

Cabinet

Tuesday 10 December 2013

4.00 pm

Ground Floor Meeting Room GO1A, 160 Tooley Street, London
SE1 2QH

Supplemental Agenda No.1

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Contact

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Date: 6 December 2013

Agenda Item 7

Item No. 7.	Classification: Open	Date: 10 December 2013	Meeting Name: Cabinet
Report title:		Deputation Requests	
Ward(s) or groups affected:		All	
From:		Proper Constitutional Officer	

RECOMMENDATION

1. That cabinet consider whether to hear a deputation from local residents with regard to the claimed lack of signage indicating the location of the Rose archaeological site.
2. That cabinet consider whether to hear a deputation from the Herne Hill Forum and Herne Hill Traders with regard to the issue of the problems that Herne Hill Traders are facing in the area following the devastating floods due to a burst water main in August 2013.
3. That cabinet consider whether to hear a deputation from local residents with regard to their request to submit a proposal to government for the introduction of a local levy on large supermarkets within the borough.

BACKGROUND INFORMATION

4. When considering whether to hear the deputation request, cabinet can decide
 - To receive the deputation at this meeting or a future meeting; or
 - That the deputation not be received; or
 - To refer the deputation to the most appropriate committee/sub-committee.
5. A deputation shall consist of no more than six people, including its spokesperson. Only one member of the deputation shall be allowed to address the meeting for no longer than five minutes. After this time cabinet members may ask questions of the deputation for up to five minutes. At the conclusion of the questions, the deputation will be shown to the public area where they may listen to the remainder of the open section of the meeting.

KEY ISSUES FOR CONSIDERATION

Local residents with regard to lack of signage indicating the location of the Rose archaeological site

6. The local residents have requested a deputation to draw attention of Councillors to lack of signage indicating the location of the Rose archaeological site and to request that this be rectified as soon as possible.
7. The deputation advise that the Rose Theatre was the first theatre to be built on the Bankside in 1587 and that the remains of the theatre (discovered in 1989) are a major tourist attraction. The deputation advise that many visitors to the site have complained of the difficulty of finding it as there are no signposts indicating

its location. Other attractions such as the Globe, Vinopolis, Borough Market, and the Golden Hinde are signposted. The deputation believe that the Rose should also be signposted.

Herne Hill Forum and Herne Hill Traders

8. The deputation would like to raise the issue of the problems that Herne Hill Traders are facing in Herne Hill after the devastating flood due to a burst water main in August. The deputation advise that Herne Hill was an area being regenerated with new businesses starting up and a strong local community. The deputation have advised that the flood has set this back with potential long term damaging effects. The deputation want to ask the council for its full support in obtaining recompense from Thames Water that will ensure the community can restore the good work done by all in the area over the last few years.

Local residents request for a local levy on large supermarkets within the borough

9. The areas the deputation wish to cover are set out below:
 - description of the impact that large supermarkets have on local community life within the borough and the related local economic situation
 - a brief explanation of something that could help the above situation: the case for submitting a proposal to the government under the Sustainable Communities Act that requests that the council to be given the power to, if it so wishes, introduce a local levy on large supermarkets within the borough
 - detail of the background to this proposal: a similar levy has already been legislated for separately by the Northern Ireland and Scottish Parliaments early last year
 - detail of the support the proposal already has from other local authorities, e.g. Derby City Council, Weymouth and Portland Borough Council and Enfield Borough Council
 - a request for the council to resolve to submit this proposal under the Sustainable Communities Act.

Community impact statement

10. The Southwark Constitution allows for deputations to be made by groups of people resident or working in the borough.

REASONS FOR URGENCY

11. The deputation requests were received in line with the constitutional deadline for the receipt of deputation requests and are therefore eligible for consideration by cabinet as to whether or not to hear the deputations at this meeting.

REASONS FOR LATENESS

12. The deadline for the receipt of deputation requests was midnight 4 December 2013, after the main cabinet agenda despatch on 2 December 2013. It has therefore not been possible to send out this report five clear days in advance of the meeting.

BACKGROUND DOCUMENTS

Background Papers	Held At	Contact
Cabinet procedure rule 2.11 on deputations (page 163):	160 Tooley Street, London SE1 2QH	Everton Roberts 020 7525 7221 or Paula Thornton 020 7525 4395
Link http://www.southwark.gov.uk/downloads/download/133/councils_constitution		

APPENDICES

No.	Title
None	

AUDIT TRAIL

Lead Officer	Ian Millichap, Constitutional Manager	
Report Author	Paula Thornton / Everton Roberts, Constitutional Officers	
Version	Final	
Dated	6 December 2013	
Key Decision?	No	
CONSULTATION WITH OTHER OFFICERS / DIRECTORATES / CABINET MEMBER		
Officer Title	Comments Sought	Comments Included
Director of Legal Services	No	No
Strategic Director of Finance and Corporate Services	No	No
Cabinet Member	No	No
Date final report sent to Constitutional Team	6 December 2013	

Item No. 20.	Classification: Open	Date: 10 December 2013	Meeting Name: Cabinet
Report title:		Lakanal Inquiry – Sprinkler Feasibility Study	
Ward(s) or groups affected:		All	
Cabinet Member:		Councillor Ian Wingfield, Deputy Leader and Cabinet Member for Housing Management	

FOREWORD - COUNCILLOR IAN WINGFIELD, DEPUTY LEADER AND CABINET MEMBER FOR HOUSING MANAGEMENT

The inquest into the fire at Lakanal reviewed all of the factors which contributed to the tragedy, including areas where the council had failed. The Coroner made a number of recommendations for the council, to address the failures, to review our working practices and the information, advice and guidance the council provides to make sure that the safety and well-being of our residents is fully protected into the future.

When reviewing the recommendations, I am constantly mindful of the responsibility the council has as a landlord to keep our residents and homes safe. Some of the recommendations have already been completed by the council, not least because of the dedicated fire safety team which already coordinates the council's landlord responsibilities for fire safety, while other recommendations that take a little longer to fully complete are well underway.

The report to Cabinet on 14 May 2013 covered the council's response to the Coroner regarding all her recommendations. While this report concentrates on the Coroner's recommendation that the council considers the question of retro fitting sprinklers to high rise residential blocks, it also gives an update on progress with all the recommendations.

RECOMMENDATIONS

That Cabinet

1. Notes and approves the contents of this report.
2. Approves the installation of sprinkler systems in all existing sheltered housing schemes by September 2016, and any built in the future, using the option 1 model set out in paragraph 39.
3. Approves the installation of sprinkler systems in all existing temporary accommodation hostels by September 2016, and any built in the future, using the option 1 model set out in paragraph 39.
4. Approves the installation of LD2 type automatic battery powered smoke/heat detection to all the council homes forming part of this study by March 2015.

5. Approves the installation of LD2 type automatic battery powered smoke/heat detection to council homes across the borough over the next 10-15 years through the major works investment programme.
6. Instructs the Strategic Director of Housing and Community Services to explore ways in which leaseholders could be provided with similar early detection and warning, considering the likely funding, management and other issues.
7. Instructs the Strategic Director of Housing and Community Services to work with the Southwark SAIL (safe and independent living) project in order to consider alternative fire safety solutions for vulnerable residents, as set out in paragraphs 52 and 53.

BACKGROUND INFORMATION

8. The Lakanal fire on 03 July 2009 in which six people died was a dreadful tragedy and one of the darkest days in Southwark's recent history. In response to the fire the council made a number of improvements to its management of fire safety, including:
 - the creation and establishment of the in-house fire safety team;
 - the immediate undertaking of the programme of Fire Risk Assessments (FRAs) to all blocks of five storey and above, completed by April 2010;
 - the prioritisation of FRA works carried out, with £48m spent/committed to date;
 - the professionalisation of the FRA responsibility, with the in house fire safety team having responsibility for blocks of four storey and above and new FRAs completed in March 2013;
 - achieving full compliance with the Regulatory Reform (Fire Safety) Order 2005 (the legislation which governs the need for fire risk assessment) by having suitable and sufficient FRAs in place for all blocks where required;
 - the forging and maintenance of a strong relationship with the London Fire Brigade (LFB) operationally and strategically, initially with the co-signed Memorandum of Understanding;
 - clear advice, information and guidance given to residents including use of secondary means of escapes, the removal of grilles and gates, the need for clear walkways, stairs and common areas, the disposal of refuse;
 - working toward a strategy for enforcing fire regulations in leasehold properties sub-let as Houses in Multiple Occupation (HMOs).
9. The Coroner's inquest into the tragedy commenced on 14 January 2013 and narrative verdicts were returned by the jury on 28 March 2013.
10. Pursuant to Rule 43 of the Coroners Rules (as amended), the Coroner wrote to the London Borough of Southwark on 28 March 2013.
11. The Rule 43 letter recognised steps the council had already taken since the tragedy, however it also made a number of recommendations.
12. Rule 43A of the Coroner's Rules required that the council respond to the coroner within 56 days starting from the day the report was sent to the chief executive of the council.

13. The council responded on 23 May 2013 with details of action that had been taken and which would be taken.
14. In its response the council firstly defined high rise buildings as being those above 30m, equating to those of 10 storey and above, and advised that it would also apply the coroner's recommendations to known lower storey but complex blocks, i.e. those with more than one means of escape, along with the council's sheltered housing schemes and temporary accommodation units.
15. Attached as Appendix 4 is an update which shows the good progress made against all of the recommendations, and for those not yet completed the timescales for their completion.
16. The council's response to the last and most significant recommendation that "the authority consider the question of retro fitting of sprinklers in high rise residential buildings", advised that the council would undertake a full feasibility study which would conclude within 6 months.
17. To this end, and following the standard procurement process, an independent consultant, the Frankham Consultancy Group, was engaged to undertake the feasibility study.
18. The final feasibility report was received on 28 November 2013, and the report and recommendations are summarised below. Appendices 1, 2 and 3 refer.

KEY ISSUES FOR CONSIDERATION

19. The most significant recommendation is that the coroner asked the council to consider the question of retrofitting sprinkler systems to high rise residential buildings. The same recommendation was made in the Rule 43 letter relating to the inquest into the tragic deaths of two fire fighters in Southampton, which recommended that "Social housing providers should be encouraged to consider the retro-fitting of sprinklers in all existing high rise buildings in excess of 30 meters in height".
20. The installation of sprinkler systems into newly built high rise blocks with a floor or floors over 30m in height is required by the Building Regulations and should be installed in individual properties and in some rare cases to the common areas of high risk buildings. This is because the point of origin of most fires is in individual dwellings. This is confirmed in the Building Regulations 2000 Approved Document B, section 8.14 and also in BS 9991: 2011.
21. There is currently no legal requirement to install sprinkler systems in existing buildings unless the height is increased to over 30m.

Feasibility report

22. The feasibility study looked at the requirements for the blocks described in paragraph 14 above, taking into account the complexities of the blocks, their design intent and existing fire safety features and arrangements, as well as thorough research into best practice and guidance from the government and fire authorities.

23. The report recommendation rationale is based on the guidance provided by the London Fire and Emergency Planning Authority (LFEPA) and this was used to determine where it would be most advisable to install sprinkler systems.
24. The LFEPA guidance advocates the provision of sprinklers in domestic dwellings where the most vulnerable residents live.
25. The feasibility report takes all the above into account and tailors its recommendations to those residents who would be unable to self evacuate if their homes were directly affected by smoke or fire.
26. The report recommendation rationale also indicates the need for the building compartmentation to be sufficient, and supports a stay put policy with a recommendation of the installation of LD3 heat and smoke detection and warning systems as a minimum. LD3 systems provide early warning that enable residents to self evacuate in the event that their home is directly affected by smoke or fire, and are installed in the circulation areas of the dwelling, i.e. hallways, landing, stairs etc.
27. The report recognises that the council's Sheltered Housing schemes house large numbers, or are entirely made up of the most vulnerable residents.
28. The report notes that the council's temporary accommodation hostels often house vulnerable residents, the transiency of residents, and the difficulties experienced in operating the evacuation policy.
29. The report also notes that the numbers and locations of vulnerable residents in the general needs stock are very fluid and are widely dispersed.
30. The report recognises the major work done, being done and planned to be done, to the passive measures in the stock, and the recommendations are based on the compartmentation being sufficient.
31. The report recommendations are as follows:
 - Install sprinkler systems in all sheltered housing schemes;
 - Install sprinkler systems in all temporary accommodation hostels;
 - There is no recommendation for block wide sprinkler installation in general needs blocks, however the report recommends that the council should consider the installation of personal protection sprinkler (PPS) systems to the homes of vulnerable residents who would be unable to self evacuate;
 - Strongly recommends the minimum of the installation of LD3 type automatic fire detection (smoke/heat detectors) to all the dwellings in general needs blocks.
 - The report notes that sprinklers would need to be fitted to any additional floors if/when constructed to blocks over 30m, or if becoming over 30m as a result of the construction of additional floors.

Personal protection sprinkler systems

32. Officers have considered the personal protection system recommendation but do not recommend pursuing it for the following reasons:
- The personal protection sprinkler (PPS) system recommended is a relatively new development and further research is required
 - Aesthetically the PPS system presents problems due to the size and weight of the water tank, the floor space required, and its associated pipework
 - In some circumstances these systems are not guaranteed to save lives as it is normally smoke that kills
 - The effects of a triggered sprinkler system on medical needs, life support, medical equipment
 - Further consideration required regarding the ability of residents to raise an alarm
 - Further consideration required regarding the ability of residents to evacuate
 - Further consideration required regarding the level of assistance, family or other, available to the resident
 - The fire services ability to rescue
 - Existing passive protection within the dwelling may be sufficient, and where not could be improved
 - The transient nature of some vulnerabilities – some people move in and out of vulnerability
 - The costs of installation and ongoing maintenance of systems
 - The fact that the council has no right of access to install PPS systems in leasehold properties
 - Overall management and co-ordination would be problematic due to the annual turnover of the tenanted population (c. 2000 voids per annum), transfers, the measurement of temporary vulnerability.

LD3 type heat and smoke detection

33. While the feasibility report recommends the installation of LD3 type system which is positioned in the dwelling circulation areas only, the in-house fire safety team strongly recommends enhancing the coverage to an LD2 type. The LD2 type is installed in all habitable rooms, i.e. living rooms, bedrooms, and a heat detector in the kitchen. Officers consider that this helps to further mitigate any risk of not installing any type of sprinkler system in general needs blocks. It also serves to quickly alert residents of a fire situation anywhere within their dwelling.
34. The entire LD2 system can be silenced using a hush provision installed as part of the system which provides residents with the facility to silence the system in the event of a false alarm.
35. Officers also consider that LD2 type detection should be installed, where not already, to all other council owned dwellings in the borough over 10-15 years through the investment programme. The worst case cost scenario for this would be £32.338m (based on the average costs in paragraph 41) if applied to all remaining stock including leaseholders.
36. Exploration and consideration should be given to how leaseholders could be provided with similar early detection and warning, in order that the council ensures the life safety of all of its residents, and applies a consistent approach to

all the dwellings for which it is the freeholder, rather than 'pepper-potting' across the stock.

37. Officers acknowledge the issues in providing such systems to leaseholders, including that of obligations under the terms of the lease, future maintenance and management of the systems and their required funding stream (General Fund), but on balance recommends that for the reasons set out in paragraph 36 above all options be explored and considered.
38. It should be noted that the detector heads forming part of early detection and warning systems, whether hard wired or battery powered, have a life of approximately 10 years before requiring replacement. This may change with future advances in the technology.

