

To: Finance, Resources and Customer Services Policy Board

On: 7 June 2017

Report by: Director of Finance & Resources

Heading: Council response to 'Report of the Independent Inquiry into the Construction of Edinburgh Schools'

1. Summary

The purpose of this report is to

- 1.1 Provide Elected Members with an update on the publication of the 'Report of the Independent Inquiry into the Construction of Edinburgh Schools' and advise on the implications of the report's recommendations pursuant to Renfrewshire Council.
-

2. Recommendations

It is recommended that the Board

- 2.1 notes the content of this Report and in particular the steps taken by the Council to address the Inquiry recommendations as set out in Appendix 1.

3. Background

- 3.1. There has been widespread media coverage of ongoing structural issues in the design and construction of PPP schools commissioned by Edinburgh City Council

- 3.2. The City of Edinburgh Council subsequently commissioned Professor John Cole to investigate matters leading to the structural issues and potential 'lessons learned' from the experience.
- 3.3 Professor Cole published his report, "Report of the Independent Inquiry into the Construction of Edinburgh Schools" on 9 February 2017.
- 3.4 The full report is available from the Head of Property Services (Ext 6159). or [Independent inquiry into school closures published | Independent inquiry into school closures published | The City of Edinburgh Council](#)
- 3.5 The Scottish Government has instructed the Scottish Futures Trust (SFT) to consider the Inquiry's Report/Recommendations and will issue further guidance in due course if considered necessary. Officers will of course continue to liaise with SFT to consider and input into matters arising.
- 3.6 Appendix 1 (of this report) provides a commentary on the Independent Inquiry report's Recommendations pursuant to Renfrewshire Council PPP and non PPP estate.

Implications of the Report

1. **Financial** – As per report
2. **HR & Organisational Development** – Not Applicable.
3. **Community Planning** – Not Applicable
4. **Legal** – As per report
5. **Property/Assets** – As per report.
6. **Information Technology** – Not Applicable
7. **Equality & Human Rights.**
 - (a) The Recommendations contained within this report have been assessed in relation to their impact on equalities and human rights. No negative impacts on equality groups or potential for infringement of individuals' human rights have been identified arising from the recommendations contained in the report. If required following implementation, the actual impact of the recommendations and the mitigating actions will be reviewed and monitored, and the results of the assessment will be published on the Council's website.
8. **Health & Safety** – Not Applicable.
9. **Procurement** –Not Applicable.

10. **Risk** – Not Applicable.

11. **Privacy Impact** – Not Applicable.

Author Joe Lynch
Head of Property Services
0141 618 6159

- APPENDIX 1

EDINBURGH SCHOOLS: INQUIRY RECOMMENDATIONS

1. PROCUREMENT RECOMMENDATIONS

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
1.1 - Expertise and resources Public sector bodies engaged in the procurement of public buildings should maintain, or have assured access to, a level of expertise and resources that allows that body to act as an 'intelligent customer' in undertaking transactions with Private Sector Construction Companies. Before commencing a programme of work or an individual project, a public body should first assess this requirement and ensure that it has in place the requisite and appropriate resources in terms of governance arrangements, type of expertise, allocated time and the funding required to enable it to act as an 'Intelligent Customer'.	Property Services: Property Services delivers a modern, efficient service through two sections: Technical Services & Asset and Energy Management Services. Technical Services provide a multi disciplinary design consultancy offering expert design and management services to the Council's building portfolio. Asset and Energy Management Services manage the Council's assets and provide energy management services & advice. All sections of the Council have access to and use these services to allow the Council to act as an 'intelligent customer'. Health & Safety Section: The Finance and Resources, HR OD and Workforce Planning, health and safety section will provide competent advice and guidance to all services across the council. Procurement: The Strategic Procurement and Commercial Unit (SPCU) provide professional procurement support and guidance to Council Services to support the delivery of all projects with a value over £10k. Each service area has a dedicated	The Scottish Government has instructed the Scottish Futures Trust (SFT) to consider the Inquiry's Report/ Recommendations and will issue further guidance in due course if considered necessary. Property Services course continue to liaise with SFT to consider and input into matters arising. (This action is repeated in a number of Recommendations below and is abbreviated as 'Property Services to liaise with SFT.')	Property Services	Ongoing

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
	Strategic Commercial Category Manager (SCCM) who works closely with the service areas, helping to guide early discussions around option appraisals, route to market and developing the most appropriate procurement strategy. All contracts are tendered in accordance with the relevant Procurement Legislation and Regulations, the Councils Contract Standing Orders and our robust internal governance ensuring a fair and transparent approach to evaluation and award of contracts. The SCCM remains available to the service to assist with contract and supplier management throughout the delivery of the project. As part of the tender process, the technical capability of bidders is reviewed along with the Health and Safety and proposed method of works, to ensure only contractors who have demonstrated they can deliver the required works are appointed.			
1.2 - Ensuring compliance with specification In any construction contract let by a public body, the public body should ensure that due diligence is undertaken at an appropriate level to confirm that the requirements of that contract are actually delivered in accordance with the terms of that contract. The level of due diligence applied should be determined through an informed assessment of risk of the likelihood or implications of non-compliance.	Property Services: Property Services use an in house (supplemented by external) Project Management resource to administer and confirm delivery of project requirements. The level of resource deployed for this purpose appropriately reflects the complexity and value of contracts. Procurement: Tenders for works include detailed specification requirements and potential contractors are required to confirm their compliance with the specification or provide details where there is any proposal to deviate from the specification. Where these are not acceptable to the Council the tender	Property Services to liaise with SFT.	Property Services	Ongoing

