

Your Ref:                      Our Ref: CH/LB

If telephoning please call: Craig Hatton

9<sup>th</sup> June 2017

James Dornan MSP  
Convenor  
Education & Skills Committee  
T3.40  
The Scottish Parliament  
Edinburgh  
EH99 1SP



**North Ayrshire Council**  
Comhairle Siorrachd Àir a Tuath

Dear Mr Dornan,

Thank you for your letter dated 15<sup>th</sup> May. I have set out North Ayrshire Council's responses to the questions you have asked below and in the attached appendices.

### **Initial response to the Oxgangs collapse**

North Ayrshire Council carried out a risk based analysis of the corporate property estate. Given the potentially fatal consequences of the collapse at Oxgangs Primary all buildings were considered in-scope for assessment.

#### High Risk (intrusive investigations required)

- PPP buildings constructed by the same contractor as the Edinburgh schools.

#### Medium to High Risk (intrusive investigations required)

- Buildings procured through a PPP contract
- Buildings constructed by Miller Construction

#### Medium Risk (Visual inspection required, with written assurance from contractor)

- Buildings procured through Design and Build contracts

#### Medium to low Risk (Visual inspection required)

- Buildings where previous structural issues have been identified
- Buildings with significant areas of cavity wall constructed after 1996.

#### Low Risk (No action required)

- Domestic properties.
- Buildings constructed prior to 1996.
- Non-cavity wall construction properties.

### **Inspection of the School Estate**

The tracker document attached at Appendix 1 details the nature and findings of the checks undertaken following the collapse of Oxgangs including Intrusive surveys were carried out at the following properties:

- Dreghorn Primary School, Dreghorn (Traditional procurement – Miller Construction)
- Arran High School, Lamlash (PPP)
- St. Mathew's Academy, Saltcoats (PPP)
- Greenwood Academy, Dreghorn (PPP)
- Stanley Primary School, Ardrossan (PPP)

The scope of the surveys was specified by Structural Engineers who supervised inspections on-site and provided interpretive reports on the outcomes of the surveys.

No faults were found and no remedial works were required as a result of these investigations.

Quality assurance is provided to projects at three levels:-

#### **i. Project Governance**

All major construction projects are managed by the Council's Property Management and Investment (PMI) Service. Governance arrangements are in place to ensure that all project delivery is effectively monitored by senior officers and reported to elected members.

Project Boards are in-place for each directorate, these are held monthly or bi-monthly. Project management information such as programme, resource requirements, budget, cost, issues and risks are recorded on Project Summary Sheets (PSS reports) for each project are considered by the board. In addition the minutes of each project Board are reported to the monthly Corporate Capital Programme and Asset Group (CPAG).

A monthly major project update is delivered to the Extended Leadership Team and to elected members through an advisory panel.

Through these extensive governance procedures the Council ensures that any issues affecting projects are effectively reported, allowing action to be taken timeously to address any issues.

The Council's governance arrangements have evolved over time, the current arrangements have been developed following the 2008 Audit Scotland report "Major Capital Investment in Councils" and subsequent follow – up report of January 2016.

#### **ii. Site Inspection**

In-house clerk of works resource across the Housing and Non-Housing Capital and revenue Projects Teams retained. This is supplemented as required to address capacity or specialist work areas by external clerks of works, appointed through competitive tendering. This approach provides a robust yet flexible inspection regime across all relevant projects.

Furthermore Contract Administrators carry out regular site inspections, as do Quantity Surveyors in the course of valuing works, prior to the certification of payment. Consultant Engineers undertake inspections at appropriate points during construction and are required to formally sign-off their individual packages prior to completion certificates being issued.

Other Council Services will also provide technical expertise as required during the course of design and construction i.e. Streetscene, Roads, Waste Services etc. Building Standards conduct site visits and inspections. These are focused on ensuring compliance with the technical standards and that the construction matches the design submitted as part of the building control application. These take place at selected points in the construction process, relevant to the scope and nature of the works.

In design and build contracts design and construction quality are the contractual responsibility of the contractor. In these cases the level of client inspection carried out within the industry is generally reduced. However, in our recent major projects procured in this way, external inspection services have also been procured by the Council to maintain quality standards. However this was not the case at the

time of the construction of North Ayrshire Council's PPP estate where quality assurance was provided by the contractor.

## **Quality Assurance – Design**

The Councils in house team provide the architectural design and lead design consultant role in the majority of major capital & revenue projects. Where required, external consultants provide the remainder of the design information. All design consultants appointed by NAC are required to demonstrate their Quality Assurance processes prior to their appointment as part of the procurement process.

In Design and Build contracts, or in traditional contracts with Design and Build portions, design information received from contractors is reviewed by the Council or appropriate technical advisor. Where relevant this information will also be passed to other internal Council departments for comment / approval. These processes also apply to changes to the agreed design which may arise during the construction process.

