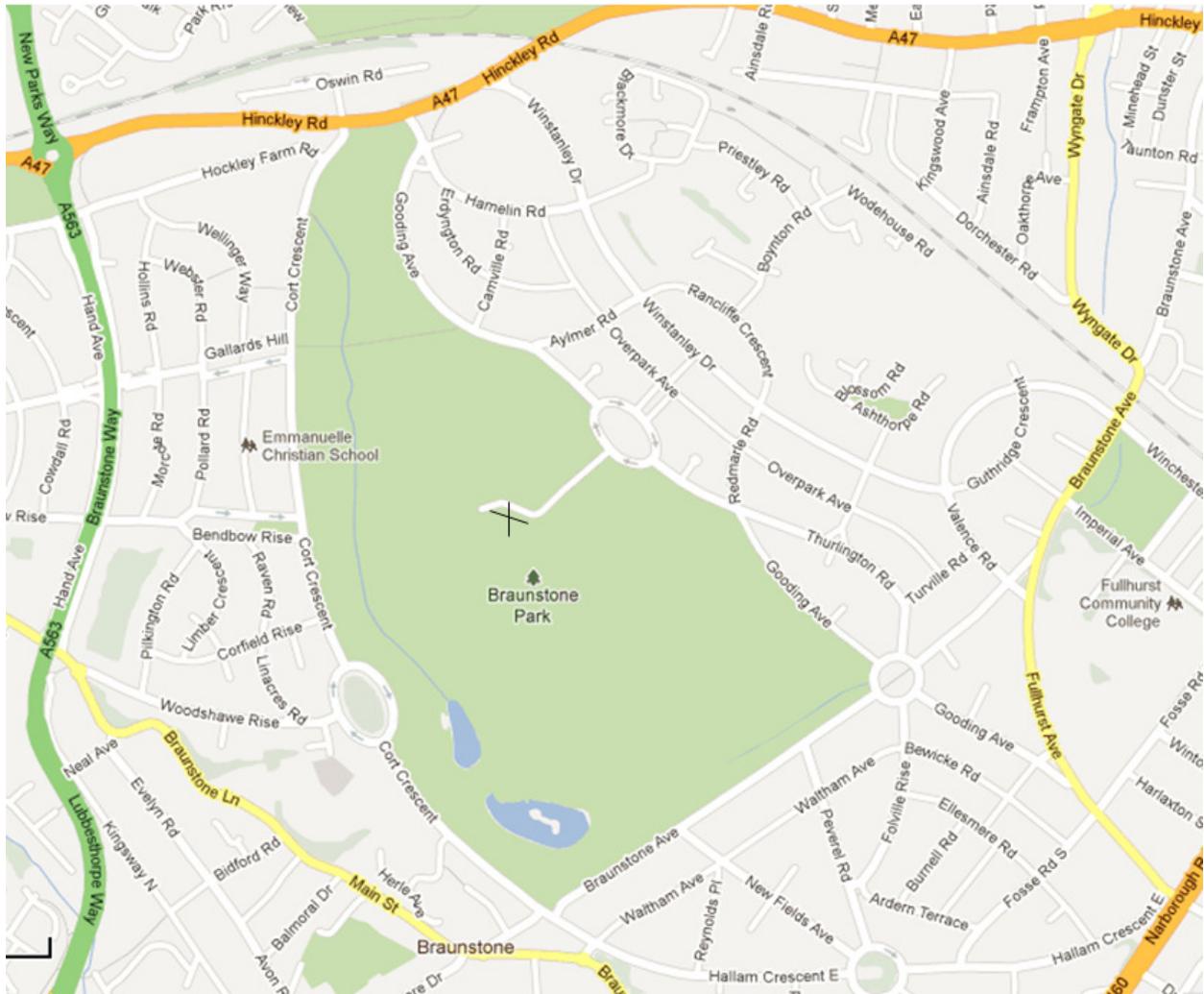
7.0 RECOMMENDATIONS

Over the past few years since the building has been vacated, the premises have been subject to damage and theft. It is recommended that the building is kept secure maintained in a safe , secure and weather tight condition to prevent further damage or decay to the internal fabric.

Any further proposed work where the historical character of the building is likely to be affected should be done in consultation with local conservation officers to ensure there is no breach of the planning legislation.

It is recommended that repairs to the roof are carried out as detailed within the report in conjunction with the cost implications.

Appendix A – LOCATION PLAN



Cross marks location of Braunstone Hall

Appendix B – PHOTOGRAPHS



Photo 1 – Broken Glazed Lantern



Photo 2 – Central flat area to main roof
Covered with substitute felt material



Photo 3 – Inner pitch of main roof
Taken whilst work was in progress.



