

REPORT TO: SCRUTINY COMMITTEE - 7 DECEMBER 2022

REPORT ON: EXTERNAL REVIEW

REPORT BY: EXECUTIVE DIRECTOR OF CORPORATE SERVICES

REPORT NO: 329-2022

1 PURPOSE OF REPORT

1.1 To present to Members the independent report prepared by PricewaterhouseCoopers on roof tile fixings and advise of actions taken by Officers.

2 RECOMMENDATIONS

2.1 It is recommended that the Committee notes the external report and that Officers have accepted the recommendation in the report and that work is underway to fully implement them.

3 FINANCIAL IMPLICATIONS

3.1 There are no financial implications arising from the recommendations in this Report.

4 CONTEXT

4.1 At the meeting of the Scrutiny Committee on 24 March 2022 Members considered Report 335-2021 in relation to Roof Tile Fixings to Domestic Properties (article II of the minute refers).

4.2 Recommendation (v) agreed by the Committee required officers to obtain an independent and external view, in addition to the internal audit process, to provide assurance that any and all failures identified within the report and any subsequent findings that stemmed from the internal audit investigations, were fully and unquestionably addressed. Such work should reinforce accountability, transparency and confidence in service delivery.

4.3 PricewaterhouseCoopers were engaged to carry out this review and their report is provided at Appendix 1. It is submitted that the 7 findings of their review are consistent with the previous reports submitted to Committee in relation to this matter.

5 ACTIONS TAKEN

5.1 The PricewaterhouseCoopers report sets out 25 recommendations associated with the 7 findings. Officers have been working to implement these and 16 of the recommendations are now complete with the remaining actions underway as follows:

Finding 1: New Process Notes & Map (6 recommendations in progress)
Finding 2: Design & Technical Specification Review Process (2 recommendations complete)
Finding 3: Procurement (4 recommendations complete)
Finding 4: Use of Quality Management Systems (3 recommendations in progress)
Finding 5: Guidance and Training (4 recommendations complete)
Finding 6: Formalisation of Governance (4 recommendations complete)
Finding 7: Working Practices (2 recommendations complete)

5.2 The Head of Housing and Construction is responsible for the implementation of the remaining actions which are planned to be completed by the end of 2023. Progress will be reported to the Housing, Property and Construction Executive Group chaired by the Executive Director of Neighbourhood Services.

6 CONSULTATIONS

6.1 The Council Leadership Team has been consulted in the preparation of this report.

7 POLICY IMPLICATIONS

7.1 This report has been subject to the Pre-IIA Screening Tool and does not make any recommendations for change to strategy, policy, procedures, services or funding and so has not been subject to an Integrated Impact Assessment. An appropriate senior manager has reviewed and agreed with this assessment.

8 BACKGROUND PAPERS

8.1 None

ROBERT EMMOTT
EXECUTIVE DIRECTOR OF CORPORATE SERVICES

Date: 21 NOVEMBER 2022

Dundee City Council - Roofing Project Action Plan Review

Final Report
September 2022



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Contents

1 Executive Summary

Detailed findings

2 Introduction and background

3 Agreed scope

4 Arrangements originally in place during the roof replacement project

5 Current arrangements

Appendix

6 Appendix 1 - Findings and recommendations

7 Appendix 2 - Teams involved in the roofing project



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Executive Summary

As part of a cyclical programme of housing capital work, Dundee City Council (the “Council”) replaces the roofs of its housing stock, including a number of previously owned Council properties. All of the work from design to construction was completed by various teams within the Council. We understand that roofing projects are regularly undertaken by the teams involved and are not considered to be complex in their nature.

The British Standard for Slating and Tiling (BS 5534) was revised in 2014 for implementation in 2015, to reflect the increasing frequency of wind events. The main change was for an increased number of tile fixings to be incorporated into both new build and replacement roofs to ensure long term durability of the roof tiles. This particular British Standard is not legally binding but is recognised as best practice and recommended in the construction industry.