Design information is managed through drawing registers and revision & version control identification on drawings & specifications. Variations to construction contracts are managed through change control procedures and amended design information is issued via Architect's and Contract Administrator's instructions. This allows current design information to be tracked throughout the construction process and mitigates the risk of unauthorised or unrecorded changes to the design or specification of projects.

## **Assessment of Quality Assurance**

Since the publication of the Cole report North Ayrshire Council have commenced a review of quality assurance. This review is currently on-going. We would be happy to share the outcome of this review when complete.

## **Procurement Route**

As there were no structural issues identified the funding route cannot be considered to have had an impact on North Ayrshire Council.

## **Response to Findings of Cole Report – Structural Issues**

North Ayrshire Council have reviewed the findings of the Cole Report to ensure the response to the Edinburgh incident was robust and to ensure all risks are appropriately addressed.

The Cole report highlighted the following structural issues:

- Insufficient wall tie embedment
- Excessive cavity widths
- Lack of required wall head restraints
- Mortar bed joint reinforcement
- Insufficient wind-posts

The investigations, both visual and/or intrusive, carried out within the North Ayrshire Council estate following the Oxfangs collapse did not highlight any similar issues. However the Cole Report notes that visual inspection alone is unlikely to be sufficient to diagnose the structural issues responsible for the Oxfangs collapse. Accordingly in the small number of instances where cavity work panels are in place but the risk was considered low due to quality assurance processes in place at that time and only a visual inspection undertaken intrusive surveys have been arranged to provide further assurance.

## **Response to Findings of Cole Report – Fire Stopping**

The Cole report also notes issues with Fire Stopping within the Edinburgh PPP School estate. This was not apparent until the publication of the Cole report.

At present there is no evidence arising as a result of our standard maintenance and inspection regime to suggest similar fire stopping issues exist within the North Ayrshire property estate, including within our PPP schools.

However to provide further assurance a similar assessment has been carried out to establish the appropriate response to the potential risk of fire stopping issues across our property estate:

High Risk (investigations required)

- Facilities where people sleep
- Any operational facility not covered by a fire alarm

Medium to High Risk (investigations required)

- Facilities procured through Design and Build contracts
- Facilities where the majority of regular occupants are people with restricted mobility.
- Facilities procured through a PPP contract

Medium Risk (monitoring required through regular maintenance and inspection)

- Non-domestic properties where fire stopping is required due to the size, purpose or method of construction

Low Risk (no action required)

- Non-domestic properties where fire stopping is not required due to the size, purpose or method of construction
- Domestic properties

As a result of this assessment investigative works are currently being planned and inspection and maintenance regimes are being reviewed to ensure fire stopping issues can be properly identified and remedied.

**Summary of North Ayrshire Council Actions in Light of the Findings and Recommendations of the Cole Report**

North Ayrshire Council adopted a risk-based approach to responding to the Edinburgh Schools issues, monitoring events as they became apparent to ensure the actions were proportionate to the available information.

This risk based approach has been revisited following the publication of the Cole Report. The tracker documents which have been used to manage the response to both the initial incident and the findings of the Cole report are attached for information.

From the investigations undertaken to date the construction of North Ayrshire Council properties does not suffer from the same failing as those experienced in Edinburgh, however further investigations are planned to a small number of properties to verify this position.

In-house design processes and inspection regimes have been and continue to be in-place to mitigate against similar issues arising, however, further review of these elements is being undertaken.

When the Scottish Government's response to the Cole Report is published this may contain further guidance, instruction or recommendations for legislative change. North Ayrshire Council will review this report and undertake further action, if required.

I trust this information sufficiently addresses the questions raised however should you require clarification of any point please do not hesitate to get in touch with me.

Yours sincerely

Craig Hatton  
Executive Director (Place)