Photo 4 – Valleys to quadrangle roof
As above



Photo 5 – Quadrangle Roof

Note: Vegetation growth around eaves gutter



Photo 6 – Black spot mould staining underneath central flat area of main roof



Photo 7 – Replacement timbers in quadrangle area after dry rot works



Photo 8 – Evidence of no insulation in roof space

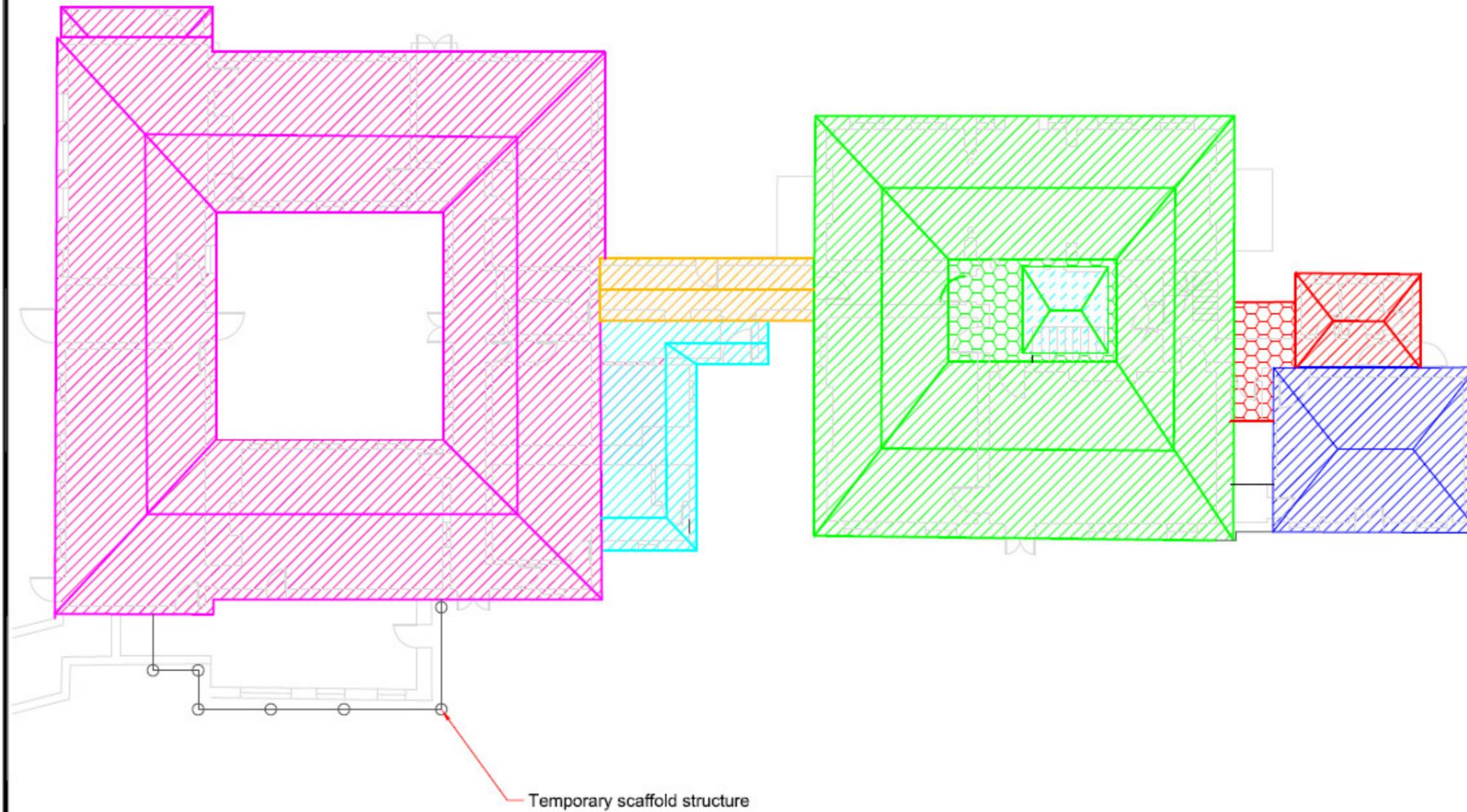


Photo 9 – Visible leak in main roof area

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2. ALL DIMENSIONS TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF WORKS.
3. THIS DRAWING IS COPYRIGHT TO LEICESTER CITY COUNCIL.
4. PERSONNEL SHOULD NOTE RELEVANT ITEMS REGARDING THE CONDITION OF THE EXISTING STRUCTURE CONTAINED WITHIN THE HEALTH & SAFETY FILE SHOULD THIS BE AVAILABLE

Key

-  Main hall
-  Felt flat roof (previously lead)
-  Glazed lantern skylight
-  East Wing
-  Felt flat roof (previously lead)
-  Lower Classroom
-  Link roof
-  Toilets to quadrangle
-  Quadrangle



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REVISIONS

Building Surveyors		Property 
Design	Procurement	
PROJECT NUMBER	80607	
PROJECT TITLE		
Braunstone Hall		Projects 
Roof Report		
Leicester City Council, New Walk Centre Welford Place, Leicester, LE1 6ZG		

TITLE		
Braunstone Hall Roof Plan		

DRAWING No	REV	SCALE
80607/01		1:200
DRAWN BY	DATE	
HG	03/03/2012	
CHECKED BY	SIZE/PLOT	
	A3	
ACAD FILE	USER	