Costs

Block sprinkler systems

39. Indicative block sprinkler installation costs have been provided as part of the feasibility study and these are based on two main options – option 1 is for boxed in pipework, and option 2 is for false ceilings (where possible) which would be more aesthetically pleasing. The report costings also identify an alternative solution that pipework can sometimes be routed through floor and ceiling voids. This alternative is rare, but where it is possible costs can reduce, although not significantly, and in some cases rise due to the need to remove and replace floorboards and floor coverings. The installation costs and indicative costs for the annual repair and maintenance are as follows:

i) Sheltered Housing schemes

Option 1	Option 2	Annual repair & maintenance
Total cost	Total cost	
£3,318,000	£8,473,000	£14,300

ii) Hostels

Option 1	Option 2	Annual repair & maintenance
Total cost	Total cost	
£1,645,000	£2,182,000	£10,800

40. The above costs include a 15% asbestos management/removal contingency, but exclude professional fees, VAT and any temporary relocation costs.
41. Average costs for the installation of LD2 type automatic battery powered systems, based on 6 rooms in each dwelling, are shown below:
- £703 per dwelling
 - Equating to an estimated £3.588m across all of the tenanted dwellings in the general needs blocks described in paragraph 14 above (and assuming that none are installed currently)

- Equating to an estimated £23.931m when rolled out to the remainder of the tenanted stock through the major works investment programme (and assuming that none are installed currently).

42. Officers would therefore recommend:

- a) Installation of sprinkler systems in all sheltered housing schemes using the option 1 model by September 2016;
- b) Installation of sprinkler systems in all temporary accommodation hostels using the option 1 model by September 2016;
- c) Installation of sprinkler systems to any new sheltered housing schemes and temporary accommodation hostels built by the Council.
- d) Installation of LD2 type automatic battery powered smoke/heat detection to all the council homes forming part of this study by March 2015.
- e) Roll out installation of LD2 type systems to council homes across the borough through the major works investment programme over the next 10-15 years.
- f) Exploration and consideration of ways in which leaseholders could be provided with similar early detection and warning.

Policy implications

43. The recommendations may require the revision of a number of policies which will be considered in line with the feasibility study and the recommendations of this report.

Community impact statement

44. The Coroner's recommendations impact on all residents of the council's housing stock.

Financial implications

45. The recommendations include the installation of sprinkler systems in all sheltered housing schemes and temporary accommodation hostels at an estimated cost of £4.963m by September 2016 (option 1). It also recommends the installation of LD2 type automatic battery powered smoke/heat detection to general needs tenanted properties identified in the report initially, at a further estimated cost of £3.588m by March 2015. This will then be followed by a wider roll-out across the remaining tenanted stock over the medium-term as part of the major works programme, estimated at £23.931m. The indicative costings are estimated using a borough wide average of £703 per property.

46. The equivalent cost of installing these measures into leasehold stock is estimated at £9.670m and would in the event fall to the council's general fund as highlighted by the director of legal services and head of specialist housing services.

47. There are currently no resources specifically identified within either the housing revenue account (HRA) or housing investment programme (HIP), or the council's general fund for these works. Resources totalling £8.551m are required over the period (2013/14 to 2016/17) for the items recommended at paragraphs 2 to 4 of this report, (excluding leasehold properties). Therefore, the immediate priority will be to identify resources to enable the programme to commence as soon as is practicable in the New Year subject to cabinet approval. The table below refers.

There is also a minor on-going revenue commitment identified of £25k which can be contained within the existing HRA repairs and maintenance budget.

	Capital Tenanted Stock £'000	Capital Leasehold Stock £'000	Total Estimated Cost £'000
(A) Installation of sprinkler systems in all existing sheltered housing (option 1)	3,318	0	3,318
(B) Installation of sprinkler system in all existing temporary accommodation hostels (option 1).	1,645	0	1,645
(C) Installation of LD2 type smoke/heat system to all general needs blocks forming part of this study	3,588	1,263	4,851
1D) Installation of LD2 type smoke/heat system to council homes across borough.	23,931	8,407	32,338
Total cost of recommendation shown in this report	32,482	9,670	42,152

48. It should also be noted that this represents an on-going funding commitment as there is a requirement to replace the units after a period of approximately 10 years.

SUPPLEMENTARY ADVICE FROM OTHER OFFICERS

Head of Specialist Housing Services

49. The Head of Specialist Housing Services concurs with the recommendation to install sprinkler systems in all existing sheltered housing schemes and temporary accommodation hostels, and recommends that this should be incorporated into the current programme of major works for the sheltered housing schemes.
50. The recommendation to explore and consider ways in which leaseholders could be provided with similar early detection and warning as offered by the LD2 type automatic battery powered smoke alarms/heat detectors is noted. Under the terms of the lease the council has no right to install these alarms within individual leasehold properties, and would have no right to enforce either inspections or future maintenance and management of the systems. Officers from Home Ownership Services should be involved in any future discussion on this issue.
51. The installation of smoke alarms/heat detectors to leasehold properties is not a landlord obligation under the terms of the lease and therefore the costs of supply and installation could not be recovered as a service charge. If the council proposed to install smoke alarms/heat detectors to leasehold properties any costs will be borne by the General Fund because the interior of the flats have been disposed of and fall outside the HRA, unless leaseholders are charged the full cost on an ad-

hoc basis. It should also be noted that many leasehold properties have been sub-let, providing the homeowner with an income stream. In addition, many of these properties are owned by companies and many have been let as Houses in Multiple Occupation. To provide smoke alarms/heat detectors to all leasehold properties except at full cost would lead to the council subsidising home ownership not just for resident leaseholders but also those who are making a profit from ownership.

Strategic Director of Children’s and Adults’ Services

52. Southwark SAIL (safe and independent living) is a partnership based scheme hosted and co-ordinated by Age UK Southwark Lewisham. The scheme has a strong focus on safety around the home and the Fire Service are key partners in this scheme. The scheme works by providing all partners who may come into contact with vulnerable and older people during their daily work with a check sheet of key risks to look for and asks partners to seek residents permission to note key information down and pass this on to AgeUK so that they can then co-ordinate input from the partnership around issues such as fire safety, isolation, fear of crime and wider support and links from community groups and more specialist social care and health services.
53. It is therefore suggested that members consider agreeing a recommendation that requires officers to actively work with the SAIL project to identify vulnerable people who may benefit from alternative fire safety solutions in order to strengthen the mitigation against not recommending the installation of Personal Protection Sprinkler Systems.

Director of Legal Services

The Fire Safety Order

54. The Regulatory Reform (Fire Safety) Order 2005 (the “Order”) imposes a number of duties on the Council to protect persons on the common parts of the Council’s housing stock and those in the immediate vicinity who are at risk from fire (referred to in the Order as “relevant persons”), in so far as the requirements are within the Council’s control.
55. The duties imposed by the Order include duties to:
 - Take such general fire precautions as are reasonably required to ensure that the premises are safe;
 - Carry out a suitable risk assessment to identify the appropriate fire precautions to take at each premises, and keep such assessments up to date;
 - Make arrangements for the planning, control, and review of preventive and protective measures, including appointing competent persons to manage this;
 - Provide appropriate fire fighting equipment and implement appropriate measures for fire-fighting;
 - Comply with requirements in the Order for emergency routes and exits including indication by signage;
 - Establish procedures to be followed in the event of serious and imminent danger; and
 - Keep premises and fire-fighting equipment in good repair and working order to safeguard relevant persons.

56. It is an offence to fail to comply with these duties where that failure places one or more relevant person at risk of death or serious injury in case of fire.

Occupiers Liability Act 1957

57. Section 2 of the Act stipulates that the Council as “occupier” of tenanted and leased properties owes the “common duty of care” to “visitors”, which will include tenants and leaseholders as well as other people permitted to be on the premises.
58. The common duty of care is a duty to “take such care as in all the circumstances of the case is reasonable to see that the visitor will be reasonably safe in using the premises for the purposes for which he is invited or permitted by the occupier to be there”.
59. The actual steps required from the Council to discharge the duty will depend on the degree of control which the Council has over the premises, among other things. For example the Council has much wider rights to enter and make alterations to tenanted properties than it does in relation to leasehold properties, so that the standard of care required in connection with leasehold flats will be lower. Resource implications will also be a relevant factor.

Housing Revenue Account / General Fund

60. Section 74 of the Local Government and Housing Act 1989 (the “Act”) sets out the local housing authority’s obligation to establish and maintain an account of sums falling to be credit or debited with respect to its general housing stock, and related matters. This account is known as the Housing Revenue Account (“HRA”).
61. Section 74(3) of the Act provides that this does not apply to “land, houses or other buildings disposed of by the authority”. This will include houses and flats disposed of by the local authority by way of sale of the freehold or by a grant of a long lease. Therefore it will not apply to homes purchased under the “Right to Buy” programme.
62. Part II of Schedule 4 of the Act sets out the types of expenditure which may be debited to the HRA. So far as is relevant to this report, the relevant item is item 1: “the expenditure of the authority for the year in respect of the repair, maintenance, supervision and management of houses and other property within the [HRA]”.
63. As regards the cost of installation of sprinklers and smoke/heat detectors in sheltered housing schemes, temporary accommodation hostels, and homes let by the Council to secure tenants, this expenditure clearly falls within the HRA.
64. As regards leaseholders, the interiors of their homes are excluded from the HRA by virtue of section 74(3) of the Act, and therefore the cost could not properly be debited to the HRA and would be payable from the General Fund.

Strategic Director of Finance and Corporate Resources (FC13/089)

65. The report is requesting cabinet to approve various recommendations as reflected in paragraphs 1 to 7, following the Lakanal Inquiry and the feasibility report.

66. The financial implication in paragraphs 45 to 48 provides details of the cost implications of the recommendations. It is noted that there are no provision within the current Housing Investment Programme or Housing Revenue Account to fund the proposals. These will need to be added to the programme once approved and funding identified in the budget setting process.
67. Regular and close monitoring of the programme cost will be required to ensure that the council's overall capital programme can be funded within the available resources.
68. It is also noted that the on going revenue implications of maintenance costs will be contained within the existing Housing Revenue Account budgets.
69. Staffing and any costs connected within this recommendation to be contained within existing departmental revenue budgets.

REASON FOR URGENCY

70. The council committed to undertake a 6 month feasibility study ending in November 2013 and to report back to cabinet at the meeting following which is 10 December 2013. The next cabinet meeting after the 10 December is not until the end of January 2014. In light of the sensitivities and importance of addressing the coroner recommendations and significant public interest the council needs to respond to the recommendations as soon as possible.

REASON FOR LATENESS

71. The consultants' final feasibility report was received on 28 November and officers needed time to consider the recommendations.

BACKGROUND DOCUMENTS

Background Papers	Held At	Contact
Coroners Rule 43 letter	160 Tooley Street London SE1 2QH	Tony Hunter, Tel: 020 7525 1756
Link http://moderngov.southwark.gov.uk/ieListDocuments.aspx?CId=302&MId=4253&Ver=4 (see Item 21 – Appendix 1)		
Report to Cabinet 16 April 2013	160 Tooley Street London SE1 2QH	Tony Hunter
Link http://moderngov.southwark.gov.uk/ieListDocuments.aspx?CId=302&MId=4253&Ver=4 (see Item 21)		
Report to Cabinet 14 May 2013	160 Tooley Street, London SE1 2QH	Tony Hunter
Link http://moderngov.southwark.gov.uk/ieListDocuments.aspx?CId=302&MId=4254&Ver=4 (see Item 10)		

Background Papers	Held At	Contact
Council response to Coroner – Letter of 23 May 2013	160 Tooley Street London SE1 2QH	Tony Hunter
Link http://moderngov.southwark.gov.uk/ieListDocuments.aspx?CId=302&Mid=4553&Ver=4 (see Item 20)		

APPENDICES

No.	Title
Appendix 1	Final feasibility report from Frankham Consultancy Group
Appendix 2	Feasibility report – block recommendation list
Appendix 3	Feasibility report – indicative costings
Appendix 4	Progress update on Coroners recommendations/council actions

AUDIT TRAIL

Cabinet Member	Ian Wingfield, Deputy Leader and Cabinet Member for Housing Management	
Lead Officer	Gerri Scott, Strategic Director of Housing and Community Services	
Report Author	David Lewis, Head of Maintenance and Compliance	
Version	Final	
Dated	6 December 2013	
Key Decision?	Yes	
CONSULTATION WITH OTHER OFFICERS / DIRECTORATES / CABINET MEMBER		
Officer Title	Comments Sought	Comments Included
Director of Legal Services	Yes	Yes
Strategic Director of Finance and Corporate Services	Yes	Yes
Head of Specialist Housing Services	Yes	Yes
Cabinet Member	Yes	Yes
Date final report sent to Constitutional Team	6 December 2013	

APPENDIX 1



FRANKHAM

REPORT

***Feasibility Summary for the
Installation of Retrofit Sprinkler
Systems to Southwark Housing
Blocks*****Issuing Office:**

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**Project Number: 225338564270C03 Reports
Revision: Final**

For***London Borough of Southwark***

Document Control

This document is CONTROLLED at the point of issue, thereafter readers should confirm that they have the current Revision prior to relying upon the contents.

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Final	Peter Myall		28/11/2013	28/11/2013	John Murray	Issued

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1.0 INTRODUCTION

1.1 Background

On 3rd July 2009, Lakanal House a 14 storey tower block on the Sceaux Garden Estate in Camberwell suffered a substantial fire that led to the death of 6 residents. On 28th March 2013 the inquest concluded and Her Honour Francis Kirkham issued a letter to the council, pursuant to rule 43 of the Coroners Rules (as amended) requesting consideration of retrofit sprinkler systems in Southwark Council's high rise residential buildings.

On 23 May 2013 Southwark Council provided a response to the Rule 43 letter. The response confirmed that Southwark Council had undertaken a survey of 3 typical high rise blocks which identified a number of issues that would need to be considered with regard to installing a retrofit sprinkler system. The issues are summarised below.

- No right of access to leasehold properties
- Full internal stock condition survey of leasehold and tenanted dwellings necessary
- Effect on the amenity of the dwellings of pipe work
- Disruptive associated builder's works
- Likelihood of disturbance to Asbestos
- No current government guidance for the retrofitting of sprinklers

The Council concluded by confirming their intention to undertake a full feasibility study which looks at the requirements for 145 blocks taking into account the complexities of the blocks, design intent and existing fire safety features as well as best practice and current guidance from the government and fire authorities.

1.2 Instructions

On 30th August 2013 Frankham Consultancy Group Limited were instructed by Southwark Council to undertake a feasibility study for installing retrofit sprinkler systems in 145 housing blocks.

A letter of appointment was received on the 30th August 2013 followed by a formal order which was received on 20th October 2013.

An initial start up meeting took place on 28th August 2013 which was attended by Peter Myall and Lara Dennison of Frankham Consultancy Group. Tony Hunter and Steve Kallagher attended on behalf of Southwark Council.

Survey works of the properties commenced on Wednesday 4th September 2013.

1.3 Client Brief

The Client brief is as per the Councils invitation to quote document of July 2013. This document sets out the background to the commission, the feasibility requirements and the key deliverables. A copy of this document is provided at Appendix A to this report.

1.4 Properties & Accommodation

Southwark Councils brief identified that 145 existing housing blocks would need to form part of the study. The 145 properties are a mixture of General Needs, Sheltered Housing and Hostel accommodation types.

During the course of the survey programme the following 4 blocks have been omitted by Southwark Council for the following reasons.

1. Bradenham House – It is understood that this block is set for demolition
2. 6 Willow Walk – It is understood that this block is set for demolition
3. King Charles Court – It is understood a retrofit fire sprinkler system is already being installed
4. 244 Old Kent Road – Understood not under Southwark ownership

Lakanal House was added to the programme to give a revised total of 142 blocks to be assessed.