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
	may be rejected. Where concerns relating to compliance are raised, the SCCM is available to support the Service and Technical colleagues in addressing issues with the Contractor regarding contract delivery and compliance in accordance with the terms of the contract.			
1.3 - Public bodies cannot delegate duties In seeking to transfer as much risk as possible away from themselves in relation to the design and construction of facilities, public bodies should understand that they cannot delegate to others the duty that they ultimately owe to the public to ensure the provision of a safe environment for the delivery of services to their communities and this should inform their approach to their quality assurance processes of projects. There should always be an appropriate level of independent scrutiny in relation to all aspects of design and construction that are in effect largely or partly self-certified by those producing them.	Property Services: As 1.2 above, Property Services use Project Management (PM) resources to administer and confirm delivery of project requirements. This includes 'Design & Build' projects where the design is undertaken by a 'Design & Build contractor'. The PM, supplemented by the in house design team, provide scrutiny through the tender process and construction period. Procurement: As detailed in 1.1 allocation of risk is considered as part of the Procurement Strategy ensuring that any required measures for independent scrutiny are built into the tender documentation and the specification.	Property Services to liaise with SFT.	Property Services	Ongoing
1.4 - Building it right first time The procurement strategies adopted by public bodies should include appropriate investment in the provision of informed independent scrutiny of projects when they are being designed and constructed so that they are built right first time, rather than clients subsequently seeking to rely on their ability to seek remediation or compensation if they are not. It is the view of the Inquiry that seeking savings through cutting investment	Property Services: As 1.2 above, Property Services use Project Management (PM) resources to administer and confirm delivery of project requirements. This includes 'Design & Build' projects where the design is undertaken by the 'Design & Build contractor'. The PM, supplemented by the in house design team, provides scrutiny through the tender process and construction period.	Property Services to liaise with SFT.	Property Services	Ongoing

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
in quality assurance is inevitably a false economy.	Procurement: The Procurement Strategy considers the appropriate Quality:Cost ratios for each procurement carried out. The cost of the contract is not the only consideration when awarding contracts for works.			
1.5 - Quality of design and construction There should be a more informed approach among public bodies as to how best practice methodologies aimed at optimising the quality of design and the quality of construction can be incorporated into the current models of procurement of public buildings, whilst maintaining other benefits of these processes. One key element of such processes is a clear and considered articulation in a comprehensive brief by the client of the quality objectives for a project and of the methodology to be used for ensuring the achievement of that quality in both the design and construction phases. Appropriate time and resource should be allocated by clients during the initial stages of a project and during the development of the brief in order to establish and clearly define these quality objectives and approaches to ensuring quality.	Property Services: Property Services use (PM) resources to administer and confirm delivery of project requirements. This includes 'Brief Development' with Clients to determine project objectives. Procurement: As part of the tender process requirements for monitoring and key performance indicators are considered during the procurement strategy development and where appropriate are built into the contract conditions and specifications.	Property Services to liaise with SFT.	Property Services	Ongoing

2. INDEPENDENT CERTIFIER RECOMMENDATIONS

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
2.1 - Nature of Inspection There would appear to be a lack of shared understanding, both by those commissioning and providing the services of Independent Certifier in PPP forms of contracts, with regard to the level of inspection to be undertaken by the Independent Certifier and the degree of reliance that clients can place on the issue of Availability Certificates as to the quality of the construction. The level of service provided by Independent Certifiers needs to be reviewed and contracts of appointment written to reflect what clients actually require of the role, so that clients better understand exactly what they are getting and providers of the service better understand what is required of them. Standard forms for these appointments should spell out the nature of the inspection required. The Inquiry is of the view that one possible model or option to overcome the type of issues identified in the PPP1 project would be to extend the range of services required in the appointment of Independent Certifiers to include the provision and management of Clerks of Works services.	Property Services: Noted	There are currently no proposals for any further PPP/PFI/NPD projects in Renfrewshire. Should this position change at any time in the future the Inquiry comments and Recommendations regarding Independent Certifier will be considered at that time.		

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
2.2 - Professional indemnity insurance and Liability Period The level of professional indemnity insurance sought and the liability period for Independent Certifiers should be assessed to properly and appropriately reflect the significance of their Certification processes and the degree of reliance that is to be placed on it.	Noted. As 2.1 above.			
2.3 - Method of appointment of Independent Certifier Given the essential requirement that those undertaking the role of Independent Certifier are truly independent, the appointment of Independent Certifiers should be made following properly advertised and conducted public procurement processes and not through nomination or recommendation by the private sector party (as appears frequently to have been the case).	Noted. As 2.1 above.			
2.4 - Fees of Independent Certifier The fees for undertaking the Independent Certifier role should reflect the level of service required, rather than the service being restricted to fit a predetermined budget.	Noted. As 2.1 above.			

