

<b>Committee(s):</b>	<b>Date(s):</b>
Barbican Residential Committee	9 <sup>th</sup> December 2013
<b>Subject:</b> Barbican Estate – Concrete Investigation and Repairs	<b>Public</b>
<b>Report of:</b> Director of Community and Children’s Services	<b>For Decision</b>

**Summary**

1. This report follows the resolution of the Court of Common Council on 19 April 2012 requesting your Committee to consider the question raised by the Ward of Cripplegate, Within and Without that the City, as landlord, should not charge the cost of the work to the three Barbican towers to long leaseholders. This report provides a background as to why the work was necessary and evaluates whether the work can be considered to be the making good of a structural defect in the original construction.

**Recommendations**

2. That the Barbican Residential Committee is asked to consider this report and agree the conclusion that the works are not the rectification of a structural defect, but rather general repairs and maintenance, and that the lease stipulates that such work is recoverable through the service charge.

**Main Report**

**Background**

3. Your Committee received a report in March 2012 regarding the results of the concrete investigation and repair works which had been necessary to be undertaken to the three Barbican Towers. The general conclusion was that the concrete had been assessed to be in remarkably good condition for its age and that further works of this nature should not be necessary for 20 to 30 years.

4. On 19 April 2012, the following resolution was made from the Ward of Cripplegate, Within & Without to the Court of Common Council :

“Since the recent testing and remedial works to the concrete in the three Barbican Tower Blocks relate to structural matters, Barbican residents take the view that the costs for these works should be borne by the Landlord i.e. the City of London Corporation and not Long Lessees of the Barbican Estate. Does the Corporation not agree that this is a reasonable and correct assumption of Barbican residents? On what basis does the Corporation arrive at a different conclusion to residents and furthermore, what provision of the lease would justify charging Long Lessees for these works?”

5. It was resolved by the Court that the resolution be referred to the Barbican Residential Committee for consideration.
6. Following this resolution and a request by the Barbican Association (BA) to defer the final report, to enable further consideration to be given by the BA, a request for additional information was received from the Barbican Association in January 2013. The Questions and Officer’s responses are provided in appendix A.
7. A follow up meeting took place on 30<sup>th</sup> April 2013, chaired by the then BRC Deputy Chair – Mr Gareth Moore with representatives from the BA, RCC and present were City of London Officers, Bickerdike Allen Partners and Dr J Broomfield. Please see Appendix B – Minutes of Meeting 30<sup>th</sup> April 2013.
8. A report scheduled for Barbican Residential Committee in September 2013 was further deferred, at the request of the Barbican Association (BA), until December 2013. During the intervening period, additional information was requested by the BA, which was subsequently provided by Officers on 27<sup>th</sup> September 2013. An exchange of correspondence has been entered into between the BA’s solicitors and the City of London Solicitor’s, however, to date no additional information has been forthcoming to articulate their argument in support of their request that the City of London should not charge the cost of the work to the Tower block long lessees.

### **Summary of the work carried out**

9. Following the safe removal of a loose section of concrete to Shakespeare Tower in June 2011, consultants Bickerdike Allen Partners were called in to provide specialist advice. Following receipt of their recommendations, arrangements were put in place to inspect all three Towers for loose concrete fragments due to the potential health and safety risk, and tests carried out to determine the condition of the concrete generally.

10. As the estimated cost of the work exceeded the statutory limit for leaseholders' contributions, a statutory consultation notice was issued to leaseholders concerning the investigative works. A further notice was despatched, when the extent and cost of the repairs became known, following the examination and report by the Engineers. In July 2013 the City of London sought and obtained dispensation from further consultation from the Leasehold Valuation Tribunal (now First Tier Tribunal – Property Chamber), under section 20ZA of the Landlord and Tenant Act 1985, in relation to the works undertaken thus far and the retention of Structural Renovations for the forthcoming finishing works.

### **The issue of a “structural defect” in relation to the concrete repairs**

11. The term “structural defect” in this context relates to the original Housing right to buy legislation which stipulated that a local authority landlord could not recover the cost of correcting such defects from leaseholders. However, these costs could be recovered if the purchaser of the flat had been informed of the defect before the purchase or, if the defect did not become apparent to the landlord until at least 10 years after the sale.