A property list was provided by the Council with address information for each property and the accommodation type. This list also indicated the blocks that are identical in the construction and layout so that cloned data could be utilised as highlighted in the Councils brief.

During the course of the surveys our site team identified further similarities in regard to construction and layout of other properties not previously identified. These properties have also been utilised as cloned data.

63 of the 142 blocks were identified as being suitable for assessment using cloned data. The property list which identifies properties assessed using cloned data is included within Appendix C.

2.0 INSPECTION METHODOLOGY

2.1 Programme

Using the Councils property list as a basis, a survey programme was prepared.

Where the Housing blocks are of identical construction (cloned data) we have only inspected one block of that type. A sample inspection of the blocks used as cloned data has been undertaken to ensure that the block have no fundamental differences.

2.2 Data Collection

A bespoke template has been used to ensure a consistent approach to data collection and that sufficient information is gathered on site.

Site inspections of the properties have been undertaken by the Frankham Building Surveying team. The individual Building Surveyors were accompanied by a Specialist in the design and installation of Residential fire sprinkler systems for high rise buildings and Residential Care homes. The specialist sprinkler installer is an approved Contractor of The British Fire Sprinkler Association (BAFSA), The Residential Sprinkler Association (RSA) and who has relevant experience in this specialist area of work.

2.3 Access

Access into plant areas has been achieved via plant room suited keys supplied by the Council. We have not been able to access some areas as other keys are required or the plant room location could not be identified. These access issues are generally limited to the General Needs properties.

On site, access to General Needs properties main common areas was achieved to some properties using Fire Brigade drop keys. Access to inspect a sample of all different types of accommodation and configurations within these blocks was by cold call procedure via door entry systems. Southwark Council provided an introductory letter to be shown to the residents that set out detail of the purpose of our visit. This method of access into the individual dwellings was slow and it has been difficult to achieve a full sample of the different types of accommodation types. However we have carried on with the cold call process which has continued to be slow.

Access to the Sheltered Housing and Hostel accommodation has been much more successful. A contact list of Sheltered Housing and Hostel Officers was provided and specific arrangements for visits were made. During these visits Surveyors have been accompanied by a Housing Officer to provide access into the required sample flats and bedroom units.

2.4 Key Inspection Areas

2.4.1 Existing Construction and Layout

An overall assessment of the suitability of the existing building construction and services has been undertaken to ascertain whether it is possible to install a retrofit sprinkler system within the property.

All accessible communal areas entrances, corridors, plant rooms and restricted communal areas where sprinkler installations could be routed have been inspected.

Assessment of the following has been undertaken:

- Location of existing risers and suitability for use as sprinkler risers or drops
- Location of proposed new risers if the existing riser unsuitable
- Routes of horizontal and vertical pipe work and the necessity for core holes to be formed
- Ceiling heights to check suitability for lowering ceilings
- Existing electrical and mechanical services that may be affected

An inspection of a sample of the individual dwelling layout types has been undertaken where possible at each property.

Assessment of the following has been undertaken:

- Routes of horizontal pipe work and the necessity for core holes to be formed
- Ceiling heights to check suitability for lowering ceilings
- Existing Electrical and Mechanical services that will be affected if lowered ceilings are required
- Window detailing to check if bulkhead details will need to be formed to allow lowered ceilings
- Door detailing at ceiling level to check if they will need to be replaced to allow lowered ceilings.

2.4.2 Water Supply

An inspection of the existing domestic cold water supply arrangement has been undertaken at each property. The details of the existing water pumps performance have been identified via the pump casings or from the manufacture.

Where the domestic supply is not deemed adequate alternative options have been considered either via provision of a water storage tank or new dedicated water supply.

The water service provider's minimum pressure guarantee is 1 bar within the property. A sprinkler specialist has taken pressure readings of similar properties within the local area and consulted the local water service provider and it is clear that 3 bar and above pressure is available within the local area.

2.4.3 Existing Fire Safety Arrangements

In order to make a specific assessment of whether a retrofit fire sprinkler system should be considered at each block it has been necessary to review the existing fire safety features and arrangements.

An inspection of the existing active and passive measures that affect fire safety at each property has been undertaken. During our inspection any recently undertaken fire safety upgrade works have been noted.

3.0 RECOMMENDATION RATIONALE

3.1 Background

The social housing sector has looked to the government for guidance on retrofitting of sprinklers, but the response from the Department of Communities and Local Government (DCLG) to the Southampton Rule 43 letter suggests that, instead of taking a view on behalf of all social housing landlords, DCLG considers that decisions regarding the retrofitting or not of sprinkler systems to high rise buildings is for landlords to consider themselves.

There are differing opinions within the housing sector and the fire industry as to whether compartmentation and other appropriate fire stopping and early warning systems such as heat and smoke detection are in themselves sufficient risk mitigation for high rise dwellings.

3.2 General Government Guidance

The local government group publication "Fire Safety in Purpose Built Blocks of Flats" states

"It is unlikely that retrofitting sprinklers or water mist systems would be reasonably practicable for existing blocks. Nevertheless, this does not preclude their use where there is clear justification and appropriate consideration of the practicalities of their installation and subsequent maintenance."

It also states that the provision of a sprinkler system could be considered as a compensatory fire protection measure where periods of fire resistance are not met or cannot be readily achieved by upgrading or where there are insufficient means of escape from flats.

3.3 London Fire & Emergency Planning Authority Guidance

The London Fire & Emergency Planning Authority (LFEPA) has however produced a statement regarding the retrofitting of sprinklers and advocates the provision of sprinklers in domestic dwellings where the most vulnerable residents live. (See Think Sprinkler Leaflet published by LFEPA, freely available for download on www.london-fire.gov.uk). The term vulnerable residents, however, is not that clear. The sprinkler leaflet produced by the LFEPA states that "We advocate the fitting of sprinklers in the homes of people most at risk from fire – younger people, older people, people with mental health problems and those who have mobility problems."

Vulnerable residents are also identified by the LFEPA as those falling into the following categories

- Residents with a disability, especially impaired mobility
- Residents with visual and / or hearing impairments
- Residents with mental health problems
- Intoxication by drugs and / or alcohol
- Smoking

- Old age
- Living alone

This is not considered to provide clear guidance on exactly which residents the LFEPA is advocating the provision of sprinklers for.

For the purposes of retrofitting sprinklers we determine that those persons that are unable to self evacuate are the most vulnerable and we have used this criterion for the basis of our recommendations.

As part of this study we have also looked at the fire safety strategy for the building types, including compartmentation and early warning systems and identified the provision we consider to be appropriate.

3.4 Assumption Criteria

It is assumed that a stay put policy is adopted for the sheltered schemes and general needs blocks as recommended in the local government group publication "Fire Safety in Purpose Built Blocks of Flats".

A 'stay put' policy involves the following approach.

- When a fire occurs within a flat, the occupants alert others in the flat, make their way out of the building and summon the fire and rescue service.
- If a fire starts in the common parts, anyone in these areas makes their way out of the building and summons the fire and rescue service.
- All other residents not directly affected by the fire would be expected to 'stay put' and remain in their flat unless directed to leave by the fire and rescue service.

For this strategy to be effective it will be necessary for there to be adequate (normally 60 minutes) compartmentation between the flats preventing spread of fire from one flat to another or to the communal areas or any ancillary parts. Current benchmark design guidance for new purpose-built blocks of flats recommends that the following should be constructed as compartment walls and floors:

- every floor (unless it is within a multi-level flat)
- every wall separating a flat from any other part of the building
- every wall and floor enclosing a refuse storage room.

It also needs to be ensured that the fire-resisting enclosure of flats is maintained at all openings, including:

- flat entrance and other doors
- any internal windows into the access corridor, or any glazing above or around the flat entrance door
- openings in walls and floors for services, such as water, gas and electricity

- vents into shared air supply ducts, but, more commonly, shared extract ducts from bathrooms and sometimes kitchens

Individual dwellings are not covered by the requirements of the Regulatory Reform (Fire Safety) Order 2005, however it is understood that some compartmentation between flats has been checked as part of the fire risk assessment process. This should be completed to ensure that the stay put policy is appropriate for each individual building and that compartmentation meets the current standards. Where this is not the case improvements will be required, it is assumed that any areas that do not meet the current compartmentation requirements will be upgraded.

The stay put policy also requires individual residents to be made aware of a fire within their dwelling in order to alert others in the flat and make their way to a place of safety and alert the fire service.

The local government group publication "Fire Safety in Purpose Built Blocks of Flats" states that

*"In **all** flats, early warning of fire should be provided by means of smoke alarms installed in accordance with BS 5839-6. A category LD3 system should be considered the minimum in all circumstances. This is a system where there is one or more smoke alarms solely in the circulation spaces of a flat. Flats with more than one level and those with more than one hallway or circulation space will always require more than one smoke alarm. "*

We would therefore recommended that provision of a minimum of an LD3 system within all flats be considered.

3.5 Occupancy Profiles

The key to an effective fire safety strategy is that should a fire start, it is prevented from spreading and anyone affected by it is made aware and can begin to evacuate.

The provision of appropriate fire compartmentation within a dwelling will prevent it from spreading and a category LD3 alarm system will provide early warning to anyone within the vicinity enabling them to evacuate the area.

It is therefore considered appropriate to provide 60 minutes fire compartmentation and a minimum of a category LD3 alarm system where occupants are able to self evacuate.

It may however be appropriate for a higher level of protection to be provided for those occupants that are unable to self evacuate and it is considered that a suppression system would provide additional benefit to these occupants. Suppression systems can be provided to the whole block or to individual dwellings and it is considered that some blocks would benefit from sprinkler systems and in other cases individual dwellings only. (Personal Protection Sprinklers).

It is recommended that a sprinkler system be fitted to the whole block where there are a significant number of residents who may be unable to self evacuate. This would include sheltered schemes and hostels. However in general needs blocks where it is considered that the majority of occupants would be able to self evacuate it is recommended that personal protection sprinklers be provided for the individual dwellings of those occupants identified as being unable to self evacuate.

The recommendations for providing sprinkler/suppression systems for those residents unable to self evacuate is in accordance with the guidance provided by the LFEPA and the fire safety strategy adopted by Southwark Council for their blocks.

There is an assumption that the remedial works identified within the fire risk assessment will be completed, that checks will be made to ensure that appropriate fire compartmentation is in place throughout the building, including between dwellings and further that automatic detection is provided within the flats in accordance with the recommendations in the local government group publication "Fire Safety in Purpose Built Blocks of Flats".

4.0 INSTALLATION REQUIREMENTS

4.1 General Sprinkler Installations

4.1.1 Introduction

BS9251:2005 sprinkler systems are a wet pipe system, in that, the sprinkler pipes are charged with water at all times. When a fire occurs and the nearest sprinkler head is subjected to the heat from the fire, a fusible link breaks thus releasing a plug within the sprinkler which in return allows the release of water.

BS9251:2005 is the UK standard for Domestic and Residential Sprinkler systems which are primarily used for life protection, in that, they are designed to ensure, as far as practically possible, to maintain the dwelling's escape routes from the building when a fire occurs.

Historically BS9251 sprinkler systems have more than out performed there basic requirement as in nearly all cases the sprinkler system extinguishes the fire, thus ensuring that not only can the occupants escape easily but also provides a great deal of building protection.

BS9251 is currently under review and a revised version is due to be released next year, therefore, there are certain requirements and facts within BS9251:2005 that are out of date and thus trade associations such as BAFSA, (British Automatic Fire Sprinkler Association), has released Technical Guidance Notes 1, (TG1), which provides additional information and corrects some parts of BS9251:2005.

Sprinkler systems design to BS9251:2005 should also therefore take into account BAFSA TG1, which is a document that has also been approved by FIRAS who is the third party accreditation company that most residential sprinkler designers and installers are approved by.

This report takes into account BS9251:2005 and BAFSA TG1.

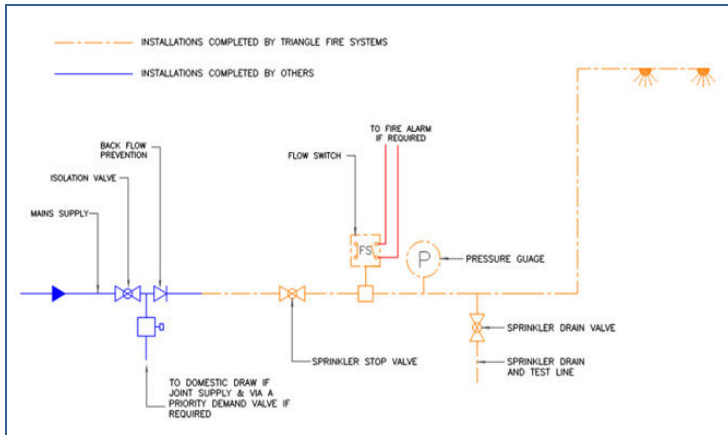
4.1.2 Water Supply

The water supply or water source can be direct from the rising main, town main¹ via a break tank and pump, town main via a booster pump, or interfacing with the current water supply to the building.

Within the individual property reports different types of sprinkler water supplies have been referenced and are identified below.

¹ The Town Main is a terminology use in the sprinkler industry to describe the water supply when derived from the local water undertakers' mains supply.

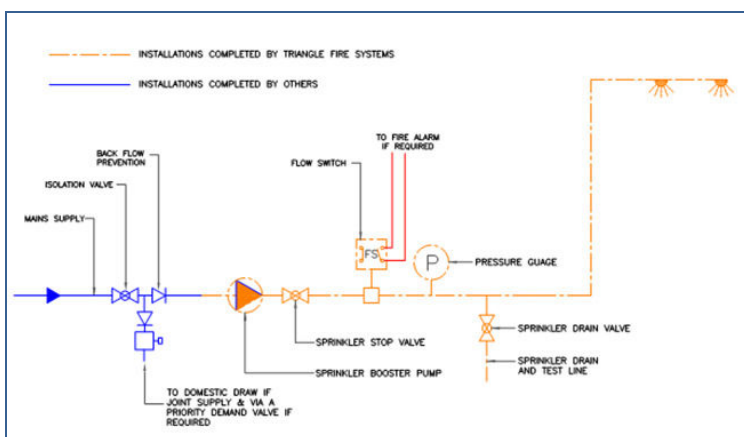
Type 1 - Direct Mains Supply



A water supply is brought into the building which may be dedicated to the sprinkler system or serve both the sprinkler system and the domestic draw. This type of supply is extremely reliable and normally cost effective.

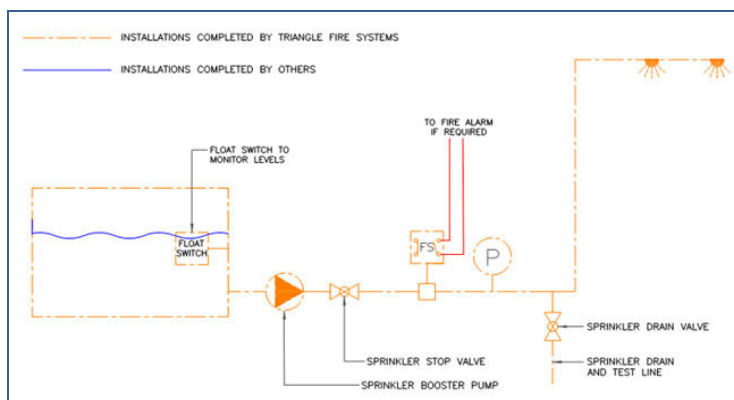
When used as a joint supply then it may be required to have the domestic draw via a demand valve. This depends on the flow rate provided by the main supply and the likely flow rate used by the domestic draw. If required the sprinkler flow switch will close the demand valve on activation of the sprinkler system thus leaving all the available water and pressure to the sprinkler system only.