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
2.5 - Independent Inspection of the Works Public sector clients should engage appropriately qualified individuals or organisations with the necessary professional construction expertise to undertake on their behalf an appropriate level of ongoing inspection of the construction of their buildings. This is in order to identify and report defective work to the client and to ensure proper rectification of same. Depending on the nature of the project, this inspection role, at the level at which the defects in the Edinburgh PPP1 schools occurred, is traditionally undertaken by a combination of resident architects, resident engineers and Clerks of Works, the use of whom has dramatically reduced over recent years, yet the essential role they played does not appear to have been effectively provided for by alternative arrangements within the forms of procurement currently in vogue. Clients need to reappraise this gap in the assurance processes which has been allowed to develop.	Noted. As 2.1 above. Property Services: Property Services use in house (supplemented by external) resources to provide construction period inspection services. The level of inspection is determined by the scale and complexity of project and can include Clerks of Works, Supervisor or Resident Architect.	Property Services to liaise with SFT.	Property Services	Ongoing

3. CLIENT'S RELATIONSHIP WITH THE DESIGN TEAM

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
3.1 - Scope of service of design team members Under current models of procurement, the relationship between the client and key members of the design team has tended to become at least one or more steps removed, yet the inherent fundamental quality and safety of projects as determined by the design of spaces, the specification of materials and the structural intent behind the design, relies on the creativeness and effectiveness of their designs and the proper implementation of these on site. The extent of their appointments and the level of involvement of design team members (either with clients or on site) is now frequently delegated to contractors to determine. Public bodies should review current procurement arrangements to ensure they are providing the optimum level of communication between clients and key members of the design team and that clients are able to benefit to the fullest extent from their professional advice and expertise. They may wish to consider how more direct communication could be incorporated into current forms of contract, in addition to the existing requirement for the provision of collateral warranties.	Property Services use Project Management (PM) resources to administer and confirm delivery of project requirements. This includes 'Design & Build' projects where the design is undertaken by the 'Design & Build contractor'. In a Design and Build scenario the PM currently provides the communication link between the Design Team and the Client The PM, supplemented by the in house design team provide scrutiny through the tender process and construction period as well as consideration (in liaison with Legal Services) of Collateral Warranties for design elements.	Property Services to liaise with SFT.	Property Services	Ongoing

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
3.2 - Role of design teams in inspecting works on site If clients do not wish to prescribe in their tender documentation the minimum level of services which they require to be provided by design team members when employed by a contractor, public sector clients should at least require that submitted tenders include a full description of the proposed scope of design team services, including any proposed role in the inspection of the works on site. This, in addition to the quality of the proposed design team or proposed design, should be important factors in the assessment of such tenders.	Property Services: Agreed and noted.	Property Services to liaise with SFT. Future Design and Build contracts to include a full description of the proposed scope of design team services, including any proposed role in the inspection of the works on site.	Property Services	Ongoing
3.3 - Notification of issues to public sector client The Inquiry is of the view that, where possible, there should be a mandatory provision built into such contracts that where, to the knowledge of a professional design team member, a contractor has failed to take appropriate action as advised by a member of the professional design team on issues that could impact on the subsequent safety of building users or functionality of the building, the consultant in question should be required to inform the public sector client of the advice provided to the contractor.	Property Services: Agreed and noted.	Property Services to liaise with SFT. Future Design and Build contracts to include a full description of the proposed scope of design team services, including any proposed role in the inspection of the works on site.	Property Services	Ongoing

4. INFORMATION SHARING RECOMMENDATIONS

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
4.1 - Production, retention and updating of information The production, retention and updating of accurate construction and operational information and related documentation on projects should be regarded as a fundamental requirement and requires a systematic and disciplined approach by all parties to the contract. Public bodies should establish a mandatory protocol for receipt and processing of all such project information within their own organisations.	Property Services: The timeous provision of 'As Built' and Operating and Maintenance Manuals' from Contractors has been an issue in the construction industry for many years albeit there has been improvement as a result of the Construction Design and Management (CDM) Regulations and industry embracing Building Information Modelling. (BIM). Health & Safety Section: The Finance and Resources, HR OD and Workforce Planning, health and safety section will ensure that the corporate governance documentation will be available and revised in line with legislation and best practice, and will ensure, where reasonably practicable to do so, that Services across the council adhere to this.	Property Services to liaise with SFT.	Property Services	Ongoing
4.2 - Provision of as-built drawings The process of producing as-built drawings is frequently included in appointment documents as a requirement of the design team. In evidence to the Inquiry, design team members have stated a practical limitation on them in that they may be unaware of the detail of on-site changes to the issued design drawings or specifications that may be made by the contractor or its supply chain.	Property Services: As 4.1 above	Property Services to liaise with SFT.	Property Services	Ongoing