12. For comparison purposes, in the case of the renewal of the Barbican roofs, carried out in the 1990's, the City Corporation agreed that it would pay for the cost of correcting structural defects as it was clear that a number of problems were caused by inadequate design or workmanship and these had been evident from the building's original completion. The cost of renewing building components associated with the defects that had failed through normal wear and tear were however recovered through the service charge provisions contained in the lease.

### **Concrete Inspections and Nature of Repairs.**

13. The results of the recent technical investigation carried out by the engineers have been analysed by consultants Bickerdike Allen Partners and their March 2012 report is attached as Appendix C. In general terms, the repairs were entirely expected and usual for buildings of this age and, following laboratory analysis, the concrete was found to be of very high quality. The isolated problems discovered were typical of a building which is over 40 years old and were very minor in relation to the overall amount of exposed concrete. In contrast, an example of a problem discovered with older concrete buildings was the use of high alumina cement during construction, which eventually results in a weakening of the concrete; fortunately, this material was not used in Barbican concrete.

14. The repairs required were of a cosmetic nature rather than structural – i.e. they did not adversely affect the load bearing capacity – although they had to be classified as essential due to the health and safety risk. It is accepted that all elements of a building will deteriorate over time, and it

is reasonable to expect that periodic inspection and maintenance work of this nature will be required to keep the property in good condition for the future.

15. The works to the concrete do not amount to works to make good a structural defect but are works necessary to effect repairs and maintenance, unlike for comparison the replacement of the Barbican roofs, which were known not to be fit for purpose, as they were leaking from the outset due to incorrect design.

16. This statement is further supported by earlier inspections of the Towers carried out by Ove Arup in 1986 at which time they concluded that:

*“The concrete of all three Tower Blocks has, as reported to you, recently been inspected. The condition of the concrete was discovered to be generally good, and free of major defects.*

*None of these defects are of structural or other particular significance. No such defect has constituted a potential safety hazard, for example, arising from the detachment of concrete from the building surface.*

*No evidence of defects due to alkali silica reaction, or chloride attack, were evident on inspection, or were expected.”*

### **Corporate & Strategic Implications**

17. The works contribute to the following aims of the City Together strategy: “supports our communities” and “protects, promotes and enhances our environment”.

### **Legal Implications**

18. The Comptroller and City Solicitor have been consulted in the preparation of this report and their comments are incorporated in the report.

### **Conclusion**

19. Taking into consideration the nature of the repairs required, officers are of the view that the concrete investigation and resultant repairs should be regarded as periodic repair and maintenance of a building over the course of its life rather than making good a structural defect. In relation to the clause in the lease requiring the City to recharge for the cost, Clause 4 (3) of the standard lease provides that the tenant covenants to:-

- i. "Pay to the City in the manner and at the times hereinafter described a reasonable part of the costs of carrying out specified repairs and of insuring against risks involving specified repairs".
- ii. "the costs" means the costs of carrying out specified repairs and of insuring against risks involving specified repairs and "specified repairs" means repairs carried out in order:
  - (i) to keep in repair the structure and exterior of the premises and of the Building in which they are situated (including drains gutters and external pipes) not amounting to the making good of structural defects;
  - (ii) to make good any structural defect of whose existence the City has notified the tenant before the date hereof (such defects being listed in the Fourth Schedule hereto) or of which the City does not become aware earlier than five years after the grant hereof; and
  - (iii) to keep in repair any other property over or in respect of which the tenant has any deemed rights"

20. Therefore, even if the repairs amount to the making good of a structural defect, which they do not, long leaseholders still have a contractual obligation to contribute towards the costs incurred as a result of the operation of the second part of sub-clause ii(ii) above and as referred to in paragraph seven above.

### **Background Papers:**

Report to the Residents' Consultative and Barbican Residential Committees: 12 March and 26 March 2012

### **Appendices**

Appendix A – Response to BA questions Jan 2013

Appendix B – Minutes of meeting 30<sup>th</sup> April 2013

Appendix C – Bickerdike Allen report dated 16 March 2012

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**Barbican estate concrete: surveys, repairs, and charging**  
**Questions / Answers**

1. It is clear from the previous reports we have now seen, notably *Barbican Estate—Spalling Concrete*, report dated 5 April 1986 for Barbican Residential Committee, 14 April 1986 and the *Physical Future of the Barbican Estate* 1991, that the existence of some defects to the concrete has been known to the City since at least 1986.