Risk (Prior to mitigation measures)	Priority	Description	Facilities	Contractor	Action	Owner	Immediate response	Assessment Following publication of Cole Report.	Risk (following mitigation measures and publication of Cole Report).	Further Action Planned
8/10	High	PPP facilities constructed by Miller Group.	NONE	n/a	n/a	Y.Baulk	n/a	n/a	0/10	n/a
7/10	High	Any facility constructed by Miller Group	Dreghorn Primary	Miller Group	Intrusive investigations to be carried out to establish if wall ties and wall head details are adequate.	Y.Baulk	Investigations carried out 13.04.16. No issues flagged at time of inspection. Structural Engineer confirmed building is safe to use. Final report received 8/06/16 confirming no issues with construction.	Investigations carried out to date address structural issues raised by Cole Report.	2/10	Investigations complete, no further structural checks required.
5/10	Medium	Facilities procured under PPP contracts.	St Mathews Acad.	Barr Ltd	Assurance required from PPP company regarding adequacy of construction.	J.Butcher	Non-intrusive inspections of external walls at all 4 PPP Schools were undertaken by WSP Parsons Brinkerhoff during May 2016. From their subsequent draft report, they found the walls to be in good condition with no visual evidence of structural issues. They did note some hairline cracks in some areas of render, but have advised that this is due to shrinkage and not a structural issue. Additionally, where they were able to, they gained access to cavities on some external walls and have advised that head restraints and wall ties are present at spacing which would be "industry standard". They recommended further inspections take place to assess that the embedment of the wall ties is satisfactory. Our PPP Contractor arranged for further inspections to take place over the 2016 summer break. <b>Intrusive surveys carried out over summer break 2016. External consultants (Parsons Brinkerhoff) have confirmed no further action required.</b>	Investigations carried out to date address structural issues raised by Cole Report.	3/10	Investigations complete, no further structural checks required.
5/10	Medium		Stanley Primary	Dawn	Assurance required from PPP company regarding adequacy of construction.	J.Butcher	Non-intrusive inspections of external walls at all 4 PPP Schools were undertaken by WSP Parsons Brinkerhoff during May 2016. From their subsequent draft report, they found the walls to be in good condition with no visual evidence of structural issues. They did note some hairline cracks in some areas of render, but have advised that this is due to shrinkage and not a structural issue. Additionally, where they were able to, they gained access to cavities on some external walls and have advised that head restraints and wall ties are present at spacing which would be "industry standard". They recommended further inspections take place to assess that the embedment of the wall ties is satisfactory. Our PPP Contractor arranged for further inspections to take place over the 2016 summer break. <b>Intrusive surveys carried out over summer break 2016. External consultants (Parsons Brinkerhoff) have confirmed no further action required.</b>	Investigations carried out to date address structural issues raised by cole report.	2/10	Investigations complete, no further structural checks required.

5/10	Medium		Arran High School	Dawn	Assurance required from PPP company regarding adequacy of construction.	J.Butcher	Non-intrusive inspections of external walls at all 4 PPP Schools were undertaken by WSP Parsons Brinkerhoff during May 2016. From their subsequent draft report, they found the walls to be in good condition with no visual evidence of structural issues. They did note some hairline cracks in some areas of render, but have advised that this is due to shrinkage and not a structural issue. Additionally, where they were able to, they gained access to cavities on some external walls and have advised that head restraints and wall ties are present at spacing which would be "industry standard". They recommended further inspections take place to assess that the embedment of the wall ties is satisfactory. Our PPP Contractor arranged for further inspections to take place over the 2016 summer break. <b>Intrusive surveys carried out over summer break 2016. External consultants (Parsons Brinkerhoff) have confirmed no further action required.</b>	Investigations carried out to date address structural issues raised by cole report.	2/10	Investigations complete, no further structural checks required.
5/10	Medium		Greenwood Acad.	Barr Ltd	Assurance required from PPP company regarding adequacy of construction.	J.Butcher	Non-intrusive inspections of external walls at all 4 PPP Schools were undertaken by WSP Parsons Brinkerhoff during May 2016. From their subsequent draft report, they found the walls to be in good condition with no visual evidence of structural issues. They did note some hairline cracks in some areas of render, but have advised that this is due to shrinkage and not a structural issue. Additionally, where they were able to, they gained access to cavities on some external walls and have advised that head restraints and wall ties are present at spacing which would be "industry standard". They recommended further inspections take place to assess that the embedment of the wall ties is satisfactory. Our PPP Contractor arranged for further inspections to take place over the 2016 summer break. <b>Intrusive surveys carried out over summer break 2016. External consultants (Parsons Brinkerhoff) have confirmed no further action required.</b>	Investigations carried out to date address structural issues raised by cole report.	2/10	Investigations complete, no further structural checks required.
5/10	Medium	Facilities procured under a Design and Build arrangement	Elderbank Primary	Morgan Sindall	Assurance required from D&B company regarding the adequacy of construction. Further evidence to be sought if required.	Y.Baulk	Confirmed NAC clerk of works. Assurances and documentation provided 18.04.16. No evidence of any issues.	Review of construction method, suggest intrusive investigations may be prudent to provide further assurance.	6/10	Intrusive investigations to be carried out.
5/10	Medium		Woodlands (extension)	Morgan Sindall	Assurance required from D&B company regarding the adequacy of construction. Further evidence to be sought if required.	Y.Baulk	Confirmed NAC clerk of works. Assurances and documentation provided 18.04.16. No evidence of any issues.	Single storey construction, low risk of being affected by similar issues to those highlighted in the Cole Report.	2/10	Continue to monitor through inspection and maintenance regimes.
5/10	Medium		Castlepark (extension)	Morgan Sindall	Assurance required from D&B company regarding the adequacy of construction. Further evidence to be sought if required.	Y.Baulk	Confirmed NAC clerk of works. Assurances and documentation provided 18.04.16. No evidence of any issues.	Review of construction method, suggest intrusive investigations may be prudent to provide further assurance.	6/10	Intrusive investigations to be carried out.
5/10	Medium		Irvine Leisure Centre (in construction at time of Oxfangs collapse).	McLaughlin and Harvey	Assurance required from D&B company regarding the adequacy of construction. Further evidence to be sought if required.	Y.Baulk	Assurances provided. PMI satisfied with on-going quality control process and inspection regime. No evidence of any structural issues.	Inspection and Quality Assurance procedures carried out on-site during construction process address structural issues raised by Cole Report.	2/10	Continue to monitor through inspection and maintenance regimes.