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
Contractors should be required to put in place appropriate arrangements for the recording of all subsequent changes to final 'construction issues' drawings and arrange for the production of a final as-built set of documents to a standard suitable for issue to the client for retention as a permanent record of the detail of the project. Contractors should also be required to certify that the 'as-built' documentation as provided is an accurate record of what has actually been built.				
4.3 - Provision of as-built drawings to Building Control It is also recommended by the Inquiry that consideration be given to the requirement for 'as built' drawings as prepared for and certified by the Contractor to be submitted to Building Standards as a definitive record of what was built. This could be a formal part of the Completion Certificate process.	Building Standards: Subsection (1) of section 8 of the Building (Scotland) Act 2003 sets out when a building warrant or an amendment to building warrant is required. The person carrying out the work or the owner of the building should ensure that adequate procedures are in place to monitor when a building warrant or an amendment to building warrant may be required. When a building warrant is approved, the approved plans are the kept within Part 2 of the Building Standards Register. The provision of as built drawings being submitted as part of the completion certificate process would appear to duplicate these requirements.			

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
4.4 - On-site accessibility of design information It is critical that there is effective communication of essential design information in an accessible form to tradesmen such as bricklayers working on site. In relation to the construction of walls and the incorporation of related structural accessories, in order to avoid mistaken omissions of accessories such as wall ties, head restraints or bed joint reinforcement, it is recommended that all relevant information should be fully integrated into a single document, rather than requiring reference by bricklayers to a range of different documents produced by different members of the design team. The design and construction professions should consider the need for the development of a better approach to the integration of documentation to reflect the practical needs associated with the implementation of design information in a building site environment. From the evidence provided to the Inquiry, there was a unanimous view that a comprehensive set of all such information in regard to the construction of external cavity walls should be provided on a document produced by the structural engineering consultants.	Property Services: Agreed and noted. Health & Safety Section: The Finance and Resources, HR OD and Workforce Planning, health and safety section will ensure that the corporate governance documentation will be available and revised in line with legislation and best practice, and will ensure, where reasonably practicable to do so, that Services across the council adhere to this.	Property Services to liaise with SFT. Future cavity wall specifications to include integrated document to include comprehensive description of the proposed design.	Property Services Property Services	Ongoing Ongoing

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
4.5 - Communication of design intent The evidence to the Inquiry suggested that the design intent in relation to the importance to the structural integrity of masonry panels of the proper installation of wall accessories and secondary steelwork, may not always be adequately conveyed in design documentation and may not be fully understood by those reviewing the documentation (or perhaps more importantly by those actually building the walls). Structural engineers should be required to describe in their documentation and drawings the approach and design philosophy adopted in their designs in terms of the reliance on the inclusion of bed joint reinforcement, wall head and lateral restraints or windposts in the required locations and in accordance with the specification, and the relative inter-dependence of these various components.	Property Services: Agreed and noted.	Property Services to liaise with SFT. Future masonry panels specifications to include integrated document to include the approach and design philosophy adopted in their designs in terms of the reliance on the inclusion of bed joint reinforcement, wall head and lateral restraints or windposts in the required locations and in accordance with the specification, and the relative inter-dependence of these various components.	Property Services Property Services	Ongoing Ongoing
4.6 - Structural amendments to be approved The approved building warrant system relies on buildings being constructed in accordance with the approved drawings. Contractors should ensure that any amendments to the structural design of buildings should only be implemented after having undertaken any necessary checks or amendment to the design by the structural engineer and any changes to the approved design should be documented and processed in compliance with the statutory obligations imposed by the Buildings Standards regulations under the amendment to warrant process.	Property Services: Agreed and noted. Building Standards: Agreed, subsections (1) and (2) of section 8 of the Building (Scotland) Act 2003 set out when a building warrant is required and make it an offence not to have one when it is required. The person carrying out the work or the owner of the building should ensure that adequate procedures are in place to monitor when an amendment to building warrant may be required.	Property Services to liaise with SFT.	Property Services	Ongoing

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
4.7 - Access to original construction information The City of Edinburgh Council was not automatically provided with all relevant design, construction and survey information relating to the original construction, the subsequent investigations and the implementation of the remedial works to the PPP1 schools. In response to requests for elements of this information, the Council was advised by various members of the supply chain that it did not have a direct contractual right to this information and would have to seek it through the various levels of ESP's supply chain, including members of their original supply chain who may be out of contract. PPP contract arrangements should incorporate clearly the right for public sector clients to be provided, by members of current and original PPP supply chains (and where relevant in return for an appropriate fee), with copies of all design and technical information, surveys, proposed amendments and asbuilt documentation in relation to their projects.	Community Resources: Noted. Refer to Legal Services	There are currently no proposals for any further PPP/PFI/NPD projects. Should this position change at any time in the future the Inquiry comments and Recommendations regarding Independent Certifier will be considered at that time.		