For example, in para 2.2.6 of the 1986 report it describes a number of minor defects “due to local instances of insufficient cover to reinforcement and less dense concrete.”

The fact that the attendees at the 1986 meeting to consider the report included the town clerk and senior officers from the city engineer’s department suggests that there was concern at a high level within the City about the nature of defects to the concrete at that time.

1) Prior to the April 1986 concrete report there had been a number of issues concerning the Barbican Estate and all of its building components, including health & safety implications, some of which had involved possible litigation against Chamberlin, Powell and Bonn, the architects of the estate. In view of this, subsequent issues that arose at that time concerning the concrete were also reviewed by senior officers. With regards to the concrete aspect, the April 1986 report states that “none of the defects are of structural or other particular significance. No such defect has constituted a potential safety hazard” and “the condition of the concrete was discovered to be generally good, and free from major defects.”

2. Both the 1986 and 1991 reports state that the consultants consulted at the time said that the defects should be mitigated by repairs followed by regular monitoring and maintenance.

For example, in the 1991 report Section 2 on pp. 4-5, covers the “Structure and Exterior”. Within sub-section 2.1, Concrete, it says: “The concrete should be durable, provided that proper maintenance is carried out.”

2) Periodic inspections of the concrete have been carried out; either by commissioned specialists or by Barbican Estate staff and contractors in the course of their normal duties or through carrying out conditions surveys to inform other works specifications e.g. external redecoration. Whenever defects have been identified these have been attended to either individually or as part of a wider programme e.g. mastic works to concrete joints. In all cases these defects have been minor and most did not require any remedial action.

3. The defects identified in the concrete in the 1986 report were not listed in schedule 4 to the leases that were issued by the City when people started to buy long leases to the flats.

3) The defects identified in the 1986 report were not included in schedule 4 of the leases issued to prospective buyers because they are not considered to be a structural defect.

4. The repairs and regular inspections and maintenance recommended in 1986 and again in 1991 were not carried out.

4) Following the 1986 report, repair works were carried out. This is confirmed in the Ove Arup report.

5. The work done in 2012, the subject of the current reports, is the first repair and maintenance that has been done to rectify problems first formally identified in 1986. We accept that the concrete generally is in good condition (something residents are pleased about). However, the main areas that have needed repair this year clearly have needed it as a result of low compaction and poor coverage (and inadequate initial repairs to those defects) that were present from the outset, at the time the buildings were built. The costs have primarily arisen from the need to remedy these initial defects.

5) The works carried out in 2012 were not unexpected and were considered to be reasonable for a building of this age and type.

6. The costs of the 2012 works to the three Barbican towers are due to be charged in full to the long leaseholders. The known existence of the defects in 1986; the lack of declaration of these defects in leases issued subsequently to 1986; and the lack of the planned monitoring and maintenance recommended in 1986 and 1991 until this year make it manifestly inequitable that all the costs should fall on the long leaseholders.

We therefore seek a discussion with you and your officers about the equitable distribution of the costs for the current concrete works – and any future similar repairs to the terrace blocks.

We also have concerns that the work done in 2012 was more expensive than it need have been (in particular, in the use of the scaffolding).

6) The scaffolding was required for the protection of the residents and the public and was a necessary requirement of the CDM Co-ordinator and the contractors. It was cost effective to leave the scaffolding in place whilst the cosmetic repairs were carried out rather than strike the scaffolding and re install it.

7. Given this last concern about a lack of cost control, together with the failure to follow up on the 1986 and 1991 reports, we also want to discuss with you the future procedures for asset management on the estate. As you know, we have long pressed for better asset maintenance planning and this has led to a working party on this issue. However, the only tangible result has been the selection of asset maintenance software. Proper implementation should significantly improve matters but we believe that 1) this effort needs to be accelerated so we can attempt to head off future issues such as this one, and 2) residents need to be more fully involved in the major maintenance decisions.