In October 2019 a complaint was received from a resident and following review it was identified that the roofs replaced to that point (circa 400 roofs) did not meet the revised British Standard. On becoming aware of the issue, the Council undertook a number of steps and subsequent decisions, which included that all the subsequent roofing work, to be completed as part of the project, should be undertaken to the revised British Standard. The matter was subsequently brought to the Council’s Policy and Resources Committee in November 2021, which detailed the issue and recommended that the roofs that were not in compliance with the revised British Standard should be redone at an estimated cost of £4.4m.

As part of this Committee report, it was agreed that an independent review would be commissioned, and that Internal Audit would conclude its review into how changes in legislation, regulations and relevant standards were identified and cascaded through the organisation.

We were commissioned to undertake the independent review. In completing our work, we noted that as a result of the actions taken by the Council, there have been a number of changes introduced to working practices, including in the team structures and roles and responsibilities for those involved in the delivery of the capital projects. In addition, the Council is in the process of improving its processes and controls across the areas involved, to ensure the same or similar issues do not happen again.



Through our review we received positive engagement from stakeholders, and it was clear that those involved in capital projects have looked to learn from the issues identified with the roof replacement project and are taking steps to improve the processes and controls in their areas. Examples of this include a Partnership Agreement between the Corporate Finance, Housing and Communities Services, City Development and Construction Services teams. We noted that it is a very high-level document, however it does provide a base to build on once the recommendations set out in this report are included.

All of the teams covered by our review (see Appendix 2 for more details) had controls and assurance processes in place for undertaking housing and other capital works. These have been further strengthened since the start of the roofing project, particularly in City Development where established Quality Management System (QMS) used in other teams has been rolled out into the Architects team. The QMS and processes in place across the teams involved in delivering capital projects currently varies, with City Development's Design and Property Service being fully ISO 9001 accredited, with regular audits and others being less formal but still with clear processes and guidance in place to help ensure consistency within the relevant service. We have recommended that the QMS and other quality processes in place should be reviewed to make sure that they are fit for purpose across each team and are suitable to provide the assurance and consistency over processes, quality of work, required legislation and standards and completion against design and specification as required.

New process maps have been created, including within Construction Services who are also developing process notes that will include the roles and responsibilities of the teams involved in the capital projects including Housing, Corporate Procurement and City Development. These documents are still in draft and are a work in progress and therefore the new processes and controls are not fully implemented across all teams.

Teams have already taken steps to help ensure that officers have access to relevant training, industry briefings and alerts with the objective of them being aware of any legislative, regulatory or standard changes happening in their areas or in areas where they are delivering work. This aligns with the work of Internal Audit, which looked into how the Council looks to identify and cascade such changes and has made some recommendations for improvement in this area.

Throughout the review we have tried to highlight where processes and controls in the roofing project have changed; however, our ability to do this has been impacted by changes in staff and limited documentation of processes and controls being available. However, when considering the structures and processes in place at the start of the roofing project, there was a clear segregation of duties between teams involved and controls in the





form of peer reviews of design and technical specification documentation.

It has become clear through our work that there are a number of factors that may have contributed to a failure to identify that the roofs were not being fitted to the revised British Standard. These include:

- Following standard custom and practice for roofing projects (which are relatively straightforward and repeatable from a capital project perspective).
- Inconsistency and lack of clarity in the design documentation.
- The design documentation not being appropriately reviewed by the teams delivering and inspecting the works.
- Importantly a lack of knowledge that the British Standard had changed across all the teams involved.

As set out in our report, work has been done to provide better access to teams and individuals to relevant industry and technical information in the form of bulletins, portals and emails. To ensure that this is effective, we understand that the Council are now encouraging all staff who are involved in any part of the capital project process to ask what may be seen as an obvious question or challenge if they are unsure. In doing this, it would help to reduce the risk of missing a change in legislation or standards, if at least one person is aware and spots it hasn't been applied correctly in the design or build.