5. CONSTRUCTION RECOMMENDATIONS

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
5.1 - Building of leaves of cavity walls separately The evidence from this Inquiry suggests that the subsequent practical difficulties that arise from building the inner and outer leaves of cavity walls at different times may have been significant contributory factors in the lack of embedment of wall ties achieved. The construction industry should carefully review this practice and if the separate building of the leaves of cavity walls is still required to achieve programme dates, it is recommended that standard wall ties should not be used and instead be replaced by alternative approved ties or by alternative construction to blockwork for the inner leaf e.g. use of structural framing systems.	Property Services: Agreed and noted. Health & Safety Section: The Finance and Resources, HR OD and Workforce Planning, health and safety section will ensure that the corporate governance documentation will be available and revised in line with legislation and best practice, and will ensure, where reasonably practicable to do so, that Services across the council adhere to this.	Property Services to liaise with SFT.	Property Services	Ongoing
5.2 - Design of wall ties There would be significant benefit if the design of wall ties, particularly the type used on the Oxfangs School, more readily enabled both those laying the bricks and those inspecting cavity walls before closure, to determine that the minimum or recommended embedment of wall ties was being or had been achieved. Clearer calibration or marking of these points through the introduction of colour, texture or shape could assist in this process, by making the level of embedment more clearly visible.	Property Services: Agreed and noted.	Property Services to liaise with SFT.	Property Services	Ongoing

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
5.3 - Design and use of head restraints There may be benefit in designers, contractors and manufacturers reviewing the practical complexity of installing the different forms of head restraints, particularly when being connected to sloping beams, and seeking to simplify this in terms of specification, design and fixing of this component, thereby reducing the time required to fit them and any potential reluctance on the part of bricklayers to install them. As in the case of the wall ties, it would be beneficial if they were designed to incorporate some visible indicator to prove in any subsequent inspections that they had actually been fitted, thus preventing the need for avoidable intrusive investigations.	Property Services: Agreed and noted.	Property Services to liaise with SFT.	Property Services	Ongoing
5.4 - Payment of bricklayers The most common method of paying bricklayers in recent years has tended to be based on the number of bricks laid rather than on the time that bricklayers work. As generally applied, this approach would appear not to take account of the number, type and complexity of accessories that are required to be incorporated. The construction industry should seek to review this approach to remove any perverse incentive of the payment mechanism to encourage the omission of elements providing the essential structural integrity of walls.	Property Services: Agreed and noted. Community Resources: Building Services - bricklayers are paid a salary. There is no bonus system in place.	Property Services to liaise with SFT.	Property Services	Ongoing

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
5.5 - Contractor quality assurance processes The quality assurance processes applied by the contractors on the PPP1 projects failed to identify or rectify fundamental non-compliance with required standards in the construction of masonry walls. Irrespective of the potential role of independent inspections by agents of the client, such failures are and remain the direct responsibility of the contractor. The repeated failures across many different projects would suggest that either the quality assurance processes themselves or the manner in which these processes are implemented have frequently proved inadequate. It is therefore recommended that the construction industry should seek to introduce, develop and promulgate standardised best practice methods in relation to the requirements of the related quality assurance processes, how they are implemented and who implements them. The design of such processes should consider the potential greater use of modern technology in relation to the digital recording of such areas of work.	Property Services: Agreed and noted.	Property Services to liaise with SFT.	Property Services	Ongoing

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
5.6 - Inspection and sign-off of cavity walls It is particularly important to note that in the case of the 17 PPP1 projects, visual only inspections of the external walls of these schools, by experienced teams of qualified structural engineers, failed to identify any indications of the subsequently identified presence of significant deficiencies in the construction of the walls. While visual inspections are clearly the first part of any structural assessment of walls and can help identify any movement, bulging or alignment issues, they should not be relied upon as evidence that the walls are properly constructed and have the required structural capacity to resist strong winds. It is therefore recommended that quality assurance processes on site are such that they prevent the closure of walls before proper inspection and sign-off has been facilitated to confirm the quality and completeness of the work.	Property Services: Agreed and noted. Building Standards: Building Standards cannot regularly monitor all aspect of construction; this is particularly applicable to building elements that are concealed as the construction progresses. It is the responsibility of the relevant person to build correctly and the person carrying out the work or the owner of the building, should ensure that adequate procedures are in place to check that construction is being done in accordance with the approved plans and the building regulations.	Property Services to liaise with SFT.	Property Services	Ongoing
5.7 - Bricklaying profession The Inquiry is of the view that, given the widespread nature of similar defective construction across the 17 PPP1 projects, undertaken by bricklayers from different subcontracting companies, and from different squads within these companies, there is clear evidence of a problem in ensuring the appropriate quality in this fundamental area of construction.	Property Services: Community Resources: Noted. Building Services bricklayers are fully trained via Construction Industry Training Board. All qualifications are vetted and verified.	Property Services to liaise with SFT.	Property Services	Ongoing