Type 2 - Direct mains supply with booster pump or cold water tank on roof or within the roof void



This sprinkler supply system is as per Type 1 but with the addition of a booster pump. Booster pumps can only be used when there is sufficient flow but not sufficient pressure. Additionally, permission must be gained by the water supplier. However, where the water tank is on the roof then this system can also be used and permission from the water supplier.

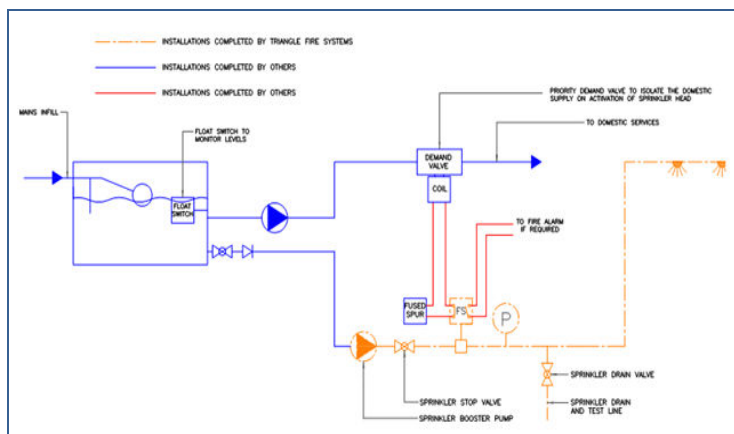
Type 3 – Dedicated Sprinkler Tank



When the current water supply is insufficient and the addition of a separate water supply from the main does not have sufficient pressure/flow, then a dedicated sprinkler tank should be installed. This tank can have the addition of an infill of simply filled up with a hose and monitored via the float switch.

Tanks can be one large tank or multiple tanks linked together and they can be placed underground if required.

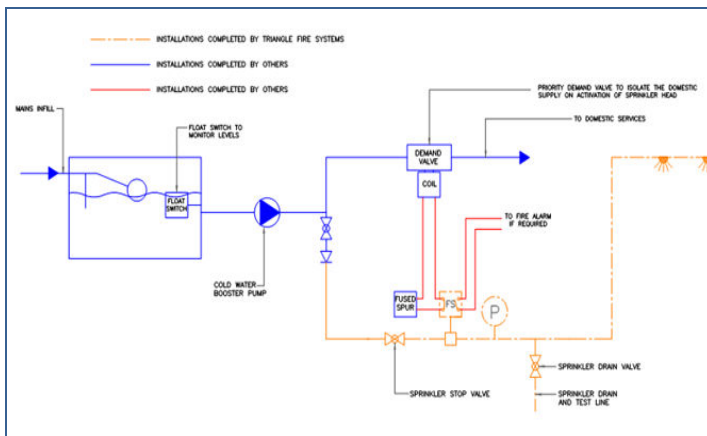
Type 4 – Combined tank and separate sprinkler pump



Often the water tank is satisfactory but the pump may not be good enough to handle the flow rate of the building, the sprinkler flow rate and the pressure. Whilst it will be investigated to see if an upgrade to the existing pumps is practical, a dedicated sprinkler pump is often the way forward.

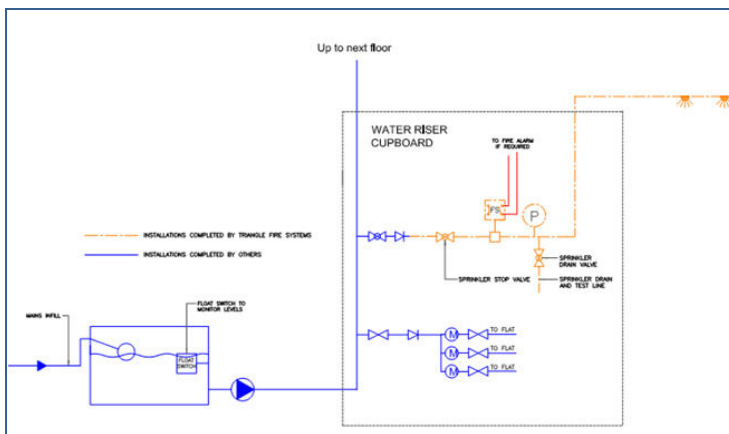
In this situation on operation of the sprinkler system the sprinkler flow switch will close the demand valve ensuring that all of the tanks water will be available for the sprinkler system.

Type 5 – Combined tank and pump



With this system the cold water tank and pump is found to be more than adequate to handle the flow and pressure required by the sprinkler system but not simultaneously with the domestic draw. Therefore, a branch is fitted on the output from the cold water booster pump set followed by an isolation valve and a check valve. The sprinkler system is then taken from this point and again the sprinkler flow switch closes the demand valve to ensure all of the water, pressure and flow is solely available for the sprinkler system.

Type 6 – Sprinkler system connected to cold water riser on each floor



With this system the cold water tank and pump is found to be more than adequate to handle the flow and pressure required by the sprinkler system and the domestic demand. In each riser cupboard a branch is fitted followed by a full bore isolation valve and a check valve. The sprinkler system is then connected to this point. Effectively this means that we have a separate sprinkler system to each floor.

4.1.3 Flow Rates

Within BS9251:2005, there are two specifications, Domestic and Residential. All of the properties within this feasibility study will be under the residential specification. Therefore the duration of the supply must be 30 minutes or greater.

The flow rate however will change but would normally be greater than 260 litres per minute, (4.3 litres per second). BS9251 states that in a residential sprinkler system four sprinkler heads must be capable of operating simultaneously if there are four sprinkler heads in any one room. Therefore, in most cases, if the communal corridor is sprinkler protected then at least 200 litres per minute will be required. In other situations, there may not be more than two sprinkler heads in any one room and therefore the flow rate maybe as low as 100 litres per minute.

The actual flow rate will only be known after a full design has been completed which is outside of the scope of this feasibility study. However, the flow rate where detailed in the feasibility studies will be very close to the final figures.

4.1.4 Controls

The sprinkler controls will include such items as a drain and test valve, stop valve, pressure gauge and flow switch. If the sprinkler system is using a dedicated sprinkler pump then these components would often be part of the sprinkler pump.

4.1.5 Pipe Network

The sprinkler pipe network extends from the sprinkler controls to the sprinklers located around the building. The majority of the pipe would be CPVC Blazemaster but can also be copper or steel. However, CVPC is most often used for the following reasons:

- has the longest life span of over 50 years
- does not support bacterial growth
- extremely quick to install with the very little mess
- cost effective
- flexible

4.1.6 Sprinkler Heads

Sprinkler heads will be of the Residential type and can be concealed, semi concealed or pendant type. The cost of each type is very similar and where possible the concealed type should be used as they are less obvious and unlikely to be damaged.

4.1.7 Sprinkler Alarm

While BS9251 states that a sprinkler alarm should be fitted that can be heard in all parts of the dwelling, this could conflict with the existing fire strategy within the Sheltered Housing and Hostel accommodation. Therefore, for each building the feasibility report will give options for the sprinkler alarm with consideration to the existing fire strategy with the particular building. The most common practice will be to link to the installed fire systems where they exist.

4.2 Personal Protection Sprinkler Installation

4.2.1 Introduction

Since the introduction of Domestic sprinkler system to BS9251 in 2005, there have been many requests to provide a Personal Protection Sprinkler Systems (PPS) for at risk people. Many systems have been promoted but they are not backed by a British Standard and therefore, they cannot be totally relied upon.

A system has been recently developed that can be installed within a day and later removed, stored and subsequently re-installed within another dwelling. This system is in full compliance with BS9251:2005.

BS9251:2005 has two specifications, that of Domestic and Residential. PPS systems use the Domestic specification only. Therefore, to comply with BS9251:2005, the system must be capable of running for ten minutes and if there are two heads in any one room then the system must be capable of running two heads for 10 minutes.

Whilst it is possible that two heads may be required in one room where they are greater than 4.9m by 4.9m, it is very seldom that 2 heads are required particularly in flat accommodation. Should a situation occur where BS9251 dictates that more than one head is required in any one room, there will be additional costs due to pipe work, pump and tank size increases.

The PPS system that has been considered is in full compliance with BS9251 and also takes into account the upcoming changes to the British Standard.

In most cases the systems are used to protect an at risk person who can no longer move from one room to another to self evacuate, therefore, the complete sprinkler system is usually setup in one room and it is not necessary to link to a water supply. The PPS system can also be extended into multiple rooms within each dwelling.

4.2.2 System Requirements

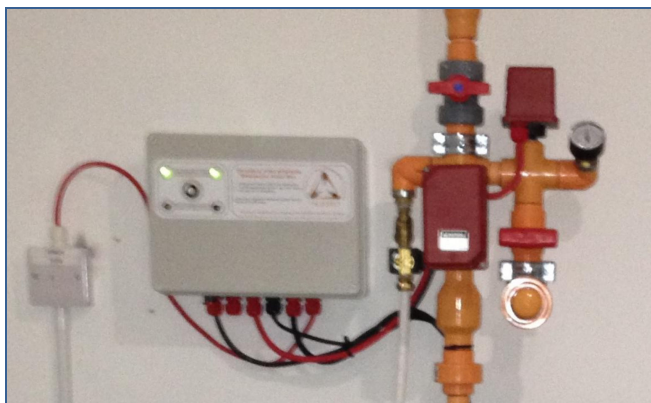
For a PPS system to be installed there are minimum requirements that need to be met:

- A space needs to be made available for the tank and the control systems. The floor area required will depend on the tank used. There are many tanks available but the following are common sizes:
 - Length 1000mm, Width 630mm, Height 930mm
 - Length 1250mm, Width 460mm, Height 1010mm
 - Diameter 700mm, Height 1435mm
- An electrical supply must be provided. Whilst the electrical supply should be a dedicated supply, as long as the optional extra of 'Off Site Monitoring' is included (refer to section 4.2.4) it is possible to use an existing supply via an un-switched fused spur. The sprinkler supply should not be connected to an RCD device unless the RCD is dedicated to the sprinkler system.

4.2.3 PPS System Components

The PPS system includes a tank, a float switch and submersible pump, a control panel, valve group, pipe work and sprinkler heads. A basic system includes pipe work sufficient to install the sprinkler head up to 10 meters from the control equipment but this can be added to.

The pipe work is charged with water and on activation of the sprinkler the pressure switch detects the fall in pressure and thus starts the pump.



The photograph above shows the controller, (measuring 300mm by 220mm) alongside the sprinkler controls, (measuring 300mm by 525mm). These items are typically mounted above the water tank but this is not a requirement.

4.2.4 Installation and Monitoring

The tanks are positioned in a suitable location filled via hose. The water level is monitored at all times and therefore, the tank does not need a dedicated water supply.

The pump controller is wall mounted along with the sprinkler controls. The sprinkler controls are then linked to the submersible pump. Following this, the sprinkler pipe is extended from the top of the sprinkler controls to the sprinkler head or heads.

Connection to the electrical supply is made and the system is then fully tested.

The tank and controllers can be located in a cupboard with door or hatch access or left fully exposed. The pipe work can either be left exposed, painted with water based paint or concealed using pipe casings.

Although BS9251 does not require fault monitoring at this time, the PPS system monitors and sounds an alarm on the following fault conditions:

- Loss of 240V power
- Loss of 12V DC power
- Loss of system pressure
- Low level water
- Weekly test failure

The fault signals can be monitored off site although this function will require a BT socket. A simple Texacom auto-dialler module can be connected to the pump controller and therefore, should a fault occur a text message is sent to a nominated person, or persons, (up to eight numbers can be entered). The dialler can also send a set message weekly to inform that the weekly test has passed successfully.

Should the sprinkler system activate, a message will be sent to the registered numbers stating that the sprinkler system has activated and will give the location of the property.

The sprinkler is capable of being linked to the smoke detection system although the pump set does have its own fire alarm included as part of the system.

In accordance with the recommendations of BS9251:2005 the PPS system will need to be serviced annually.

4.3 Building Works

Associated builder's works that are required to facilitate the retrofit sprinkler system will add significant costs to the works. The builders works will be disruptive to Tenants of the General Needs blocks and the Residents within Hostels and Sheltered Housing Units.

During inspections individual assessments have been made of each block and the sample dwellings accessed. The works identified are included within each block report.

In general the following works have been highlighted and considered:

- Core drilling of holes through ceilings and walls
- If existing ceiling heights are suitable, install new ceilings at a lower level to conceal pipe work
- Construction of new pipe casings to conceal pipe work if lowering the ceilings is not possible.
- If existing risers/drops are not suitable to be utilized, construction of new risers/drops will need to be formed in pipe casings.
- Construction of new secure cupboards or hatches to conceal isolation valves
- Provision of weatherproof enclosures at roof level to house pump sets where no roof void exists.
- Excavate for above or below ground external tanks and provide weatherproof enclosures
- Asbestos management (see 4.6.2)

4.4 Mechanical & Electrical Services

Associated Mechanical and Electrical works that are required to facilitate a retrofit sprinkler system will be required. It is clear that there are general works that will be required as part of each sprinkler installation. There will also be works that will be specific to each property type.

During inspections individual assessments have been made of each block and the sample dwellings accessed. The works identified are included within each block report.

In general the following works have been highlighted:

- Specialist fire alarm works may be required to link the sprinkler flow switches to the existing fire alarm within Sheltered Housing and Hostel accommodation
- Provision of dedicated electrical supplies to the sprinkler pumps and fault alarms
- Provision of dedicated electrical supplies to new sprinkler alarms where necessary
- Alterations to existing lighting, smoke detection and in some cases emergency warden call alarms to accommodate lowered ceiling options, if suitable
- Reconfiguration of existing water supplies to facilitate the different type water supply arrangements (refer to section 4.1.2 Water Supply)
- Provision of new dedicated 63mm water supplies with approval of Thames Water

4.5 Protection of Installation

Due to the location of some of the properties there is a risk of vandalism to the system. If an individual wishes to maliciously operate a sprinkler head there is very little that can be done to prevent this. It should be noted that since the release of the residential sprinkler standard in 2005. It is understood that there has been no deliberate acts of sabotage to sprinkler heads recorded. This is in part because the sprinkler heads are now more commonly situated above the ceilings within many new build high rise properties and the common corridors are not protected with sprinklers. The common areas are considered more susceptible to vandalism as Tenants do not want to release water onto their own property.

Statistics show that malicious damage is not a major issue however the following will reduce the risk as far as possible:

- Use concealed heads and conceal pipe work wherever possible
- Give careful consideration to the routing of pipe work within communal areas
- Do not install sprinkler heads into common corridors where the fire risk is very low
- Keep sprinkler controls out of public areas and restrict access

As part of the feasibility study we have been specifically instructed by Southwark Council to assess the suitability of the blocks and dwellings for installation of lowered ceilings so that pipe work can be hidden and concealed sprinkler heads installed. It is understood that this is so the risk of malicious damage can be reduced and improve the visual appearance of the systems within people's homes.

Budget options have been included within Appendix B to highlight the associated costs of lowered ceilings if the existing building constraints allow. Budget information has also been provided in regard to the alternative cost of surface mounted pipe casings. This will enable the Council to make comparisons between the two options.

4.6 Duration of Works

The duration of the sprinkler installations have been identified within the report for each building. The working week timescales have been calculated based upon the works being undertaken by teams of 2 engineers. We understand it is possible to reduce these timescales by increasing the size of the teams however this will be dependent on the capabilities of the sprinkler installer that is undertaking the works.