It is clear to residents that section 20 notices no longer provide long leaseholders with the level of consultation that they need and are entitled to (as major payers) about major works. Such consultation needs to include much more initial discussion of the details of the work, its rationale, its specification, and the methods of working. We trust that the BRC will not consider further the report it already has before it until we have had a chance to discuss these issues with you and your officers. We will, of course, make ourselves available for a meeting at your earliest convenience.

- 7) Section 20 consultation is required by the Housing Act. However, where possible the BEO exceeds this requirement consistently. We consult through a variety of mediums; house groups, newsletters and individual letters to leaseholders. We use public forums such as the RCC and the BA, and we hold open meetings as evidenced in the Beech Gardens and Redecoration projects.

Asset Management has been provided through planned inspection cycles and condition surveys. In 2010 the Asset management working party was convened with a remit to develop an Asset Maintenance Plan in order to:

- maintain the fabric of the property in good condition, especially in view of its listed status, and therefore extend its life
- manage Health and Safety requirements – for example, the asbestos register and Health and Safety equipment
- gather and analyse information from day to day maintenance work
- avoid unplanned costly major repairs and to plan future financial commitments both for the landlord and residents with a view to saving money in the long term
- identify any opportunities for savings that can be made – for example, whole life cycle costings
- survey and monitor the condition of the buildings, make an assessment of the life expectancy of components so that replacement works can be programmed
- assess the buildings in terms of their sustainability and energy efficiency.

The introduction of the Asset Manager role, within the new Property Services structure, will lead this group in the development of the Asset Management strategy and the implementation of new asset management software will ensure that this aspect of the service is more visible in the future.

Specific projects to maintain or improve the asset will be delivered in accordance within the City of London's project governance arrangements; reporting through a local programme board and Project Sub Committee as required.

Our commitment to resident involvement can be evidenced as mentioned above and we will continue to consult with residents both in terms of development of the strategy and specific asset management plans and projects.

### MEETING TO DISCUSS THE CONCRETE REPAIRS ON THE BARBICAN ESTATE 30 APRIL 2013 – 11 AM – BARBICAN ESTATE OFFICE

#### PRESENT:

GARETH MOORE – Deputy Chairman of the Barbican Residential Committee (BRC)  
TIM MACER – Chairman of the Barbican Residents' Consultation Committee (RCC)  
JANE SMITH – Chairman of the Barbican Association (BA)  
ROBERT BARKER – Secretary to the Barbican Association  
EDDIE STEVENS - Housing and Technical Services Director - Community and Children's Services  
KAREN TARBOX - Head of Technical - Community and Children's Services  
DR RON CASSON – Concrete Consultant, Bickerdike Allen  
DR JOHN BROOMFIELD – Concrete Corrosion Specialist  
JULIE MAYER – Town Clerks (Clerk to the BRC and RCC)

This meeting had been called at the request of the RCC and the BRC, who had set today's agenda.

#### 1. APPORTIONMENT OF COST

The BA and RCC considered it essential that the City should apportion the costs equitably and given the history, the research they had undertaken and the opinions they had sought, they did not believe that the City's stance; i.e. that this was a 100% service charge matter, was justifiable.

Mr Barker felt that the fundamental issue was the definition of 'structural defects' and 'defects affecting the structure'. The group were asked to note an extract from the BRC minutes from 1986, which referred to minor defects on the Estate. Mr Barker felt that they should have been mentioned in subsequent leases; that the original workmanship had been inadequate and the City was therefore liable and not the long leaseholders. Mr Barker also urged the City to revisit Counsel's opinion in this matter, which had been sought by the Comptroller and City Solicitor in 1999 and 2000. Mr Stevens later confirmed that this had been done.

The group then studied pictures from a balcony at Willoughby House, where some steel had been exposed. The property was owned by Mr Macer, who confirmed that the balcony had been in this condition for at least 10 years but that there had not been any further deterioration in that time. In concluding, the RCC and BA accepted that some of the defects were due to fair wear and tear but they would like to see a fair apportionment.

Eddie Stevens then invited Dr Casson, a leading UK concrete expert, to explain the structure of concrete and its deterioration.