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
It is therefore recommended that the construction industry should re-examine its approach to recruitment, training, selection and appointment of brick-laying subcontractors, means of remuneration, vetting of qualifications and competence, supervision and quality assurance of bricklayers.	Procurement: The project documents issued for tender include drawings and specifications provided by appropriately qualified professionals engaged to provide design services. Materials specified require to comply with current British Standards and contract documents require that the main contractor should satisfy the requirements of the Building Standards, CDM Requirements, Health and Safety Requirements and British Standard Codes of Practice. It is a contractual requirement that sub contractors must meet the standards set out in the contract documents.			
5.8 - Fire-stopping and fire-proofing Fire-stopping and fire-proofing are fundamental aspects of the safety of buildings and must be treated with the importance that they deserve due to the potential implications for the safety of building users and the risk to property as a result of defects in their incorporation into the building. There has been significant evidence of failures of fire-stopping in PPP projects in England and questions have been raised as a result of the initial surveys of fire-stopping undertaken across the 17 PPP1 projects in Edinburgh. It is recommended that, in relation to these aspects, consideration be given to the introduction of independent in-depth inspection and certification by a suitably qualified person or specialist company, in accordance with the provisions made within the Building (Scotland) Act 2003, and that this certification be required to be provided to	Property Services: Agreed and noted. Property Services have received confirmation (20.02.2017) from Renfrewshire Schools Partnership that 'the fire alarm and sprinkler maintenance in Renfrewshire's PPP schools is fully up to date, and is compliant. Similarly fire stopping surveys were carried out during 2016, identifying a number of isolated snags which were fully remediated by specialist contractors accredited to LPS (loss prevention standard) 1531, with passive fire stopping installation completion certificates issued for these sites. RSP are therefore satisfied that each school is fully compliant with all applicable laws and regulations and is safe from a fire safety perspective.'	Property Services to liaise with SFT.	Property Services	Ongoing

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
Building Standards as evidence of fully compliant installation, prior to the approval of the Completion Certification by Building Standards.	Building Standards: Any widening of the current certification of construction schemes would require to be approved by the Scottish Ministers.	Scottish Government		

6. TRAINING AND RECRUITMENT RECOMMENDATIONS

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
6.1 - Provision of training and recruitment The evidence to the Inquiry from several experienced sources suggested that there is an increasing shortage of essential skills and/or deskilling in the construction industry which is impacting on its ability to deliver and ensure the required quality of construction. Three particular areas were identified where a combination of a lack of funding, lack of appropriate training courses and lack of recognition of the level of requirement has led to serious skills shortages and difficulties in recruitment. The three areas were: 1. Bricklaying 2. Clerks of Works 3. Building Standards Inspectors The appropriate authorities should undertake a review of the current level of provision of training in these areas, and any others considered relevant, to ensure that the construction industry has access to an adequate properly trained and qualified resource in each of these areas.	Property Services: Agreed and noted and the identification of appropriate skills and resources is a key element of the Service's medium term workforce planning arrangements. Building Standards: The regulatory function provided by Building Standards requires broad based construction and legislative knowledge. The building regulations have evolved from prescriptive to performance based guidance and building designers are increasingly creating buildings which are innovative and require specialists skill sets to prove that they meet performance based codes. Local Authority Building Standards Scotland (LABSS) recently conducted a training survey of its members and plans are now in place to augment local training provision with national training courses covering specialist disciplines such as Fire Engineering and Simplified Building Energy Modelling (SBEM). Renfrewshire Council are committed to ensuring that our Building Standards officers receive regular and effective training. At a fundamental level, it is noted, that there is no national training course or defined level of professional expertise that relates to the Building Standards role.	Property Services to liaise with SFT. Review skill levels, training and mentoring.	Property Services Planning	Ongoing

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
6.2 - Apprenticeships In relation to the training of bricklayers, the Construction Industry Training Board (CITB) should review with the industry the effectiveness of current apprenticeship arrangements in meeting the objective of developing a highly skilled bricklaying workforce. The current apprenticeship course and skills tests should also be reviewed to ensure that there is sufficient focus on understanding the function of and the practical installation of brickwork accessories.	Property Services: Agreed and noted. Community Resources: Noted. Building Services apprentices follow the current industry guidance and comply with all of the industry standards. Should these standards be increased additional training will be put in place for all apprentices and tradespersons.	Property Services to liaise with SFT.	Property Services	Ongoing

7. BUILDING STANDARDS RECOMMENDATIONS

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
7.1 - Scope of Building Standards inspection and certification The Inquiry formed the view that there was a common misconception as to the extent of the reliance that can be placed on the quality of construction of a building because it had successfully gone through the statutory Buildings Standards process. The typical frequency of site visits and the level and nature of inspections undertaken, as provided in evidence, can only confirm that buildings are being built generally in accordance with approved warrants. It would not appear to be either practical or appropriate for Building Standards Departments to be expected to undertake the type and level of detailed inspection that would be necessary to identify the risks to user safety that have been identified in this Report. However, an underlying core objective of their function as expressed in the Building (Scotland) Act 2003 is 'securing the health, safety, welfare and convenience of persons in or about buildings'. To resolve this issue, there is a need for Government and the construction industry to consider the introduction of methods that would provide Buildings Standards with the required level of assurance in risk areas.	Building Standards: Any move from a risk based inspection regime towards mandated and prescribed Building Standards inspections would encourage verifiers to focus on these legal binding inspection responsibilities. In this respect, mandatory inspections, dependent upon the risk areas they focus upon, may not provide the necessary assurances that there is no compliance gap between as designed and as built buildings. A flexible and holistic risk based approach towards inspections is consistent with the intention of the building standard system and provides greater freedom to develop inspection regimes which match risk levels. Mandatory Building Standards inspections, if introduced, may require changes to both primary and secondary legislation. Also, if mandatory inspections expand Building Standards' onsite presence this may have wider resourcing implications. Any widening of the current certification of construction schemes would require to be approved by the Scottish Ministers. Should mandatory inspection form part of an approved certifier of constructions role then this should provide reasonable levels of assurance regarding the elements of	Review current Building Standards inspection regime.	Scottish Government Planning	Details Awaited

