

COUNCIL  
10 NOVEMBER 2009

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### **FIRE SPRINKLERS IN NEW SCHOOLS**

#### **Purpose of Report**

1. To respond to the Notice of Motion No. 4 raised at the Council Meeting dated 15 September 2009.
2. To advise Council of the implication of adopting a policy for the installation of fire sprinklers in new school buildings including extensions built by and for the Council.

#### **Background**

3. Council at its meeting on 15 September 2009 considered the following Notice of Motion:

#### **Notice of Motion No. 4 - Fire Sprinklers in Schools – Submitted by Cllrs J Osborn and H Osborn.**

**“This council commends the decision to install fire sprinklers in the new secondary school in Melksham. This has been warmly welcomed by the Wiltshire and Swindon Fire Authority and cited in evidence on fire safety to a House of Commons select committee.**

**In light of this it is most regrettable that a similar decision to install fire sprinklers was not made in respect of the new Wellington Academy.**

**This council, in the interest of fire, person and property safety, wishes to see fire sprinklers installed in the two proposed new academies for Salisbury”**

4. The motion was debated during which the motion was amended to delete the following from the last paragraph of the motion:

*‘the two proposed new academies for Salisbury’*

and replace with

*‘all new school buildings including extensions built by and for the Council’.*

5. Council resolved that Notice of Motion No. 4 – Fire Sprinklers in Schools be deferred for a full report to the special meeting of Council on 10 November 2009. Accordingly, Council is asked to consider this report.

6. In March 2007, the Secretary of State for Schools and Learners announced that it was the DCSF's expectation that all new schools would have sprinklers installed. This coincided with the publication of Building Bulletin 100: Designing for fire safety in schools (BB100).
7. BB100 included a risk assessment toolkit and a cost-benefit analysis, both of which support the DCSF policy that all but exceptionally low risk schools should have sprinklers.
8. Formal requirements for life safety are covered by national legislation (Building Regulations) and supporting technical guidance with respect to fire. The relevant building regulation is Approved Document B. The approach championed by DCSF through BB100 seeks to enhance the measures for protection of the property through the installation of sprinklers, coupled with the building regulation requirements for life safety.
9. The Council have made decisions on specific recent projects to install fire sprinklers following use of the risk assessment tool provided in BB100. On this basis, sprinklers are currently being installed at the new Melksham Oak Community School and the new Shrewton Primary School, and budget provision is made within the Primary Capital Programme and the proposed Salisbury Academy projects. In the light of future school building projects, it is considered appropriate to now seek the formality and clarity of a Council policy on this topic to set a framework for upcoming projects.

### **Main Considerations for the Council**

10. Wiltshire is considered to be low risk in respect of incidents of arson on school sites. In the recent past the Council have had very few instances of fire damage in the Council's schools, and none have been major. However, many school sites are in areas not served by retained fire crews, and hence the impact of a fire could be much greater due to the resulting response times. The risk in schools, as a building type, is considered higher than other types due to a number of factors, notably the hours of use, holiday periods during which they remain largely vacant, and a lack of natural surveillance.
11. It is important to note, that the Building Regulations provide a framework whereby safe operation and evacuation of the building is assured through robust fire engineering. Where buildings are designed to meet the Building Regulations Approved Document B the installation of sprinklers would improve the level of protection afforded to the building itself, limiting the ability of a fire to spread and thus vastly reducing the impact of making good fire damage. Sprinklers should not be considered to be an essential feature to assure the life safety of occupants.
12. Without fire sprinklers installed, the impact of a significant fire at a school would be significant, and would extend far beyond the financial impact of making good the damage caused. Such an event would inevitably result in the loss of teaching material and students' coursework, but would also cause significant disruption with the school or parts of it shut down, and teaching taking place from temporary classroom facilities. Where specialist space is affected, e.g.

Science or sports facilities, this accommodation may not be easily or quickly replaced leading to a compromise in standards at the affected school while fire damage is made good.