Installation timescales within each dwelling will be specific to each block. The duration of works is largely dependent on the layout of the unit and the associated works that may be required. For example replacement of doors, forming bulkheads, lowered ceilings, lifting floor boards and replacing flooring will add to the timescales

4.6 Health & Safety Issues

4.6.1 CDM Regulations 2007

The contract period for the retrofit sprinkler systems is likely to be more than 30 days the project will be notifiable under the CDM Regulations. Southwark Council will need to appoint a CDM Co-ordinator.

4.6.2 Asbestos

Asbestos survey data has been provided by Southwark Council. It is understood that the information is derived from a combination of management and refurbishment/demolition surveys. The surveys give information on asbestos identified within the dwellings and communal areas. The survey data shows a variety of different asbestos types and products present.

The asbestos surveys indicate that asbestos containing materials (ACM's) have been identified in a percentage of dwellings within the properties. Surveys are likely to have been carried out on a representative basis only and therefore further asbestos should be presumed to be present throughout the remaining dwellings.

As only a limited and representative asbestos survey has been carried out, the exact locations or quantity of asbestos that may be present within the building as a whole, is not clear. It is likely that any retrofit sprinkler works will disturb asbestos within the building and asbestos removal works will be required. A further more comprehensive asbestos R&D survey in advance of any major works would provide a more accurate budget for asbestos removal works.

In accordance with the Control of Asbestos Regulations 2012 a refurbishment and demolition asbestos survey will need to be undertaken prior to any works commencing at each block.

4.6.3 Segregation of Works

There will be associated risks to the Resident's/Tenants whilst works are being undertaken within the common areas. Slips, trips, and tools falling from height are an example of the potential hazards. These hazards will be particularly prevalent when working in corridors and on pedestrian routes.

In order to mitigate the risks the working areas will need to be separated by closing off corridor areas with agreement of the Councils H&S team and preparation of specific risk assessments. Where this is impractical the Contractor will need to agree an alternative safe working method before commencement of works.

There will be similar associated risks to the Resident's/tenants whilst works are being undertaken within the General Needs and Sheltered dwellings. If possible the dwellings should be vacated on a rolling decant. Where this is impractical Sprinkler Contractors that can demonstrate a good depth of experience in working in occupied dwelling should be commissioned and safe working methods agreed before commencement of works.

4.6.4 Building Control

As part of the feasibility study we have been requested by Southwark Council to consider future development of Lakanal House and Maydew House.

It is understood that it is proposed to undertake major works at Maydew House which will involve a full decant the building, strip back to the core construction and full refurbishment throughout. It is further understood that additional floors may be added to the top of the building if possible.

The works proposed at Lakanal House are a complete strip back and refurbishment this time with the specific addition of two further floors on the top of the building.

Following consultation with Building Control representatives it has been confirmed that if both buildings are refurbished to this level current Building Regulations will apply. The buildings are over 30m in height so any new storeys that are added will require sprinklers under current building regulations. It was confirmed that there is no legal obligation to install a sprinkler system to the remainder of the building.

Southwark Council may wish to give consideration of the opportunity for a full sprinkler retrofit as part of the major works when the property is fully decanted and building stripped back to core construction.

4.7 Annual Maintenance & Servicing Requirements

BS9251:2005 states that the sprinkler system should be serviced annually by a competent person. Whilst the word 'competent' could be defined in many ways, it is generally agreed that any maintenance operative or similar given suitable training could undertake the scheduled maintenance of the sprinkler system.

However, maintenance should only be carried by a Contractor approved under the relevant trade association.

Sprinkler servicing has four main areas that require attention:

4.7.1 Sprinkler Heads

Sprinkler heads have cover plates which hide the sprinkler head. The cover plates need to be visually checked to ensure that are intact and have not been glued in position or painted over.

4.7.2 Sprinkler Head Restriction

Sprinkler heads also need to be checked to ensure that the sprinkler spray pattern has not been impeded or restricted by objects or such as layout alterations undertaken within the dwellings.

4.7.3 Pipe work

The complete building should be check for signs of water damage, although historically it is extremely rare that Blazemaster CVPC suffers from leaks.

4.7.4 Water Supply

The sprinkler water source should be inspected and a full flow test run and compared to the design figures. This is the most complex item. With the appropriate equipment this can be completed by trained Council staff, but often the above servicing items are carried out by trained Council staff while the flow test is left to a sprinkler contractor. Unlike commercial sprinkler systems to BS EN 12845, the flow testing for BS9251 systems is very cost effective when the other areas are completed by Council staff.

4.8 Landlord & Tenant Issues

4.8.1 Leaseholders

In Southwark's General Needs blocks there are a significant percentage of leasehold dwellings. In a number of blocks a large proportion of the total units are leasehold dwellings. These Residents own their own homes and pay a service charge to the Landlord (Southwark Council) for servicing and cleaning of common areas and maintenance and repair.

Although we have not reviewed any lease agreements it is understood as the Landlord the Council does not have a legal right to access the leasehold dwellings to install a retrofit sprinkler system. It is likely that these works will fall outside of the current lease terms and associated maintenance agreements. In light of this the works would require the full consent of the Leaseholders.

If a sprinkler system is recommended in a significant number of leasehold dwellings it is assumed that the Council will seek to recover the individual leaseholder's share of the installation cost. If a leaseholder is not willing to consent to access for the works or contribute to their share of the works cost, the council should seek legal advice on how this can be achieved although at present this situation is without precedent. If a fire broke out in a leasehold dwelling and no sprinkler protection was installed. The leasehold dwelling and others adjacent would be less well protected from the spread of the fire so a greater reliance would be required on the existing compartmentation between the dwellings.

It is understood that the high rise Sheltered Housing Unit in Sheffield, Callow Mount did contain a Leaseholder and in this case the installation cost was gifted by the Council. This project is the only current example of a retrofit sprinkler installation in a high rise blocks.

4.8.2 Landlord Obligations

It should be noted that if a sprinkler system is installed, under the Fire Safety Order, in particular Article 17, annual maintenance must be provided to ensure the sprinkler system can perform as per its design parameters (refer to section 4.7).

5.0 COMMERCIAL ANALYSIS OF INSTALLATIONS

5.1. Budget Costs

We have prepared cost estimates for all blocks, where access has been made available for surveys to be carried out. The sprinkler system installation costs are based on budget quotations provided by Triangle Fire Systems Limited.

We have then included costs for the scope of the builders work in connection with the installation, and associated fire alarm and electrical services costs, based on recent tenders received, and our cost database.

The cost estimates are generally based on 3 options:

1. The sprinkler pipework would be boxed on to the soffit of the units.
2. The sprinkler pipework would be concealed within a lowered ceiling within each unit (where practicable), which would also require light fittings, and smoke detectors to be lowered, and in some cases new doors installed.
3. Combined solution (where practicable), which would involve accessing the units from the floors above, and removing and replacing the floor finishes, and boxing in pipework, where this is not practical.

A cost estimate per unit for installation of individual Personal Protection Systems (PPS) has also been calculated, these estimates also include associated builders and electrical works:

One Bedroom Flat	£15,800
Two Bedroom Flat	£16,400
Three Bedroom Flat	£16,900

The above PPS costs have been calculated using suitable average unit quantities that has been derived from data gathered during site inspections. The cost per unit is not included in the within Appendix B Budget Cost Summary. This information can be used as an indication of the cost of installation where a standalone system is required with a particular property, although these costs will be dependent on the quantity of installations commissioned.

For the retrofit cost options we have also included allowances for Main Contractor Preliminaries (15%), Overheads and Profit (5%), and Contingencies (15%). For the PPS installations we have increased these allowances as they dependent on the number of installations commissioned for Preliminaries to 20%, Overheads to 7.5%, and Contingencies to 20%.

We have excluded the following from our estimates:

- VAT (currently 20%).
- Professional fees.

- Inflation/Deflation (depending on when the works are instructed).
- Relocation/decanting costs for residents.

We have also provided a separate allowance for alternative accommodation based on £30 per night per room. Allowances for decanting are based on a phased installation and is an approximation should the residents need to be relocated during the works. The requirement to decant the residents would need to be established by Southwark depending on the option selected, and whether asbestos material needs to be removed, or not.

We would recommend that, if the decision of the council is to proceed with any of the installations, then a full set of tender information for the proposed scope and programme is developed, before competitively tendering the works. We would also recommend that the estimates are reviewed as this information is made available.

Works costs for each block are included within Appendix B Budget Cost Summary.

It should be noted that pro rata cost data has been used to calculate the budget costs on the blocks where partial access has only been available. These blocks are highlighted in yellow on the Budget Cost Summary. Where pro rata costs are not suitable average unit costs have been utilized and these are indicated in amber.

5.2 Approximate Annual Repair Cost and Maintenance Budget

As advised by Triangle, the central sprinkler plant will require an annual inspection, which equates to £150.00 plus VAT per block, which would include for the necessary flow tests, but would exclude any necessary repairs, or replacement parts. We have then made an allowance for a visual inspection of all units, based on 15 minutes per unit per year at a rate of £34.50 plus VAT per hour. We have also made a provision for replacement pumps, at 1 per year at £150 per block, and a 10% replacement of damaged sprinkler heads at the rate of £3 plus VAT each.

The PPS system should be serviced annually and the more systems there are to service the cheaper the cost. A single system will cost £80 + VAT per annum at the present schedule of rates.

5.3 System Failure Costs

As advised by Triangle, sprinkler systems are extremely reliable, and are installed with fail safes to avoid the need for decanting, remedial works, and rental loss. If we are required to provide approximate costing for this eventuality, we will need further information to be able to provide costings, such as, rental charges, contents insurance details, etc.

5.4 Life Cycle Costs

The design life of the installation is in the region of 40 years. As an allowance we have also included within the repairs and maintenance allowance £150.00 plus VAT per block per year,

which would allow for pumps to be replaced once every 10 years, although their life span should be in the region of 10-15 years. We also included for replacing 10% of the sprinkler head caps per annum within the maintenance costs.

CONCLUSION

This feasibility study has identified that in terms of building works associated with the installation requirements it is feasible to install fire sprinkler systems to all of the Southwark Council housing blocks. It is evident from inspections of the properties that the way in which the retrofit sprinklers are installed and the associated works will vary across the property types. This is due to complexities and constraints in the existing construction and layout. These issues will have a direct effect on both the timescales and costs for the works.

It is likely that any retrofit sprinkler works will disturb asbestos within the blocks or dwellings and removal works will be required. Asbestos survey data that has been provided shows a variety of different asbestos types and products present within the buildings. Unfortunately this data is limited in that information for some blocks was not available and where available it only gives representation of asbestos identified within dwellings and common areas. The exact locations or quantity of asbestos that may be present within the buildings as a whole is not clear. It has not been possible to price asbestos removals within the Budget Cost Summary. A further more comprehensive survey would provide a more accurate budget for asbestos removal works.

It is clear from the inspections undertaken and from current Fire Risk Assessment information provided by Southwark Council that significant active and passive fire safety measures have already been undertaken at a number of properties. Further improvements have also been identified to the existing fire safety features within the properties.

The building works requirements and specific complexities of the individual blocks have been considered in conjunction with the existing Fire Risk Assessments and current guidance to make a balanced recommendation on whether a retrofit sprinkler can reasonably be installed by Southwark Council at each property.

It is clear that the construction constraints identified at the properties are not sufficient to make retrofit sprinkler installation not feasible from a physical installation aspect. For example where is not possible to lower a ceiling it is possible to surface mount the pipe work. Where this might not be desirable to the tenants aesthetically this should not prevent the retrofit for life safety reasons, as a result our recommendations are primarily based upon the current government and fire authority guidance.

The recommendations for the retrofitting of sprinkler systems have been based on guidelines and recommendations made by the London Fire and Emergency Planning Authority (LFEPA) to provide sprinkler systems in domestic dwellings where the most vulnerable residents live. Further consideration has been made to the provision of compartmentation and early warning systems and evacuation strategies adopted within the blocks.

Assumptions have been made that the compartmentation within the blocks will be brought up to current standards and automatic fire detection will be provided in all individual dwellings.

It is therefore considered that this will provide appropriate protection to those residents that would be able to evacuate in the event of a fire in their dwelling.

It is acknowledged that that the Councils sheltered housing accommodation house large numbers of or are entirely made up of the most vulnerable persons.

The Councils temporary hostel accommodation often house vulnerable residents and due to the transient nature of these resident types it is difficult to operate an evacuation policy.

The numbers of the most vulnerable people accommodated within the general needs accommodation are variable and there is no consistency in regard to the locations of their properties.

The retrofitting of sprinkler systems is therefore recommended in the following situations where there are occupants unable to self evacuate:

- Sheltered Housing Units – General Sprinkler Installation (to block)
- Hostels – General Sprinkler Installation (to block)
- General Needs – Personal Protection Sprinklers for those individual occupants identified as unable to self evacuate

The recommendation for each property is set out within Appendix E Recommendation Summary.

Cost estimates for 3 installation options have been prepared using site gathered data where possible. The cost for associated builder's works has been assessed using recent tenders and our cost database. The sprinkler installation has been priced using information from a specialist sprinkler installer. The cost of a retrofit sprinkler installation has been calculated for each complete property and is included within Appendix B Budget Cost Summary. The cost of individual dwelling installations for use where a resident is unable to self evacuate has also been calculated. The cost of these installations is included in section 5.1 Budget Costs.

APPENDICES

Appendix A - Southwark Councils Invitation to Quote document dated July 2013

Appendix B – Budget Cost Summary

Appendix C – List of Properties

Appendix D – Block Feasibility Studies

Appendix E – Recommendation Summary

APPENDIX 2

Task Name	Clone Data	Type	Composition	Leaseholders	Tenanted Units	Total Number of Units	Inspected By	Sprinkler Retrofit Recommendation
Russell Court		SHU	32 x 1 bed	No	32	32	M.R.K	Yes
Consort		SHU	30 x 1 bed	No	30	30	M.R.K	Yes
Jack Jones		SHU	37 x 1 bed	No	37	37	C.M	Yes
Lew Evans		SHU	39 x 1 bed & 1 x 2 bed	No	40	40	C.M	Yes
Barset		SHU	30 x 1 bed	No	30	30	C.M	Yes
Harry Lamborn		SHU	36 x 1 bed	No	36	36	C.M	Yes
Cossall Walk		SHU	32 x 1 bed	No	32	32	C.M	Yes
D'eynesford (Hub)		SHU	25 x 1 bed	No	25	25	M.R.K	Yes
Pedworth		SHU	2 x freehold studio, 23 x 1 bed, 23 x 2 bed, 2 x 3 bed & 14 x 4 bed	Yes	45	66	C.M	Yes
Grosvenor		SHU	16 x 1 bed & 14 x 2 bed	No	30	30	M.R.K	Yes
Locksfield		SHU	32 x 1 bed	No	32	32	M.R.K	Yes
Keetons		SHU	32 x 1 bed	No	32	32	C.M	Yes
Silverlock		SHU	32 x 1 bed	No	32	32	M.R.K	Yes
Rockgrove		SHU	4 x studio, 25 x 1 bed & 18 x 2 bed	Yes	47	60	M.R.K	Yes
Brook Drive		SHU	38 x 1 bed	No	38	38	P.M	Yes
Lucy Brown		SHU	1 x Studio 37 x 1 bed & 1 x 2 bed	No	39	39	C.M /TB	Yes
Hughes House		SHU	32 x 1 bed	No	32	32	TR/CM	Yes
Ray Gunter		SHU	30 x 1 bed	No	30	30	TR/CM	Yes
Marden		SHU	28 x 1 bed	No	28	28	TR/CM	Yes
Sedgemoor		Hostels & TA	16 x studio	No	16	16	M.R.K	Yes
93 Herne Hill		Hostels & TA	11 x studio	No	11	11	C.M	Yes
Wood Vale		Hostels & TA	15 x studio	No	15	15	C.M	Yes
66 Lindon Grove		Hostels & TA	10 x studio & 10 x 1 bed	No	20	20	C.M	Yes
2 Lindon Grove		Hostels & TA	7 x studio & 1 x 1 bed	No	8	8	C.M	Yes
Ullswater		Hostels & TA	20 x studio, 17 x 1 bed, 10 x 2 bed	No	47	47	C.M	Yes
225 Queens Road		Hostels & TA	3 x studio 1 x 1 bed	No	4	4	C.M	Yes