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
In this regard, it is recommended that consideration be given to the practicality of extending the concept of mandatory inspection and certification of construction by approved certifiers to elements of the building that could potentially pose significant risk to users if not constructed properly and which level of inspection cannot practically be undertaken by Building Inspectors themselves.	construction being certified.			
7.2 - Sanctions for non-compliance with Building Standards The evidence provided to the Inquiry showed a number of breaches in relation to the PPP1 schools compliance with the statutory applications and certification processes required under the Building (Scotland) Act 2003. The Inquiry noted that: (a) there does not appear to be an automatic follow up by Building Standards Departments to require compliance, where proper processes have not been complied with; and (b) that the non-application for and non-issue of completion certificates for new buildings would not appear to be an infrequent occurrence. The Inquiry would recommend that in order to improve the effectiveness of the revised Building (Scotland) Act 2005, in delivering the key stated policy objective of, 'securing the health, safety, welfare and convenience of persons in or about buildings', systematic and appropriate administrative arrangements should be developed and implemented by verifiers to identify, pursue and sanction those who fail to comply with its statutory requirements.	Building Standards: A building warrant is valid for a period of three years from the day it is granted. At present, if a completion certificate has not been accepted within the three year validity period, all building warrant applicants are written to prior to the expiry of a building warrant to advise of the impending expiry date and the need to obtain a completed certificate. Applicants are encouraged to submit a complete certificate submission if the works are complete or to extend the period of validity of the building warrant, if necessary, to allow the building work to be completed.	Review current protocols and procedures in relation to building warrants at or near expiry date and without a completion certificate.	Planning	

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
7.3 - Temporary Occupancy Certificates In circumstances in PPP contracts where the Building Standards Certificate of Completion cannot yet be issued, and the issue of an Availability Certificate is permitted under the contract on the basis of a Temporary Occupancy Certificate, it is recommended that there should be a specific requirement that the Independent Certifier issuing an Availability Certificate should formally advise the public sector client of this fact and qualify the documentation to reflect this position. Additionally, it is recommended that there should be a requirement under the contract that, in such circumstances, a date should be set by which the Project Company should be required to have achieved an accepted Certificate of Completion or be in default.	There are currently no proposals for any further PPP/PF/NPD projects. Should this position change at any time in the future the Inquiry comments and Recommendations regarding Independent Certifier will be considered at that time			
7.4 - Prioritisation of risk factors The Inquiry noted, from the evidence provided, the number and preponderance of visits by Building Inspectors which focussed on drainage issues compared to the limited number of visits that were undertaken in relation to the compliance of the construction of the general structure and fabric of the buildings, the design and specification of which would have represented the vast majority of information submitted and scrutinised by Building Standards prior to approval of the design warrant.	Building Standards: Building Standards take a risk based approach towards reasonable inquiry and all applicants receive a construction compliance and notification plan (CCNP) at building warrant approval and they are advised to notify Building Standards at specific stages of the construction process. For large projects such as a school we request to be notified, and would subsequently inspect, the following stages of construction; foundations, underground drainage, the structure, insulation, both active and passive fire protection measures, final drain testing and a final inspection.	Review current risk protocols in relation to reasonable inquiry and ascertain if additional training and mentoring is required.	Planning	

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
It is recommended that a review be undertaken as to the overall objective of site visits undertaken by Building Inspectors to ensure that the planning of these properly reflects a prioritisation of the identification and inspection of areas of highest risk.	As verifiers cannot be reasonably expected to have a continual presence on all construction sites, and for large projects, we may take a sampling approach towards our inspection and testing regimes which is consistent with national guidance documents. To complement our site inspection regime we also request that commissioning certificates are provided from competent persons for the following systems: electrical installations, emergency lighting, automatic fire alarm and detection, sprinklers, air tightness testing, air-conditioning and heating and ventilation. Other certification may be requested dependent upon any additional safety features present within a building i.e. automatic opening ventilators or intumescent paint.			
7.5 - Building Standards Department of the city of Edinburgh Council It is recommended that a review be undertaken of the staffing and funding of the Building Standards Department in Edinburgh Council to ensure that these are adequate to meet the demand for services and to provide the level of service that is required.	N/A			