Dr Casson advised that all concrete structures built in the same era (i.e. 1960's and 70's) were similarly affected and the defects on the Barbican Estate were very typical. Dr Casson referred to the tabled photographs and, whilst unsightly, explained that the concrete's function was not impaired and there was no evidence of creeping corrosion on the exposed steel. In fact, Dr Casson was surprised at the very low level of deterioration on the Barbican Estate, given that many 1960's/70's concrete buildings had now been demolished. The number of affected concrete elements was very low compared with the total number in the estate, and this again reflected the high standards of construction.

In concluding, Dr Casson recommended stabilisation and cosmetic repair but emphasised that the deterioration was neither a 'structural defect' nor a 'defect affecting the structure'. Dr Broomfield concurred with Dr Casson's view and agreed that the Barbican Estate was generally a well-made structure, given that build and design standards of the 1960's and 1970's were greatly inferior to those of today.

Dr Broomfield then explained that there was currently no guidance as to how often concrete buildings should be inspected, although bridges and car parks were covered by legislation. Furthermore, prior to the introduction of robust European standards in 2000, materials and guidance had been unreliable and, therefore, any repairs could reasonably have had to have been undertaken 2 or 3 times in the time up to now, if carried out in accordance with earlier standards.

Mr Barker challenged whether proper maintenance had been carried out. Mr Stevens explained that maintenance works are regular and planned, generally before any fault arises but concrete cannot be maintained in this way. Dr Broomfield suggested that the rate of regression and timing of future repairs could be estimated from the current rate of carbonation and cover depths but this would be a complex task.

Dr Casson confirmed that the concrete on the Barbican Estate was in excellent condition, given its age. Dr Broomfield advised that low compaction occurred in all concrete buildings but new builds use special additives which prevent it. Such additives were not available in the 60's and 70's. Dr Broomfield also advised that structures such as the Barbican reach their 'design life' after about 50 years and therefore concurred with Dr Casson's view as to the Estate's excellent condition. In response to a question about carbonation, Dr Casson advised that this would only be deemed a structural defect if it coincided with low cover, which was generally not found in the surveys that had been carried out.

In concluding, Mr Stevens advised that, having carefully considered the views of leading experts in the field, he would be recommending this as a chargeable repair to long leaseholders.

The BA and RCC accepted the conclusion but, given the evidence presented, asked if there was any merit in making the repairs. Dr Casson and Dr Broomfield advised that whilst there was no pressing need from an engineering perspective, cosmetic repairs should be phased over the next few years. The BA and RCC asked to see the full concrete reports and details of any works carried out between 1991 and the present day. Mr Stevens offered to facilitate at future resident meetings on this matter.

Dr Casson and Dr Broomfield finally explained the rationale behind the amount of scaffolding used. The group noted that, as some of the testing had necessitated 'hammer tapping', there had been a risk of falling concrete. Furthermore, given the height of the tower blocks, simply cordoning off the blocks would not have provided sufficient protection. The scaffolding had remained in place whilst the concrete test results were being analysed, as this was more cost effective than dismantling and re-erecting it.

## **2. FUTURE MAINTENANCE AND ASSET MANAGEMENT PROGRAMME**

This issue highlighted the concerns expressed through the RCC and from the BA over the urgent need for an asset maintenance programme, as there will inevitably be aspects of the fabric that will require more maintenance, as the Barbican Estate ages. The BA and RCC felt that progress had been very slow to date, and sought an update on the current status.

Mrs Tarbox advised that Mike Saunders (Asset Manager) is leading on the development of the Barbican Asset Management Strategy, working with the Asset Management working party. Mrs Tarbox advised that the focus of the group to date had been on the procurement and implementation of the asset management software and acknowledged that progress had been protracted. Mrs Tarbox confirmed that work had commenced on a draft strategy, aligning key objectives to those of the City of London's Asset Management Strategy, and that an outline draft would be produced by the end of May in order to commence discussion with the working party, at a meeting to be arranged in June, regarding the further development of the strategy. (M Saunders will be arranging this meeting). Mrs Tarbox also advised that the target date for wider consultation of the strategy would be some time in August.