As part of our review, we have identified several areas for consideration/improvement that, if addressed, could help to mitigate further the risk of a similar issue happening again in the future. These include:

- The need for a more senior review of design and specification documentation, which is appropriately evidenced.
- Working with the Procurement team to see whether more emphasis can be placed on suppliers to confirm whether orders meet the relevant standards and recommended best practice for certain projects, and/or whether warranties for works should be requested to obtain manufacturer sign off for certain types of work.

- Further additions to the new process notes and map in Construction Services.
- Further development of the governance structures for the delivery of housing and other capital projects, which should include clear decision-making pathways; oversight and monitoring responsibilities; and processes for the escalation of any issues.
- The need for Service Level Agreement(s) or equivalent to be put in place to formalise the different roles and responsibilities.
- The need to review the Quality Management System processes in place across housing capital and other projects and whether they are appropriate for all of the teams involved.
- Consideration should be given to the introduction of checklists at each stage of the project, which require completion prior to moving onto the next stage. These checklists could be used to evidence that appropriate checks and understanding on standards and other relevant regulatory or legal requirements have been completed.
- Reviewing the types of information needed by all teams involved and how best to provide this, which will include formal training, industry events and access to briefings and information/industry portals.

The roofing project issue was a rare incident that occurred due to multiple issues coming together at the same time. Under normal circumstances one would expect that the structures and processes originally in place would prevent such an issue. The apparent lack of knowledge captured relating to the change in the British Standard for Slating and Tiling (BS 5534:2014) was a decisive factor and meant that the controls in place were ineffective for this particular project. However, if the areas for improvement identified in this report are addressed, along with the improvements that have already been made, the risk of a future issue of this nature occurring will be much reduced.

We have set out our detailed findings in the next section of the report and our findings and recommendations are set out in Appendix 1 of this report.



Detailed findings

Introduction and background

After a complaint was received in late 2019 and a subsequent review, Dundee City Council (“the Council”) identified that as part of a housing capital project, roofs installed by the Council’s Construction Services function from 2015 did not comply with the relevant British Standard for the installation of roof tiles (BS 5534:2014). The standard had been updated for implementation in 2015 to reflect the increasing frequency of wind events in the UK and although this British Standard is not legally binding, it is recognised as best practice in the construction industry.

When the incident was discovered in late 2019, corrective action was taken to revise working practices and ensure that all subsequent roofs were built to the revised British Standard. In addition, the Council commissioned the British Research Establishment (BRE) to carry out a review providing independent expert opinion on the work completed from a technical perspective. After the BRE completed their work a report was prepared and presented to the Policy and Resources Committee on 22 November 2021 setting out the issues, corrective action taken and the proposed actions to be taken. As part of this report it was recommended that the roofs replaced during the period 2015-2019, which had not been built to the revised British Standard, should be retrospectively corrected. The report highlighted an estimated cost of £4.4 million to carry out works to bring the roofs up to the updated standard.

In addition, the Council’s Internal Audit team has been reviewing the arrangements in place across the Council, looking at the processes and controls in place to ensure that relevant new or changed legislation and regulatory requirements are identified and promptly addressed.

We have been asked to undertake a review to determine whether the processes and controls in place or that are being implemented will help to prevent a similar issue arising in the future. The agreed scope has been set out in more detail on the next page.



Agreed scope - areas of coverage

The purpose of this review was to:

- Provide an independent view on whether the failures identified within the committee report have been addressed.
- Follow up any failures identified within the internal audit review to identify the progress made in addressing these.

The specific remit for the review is as follows:

Arrangements originally in place during the roof replacement project

- ❖ Consider the operational and supervisory systems in place within Construction Services to understand why roofs were not built to British Standard.
- ❖ Consider whether appropriate measures were in place in the Clerk of Works Team within Architectural Services to ensure that construction and installation work complied with specifications set out in design documentation.
- ❖ Consider whether appropriate measures were in place within Construction Services to ensure that all construction and installation work complied with specifications set out in accordance with British Standard.