5/10	Medium	Facilities procured through HubSW.	Garnock Campus (in construction at time of Oxfangs collapse)	Kier Construction	Checks undertaken to ensure wall tie and wall head details are designed in accordance with requirements. Undertake review of contractor's quality procedures.	Y.Baulk	Wall construction quality check records submitted by contractor. Site inspection carried out confirmed wall ties being installed in on-going brickwork. Quality audit procedure and programme reviewed. PMI confirm they are satisfied. No evidence of any issues. <b>Project complete 21/12/16.</b>	Inspection and Quality Assurance procedures carried out on-site during construction process address structural issues raised by Cole Report.	2/10	None planned.
5/10	Medium		Largs campus (pre-contract at time of Oxfangs collapse)	Morrison Construction	Stage 2 gateway review sign-off suspended pending assurance regarding proposed design of wall construction.	Y.Baulk	Assurance received. Contract monitoring to be implemented during construction phase. <b>Design proposals to be verified by NAC framework Structural Engineer as part of FC due diligence, commencing 29.04.16. Design signed-off, clerk of works employed to monitor construction work.</b>	On-going monitoring will continue during construction phase to ensure issues raised in Cole Report are addressed.	3/10	On-going monitoring during construction phase.
5/10	Medium		Montrose House	Kier Construction	Assurance required from contractor regarding adequacy of construction, including further evidence if required.	Y.Baulk	Assurance received including confirmation of quality procedures and photographs of external wall construction. PMI confirm they are satisfied. <b>Construction method / scale reviewed, PMI satisfied low risk.</b>	Single storey construction, low risk of being affected by similar issues to those highlighted in the Cole Report.	2/10	Continue to monitor through inspection and maintenance regimes.
4/10	Medium	Major recent projects procured under traditional contract. (where substantial brickwork is present). <b>NB. Condition surveys carried out 2014.</b>	Dalry Primary & Dalry EYC	McTaggart	Visual Inspection to be carried out.	Y.Baulk	No issues anticipated, inspection programme to be complete by 29.04.16. Any issues reported will be assessed and, if required, further inspections carried out. Inspection undertaken 27.04.16 - no evidence of any issues. <b>Construction method / scale reviewed, may merit further investigation.</b>	Review of construction method suggest intrusive investigations may be prudent to larger brick panels to provide further assurance.	5/10	Intrusive investigations to be carried out.
4/10	Medium		Mayfield Primary	Henry Brothers	Visual Inspection to be carried out.	Y.Baulk	No issues anticipated, inspection programme to be complete by 29.04.16. Any issues reported will be assessed and, if required, further inspections carried out. Inspection undertaken 27.04.16 - no evidence of any issues. <b>Construction method / scale reviewed, may merit further investigation.</b>	Review of construction method suggest intrusive investigations may be prudent to larger brick panels to provide further assurance.	5/10	Intrusive investigations to be carried out.
4/10	Medium		Glencairn extension	Barr Ltd	Visual Inspection to be carried out.	Y.Baulk	No issues anticipated, inspection programme to be complete by 29.04.16. Any issues reported will be assessed and, if required, further inspections carried out. Inspection undertaken 27.04.16 - no evidence of any issues. <b>Construction method / scale reviewed, may merit further investigation.</b>	Review of construction method suggest intrusive investigations may be prudent to larger brick panels..	5/10	Intrusive investigations to be carried out.
4/10	Medium		Caledonian Primary Extension	Forbes and Whiteford	Visual Inspection to be carried out.	Y.Baulk	No issues anticipated, inspection programme to be complete by 29.04.16. Any issues reported will be assessed and, if required, further inspections carried out. Inspection undertaken 28.04.16 - no evidence of any issues. <b>Construction method / scale reviewed, may merit further investigation.</b>	Review of construction method suggest intrusive investigations may be prudent to larger brick panels..	5/10	Intrusive investigations to be carried out.
4/10	Medium		Existing Largs Acad. Computer suite	Barr Ltd	Visual Inspection to be carried out.	Y.Baulk	No issues anticipated, inspection programme to be complete by 29.04.16. Any issues reported will be assessed and, if required, further inspections carried out. Inspection undertaken 27.04.16 - no evidence of any issues. <b>Construction method / scale reviewed, may merit further investigation.</b>	Inspection and Quality Assurance procedures carried out on-site during construction process address structural issues raised by Cole report.	2/10	Continue to monitor through inspection and maintenance regimes.
4/10	Medium		Stevenson Court	Ashleigh Construction	Visual Inspection to be carried out.	Y.Baulk	No issues anticipated, inspection programme to be complete by 29.04.16. Any issues reported will be assessed and, if required, further inspections carried out. <b>Construction method / scale reviewed, may merit further investigation.</b>	Inspection and Quality Assurance procedures carried out on-site during construction process address structural issues raised by Cole report.	2/10	Continue to monitor through inspection and maintenance regimes.
3/10	Low	Recent projects procured under a traditional contract (with less significant areas of brickwork / largely single story / or residential style construction. ).	St Luke's primary extension	Ashleigh	Visual Inspection to be carried out.	Y.Baulk	No issues anticipated, inspection programme to be complete by 29.04.16. Any issues reported will be assessed and, if required, further inspections carried out. Inspection undertaken 28.04.16 - no evidence of any issues. <b>Construction method / scale reviewed, PMI satisfied low risk.</b>	Inspection and Quality Assurance procedures carried out on-site during construction process address structural issues raised by Cole Report.	2/10	Continue to monitor through inspection and maintenance regimes.