Task Name	Clone Data	Type	Composition	Leaseholders	Tenanted Units	Total Number of Units	Inspected By	Sprinkler Retrofit Recommendation
243 Queens Road		Hostels & TA	5 x studio	No	5	5	C.M	Yes
Grove Lane		Hostels & TA	16 x studio	No	16	16	C.M	Yes
2-7 Wren Road		Hostels & TA	21 x studio	No	21	21	M.R.K	Yes
Southampton Way		Hostels & TA	10 x 1 bed & 2 x 2 bed	Yes	12	12	M.R.K	Yes
76-78 Camberwell Road		Hostels & TA	5 x small unit & 9 x large unit	No	14	14	P.M	Yes
134 Camberwell Road		Hostels & TA	3 x 1 bed, 3 x 2 bed & 6 x 3 bed	No	12	12	P.M	Yes
46 Trafalger Avenue		Hostels & TA	6 x studio	No	6	6	M.R.K	Yes
25-27 Trafalger Avenue		Hostels & TA	12 x studio	No	12	12	M.R.K	Yes
1 Priter Road		Hostels & TA	1 x 9 bed	No	9	9	M.R.K	Yes
10 Keyworth Street		Hostels & TA	1 x 35 bed	No	35	35	P.M	Yes
86-96 Copeland Road		Hostels & TA	12 x studio	No	12	12	TR/CM	Yes
Rye Hill Park (122-208) (210-296) (34-120)	Clone 2	General Needs	33 x 1 bed & 99 x 2 bed	Yes	115	132	M.R.K	PPS to be considered
Peterchurch House, Sarnsfield House, Skenfirth House, Bromyard House	Clone 3	General Needs	28 x 1 bed & 28 x 2 bed	Yes	50	56	M.R.K	PPS to be considered
Marchwood Close, Redbridge Gardens (1-123)	Clone 1	General Needs	10 x studio, 8 x 1 bed, 54 x 2 bed & 14 x 3 bed & 2 x 5 bed	Yes	65	88	C.M	PPS to be considered
Andoversford Court, Downend, Willsbridge, Cam, Quedgley, Westonbirt, Quenington, Wickway	Clone 7	General Needs	2 x studio, 121 x 1 bed, 69 x 2 bed, 77 x 3 bed & 17 x 4 bed	Yes	306	362	C.M & M.R.K	PPS to be considered
Marie Curie House, Lakanal House	Clone 1	General Needs	98 x 2 bed	Yes	90	98	P.M	PPS to be considered
Masterman House		General Needs	1 x 1 bed & 65 x 2 bed & 1 x 3 bed	Yes	53	67	P.M	PPS to be considered
Coniston House, Crossmount House, Kevan House, Laird House, Otterburn House	Clone 4	General Needs	2 x studio, 78 x 1 bed, 284 x 2 bed & 4 x 4 bed	Yes	364	410	P.M	PPS to be considered
Glenfinlas Way, Kirwyn Way	Clone 1	General Needs	1 x studio, 7 x 1 bed, 10 x 2 bed, 13 x 3 bed & 22 x 4 bed	Yes	42	53	M.R.K	PPS to be considered
Trevelyan		General Needs	1 x studio, 7 x 1 bed & 55 x 3 bed	Yes	50	63	C.M	PPS to be considered
Napier House		General Needs	4 x studio & 32 x 1 bed	Yes	27	36	C.M	PPS to be considered
Bateman House, Cruden House, Brawne House, Cornish House, Prescott House, Walters House	Clone 5	General Needs	16 x studio, 9 x 1 bed & 310 x 2 bed	Yes	335	422	C.M	PPS to be considered
Wendover (1-240)		General Needs	2 x studio, 85 x 1 bed, 37 x 2 bed & 118 x 3 bed	Yes	205	240	C.M	PPS to be considered
Wendover (241-471) or Chiltern, Taplow	Clone 2	General Needs	6 x studio, 163 x 1 bed, 64 x 2 bed & 20 x 3 bed	Yes	214	230	C.M	PPS to be considered
Tissington Court		General Needs	27 x studio, 27 x 1 bed, 59 x 2 bed & 24 x 3 bed	Yes	107	137	C.M	PPS to be considered
Addy House, Brydale House, John Kennedy House	Clone 2	General Needs	22 x studio, 39 x 1 bed & 176 x 2 bed	Yes	237	288	C.M	PPS to be considered

Task Name	Clone Data	Type	Composition	Leaseholders	Tenanted Units	Total Number of Units	Inspected By	Sprinkler Retrofit Recommendation
Casby House, Lupin Point	Clone 1	General Needs	1 x studio, 22 x 1 bed, 59 x 2 bed & 1 x 3 bed	Yes	54	83	C.M	PPS to be considered
Devon Mansions (x 21 blocks)	Clone 20	General Needs	15 x studio, 182 x 1 bed, 131 x 2 beds & 11 x 3 bed	Yes	174	339	C.M	PPS to be considered
Draper House		General Needs	6 x studio, 50 x 1 bed & 88 x 2 bed, 1 x 5 bed freehold	Yes	111	145	C.M	PPS to be considered
Perronet House		General Needs	8 x studio, 23 x 1 bed, 33 x 2 bed, 25 x 3 bed & 2 x 4 bed	Yes	53	91	C.M	PPS to be considered
Ambleside Point, Grassmere, Windermere Point	Clone 2	General Needs	1 x studio, 20 x 1 bed & 51 x 2 bed	Yes	74	74	M.R.K	PPS to be considered
Broadmayne, Studland House, Lulworth House, Woodsford House	Clone 3	General Needs	1 x commercial studio, 26 x 1 bed & 28 x 2 bed	Yes	44	55	C.M	PPS to be considered
Castlemead		General Needs	112 x 2 beds	Yes	103	112	P.M	PPS to be considered
Astley House		General Needs	46 x 2 bed & 4 x 4 bed	Yes	40	50	M.R.K	PPS to be considered
Mardyke House		General Needs	9 x 1 bed & 30 x 2 bed	Yes	39	51	M.R.K	PPS to be considered
Landmann House, Trevithick House	Clone 1	General Needs	13 x 1 bed & 39 x 2 bed	Yes	40	52	M.R.K	PPS to be considered
Pope House, Arica House	Clone 1	General Needs	14 x 1 bed, 36 x 2 bed	Yes	Unknown	50	M.R.K	PPS to be considered
Albert Barnes House		General Needs	72 x 1 bed & 27 x 2	Yes	71	99	P.M	PPS to be considered
Prospect House		General Needs	1 x 1 bed & 62 x 2 bed	Yes	49	63	P.M	PPS to be considered
Styles House, Helen Gladstone House 222-269, Redman House (1-52)	Clone 2	General Needs	48 x 1 bed	Yes	32	48	C.M	PPS to be considered
Burwash House, Simla House	Clone 1	General Needs	14 x 1 bed, 39 x 2 bed	Yes	53	78	C.M	PPS to be considered
Symington House		General Needs	14 x 1 bed, 83 x 2 bed & 8 x 3 bed	Yes	79	105	TB/PM	PPS to be considered
Peveil House		General Needs	21 x 1 bed & 20 x 2 bed	Yes	37	41	TB/PM	PPS to be considered
Nashe House		General Needs	2 x 1 bed & 40 x 2 bed	Yes	29	42	TB/PM	PPS to be considered
Witcombe Point		General Needs	19 x 1 bed & 57 x 2 bed	Yes	71	76	TB/PM	PPS to be considered
Crane House		General Needs	70 x 2 bed	Yes	63	70	TB/PM	PPS to be considered
Kennington Park House		General Needs	1 x studio, 4 x 1 bed, 25 x 2 bed & 11 x 3 bed	Yes	22	41	TB/PM	PPS to be considered
Albert Westcott House		General Needs	1 x studio & 47 x 1 bed	Yes	32	48	TB/PM	PPS to be considered
Harold Madison House		General Needs	47 x 1 bed & 1 x 2 bed	Yes	41	48	TB/PM	PPS to be considered
Maydew		General Needs	1 x 1 bed & 144 x 2 bed	Yes	142	145	TR/CM	PPS to be considered
Columbia Point, Reginia Point	Clone 1	General Needs	16 x 1 bed & 64 x 2 bed	Yes	71	80	TR/PM	PPS to be considered
Hanworth, Aberfeldy	Clone 1	General Needs	1 x studio, 9 x 1 bed, 1 x 2 bed & 129 x 3 bed	Yes	100	140	TB/PM	PPS to be considered

Task Name	Clone Data	Type	Composition	Leaseholders	Tenanted Units	Total Number of Units	Inspected By	Sprinkler Retrofit Recommendation
Jurston, Dodson, Guthrie	Clone 2	General Needs	15 x 1 bedroom, 10 x 2 bed & 10 x 3 bed	Yes	29	35	TB/PM	PPS to be considered