Current arrangements

- ❖ Review the quality management systems, including operational and supervisory, now in place within Construction Services and evaluate whether they would help to prevent a failure of this nature occurring in the future.
- ❖ Review quality management systems now in place within the Clerk of Works Team and evaluate whether they would have identified the failure around the standard of roofing not being in accordance with the design documentation at an earlier stage.
- ❖ Consider whether there are now appropriate procedures in place to cascade changes in specifications within Construction Services to relevant teams involved in carrying out construction or installation work. This includes that procedures are in place to cascade any changes in British Standards to the Clerk of Works Team overseeing each site.

Arrangements originally in place during the roof replacement project

Consider the operational and supervisory systems in place within Construction Services to understand why roofs were not built to the standard as specified in architect drawings

Construction Services (CS) is part of the Neighbourhood Services Department, although for the purpose of delivering capital projects it operated like an arms-length contractor. CS' role in the roofing project was as the building contractor, with responsibility for fitting the replacement roofs.

During the review, we were made aware of some significant historical issues within CS, which led to a number of staff leaving and changes in the management of the service over the last two to three years. With the departure of a number of members of staff who had involvement in the roof replacement project in 2015, it has limited our ability to get a definitive understanding of the operational and supervisory systems in place during the early phases of the project. However, through the interviews held with current officers and review of available documentation, we have obtained an understanding of the operational and supervisory systems that were in place during 2015 until the issue came to light and highlighted any observations and possible causes for not delivering the works to the British Standard.

Since 2016, CS has had a set of Quality Procedures in place, which detail the operational and supervisory processes that need to be followed for capital works, such as the roof replacement project. More detail on these processes and the Quality Procedures can be found on page 14.

The Design and Property Services team would develop and then pass the drawings and technical specifications to CS. These technical specifications and drawings would then be used by CS to deliver the works required. Following the complaint in late 2019, the Council reviewed the technical drawings and noted that for the roofs built or replaced during the period between 2015-2019, there were inconsistencies between the drawings and design specifications for different elements of the project.

It should also be noted that the design and specification documents used in the earlier phase of the project did not explicitly highlight the need to follow the updated British Standard, which is the case in more recent design and specification documents for roofing projects, which were produced following the identification of the issue. We understand that standard industry practice would not require this additional detail and that reference to the relevant British Standard should be sufficient, however this assumes that all those involved are explicitly aware of the latest version of any applicable standards.

Through our work we did not identify any evidence that these inconsistencies were identified and/or reported by the teams delivering the work in CS, either at the start when design and specification documentation was handed over or on an ongoing basis by the onsite teams delivering the work.

Prior to the works commencing, teams across Housing and City Development are involved in developing a brief, design and specification which is shared with CS. CS then engages with Procurement to initiate the Procurement process.

Consider the operational and supervisory systems in place within Construction Services to understand why roofs were not built to the standard as specified in architect drawings (continued)

Although between 2015-2019 there were operational and supervisory systems and process in place through each stage of the project, they are dependent on those working to them having knowledge of the standards that applied, particularly due to the non standard and inconsistent approach to the design documentation at the time. Based on the evidence obtained, it appears that those involved in CS were not aware of the change to the standard and as such did not question or challenge the design and specification or the way the work was completed at any point until the issue was raised via a different route and investigated at the end of 2019.

As set out in more detail later in this report, the roof replacement project was seen as a straightforward job, which CS has extensive previous experience of delivering. There was close working between all of the teams involved and it is likely that due to the relatively simple and repeatable nature of the job that Trade custom and practice would have been followed, which would have further limited the effectiveness of the operational and supervisory systems in place.

Consider whether appropriate measures were in place in the Clerk of Works Team within Architectural Services to ensure that construction and installation work complied with specifications set out in design documentation

The Clerk of Works (CoW) team sits within the Design & Property Service of the City Development Department. The CoW team is made up of individuals who have delivered construction work and have years of experience and knowledge in the construction industry. We understand that there is no specific training pathway or qualification to become a CoW.

The CoW's main role is to be on site and regularly check the work being done to ensure it aligns to the design and technical specifications, is within the regulatory requirements and undertake final inspections prior to the construction project being signed off.