3/10	Low		Whitehirst Park Primary extension	Fleming Buildings Ltd	Visual Inspection to be carried out.	Y.Baulk	No issues anticipated, inspection programme to be complete by 29.04.16. Any issues reported will be assessed and, if required, further inspections carried out. Inspection undertaken 28.04.16 - cracking identified to render. This is isolated hairline cracking initially assessed as historical settlement- to be investigated further. Structural Engineer has confirmed there are no concerns. <b>Construction method / scale reviewed, PMI satisfied low risk.</b>	Inspection and Quality Assurance procedures carried out on-site during construction process address structural issues raised by Cole Report.	2/10	Continue to monitor through inspection and maintenance regimes.
3/10	Low		Abbey Extension	McTaggart Construction Ltd	Visual Inspection to be carried out.	Y.Baulk	No issues anticipated, inspection programme to be complete by 29.04.16. Any issues reported will be assessed and, if required, further inspections carried out. Inspection undertaken 28.04.16 - cracking identified to render. This is isolated hairline cracking initially assessed as historical settlement- to be investigated further. Structural Engineer has confirmed there are no concerns. <b>Construction method / scale reviewed, PMI satisfied low risk.</b>	Single storey construction, low risk of being affected by similar issues to those highlighted in the Cole Report. Inspection and Quality Assurance procedures carried out on-site during construction process address structural issues raised by Cole Report.	2/10	Continue to monitor through inspection and maintenance regimes.
3/10	Low		West Kilbride Extension	PBL Construction	Visual Inspection to be carried out.	Y.Baulk	No issues anticipated, inspection programme to be complete by 29.04.16. Any issues reported will be assessed and, if required, further inspections carried out. Inspection undertaken 28.04.16 - no evidence of any issues. <b>Construction method / scale reviewed, PMI satisfied low risk.</b>	Single storey construction, low risk of being affected by similar issues to those highlighted in the Cole Report. Inspection and Quality Assurance procedures carried out on-site during construction process address structural issues raised by Cole Report.	2/10	Continue to monitor through inspection and maintenance regimes.
3/10	Low		Vennel Gardens SHU Irvine	Ashleigh Construction	Visual Inspection to be carried out.	Y.Baulk	No issues anticipated, inspection programme to be complete by 29.04.16. Any issues reported will be assessed and, if required, further inspections carried out. <b>Construction method / scale reviewed, PMI satisfied low risk.</b>	Single storey construction, low risk of being affected by similar issues to those highlighted in the Cole Report. Inspection and Quality Assurance procedures carried out on-site during construction process address structural issues raised by Cole Report.	2/10	Continue to monitor through inspection and maintenance regimes.
3/10	Low		Montgomery Court SHU (In construction at time of Oxfangs collapse)	Ashleigh Construction	Visual Inspection to be carried out.	Y.Baulk	No issues anticipated, inspection programme to be complete by 29.04.16. Any issues reported will be assessed and, if required, further inspections carried out. <b>PMI satisfied site monitoring in-place during construction. Construction method / scale reviewed, PMI satisfied low risk.</b>	Single storey construction, low risk of being affected by similar issues to those highlighted in the Cole Report. Inspection and Quality Assurance procedures carried out on-site during construction process address structural issues raised by Cole Report.	2/10	Continue to monitor through inspection and maintenance regimes.
3/10	Low		Harley Place Saltcoats, 5 Houses	Ashleigh Construction	Visual Inspection to be carried out.	Y.Baulk	No issues anticipated, inspection programme to be complete by 29.04.16. Any issues reported will be assessed and, if required, further inspections carried out. <b>Construction method / scale reviewed, PMI satisfied low risk.</b>	Domestic construction, low risk of being affected by similar issues to those highlighted in the Cole Report. Inspection and Quality Assurance procedures carried out on-site during construction process address structural issues raised by Cole Report.	2/10	Continue to monitor through inspection and maintenance regimes.
3/10	Low		Dickson Drive Irvine 8 Houses	McLaughlin Construction	Visual Inspection to be carried out.	Y.Baulk	No issues anticipated, inspection programme to be complete by 29.04.16. Any issues reported will be assessed and, if required, further inspections carried out. <b>Construction method / scale reviewed, PMI satisfied low risk.</b>	Domestic construction, low risk of being affected by similar issues to those highlighted in the Cole Report. Inspection and Quality Assurance procedures carried out on-site during construction process address structural issues raised by Cole Report.	2/10	Continue to monitor through inspection and maintenance regimes.
3/10	Low		The Meadows YPRU (James Crescent, Irvine)	McLaughlin Construction	Visual Inspection to be carried out.	Y.Baulk	No issues anticipated, inspection programme to be complete by 29.04.16. Any issues reported will be assessed and, if required, further inspections carried out. Inspection undertaken 28.04.16 - no further issues. <b>Construction method / scale reviewed, PMI satisfied low risk.</b>	Domestic construction, low risk of being affected by similar issues to those highlighted in the Cole Report. Inspection and Quality Assurance procedures carried out on-site during construction process address structural issues raised by Cole Report.	2/10	Continue to monitor through inspection and maintenance regimes.