13. The projects that have been progressed to date with sprinklers installed have enabled Council officers, together with their design teams to work closely with the Council's insurers, Royal Sun Alliance (RSA). A technical specification for sprinkler systems for schools has been issued by RSA and identifies their technical requirements. This document is available to review by request to the report author. A principle has been established for the insurer's involvement in new school projects at the design stage to ensure that their technical requirements are met in detail. It is acknowledged that insurance provision is currently being re-procured, and hence this detailed technical work may become superceded by other standards if a change of provider results.
14. The impact on the Council's insurance policy of installing sprinklers is minimal. Due to the size of the Council's property portfolio, the impact on the insurable risk by installing sprinklers on relatively few new build schools is negligible, and does not therefore result in a reduction to the premium. It does, however, enable the insurance deductible on affected properties to be reduced from £250,000 to £50,000 in respect of fire losses.
15. Any policy adopted should define the criteria to be applied for projects that involve the extension or refurbishment of existing buildings. It is recommended that a practical application is sought to avoid encumbering smaller projects with disproportionate infrastructure costs. The policy should also acknowledge that there may be instances where planning constraints prevent the installation of above ground tanks (preferable to insurers). Other alternatives, i.e. below ground or mains fed systems, could be explored, but if these prove to be infeasible there may be instances where sprinklers cannot be installed. In this event, a method of seeking a formal derogation to such a policy should be established, to ensure that such decision is subject to sufficient rigour.

### **Environmental Impact of the Proposal**

16. None

### **Equalities Impact of the Proposal**

17. None

### **Risk Assessment**

18. The DCSF's Risk Assessment Toolkit contained within BB100 has been used to evaluate the risk on specific projects, which are considered to be typical for Wiltshire (Melksham Oak Community School and Highbury Primary School). These both established that the risk is considered "average". The BB100 guidance on this basis is that sprinklers should be installed irrespective of the outcome of the cost-benefit analysis tool.

19. The failure of schools to adequately maintain a fire sprinkler system may put the authority at risk if fire damage results from a faulty sprinkler system. Insurers will expect that the recommended maintenance regime is followed. The consideration of the maintenance burden in paragraph 24 is crucial to ensuring that the insurable risk of fire is genuinely reduced by the installation of sprinklers.
20. The implementation of this policy alone will not remove the risk of fire. Attention should continue to be focussed on evaluating fire risk in existing school property and addressing hazards through the effective management of that risk in school premises.

### **Financial Implications**

21. The installation of sprinkler systems in two current projects has enabled costs to be tested for typical school project types. This leads to indicative costs as below, which compare with benchmark costs from other sources.
  - a. 1350 pupil Secondary School - £550,000, equivalent to 2.3% of construction cost.
  - b. 210 pupil Primary School - £70,000, equivalent to 2.5% of construction cost
  - c. 420 pupil Primary School - £125,000, equivalent to 2.8% of construction cost
22. The installation of sprinklers within an existing building has not as yet been tested, and is considered to be too variable to provide a useful benchmark. The proposed policy would require the retrospective installation of sprinklers within an existing school to be evaluated as part of any significant refurbishment project. The application of the policy should be considered on a project-by-project basis with the intent of the policy in mind.
23. The annual maintenance cost of fire sprinklers could be £5,000-10,000 for a secondary school, depending on the extent to which routine inspections can be carried out by the school, and the scale of the system. This is a significant cost for any school, but particularly a primary school, where the cost could reach £5,000 per annum. It is recommended that the views of Council in respect of a policy be discussed at the Schools Forum to raise awareness of the potential maintenance and servicing responsibility and associated financial burden.
24. DCSF funding models do not include an allocation for sprinklers. It therefore falls on the Local Authority to either fund the installation themselves or to fund it from within defined funding envelopes. In the instance of The Wellington Academy, in the absence of specific funds for sprinklers, the Academy Trust decided not to fund this item from within the basic funding allocation. The Council's capital bids for both Salisbury Academies have included allowance for sprinklers.

### **Legal Implications**

25. None.

## **Options Considered**

26. The alternative to this policy would be to continue designing and building schools without sprinklers. This would continue to deliver well designed schools that comply with the relevant building regulations, and are therefore safe for their occupants. There is not considered to be adverse risk to pupils, staff and other users of school buildings if this option were to be taken.
27. However, the ongoing risk of a serious fire in one of the Council's schools clearly remains, and the impact of such a fire to the operation of a school would be significant.
28. The reputational impact to the Council of a newly built school being severely damaged by fire without the mitigation of a fire sprinkler system should be considered.

## **Proposals**

29. It is recommended that members consider the implications of adopting the motion as outlined in this report.
30. If Council is minded to adopt the motion Cabinet be requested to consider a policy to install sprinklers in all new school buildings, including extensions built by and on behalf of the Council.

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**The following unpublished documents have been relied on in the preparation of this Report:**

None

#### **Appendices:**

None