From the evidence obtained through interview and the limited documentation available, the role, as set out above, for the CoW was clear on the roofing project. There is also no evidence to indicate that they did not undertake the processes assigned to this role at the time. However, like with CS, it would appear that those undertaking the CoW role were not aware of the changes in the British Standard and therefore the work that was being signed off may have been done so, based on the old standard. This is also likely to have been impacted by the close working between all of the teams involved and the relatively simple and repeatable nature of the job, which led to custom and practice being followed which would have further limited the effectiveness of the role of the CoW on this project.

As with the teams in CS it appears that no questions were raised on the inconsistency of the design and specification document used for this project. This indicates that the documentation was either not being used when undertaking the CoW role or if it was, the rigour of how it was being used or the understanding and/ or interpretation of the design against the works being signed off was not as might be expected in the role.

Although there appeared to be elements of paperwork in place, including that used by the CoW for signing off work, this lacked detail and did not appear to confirm that the work was being completed to the original design documentation. From our interviews, we understand that supervisory checks on the work of the CoW were not being completed. From the Contract Administration (RIBA Stage 5 Construction) flow chart diagram, which has been in place since 2019, it shows that the CoW should provide information to Contract Administrator and the Designer. However, there is no process to obtain evidence that supervisory checks are undertaken.

Consider whether appropriate measures were in place within Construction Services to ensure that all construction and installation work complied with specifications set out in design documentation

CS has a set of quality procedures (dated 2016) to follow prior to work commencing, during the works, and post works. We obtained an extract from the CS Quality Procedures for major contracts. This is a paper folder which has various sub-sections of procedures that CS team members should follow and the section provided talks about the quality procedures. There are two main objectives of this section:

- To ensure that major contracts operation is identified, reviewed, planned and undertaken under controlled conditions and in accordance with the Department's Quality Management System; and
- To ensure that major contracts are undertaken safely, within budget, to programme and in accordance with the contract documents, relevant technical standards and Construction, Design and Maintenance (CDM) Regulations 2015.

The Quality Procedures provides work instructions and also details a list of records that should be retained as "control of records" for each project. We were not provided with these as part of our review and as such are unable to confirm whether these were retained as required for the roof replacement project.

Within the CS Quality Procedures, it is noted that the overall responsibility for the delivery of a project lies with the contract's manager within CS. It also talks about procedures to be undertaken at different stages of works, for example, pre-work, during the works, post works, etc.

At the pre-works stage, it states that the contract documents, and other technical data, should be reviewed by the nominated Site Manager/Supervisor, however it does not specify that this review should be evidenced.

As such supervisory checks are within the procedures, but these checks would only work if working practices such as questioning and challenge and a good understanding of the relevant standards are implemented by those undertaking the checking is in place. We are unable to comment whether the same working practices were being followed during the early phase of the roofing project.

Consider whether appropriate measures were in place within Construction Services to ensure that all construction and installation work complied with specifications set out in design documentation (continued)

During the works, induction of operatives is undertaken and recorded by the Site Manager/Supervisor. This is the point at which information such as revised British Standards could have been cascaded to roofers. The procedures also required that all works undertaken by operatives are recorded by the operative and inspected by appropriately trained, qualified and / or experienced personnel in accordance with the works instructions and there is a specific form to be completed.

At the post works stage, it does not mention CoW involvement; it goes straight to procedures for handover to the client.

Having reviewed the procedures in place and through the outcomes from the interview we have noted that there is a good base in regard to quality processes in CS, which include points at which checks on adherence to design documentation should take place. However, for the reasons set out earlier in the report these quality and control processes did not fully operate as intended and as a result the changes in the British Standard were not identified at any stage, by any team involved in the project up until the complaint received in 2019 and the subsequent review of the issue by the Council.

Current Arrangements

Review the quality management systems, including operational and supervisory, now in place within Construction Services and evaluate whether they they would help to prevent a failure of this nature occurring in the future

From the work completed it is clear that the Council has taken a number of steps to learn and make improvements to its processes and controls in regard to the delivering of housing and other capital projects. A number of these new steps have already been implemented and some are in progress. In addition to these changes, we have identified a number of further considerations that, if addressed, would help the Council to enhance its processes and tighten the controls to mitigate the risk of the issues identified in the roofing project occurring in the future. These are set out in Appendix 1.