LB of Southwark
Retrospective Sprinkler Installation

No	Block Reference	Property Type	No of Units	Option 1 - Pipework boxed in		Option 2 - Lowered ceiling		Option 3 - Combined Solution (where practicable)		Alternative Accommodation		Annual Inspection Cost		Annual Maintenance Cost		Annual Repairs Budget	
				Total	Cost/Unit	Total	Cost/Unit	Total	Cost/Unit	Total	Cost/Unit	Cost/Bk per annum	Cost/Unit per annum	Cost/Bk per annum	Cost/Unit per annum	Cost/Bk per annum	Cost/Unit per annum
1	76-78 Camberwell Road	Hostel	14	£ 107,000	£ 6,443	N/A	N/A	N/A	N/A	£ 17,000	£ 1,214	£ 200	£ 14	£ 150	£ 11	£ 250	£ 18
2	134 Camberwell Road	Hostel	12	£ 121,000	£ 8,250	N/A	N/A	N/A	N/A	£ 16,000	£ 1,333	£ 200	£ 17	£ 150	£ 13	£ 250	£ 21
3	Copeland Road	Hostel	12	£ 86,000	£ 6,167	£ 90,000	£ 7,500	£ 81,000	£ 6,750	£ 6,000	£ 500	£ 200	£ 17	£ 150	£ 13	£ 250	£ 21
4	Grove Lane	Hostel	16	£ 63,000	£ 3,937	£ 74,000	£ 4,625	£ 81,000	£ 5,063	£ 4,000	£ 250	£ 100	£ 8	£ 150	£ 12	£ 250	£ 21
5	Herne Hill	Hostel	11	£ 42,000	£ 3,818	£ 66,000	£ 6,000	£ 58,000	£ 5,273	£ 5,000	£ 455	£ 400	£ 11	£ 150	£ 14	£ 250	£ 23
6	Keyworth Hostel	Hostel	36	£ 112,000	£ 3,111	N/A	N/A	N/A	N/A	£ 38,000	£ 1,055	£ 400	£ 11	£ 150	£ 14	£ 250	£ 23
7	Linden Grove	Hostel	8	£ 57,000	£ 7,125	£ 56,000	£ 7,000	£ 75,000	£ 9,375	£ 5,000	£ 625	£ 100	£ 13	£ 150	£ 19	£ 250	£ 31
8	21 Linden Grove	Hostel	8	£ 49,000	£ 6,125	£ 23,000	£ 2,875	£ 17,000	£ 2,125	£ 2,000	£ 250	£ 100	£ 10	£ 150	£ 19	£ 250	£ 32
9	19 Linden Grove	Hostel	9	£ 49,000	£ 5,444	£ 23,000	£ 2,555	£ 17,000	£ 1,889	£ 2,000	£ 222	£ 100	£ 10	£ 150	£ 19	£ 250	£ 32
10	22/5 Queens Road	Hostel	5	£ 49,000	£ 9,800	£ 43,000	£ 8,600	£ 46,000	£ 9,200	£ 2,000	£ 400	£ 100	£ 20	£ 150	£ 30	£ 250	£ 50
11	24/3 Queens Road	Hostel	5	£ 40,000	£ 8,000	£ 44,000	£ 8,800	£ 46,000	£ 9,200	£ 2,000	£ 400	£ 100	£ 20	£ 150	£ 30	£ 250	£ 50
12	2 Sedgemoor Place	Hostel	16	£ 175,000	£ 10,938	£ 228,000	£ 14,250	£ 240,000	£ 15,000	£ 7,000	£ 438	£ 200	£ 13	£ 150	£ 9	£ 250	£ 16
13	75 & 77 Southampton Way	Hostel	21	£ 88,000	£ 4,190	£ 127,000	£ 6,048	£ 102,000	£ 4,857	£ 8,000	£ 381	£ 200	£ 10	£ 150	£ 7	£ 250	£ 12
14	25 Trafalgar Avenue	Hostel	7	£ 91,000	£ 11,286	£ 120,000	£ 17,143	£ 60,000	£ 8,571	£ 6,000	£ 857	£ 100	£ 14	£ 150	£ 21	£ 250	£ 36
15	27 Trafalgar Avenue	Hostel	7	£ 44,000	£ 6,286	£ 75,000	£ 10,714	£ 60,000	£ 8,571	£ 6,000	£ 857	£ 100	£ 14	£ 150	£ 21	£ 250	£ 36
16	46 Trafalgar Avenue	Hostel	6	£ 60,000	£ 10,000	£ 90,000	£ 15,000	£ 71,000	£ 11,833	£ 2,000	£ 333	£ 100	£ 17	£ 150	£ 25	£ 250	£ 42
17	Ulswater House	Hostel	40	£ 15,000	£ 3,750	£ 22,000	£ 5,500	£ 12,000	£ 3,000	£ 12,000	£ 300	£ 40	£ 12	£ 150	£ 14	£ 250	£ 16
18	Ulswater House	Hostel	40	£ 15,000	£ 3,750	£ 22,000	£ 5,500	£ 12,000	£ 3,000	£ 12,000	£ 300	£ 40	£ 12	£ 150	£ 14	£ 250	£ 16
19	27 Vren Road	Hostel	21	£ 95,000	£ 4,524	£ 140,000	£ 6,667	£ 136,000	£ 6,476	£ 35,000	£ 1,667	£ 200	£ 10	£ 150	£ 7	£ 250	£ 12
		Hostels		£ 1,435,000		£ 1,799,000		£ 756,000		£ 299,000		£ 3,400		£ 2,850		£ 4,550	
20	Barset House	Sheltered Housing	30	£ 155,000	£ 5,167	£ 577,000	£ 19,233	N/A	N/A	£ 45,000	£ 1,500	£ 300	£ 10	£ 150	£ 5	£ 250	£ 8
21	Brook Drive	Sheltered Housing	38	£ 172,000	£ 4,526	£ 153,000	£ 4,026	N/A	N/A	£ 64,000	£ 1,684	£ 400	£ 11	£ 150	£ 4	£ 250	£ 7
22	Consort House	Sheltered Housing	30	£ 144,000	£ 4,800	£ 746,000	£ 24,867	N/A	N/A	£ 60,000	£ 2,000	£ 400	£ 10	£ 150	£ 5	£ 250	£ 8
23	Cossal Walk	Sheltered Housing	32	£ 132,000	£ 4,125	£ 472,000	£ 14,750	N/A	N/A	£ 54,000	£ 1,688	£ 300	£ 9	£ 150	£ 5	£ 250	£ 8
24	Dyresford House	Sheltered Housing	25	£ 124,000	£ 4,960	£ 632,000	£ 25,280	N/A	N/A	£ 45,000	£ 1,800	£ 300	£ 12	£ 150	£ 6	£ 250	£ 10
25	Grosvenor Park	Sheltered Housing	30	£ 183,000	£ 6,100	£ 296,000	£ 9,867	N/A	N/A	£ 51,000	£ 1,700	£ 300	£ 10	£ 150	£ 5	£ 250	£ 9
26	Hollymbourne	Sheltered Housing	29	£ 169,000	£ 5,828	£ 672,000	£ 23,172	N/A	N/A	£ 61,000	£ 2,069	£ 300	£ 11	£ 150	£ 5	£ 250	£ 8
27	Jack Jones	Sheltered Housing	32	£ 135,000	£ 4,219	£ 263,000	£ 8,219	N/A	N/A	£ 63,000	£ 1,969	£ 400	£ 11	£ 150	£ 4	£ 250	£ 7
28	Jack Jones	Sheltered Housing	32	£ 135,000	£ 4,219	£ 263,000	£ 8,219	N/A	N/A	£ 63,000	£ 1,969	£ 400	£ 11	£ 150	£ 4	£ 250	£ 7
29	Keatons	Sheltered Housing	37	£ 124,000	£ 3,351	£ 374,000	£ 10,081	£ 117,000	£ 3,162	£ 63,000	£ 1,703	£ 400	£ 11	£ 150	£ 4	£ 250	£ 7
30	Low Evans House	Sheltered Housing	39	£ 178,000	£ 4,564	£ 749,000	£ 19,205	£ 178,000	£ 4,564	£ 69,000	£ 1,769	£ 300	£ 10	£ 150	£ 4	£ 250	£ 8
31	Lockfield	Sheltered Housing	32	£ 150,000	£ 4,688	£ 152,000	£ 4,750	N/A	N/A	£ 74,000	£ 2,313	£ 400	£ 10	£ 150	£ 4	£ 250	£ 8
32	Lucy Brown	Sheltered Housing	39	£ 243,000	£ 6,231	N/A	N/A	N/A	N/A	£ 50,000	£ 1,282	£ 400	£ 10	£ 150	£ 4	£ 250	£ 8
33	Marden Square	Sheltered Housing	28	£ 132,000	£ 4,714	£ 1,098,000	£ 39,214	N/A	N/A	£ 24,000	£ 857	£ 300	£ 11	£ 150	£ 5	£ 250	£ 9
34	Nash House	Sheltered Housing	42	£ 230,000	£ 5,476	N/A	N/A	N/A	N/A	£ 195,000	£ 4,635	£ 400	£ 10	£ 150	£ 4	£ 250	£ 8
35	Peartree	Sheltered Housing	66	£ 411,000	£ 6,227	£ 1,998,000	£ 30,273	N/A	N/A	£ 35,000	£ 527	£ 600	£ 9	£ 150	£ 2	£ 250	£ 6
36	Peartree	Sheltered Housing	66	£ 411,000	£ 6,227	£ 1,998,000	£ 30,273	N/A	N/A	£ 35,000	£ 527	£ 600	£ 9	£ 150	£ 2	£ 250	£ 6
37	Russell Court	Sheltered Housing	32	£ 134,000	£ 4,188	£ 572,000	£ 17,875	N/A	N/A	£ 48,000	£ 1,500	£ 300	£ 9	£ 150	£ 5	£ 250	£ 8
38	Silverlock	Sheltered Housing	33	£ 150,000	£ 4,545	£ 268,000	£ 8,121	N/A	N/A	£ 70,000	£ 2,121	£ 300	£ 9	£ 150	£ 5	£ 250	£ 8
		Sheltered Housing		£ 3,318,000		£ 7,687,000		£ 419,000		£ 1,208,000		£ 6,600		£ 2,850		£ 4,850	
39	1-14 Devon Mansions	Medium rise	14	£ 109,000	£ 7,786	£ 664,000	£ 47,429	N/A	N/A	£ 25,000	£ 1,786	£ 200	£ 14	£ 150	£ 11	£ 250	£ 18
40	15-28 Devon Mansions	Medium rise	14	£ 109,000	£ 7,786	£ 664,000	£ 47,429	N/A	N/A	£ 25,000	£ 1,786	£ 200	£ 14	£ 150	£ 11	£ 250	£ 18
41	29-42 Devon Mansions	Medium rise	14	£ 109,000	£ 7,786	£ 664,000	£ 47,429	N/A	N/A	£ 25,000	£ 1,786	£ 200	£ 14	£ 150	£ 11	£ 250	£ 18
42	43-54 Devon Mansions	Medium rise	12	£ 93,000	£ 7,750	£ 569,000	£ 47,417	N/A	N/A	£ 21,429	£ 1,786	£ 200	£ 14	£ 150	£ 13	£ 250	£ 21
43	55-75 Devon Mansions	Medium rise	21	£ 163,000	£ 7,757	£ 950,000	£ 45,238	N/A	N/A	£ 37,500	£ 1,786	£ 300	£ 14	£ 150	£ 7	£ 250	£ 12
44	76-108 Devon Mansions	Medium rise	21	£ 163,000	£ 7,757	£ 950,000	£ 45,238	N/A	N/A	£ 37,500	£ 1,786	£ 300	£ 14	£ 150	£ 7	£ 250	£ 12
45	97-108 Devon Mansions	Medium rise	12	£ 80,000	£ 6,667	£ 1,627,000	£ 135,583	N/A	N/A	£ 19,429	£ 1,615	£ 200	£ 14	£ 150	£ 14	£ 250	£ 23
46	109-120 Devon Mansions	Medium rise	12	£ 93,000	£ 7,750	£ 569,000	£ 47,417	N/A	N/A	£ 21,429	£ 1,786	£ 200	£ 14	£ 150	£ 13	£ 250	£ 21
47	121-132 Devon Mansions	Medium rise	12	£ 93,000	£ 7,750	£ 569,000	£ 47,417	N/A	N/A	£ 21,429	£ 1,786	£ 200	£ 14	£ 150	£ 13	£ 250	£ 21
48	133-144 Devon Mansions	Medium rise	12	£ 93,000	£ 7,750	£ 569,000	£ 47,417	N/A	N/A	£ 21,429	£ 1,786	£ 200	£ 14	£ 150	£ 13	£ 250	£ 21
49	145-156 Devon Mansions	Medium rise	12	£ 93,000	£ 7,750	£ 569,000	£ 47,417	N/A	N/A	£ 21,429	£ 1,786	£ 200	£ 14	£ 150	£ 13	£ 250	£ 21
50	157-168 Devon Mansions	Medium rise	12	£ 93,000	£ 7,750	£ 569,000	£ 47,417	N/A	N/A	£ 21,429	£ 1,786	£ 200	£ 14	£ 150	£ 13	£ 250	£ 21
51	169-180 Devon Mansions	Medium rise	12	£ 93,000	£ 7,750	£ 569,000	£ 47,417	N/A	N/A	£ 21,429	£ 1,786	£ 200	£ 14	£ 150	£ 13	£ 250	£ 21
52	181-192 Devon Mansions	Medium rise	12	£ 93,000	£ 7,750	£ 569,000	£ 47,417	N/A	N/A	£ 21,429	£ 1,786	£ 200	£ 14	£ 150	£ 13	£ 250	£ 21
53	193-204 Devon Mansions	Medium rise	12	£ 93,000	£ 7,750	£ 569,000	£ 47,417	N/A	N/A	£ 21,429	£ 1,786	£ 200	£ 14	£ 150	£ 13	£ 250	£ 21
54	205-216 Devon Mansions	Medium rise	12	£ 93,000	£ 7,750	£ 569,000	£ 47,417	N/A	N/A	£ 21,429	£ 1,786	£ 200	£ 14	£ 150	£ 13	£ 250	£ 21
55	331-351 Devon Mansions	Medium rise	21	£ 163,000	£ 7,757	£ 950,000	£ 45,238	N/A	N/A	£ 37,500	£ 1,786	£ 300	£ 14	£ 150	£ 7	£ 250	£ 12
56	352-372 Devon Mansions	Medium rise	21	£ 163,000	£ 7,757	£ 950,000	£ 45,238	N/A	N/A	£ 37,500	£ 1,786	£ 300	£ 14	£ 150	£ 7	£ 250	£ 12
57	373-393 Devon Mansions	Medium rise	21	£ 163,000	£ 7,757												