8. INFORMATION SHARING RECOMMENDATIONS

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
Sharing of information on matters of structural concern The Inquiry found that there was a degree of reluctance on the part of some Local Authorities to reveal to the Inquiry full details of the extent and nature of defective construction that had been found as a result of investigations undertaken at some of their schools. This reluctance could be related to possible on-going litigation or a reluctance on their part (or that of their project company) to have this information made public. It is recommended that there should be a formal requirement on public bodies to make automatic disclosure to a central source of information on building failures, particularly in relation to building failures that bring with them potential risks to the safety of building users. In particular, the collation and dissemination of information relating to matters of structural concern is a vital element of achieving safe structures. The Standing Committee on Structural Safety (SCOSS) has introduced the Confidential Reporting on Structural Safety (CROSS) scheme, to facilitate this process in circumstances where those providing the information may wish to retain a degree of anonymity. This should be used more widely.	Property Services: Renfrewshire Council willingly submitted information to both the Independent Inquiry and the Scottish Futures Trust investigations.	Property Services to liaise with SFT.	Property Services	Ongoing

9. RECOMMENDATIONS FOR THE CITY OF EDINBURGH COUNCIL

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
9.1 - Minor Changes within PPP1 schools The Council may wish to investigate what flexibilities there may be, or may be negotiated, in relation to the application of the provisions of the PPP1 Project Agreement that might better facilitate the implementation of requests for minor changes within the schools. This was identified as an on-going source of frustration by those members of staff and of Parent Councils who gave evidence to the Inquiry.	Community Resources: The Council is currently working with RSP and Amey FM to improve the process of managing requests for minor changes within the PPP schools. There are currently three mechanisms for managing change requests: • Minor Works (Handyman Service) as detailed under Service Specification 7.5.5.7 • Small Works (works priced under £1000 indexed) • Authority Notification of Change Agreement on when to use each process will improve timescales for implementation of change requests.			
9.2 - Parents' and schools' review of management of closure The Inquiry would suggest that, if not already done, the Council should facilitate a joint meeting with representatives of the Parent Councils and heads of schools to review all issues relevant to the management of the closure, to benefit from any learning gained from the experience and to help inform the development of protocols for future emergency situations.	Children's Services: Children's Services' Standard Circular 10, Emergency and Early Closure of Schools and Other Educational Establishments, provides guidance to support schools and other educational establishments in the event of an emergency or early closure. The services' business continuity plan describes the procedures to be followed in the event of loss of premises. Directed by the services' restoration team, the activity involved in supporting restoration of services or schools will be contingent on the premises affected and the needs of users.	Test plans (organised via CCS) and remind services and schools of the need to be conversant with standard circular 10 and business continuity arrangements. All head teachers should raise awareness of business continuity and restoration arrangements with parent councils on an annual basis.	Children's Services Crisis and Resilience Management Group.	Session 2017/2018

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
	Health & Safety Section: The Finance and Resources, HR OD and Workforce Planning, health and safety section will ensure that the corporate governance documentation will be available and revised in line with legislation and best practice, and will ensure, where reasonably practicable to do so, that Services across the council adhere to this. This will include appropriate communications and resilience arrangements.			
9.3 - Fire-stopping In light of the results of the fire-stopping surveys of the PPP1 projects, it is recommended that the City of Edinburgh Council should, in addition to the ongoing checking of fire safety measures and components across its wider estate, require that appropriately frequent on-going inspections are undertaken by those responsible for the management of these buildings to ensure that these are properly maintained over time.	Community Resources: PPP estate: During 2016 RSP carried out a full fire stopping audit of the PPP schools. All remedial actions identified by the audit have been completed. Fire stopping inspections are included in the annual Planned and Preventative Maintenance (PPM) programme. 6 monthly inspection: • Carry out visual inspection of all fire stopping; • Check the integrity of the stopping; ensure there are no breaches between the stopping and the surrounding fabric / framework inc walls, ceiling, roof junctions. • Where stopping is installed around services which pass through compartments, ensure there are no gaps and the stopping is continuous. • Should it be obvious that the fire barrier has been breached or damaged within the compartment area, report any findings which require remedial action.		Community Resources	

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
	6 monthly inspection: Inspect all fire/ smoke dampers, apply a few drops of oil to the mechanism. Replace fusible links if required. Check action and proper operation. Non PPP estate; Community Resources are currently assessing the site survey requirements as well as the potential works arising requirements to establish programme and funding implications to progress per recommendations.			

10. FURTHER INVESTIGATIONS

Inquiry Recommendation	Council Response	Any Further Action Required	By Whom?	By When?
10.0 Other clients In relation to the potential presence of further defective construction in the external walls of other of their buildings, the City of Edinburgh Council is undertaking a proportionate and structured risk-based approach to investigating their wider estate, specifically regarding the issues identified on the PPP1 Estate i.e. wall tie embedment and the provision of appropriate restraints to masonry panels. Other clients of recently constructed buildings of a similar scale and form of construction to the PPP1 schools, if concerned that their buildings may contain similar defects, may wish to adopt a similar risk-based approach to any investigation process they may feel necessary.	Property Services: PPP estate; Renfrewshire Schools Partnership have undertaken intrusive surveys and no concerns were identified with only minor precautionary remedial works being identified. Non PPP estate; In house resources surveyed the contemporary non PPP schools with similar design, scale or construction techniques used by Edinburgh Schools Partnership. No concerns were identified with only minor precautionary remedial works being identified and completed in August 2016.	Property Services to liaise with SFT.	Property Services	Ongoing