Quality Assurance processes in place at the Council

At present, the following Quality Assurance processes are in place within each team:

- Housing completes the Scottish Housing Regulatory Return annually to confirm that the Council's housing stock is managed in accordance with its guidelines.
- Internal Audit reviews are completed on a risk assessed basis in accordance with the Council's approved annual Internal Audit Plan. The scope of these will on occasion look at areas covered by the Council's capital programme, to ensure processes and control arrangements are in place and to check if new or changes to legislative and regulatory requirements and any further areas for improvements are identified and, where appropriate, those have been addressed in a timely manner.

The Partnership Agreement between the following teams: Corporate Finance, Housing and Communities Services, City Development and CS. The Partnership Agreement came into place in 2018 and it was updated in 2021. We have reviewed the latest version (April 2021). The Partnership Agreement requires the work to be delivered in compliance with the BS EN ISO 9001/9002. As set out below the Design and Property Services Division has an accredited ISO 9001 process in place, however, other teams involved in the partnership, including CS, do not. It needs to be considered whether this requirement in the Partnership Agreement is achievable and if not then it should be updated to reflect the actual Quality Management processes that are or will be put in place and followed by all the teams involved.

Review the quality management systems, including operational and supervisory, now in place within Construction Services and evaluate whether they they would help to prevent a failure of this nature occurring in the future (*continued*)

Following approval to proceed with the works at the Neighbourhood Services Committee, a pre-start meeting is arranged. This meeting is attended by the project delivery team across CS and City Development as well as Housing, as client, and chaired by the Contract Administrator. At the “pre-start” meeting the teams review the project requirements to formally handover to the site contractor, ensuring that the contractor is aware of all aspects of the programme delivery including installations as per design and specifications and manufacturer's standards (if appropriate). We understand that the “pre-start” meetings are minuted.

CS are responsible for repairing and installing the roofs as per the design and technical specifications provided by the City Architects. CS are responsible for appropriate resource allocation and for their site supervision for undertaking the works.

We understand that the Contract Administrator Chairs the “pre-start” meeting and takes minutes of the meetings. On the CS’ draft Flow Chart, it is not evident that the handovers are minuted. We would recommend that the draft Flow Chart is updated to note that “pre-start” meeting are minuted by Contract Administrators who Chairs these meetings”. In addition, a checklist should also be introduced, together with the Minutes of the “pre-start” meetings to ensure that:

- All areas of discussions are covered and the responsible person noted for each area, depending on the specialist area so that if something is not clear the contractor can go back to that specific person for checking.
- All relevant checks and tasks have been completed prior to moving on to the next stage.

We understand that regular site progress meetings are held which will be directly project focused, attended by construction practitioners working on the project. In addition to this, project related progress is discussed at the Project Operations Group, which is attended by project teams from the City Development, Corporate Finance, Procurement and Housing and Community Services. However, the construction practitioners directly familiar with the project works, do not attend the Project Operations Group. We understand that if specific issues arise, they are discussed separately for individual projects with the teams involved at the site progress meetings. There are some areas that we have identified within the processes the Council is implementing that if addressed would strengthen the quality management checks that are being planned to be put in place.

There is a set of Quality Procedures for Major Contracts used within CS. These are not formally accredited or externally audited, are in paper copy and have not been reviewed and updated since 2016. One of the objectives of the Quality Procedures is to ensure that major contracts operations are undertaken under controlled conditions and to help ensure the effective operational management of people on site and cascading the technical information. More detail on the processes covered by the Quality Procedures can be found on page 14.

Review the quality management systems, including operational and supervisory, now in place within Construction Services and evaluate whether they they would help to prevent a failure of this nature occurring in the future (*continued*)

An electronic version of the same instructions would ensure that all team members within CS would follow the procedures and ensure high quality evidential documents are retained to support all the supervisory checks and sign offs required. The use of checklists throughout the process would help to ensure no steps are missed out.