3/10	Low		Achnamara YPRU (Nelson Road, Saltcoats)	McLaughlin Construction	Visual Inspection to be carried out.	Y.Baulk	No issues anticipated, inspection programme to be complete by 29.04.16. Any issues reported will be assessed and, if required, further inspections carried out. Inspection undertaken 28.04.16 - no further issues. <b>Construction method / scale reviewed, PMI satisfied low risk.</b>	Domestic construction, low risk of being affected by similar issues to those highlighted in the Cole Report. Inspection and Quality Assurance procedures carried out on-site during construction process address structural issues raised by Cole Report.	2/10	Continue to monitor through inspection and maintenance regimes.
3/10	Low		Canmore YPRU (Redstone Ave, Kilwinning)	Barr Construction	Visual Inspection to be carried out.	Y.Baulk	No issues anticipated, inspection programme to be complete by 29.04.16. Any issues reported will be assessed and, if required, further inspections carried out. Inspection undertaken 28.04.16 - no further issues. <b>Construction method / scale reviewed, PMI satisfied low risk.</b>	Domestic construction, low risk of being affected by similar issues to those highlighted in the Cole Report. Inspection and Quality Assurance procedures carried out on-site during construction process address structural issues raised by Cole Report.	2/10	Continue to monitor through inspection and maintenance regimes.
5/10	High	Existing facilities where previous issues with wall construction has arisen or where issues have been noted through condition surveys / reporting.	Largs Academy		Loose bricks in gym hall, damage caused by historic impact through use, reported prior to Easter holiday. This is <b>not</b> an inherent structural problem. Building Services instructed to repair. Structural Eng. Requested to specify method of repair. Works completed.	Y.Baulk	Structural Engineer visited site 14.04.16. Report and instruction on how to carry-out repair received 14.04.16. Repairs completed by 17.04.16. No other issues, these are minor repairs with no structural concerns from Engineer visit. Hall available for managed use (i.e.. no impacts to areas repaired).	Minor issues resolved, not linked to issues raised in Cole Report.	2/10	Continue to monitor through inspection and maintenance regimes.
3/10	Low		Stancastle School		Historic structural issues identified previously. Confirm on-going inspection and repair regime.	Y.Baulk	The building has been subject to a rolling programme of inspection and localised repair where required following inspection. Previous inspection carried out in Sept. 15, issues identified were rectified Oct 15. Annual inspection conducted at the beginning of August 2016. No structural issues identified.	Monitoring regime to continue, not linked to issues raised in Cole report.	3/10	Continue to monitor through enhanced inspection and maintenance regimes.
3/10			Castlepark Community Centre		Cracking identified in 2008, ensure problem resolved.	Y.Baulk	PMI confirmed issue rectified at time, no further issues reported.	Minor issues resolved, not linked to issues raised in Cole Report.	2/10	Continue to monitor through inspection and maintenance regimes.
3/10			St Anthony's Primary		Cracking and wall ties issues identified by previous internal surveys.	Y.Baulk	Works completed summer 2015. PMI satisfied issue resolved, no further issues reported.	Minor issues resolved, not linked to issues raised in Cole Report.	2/10	Continue to monitor through inspection and maintenance regimes.
3/10			Abbeycroft YPRU (Pennyburn Road, Kilwinning)		Recent inspection and minor remedial work carried out following vehicle strike.	Y.Baulk	Works completed within 2 months. PMI satisfied. No further issues reported.	Minor issues resolved, not linked to issues raised in Cole Report.	2/10	Continue to monitor through inspection and maintenance regimes.
3/10			Whitlees Community Centre		Cracking identified, identified as wall tie issue.	Y.Baulk	Remedial works completed. PMI satisfied issue resolved.	Minor issues resolved, not linked to issues raised in Cole Report.	2/10	Continue to monitor through inspection and maintenance regimes.
2/10	Low	Existing facilities where no issues have been reported or identified.	All other properties		No immediate action required. Monitor condition through existing channels of reporting and periodic condition surveys.	Y.Baulk		Risk based assessment and review following Cole Report confirms risk to remainder of property estate is low.	2/10	Continue to monitor through inspection and maintenance regimes.