LB of Southwark
Retrospective Sprinkler Installation

No	Block Reference	Property Type	No of Units	Option 1 - Pipework boxed in		Option 2 - Lowered ceiling		Option 3 - Combined Solution (where practicable)		Alternative Accommodation		Annual Inspection Cost		Annual Maintenance Cost		Annual Repairs Budget	
				Total	Cost/Unit	Total	Cost/Unit	Total	Cost/Unit	Total	Cost/Unit	Cost/Bk per annum	Cost/Unit per annum	Cost/Bk per annum	Cost/Unit per annum	Cost/Bk per annum	Cost/Unit per annum
82	Chiltern	High rise	173	£ 654,000	£ 3,263	£ 3,164,000	£ 18,289	N/A	£ 4,200	£ 727,000	£ 1,500	£ 9	£ 150	£ 1	£ 650	£ 4	
83	Columbia Point	High rise	80	£ 329,000	£ 3,575	£ 1,505,000	£ 18,813	N/A	£ 2,738	£ 700	£ 150	£ 2	£ 150	£ 1	£ 350	£ 4	
84	Coniston House	High rise	82	£ 243,000	£ 2,976	£ 1,057,000	£ 20,207	N/A	£ 1,263	£ 800	£ 150	£ 10	£ 150	£ 2	£ 350	£ 5	
85	Crane House	High rise	68	£ 309,000	£ 3,942	£ 1,041,000	£ 15,309	N/A	£ 1,269	£ 600	£ 150	£ 10	£ 150	£ 2	£ 350	£ 5	
86	Crane House	High rise	70	£ 243,000	£ 3,283	£ 1,057,000	£ 18,300	N/A	£ 4,200	£ 700	£ 150	£ 10	£ 150	£ 2	£ 350	£ 5	
87	Crossmount House	High rise	82	£ 243,000	£ 2,976	£ 1,057,000	£ 20,207	N/A	£ 1,263	£ 800	£ 150	£ 10	£ 150	£ 2	£ 350	£ 5	
88	Cruden House	High rise	68	£ 309,000	£ 3,942	£ 1,041,000	£ 15,309	N/A	£ 1,269	£ 600	£ 150	£ 10	£ 150	£ 2	£ 350	£ 5	
89	Downview House	High rise	68	£ 309,000	£ 3,942	£ 1,041,000	£ 15,309	N/A	£ 1,269	£ 600	£ 150	£ 10	£ 150	£ 2	£ 350	£ 5	
90	Downview House	High rise	148	£ 642,000	£ 3,869	£ 4,300,000	£ 38,956	N/A	£ 1,219	£ 1,300	£ 150	£ 11	£ 150	£ 2	£ 500	£ 34	
91	Edenfield Way	High rise	148	£ 355,000	£ 5,840	£ 692,000	£ 12,491	N/A	£ 2,000	£ 500	£ 150	£ 3	£ 150	£ 3	£ 350	£ 7	
92	Grassmere Point	High rise	72	£ 355,000	£ 4,319	£ 692,000	£ 9,583	N/A	£ 1,472	£ 700	£ 150	£ 10	£ 150	£ 2	£ 350	£ 5	
93	Hanworth	High rise	140	£ 669,000	£ 4,151	N/A	N/A	N/A	£ 2,536	£ 1,500	£ 150	£ 10	£ 150	£ 1	£ 750	£ 13	
94	Harold Madison	High rise	47	£ 182,000	£ 3,352	£ 547,000	£ 11,638	N/A	£ 2,111	£ 500	£ 150	£ 11	£ 150	£ 3	£ 250	£ 5	
95	Harold Madison House	High rise	48	£ 171,000	£ 3,083	£ 508,000	£ 10,583	N/A	£ 1,271	£ 500	£ 150	£ 10	£ 150	£ 3	£ 250	£ 5	
96	John Kennedy House	High rise	92	£ 409,000	£ 3,859	£ 2,665,000	£ 28,967	N/A	£ 1,315	£ 800	£ 150	£ 9	£ 150	£ 2	£ 350	£ 4	
97	Keaton House	High rise	82	£ 243,000	£ 2,976	£ 1,057,000	£ 20,207	N/A	£ 1,263	£ 800	£ 150	£ 10	£ 150	£ 2	£ 350	£ 5	
98	Kewin Way	High rise	38	£ 249,000	£ 3,840	£ 475,000	£ 12,500	N/A	£ 2,000	£ 400	£ 150	£ 11	£ 150	£ 4	£ 250	£ 4	
99	Langley House	High rise	133	£ 543,000	£ 4,083	£ 1,733,000	£ 24,155	N/A	£ 1,263	£ 1,000	£ 150	£ 10	£ 150	£ 1	£ 250	£ 7	
100	Langley House	High rise	133	£ 543,000	£ 4,083	£ 1,733,000	£ 24,155	N/A	£ 1,263	£ 1,000	£ 150	£ 10	£ 150	£ 1	£ 250	£ 7	
101	Landmark House	High rise	52	£ 216,000	£ 3,942	£ 796,000	£ 15,308	N/A	£ 1,269	£ 500	£ 150	£ 10	£ 150	£ 3	£ 350	£ 4	
102	Luton House	High rise	84	£ 209,000	£ 3,352	£ 628,000	£ 11,650	N/A	£ 2,111	£ 500	£ 150	£ 10	£ 150	£ 2	£ 350	£ 5	
103	Lupin Point	High rise	82	£ 333,000	£ 3,924	£ 700,000	£ 8,537	N/A	£ 1,268	£ 800	£ 150	£ 10	£ 150	£ 2	£ 350	£ 4	
104	Marchwood Close	High rise	62	£ 311,000	£ 4,354	£ 789,000	£ 12,726	N/A	£ 2,742	£ 600	£ 150	£ 10	£ 150	£ 2	£ 350	£ 6	
105	Mardyke House	High rise	50	£ 204,000	£ 3,540	£ 1,027,000	£ 20,540	N/A	£ 1,260	£ 500	£ 150	£ 10	£ 150	£ 3	£ 250	£ 5	
106	Marie Curie House	High rise	99	£ 473,000	£ 4,152	£ 2,391,000	£ 24,152	N/A	£ 1,268	£ 900	£ 150	£ 9	£ 150	£ 2	£ 250	£ 3	
107	Mastman House	High rise	67	£ 230,000	£ 2,980	£ 1,175,000	£ 17,557	N/A	£ 99,160	£ 600	£ 150	£ 9	£ 150	£ 2	£ 250	£ 4	
108	Mayday House	High rise	148	£ 348,000	£ 3,283	£ 2,932,000	£ 16,429	N/A	£ 4,200	£ 1,200	£ 150	£ 11	£ 150	£ 1	£ 250	£ 7	
109	Mayday House	High rise	148	£ 348,000	£ 3,283	£ 2,932,000	£ 16,429	N/A	£ 4,200	£ 1,200	£ 150	£ 11	£ 150	£ 1	£ 250	£ 7	
110	Otterburn	High rise	81	£ 240,000	£ 2,976	£ 1,637,000	£ 20,210	N/A	£ 1,263	£ 700	£ 150	£ 9	£ 150	£ 2	£ 350	£ 4	
111	Pevenell House	High rise	112	£ 535,000	£ 4,152	£ 2,705,000	£ 24,152	N/A	£ 1,268	£ 1,000	£ 150	£ 10	£ 150	£ 1	£ 250	£ 4	
112	Pevenell House	High rise	41	£ 167,000	£ 3,924	£ 1,160,000	£ 6,537	N/A	£ 1,268	£ 400	£ 150	£ 10	£ 150	£ 4	£ 250	£ 6	
113	Pope House	High rise	89	£ 359,000	£ 3,506	£ 1,160,000	£ 13,034	N/A	£ 1,270	£ 800	£ 150	£ 9	£ 150	£ 2	£ 350	£ 4	
114	Prescott House	High rise	68	£ 309,000	£ 3,942	£ 1,041,000	£ 15,309	N/A	£ 1,269	£ 600	£ 150	£ 9	£ 150	£ 2	£ 350	£ 5	
115	Prospect House	High rise	63	£ 257,000	£ 3,506	£ 1,294,000	£ 20,540	N/A	£ 1,260	£ 800	£ 150	£ 10	£ 150	£ 2	£ 350	£ 6	
116	Quedley	High rise	33	£ 134,000	£ 3,806	£ 430,000	£ 13,030	N/A	£ 1,270	£ 300	£ 150	£ 9	£ 150	£ 5	£ 250	£ 8	
117	Quinninton	High rise	32	£ 130,000	£ 3,806	£ 417,000	£ 13,051	N/A	£ 1,270	£ 300	£ 150	£ 9	£ 150	£ 5	£ 250	£ 8	
118	Quinninton	High rise	32	£ 130,000	£ 3,806	£ 417,000	£ 13,051	N/A	£ 1,270	£ 300	£ 150	£ 9	£ 150	£ 5	£ 250	£ 8	
119	Redcliffe Gardens	High rise	87	£ 193,000	£ 3,273	£ 657,000	£ 16,712	N/A	£ 1,265	£ 500	£ 150	£ 10	£ 150	£ 2	£ 350	£ 5	
120	Redra Point	High rise	80	£ 329,000	£ 3,575	£ 1,505,000	£ 18,813	N/A	£ 2,738	£ 700	£ 150	£ 10	£ 150	£ 2	£ 350	£ 4	
121	Rockatove	High rise	60	£ 287,000	£ 4,151	N/A	N/A	N/A	£ 2,536	£ 700	£ 150	£ 10	£ 150	£ 3	£ 350	£ 13	
122	Rye Hill Park	High rise	150	£ 515,000	£ 2,980	£ 2,631,000	£ 17,540	N/A	£ 1,480	£ 1,300	£ 150	£ 9	£ 150	£ 1	£ 250	£ 2	
123	Sarnsfield House	High rise	56	£ 268,000	£ 4,151	N/A	N/A	N/A	£ 2,536	£ 600	£ 150	£ 10	£ 150	£ 3	£ 350	£ 12	
124	Simla House	High rise	78	£ 276,000	£ 3,077	£ 703,000	£ 9,013	N/A	£ 2,218	£ 700	£ 150	£ 9	£ 150	£ 2	£ 350	£ 4	
125	Skenfirth House	High rise	56	£ 268,000	£ 4,151	N/A	N/A	N/A	£ 2,536	£ 600	£ 150	£ 10	£ 150	£ 3	£ 350	£ 12	
126	Sturland House	High rise	54	£ 209,000	£ 3,352	£ 628,000	£ 11,650	N/A	£ 1,263	£ 500	£ 150	£ 10	£ 150	£ 2	£ 350	£ 5	
127	Sturges House	High rise	118	£ 171,000	£ 2,983	£ 1,057,000	£ 19,283	N/A	£ 1,269	£ 400	£ 150	£ 10	£ 150	£ 3	£ 250	£ 5	
128	Sturges House	High rise	118	£ 171,000	£ 2,983	£ 1,057,000	£ 19,283	N/A	£ 1,269	£ 400	£ 150	£ 10	£ 150	£ 3	£ 250	£ 5	
129	Thaxton House	High rise	316	£ 1,193,000	£ 3,283	£ 5,786,000	£ 18,291	N/A	£ 4,200	£ 2,800	£ 150	£ 9	£ 150	£ 0	£ 1,050	£ 3	
130	Hillington Court	High rise	137	£ 485,000	£ 3,077	£ 1,235,000	£ 9,015	N/A	£ 304,000	£ 2,218	£ 150	£ 9	£ 150	£ 1	£ 450	£ 3	
131	Travelvan	High rise	63	£ 301,000	£ 4,151	N/A	N/A	N/A	£ 2,536	£ 700	£ 150	£ 10	£ 150	£ 2	£ 750	£ 12	
132	Trevithick House	High rise	52	£ 236,000	£ 3,942	£ 796,000	£ 15,308	N/A	£ 1,269	£ 500	£ 150	£ 10	£ 150	£ 3	£ 350	£ 7	
133	Walters House	High rise	82	£ 372,000	£ 3,942	£ 1,255,000	£ 15,305	N/A	£ 1,269	£ 800	£ 150	£ 10	£ 150	£ 2	£ 350	£ 4	
134	Wendover 1-240	High rise	240	£ 907,000	£ 3,283	£ 4,390,000	£ 18,292	N/A	£ 4,200	£ 2,100	£ 150	£ 9	£ 150	£ 1	£ 850	£ 4	
135	Wendover 240-471	High rise	230	£ 869,000	£ 3,283	£ 4,207,000	£ 18,291	N/A	£ 4,200	£ 2,000	£ 150	£ 9	£ 150	£ 1	£ 850	£ 4	
136	Westonbirt	High rise	30	£ 121,000	£ 3,506	£ 391,000	£ 13,033	N/A	£ 1,270	£ 300	£ 150	£ 10	£ 150	£ 5	£ 250	£ 8	
137	Westonbirt	High rise	30	£ 121,000	£ 3,506	£ 391,000	£ 13,033	N/A	£ 1,270	£ 300	£ 150	£ 10	£ 150	£ 5	£ 250	£ 8	
138	Westonbirt	High rise	194	£ 699,000	£ 3,506	£ 1,481,000	£ 13,049	N/A	£ 35,000	£ 1,270	£ 150	£ 9	£ 150	£ 6	£ 750	£ 10	
139	Widmore Point	High rise	73	£ 362,000	£ 4,301	£ 695,000	£ 9,521	N/A	£ 162,000	£ 2,219	£ 700	£ 10	£ 150	£ 2	£ 350	£ 5	
140	Widmore Point	High rise	41	£ 167,000	£ 3,524	£ 350,000	£ 8,537	N/A	£ 52,000	£ 400	£ 150	£ 10	£ 150	£ 4	£ 250	£ 5	
141	Widmore Point	High rise	54	£ 209,000	£ 3,352	£ 628,000	£ 11,650	N/A	£ 114,000	£ 2,111	£ 500	£ 9	£ 150	£ 3	£ 250	£ 5	
Sub-Total				£ 30,262,000		£ 112,631,000		£	£ 14,793,357	£ 65,800	£ 15,450	£ 39,950	£	£	£	£	£
General Accommodation																	
Totals				7,833		£ 122,117,000		£ 1,175,000		£ 16,300,357	£ 75,800	£ 21,150	£	£	£	£	£ 49,350

Exclusions
VAT
Professional fees
Inflation/Deflation
Relocation costs

Lakanal Coroner action plan

No.	Coroners Recommendation	Action	Timescale for Completion
	<p>Information and guidance to occupiers of flats and maisonettes in high rise buildings</p>	<p>Apply to 10 >storey, lower but complex blocks, SHUs and hostels (145 known)</p>	
1	<p>Demonstrate to those who are about to enter into occupation of a flat or maisonette the fire safety features of their dwelling and of the building generally; this should include walking residents through relevant features such as escape balconies and demonstrating how to open fire exit doors and where these lead.</p>	<p>FST to assess blocks and prepare information/guidance packs on an area by area basis and provide to lettings team.</p> <p>The lettings team will incorporate this information into the 'welcome pack' and will go through the guidance and walk through the relevant features with new tenants at the point of sign up. Tenants will be asked to sign to confirm they have had and understood the advice. The signed sheet will be stored on Info@Work to ensure we have a record.</p> <p>The resident officer for the building to visit each new tenant within the first 6 weeks after they take occupation. At this visit the resident officer will ask the new tenant to confirm they have had information and guidance in relation to fire and again a signature will confirm this. This record will also be stored on Info@Work</p> <p>Operations to share the block specific literature/packs with all existing residents in the blocks and consider how best to provide demonstrations to existing residents where appropriate</p>	<p>Oct-14 Underway. Camberwell Area ready to be distributed.</p>

2	<p>Give residents clear guidance as to how to react if there is a fire in the building, namely to explain whether they should attempt to get out of their flat or maisonette and leave the building, or whether they should remain in their flat; that guidance should explain clearly how to react if circumstances change, for example, if smoke or fire enter their flat or maisonette</p>	<p>FST to revisit fire safety works done prior to the approval of the current Fire Action Notices (FANs) to bring these up to date, and increase the number installed to three per floor, where appropriate.</p> <p>N/A</p> <p>FAN information to also form part of the block's specific literature/pack referred to in recommendation 1.</p> <p>Resident officers to ensure as part of the annual tenancy check that residents understand the council's fire safety guidance and information and will make referrals to the fire safety team for further information or demonstration as required.</p>	<p>Mar-14 Underway and on target to complete by end of March 2014.</p> <p>Underway</p>
3	<p>Consider additional ways in which information might be disseminated to residents, for example, by fixing inside each flat and maisonette a notice about what to do in case of fire</p>	<p>Issue all residents in high rise blocks with an expanded version of the fire action notices and stay put principles in booklet form (FST drafting).</p>	<p>Sep-13 Completed</p>
<p>Signage in high rise residential buildings</p>			

4	<p>It is recommended that your authority reviews signs in common parts of high rise residential buildings to ensure that these are sufficiently prominent and provide useful information. It is recommended that signage:</p> <p>In common areas explain whether residents should normally remain in their flats or maisonettes or whether they should evacuate the building, in which case evacuation procedures should be explained</p>	<p>As No. 2 above - FST to revisit fire safety works done prior to the approval of the current Fire Action Notices (FANs) to bring these up to date, and increase the number installed to three per floor, where appropriate.</p>	<p>Mar -14 Underway and on target to complete by end of March 2014.</p>
5	<p>Provide clear information to residents to enable them to find escape routes</p>	<p>FST to review directional signage previously installed and arrange replacement where necessary</p>	<p>Mar-14 Underway and on target to complete by end of March 2014.</p>
6	<p>Use pictograms to assist those for whom English is not their first language</p>	<p>Directional signage already in pictogram form</p>	<p>N/A</p>

7	<p>Provide information to those in the emergency services which would assist them to understand a building's layout and enable them quickly to find a particular flat or maisonette once inside the building</p>	<p>FST to carry out a review of all existing high rise block signage and ensure that it includes the location of each flat on its floor and is placed at a level low enough to ensure visibility in smoke conditions.</p> <p>Distribution of plans of 5 > blocks to the LFB.</p> <p>FST to carry out a review of areas not accessible to general public and liaise with LFB to ensure they are easily accessible by LFB by use of LBS key suite.</p> <p>Ensure staff availability at times of LFB familiarisation visits, when requested, to ensure that all parts of the buildings are accessible during such visits</p>	<p>Mar-14 Underway and on target to complete by end of March 2014.</p> <p>Jun-14 Underway and on target to complete by end of June 2014.</p> <p>Mar-14 Underway and on target to complete by end of March 2014.</p> <p>Ongoing</p>
8	<p>It is also recommended that your authority liaise with London Fire Brigade regarding use of premises information plates and boxes</p>	<p>FST/LFB to arrange installation of premises information plates at prioritised blocks once the LFB have provided format requirements.</p>	<p>Dec-13 12 blocks agreed. Await plates from LFB then LBS to install.</p>
9	<p>Policies and procedures concerning fire risk assessment</p> <p>It is recommended that your authority review its policies and procedures concerning high rise residential buildings</p>	<p>Officers to carry out a further review in October and then annually</p>	<p>Oct-13 and annually Complete and ongoing</p>
10	<p>Prioritising such buildings for regular rigorous review</p>	<p>This recommendation has already been completed</p>	<p>Completed and ongoing</p>

11	Considering the skills and experience needed to undertake an assessment of higher risk residential buildings	<i>This recommendation has already been completed.</i>	Completed and ongoing
12	Considering the training required for members of staff considered to be competent to carry out assessments	<i>This recommendation has already been completed.</i>	Completed and ongoing
13	Identifying when individual flats or maisonettes should be inspected and how these should be selected for inspection	<i>Our current fire risk assessment process already identifies areas where further internal in-dwelling investigation might be required.</i>	Completed and ongoing
14	Ensuring that assessors have access to relevant information about the design and construction of high rise residential buildings and refurbishment work carried out to enable an assessor to consider whether compartmentation is sufficient or might have been breached	<p><i>Prior to every fire risk assessment being undertaken, an FRA Co-ordinator will issue a comprehensive brief on the layout of the building, records of any recent major works and any other design features or characteristics relevant to the building and its fire safety to the assessor.</i></p> <p><i>Commence storing CDM H&S files electronically on Info@Work</i></p> <p><i>Information from annual property check to be shared with the in-house fire risk assessors</i></p>	<p>Mar-14 On target</p> <p>Jun-13 Completed</p> <p>Jul-13 Ongoing</p>
Training of staff engaged in maintenance and refurbishment work on existing building			

15	<p>Consider the training needs of personnel who will be involved in procuring or supervising work to existing high rise residential buildings – whether maintenance, refurbishment or rebuilding of parts of buildings – to ensure that materials and products used in such work have appropriate fire protection qualities. Staff should, for example, be trained to understand the significance of the compartmentation principle and to appreciate when Building Control should be notified about work to be undertaken.</p>	<p>Regular training to be made available to M&C and MW staff</p> <p>Lead designers and consultants to attain NEBOSH accreditation</p> <p>All of the council's contractors engaged in major works and day to day maintenance to regularly demonstrate sufficient knowledge, experience and qualification in fire safety issues and requirements in construction</p> <p>FST to sign off major works and other works with fire safety implications</p> <p>MWs to review the current processes to ensure that there is liaison with the council's Building Control team in all major work proposals and completions, and that all necessary consents and sign-offs are obtained</p> <p>MWs to carry out a retrospective review of major works to ensure that the necessary consents are in place</p>	<p>Mar-14 Sourcing, on target</p> <p>Mar-14 On target</p> <p>Mar-14 On target/ongoing</p> <p>Completed and ongoing</p> <p>Jul-13 Completed and ongoing</p> <p>Oct-13 Review completed, arranging testing of composite panels</p>
16	<p>Access for emergency vehicles</p> <p>Liaise with emergency services to consider access for emergency vehicles to high rise residential buildings, having particular regard to obstructions such as vehicle parking in locations which emergency services might need to use</p>	<p>LBS has liaised with LFB and agreed a reporting and resolution process</p>	<p>Completed and ongoing</p>
17	<p>Retro fitting of sprinklers</p> <p>Consider the question of retro fitting of sprinkler systems in high rise residential buildings</p>	<p>The council will undertake a full independent feasibility study which looks at the requirements for each of the blocks concerned</p>	<p>Nov-13 Feasibility report received. Officer report at Cabinet on 10/12/13.</p>

CABINET AGENDA DISTRIBUTION LIST (OPEN)**MUNICIPAL YEAR 2013/14**

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Paula Thornton/Everton Roberts Tel: 020 7525 4395/7221

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