<u>No</u>	<u>Recommendation</u>	<u>Comment</u>	<u>Further Action</u>	<u>Owner</u>
<b>1.0</b>	<b>PROCUREMENT</b>			
1.1	Expertise and Resources	There is a self assessment document created by the SFT which helps Council's determine their capability for managing major capital projects.	Utilise self assessment tool in relation to all major capital projects.	PMI
1.2	Ensuring Compliance with Specification	In design and build contracts the liability sits with the contractor, however, NAC regularly conduct contract compliance in all contracts, regardless of contract style. This is carried out either by in-house resource or external consultants.	Ensure appropriate contract compliance measures are applied in all contracts.	PMI
1.3	Public Bodies cannot delegate duties	The report notes that, although design liability can be transferred to external parties, the ultimate responsibility for operation of facilities remains with the Council.	Ensure appropriate assessment of procurement routes. Ensure design proposals are adequately scrutinised, this may include appointment of Technical Advisors in larger projects.	PMI
1.4	Building it right first time	The report points to careful consideration of cost v's quality in relation to decisions on contract style / contractor selection.	Ensure appropriate assessment of procurement routes.	PMI / CPU
1.5	Quality of design and construction	Quality requirements can be established and monitored through a Design Quality Indicator (DQI) process. Audit Scotland guidance regarding the governance of major capital projects also encourages the introduction of Benefits Statements to track overall outcomes resulting from investment. Full application of these principles will require external input / scrutiny.	Establish an appropriate framework for introduction of DQI process and benefits tracking across all capital projects.	PMI
<b>2.0</b>	<b>INDEPENDENT CERTIFIER</b>			
2.1	Nature of Inspection	Recommendation refers specifically to role of independent certifier in PPP contracts, however point is relevant in other design and build contracts.	Extend appointment of independent certifier to provide clerk of works duties, or separately appoint a clerk of works to carryout inspection duties.	PMI
2.2	Professional indemnity insurance and Liability Period	n/a	Ensure liability cover of independent certifier / other contract compliance role is appropriate.	CPU
2.3	Method of appointment of Independent Certifier	n/a	Ensure independent certifier is appointed through transparent procurement process involving quality assessment.	CPU
2.4	Fees of Independent Certifier	Report notes fees should reflect the service required.	PMI to review Independent Certifier appointment to ensure responsibility is understood.	PMI
2.5	Independent Inspection of the Works	In design and build contracts the liability sits with the contractor, however, NAC regularly conduct contract compliance in all contracts, regardless of contract style. This is carried out either by in-house resource or external consultants.	Ensure appropriate contract compliance measures are applied in all contracts & review clerk of works provision against the requirements of the capital programme.	PMI

<b>3.0</b>	<b>CLIENT'S RELATIONSHIP WITH DESIGN TEAM</b>			
3.1	Scope of service of design team members	Report calls for more direct contact between designers and clients, in D&B contracts the contractor is the lead party. There are risks in relation to cost and clouding liability, however, if this contact is not carefully managed.	Ensure control over design is maintained to appropriate stage in design and build contracts.	PMI
3.2	Role of design team inspecting works	Clarity regarding inspection duties should be established when consultants are appointed and, if a requirement of the tender, should be included in the assessment of tenders.	PMI /CPU to ensure contract duties are established.	PMI / CPU
3.3	Notification of issues to public sector client	n/a	This recommendation relates to the duties of professional bodies and the drafting of standard contracts which would be adopted by NAC.	External
<b>4.0</b>	<b>INFORMATION SHARING RECOMMENDATIONS</b>			
4.1	Production, retention and updating of information	Issues identified in Edinburgh Schools projects regarding management of design information.	Internal protocol for recording design information (both internally and from external parties) to be reviewed and amended as required.	PMI
4.2	Provision of as-built drawings	Recommendation relates to contractual duties of constructors in D&B contracts.	Ensure as-built drawings are received and recorded.	PMI
4.3	Provision of as-built drawings to Building Control	Recommendation relates to suggested changes to Building Standards completion certification process.	n/ a	External
4.4	On-site accessibility of design information	Recommendation relates to control of design information provided to sub-contractors and requirements for appropriate design information to be captured on single drawings.	Ensure internal design teams and external consultants produce design information in accordance with best practice guidance.	PMI
4.5	Communication of design intent	Recommendation relates to requirements of communicating Structural Engineering design intent.	Ensure external consultants produce design information in accordance with best practice guidance.	PMI
4.6	Structural amendments to be approved	Recommendation relates to Building Standards process.	n/a	External
4.7	Access to original construction information	Recommendation relates to conditions of PPP contracts.	Ensure access to design information is captured in contract conditions.	CPU
<b>5.0</b>	<b>CONSTRUCTION RECOMMENDATIONS</b>			
5.1	Building of leaves of cavity walls separately	Technical recommendation relating to construction method.	Inspect works to ensure construction is in accordance with specification and best practice.	PMI
5.2	Design of wall ties	Technical recommendation relating to manufacture of wall-ties.	n/a	External
5.3	Design and use of head restraints	Technical recommendation relating to the specification of head restraint and their manufacture.	n/a	External
5.4	Payment of bricklayers	Recommendation relates to payment mechanisms between contractors.	n/a	External

5.5	Contractor quality assurance processes	Recommendation relates to improving standards across the construction industry, particularly improvements in contractor's quality assurance procedures.	Contractor's Quality assurance procedures should be assessed pre-construction. Implementation of QA process should be monitored throughout the construction process.	CPU / PMI  PMI
5.6	Inspection and sign-off of cavity walls	Recommendation relates to improving standards across the construction industry, particularly improvements in contractor's quality assurance procedures.	Contractor's Quality assurance procedures should be assessed pre-construction. Implementation of QA process should be monitored throughout the construction process.	CPU / PMI  PMI
5.7	Bricklaying profession	Recommendation relates to improving standards across the construction industry and in particular within the bricklaying profession.	n/a	External
5.8	Fire-stopping and fire-proofing	Fire stopping issues identified as an incidental outcome of structural investigations.	Review inspection schedules and methodology to ensure robust approach to identifying issues.	PMI / E&YE
<b>6.0 TRAINING AND RECRUITMENT RECOMMENDATIONS</b>				
6.1	Provision of training and recruitment	Recommendation relates to improving standards across the construction industry and in particular within the bricklaying profession, clerk of works and Building Standards professions.	Ensure development needs of in-house staff are identified and addressed.	Corporate
6.2	Apprenticeships	Recommendation relates to improving standards across the construction industry and in particular within the bricklaying profession.	n/a	External
<b>7.0 BUILDING STANDARDS RECOMMENDATIONS</b>				
7.1	Scope of Building Standards inspection and certification	Recommendation for Scottish Government and the industry to consider introducing mandatory inspection and certification.	Building Standards and PMI to commence quarterly liaison meetings pending outcome of Scottish Government Review.	PMI / E&C
7.2	Sanctions for non-compliance with Building Standards	Recommendation relates to the occupation of buildings without completion certificates.	Quarterly review meeting will address this issue in relation to new properties and a review will be carried out for existing properties.	PMI / E&C
7.3	Temporary Occupancy Certificates	Recommendation relates to the occupation of buildings on a temporary occupation/use certificate.	Management of this issue to be reviewed through PMI / Building Standards Quarterly liaison meetings.	PMI / E&C
7.4	Prioritisation of risk factors	Recommendation relates specifically to Edinburgh City Council.	Ensure all Construction Compliance notification Plans are based on risk priorities.	E&C
7.5	Building Standards Department of the city of Edinburgh Council	Recommendation relates specifically to Edinburgh City Council.	n/a	n/a
<b>8.0 INFORMATION SHARING RECOMMENDATIONS</b>				
	Sharing of information on matters of structural concern	Recommendation refers to the response from the Public Sector in regard to providing information.	Requests for information from Scottish Government to be co-ordinated through appropriate corporate director.	Corporate
<b>9.0 RECOMMENDATIONS FOR THE CITY OF EDINBURGH COUNCIL</b>				
9.1	Minor Changes within PPP1 schools	n/a	n/a	External
9.2	Parents' and schools' review of management of closure	n/a	n/a	External

9.3	Fire-stopping	No fire stopping issues have been identified within the NAC estate.	In new projects, inspect works to ensure construction is in accordance with specification and best practice. Where carrying out refurbishment works in existing premises ensure fire stopping is in expected locations and carryout remedial work if required. Review inspection schedules and methodology to ensure robust approach to identifying issues.	PMI  PMI  PMI / E&YE
<b>10.0 FURTHER INVESTIGATIONS</b>				
	Other clients of recently constructed buildings	NAC conducted a risk based assessment at the time the issue became apparent. At this time no specific further action is required in relation to inspection or assessment of our existing building stock. Sample testing of selected buildings will be carried out to provide added assurance.	Further risk based programme of sample intrusive investigations to be established.	PMI
<b>11.0 OTHER ACTIONS ARISING</b>				
11.1	The Scottish Government will publish a response to the Cole Report.	n/a	Relevant services to review the Scottish Government response to the Cole report and prepare action plans to address issues arising.	Corporate