The Quality Procedures require various on-site inspections to take place, however there are no supervisory checks or reviews of documentation outlined. Whilst our review has not looked into Quality Procedures from a technical/construction point, we have identified controls, including that drawings should be in accordance with work instructions; all works undertaken by the operatives are recorded by the operative and inspected by appropriately trained, qualified and/or experienced personnel in accordance with works instructions; and on completion of sectional contracts, a certificate of partial possession is obtained from the client, etc. All of these and other quality controls are set out in the CS Quality Procedures folder.

We note that the Head of Construction Services is in the process of finalising a set of procedure notes and a process map to further strengthen the processes in place. This is a positive step, building on the Quality Procedures and better linking the processes with those of other teams, ensuring that the right people and teams and clearly engaged at the right time.

Having reviewed the new processes being implemented -we understand that the CS teams' involvement, for instance, in the capital works, will now be from the very beginning of the project. CS will be notified that a project is coming their way well in advance. We understand that previously this was not the case, and that CS were not involved until after the work had been designed and the whole package of works was prepared.

We understand that in a recent workshop at the Council, there was a discussion around "engagements and relationships". The aim was to try and engage the right people in the beginning and inform the work the Council is planning to carry out. This is a positive step and will enable CS and others to feed into the design of projects, as appropriate, and ask any questions on specification, standards and build prior to the design being finalised.

Review the quality management systems, including operational and supervisory, now in place within Construction Services and evaluate whether they they would help to prevent a failure of this nature occurring in the future (*continued*)

In addition, as part of the new proposals we understand that:

- The Procurement team is involved from the start when the project team is identified, so they are aware of the project and its requirements.
- The tender, design and technical specification, together with the bills of quantities are issued to CS for cost estimation and procurement. This includes checking site sizes, quantities and specification. These checks are then shared with Procurement to inform the orders placed.
- Once the contract costs are received from CS, the Design & Property team checks the return and confirms with the Housing and Communities team that the cost is affordable and within budget. On the basis this is acceptable and the spend is approved by the Committee, CS subsequently instructs the Council's Procurement team to place an order for the goods required on site following receipt of an acceptance letter to CS. At this stage a check of requirements versus manufacturer recommendations takes place, although currently it is not clear from the draft process flow chart whether this check is undertaken by the CS or Procurement.

We have also noted that since the roofing issue was identified, the Council's design information in relation to roofing projects has been enhanced, beyond standard practice, from an industry standard reference to the British Standard to now highlighting the requirement for entire roof nailing and mechanical fixing of valley tiles, verge tiles and ridge tiles. The design information also now covers standards in relation to underlay and battens. This provides more detailed information to all of the teams involved, including CS and CoW to oversee and monitor the delivery of capital projects, helping to ensure compliance with any relevant standards and design requirements.

We understand that there are procedures in place to undertake thorough checks at all stages on complex projects, although we only reviewed those in place for projects of the nature of roof replacement project, which is deemed to be non-complex. A check between any difference in procedures between simple and complex projects would be beneficial to understand if any of the additional controls in place for complex projects would benefit simple but higher value/volume capital projects.

As set out in this section, a number of positive steps have been taken by management to strengthen the control environment in place. To help further reduce the risk of similar issues arising in the future, we have made a number of recommendations in this report to strengthen the controls in place. These findings and recommendations are set out in Appendix 1 of the report.

Review quality management systems now in place within the Clerk of Works Team and evaluate whether they would have identified the failure around the standard of roofing not being in accordance with the design documentation at an earlier stage

Current processes and controls in place:

The Housing Asset Management (HAM) Unit will oversee all housing capital and planned maintenance programmes including roof renewals at strategic level. This HAM Unit commissions the work that included the Housing (HRA) Capital Plan in the period, and prepares a brief of works required. The Design and Property Services (D&P) provides the service for Architects, Clerk of Works and Quantity Surveyors. The architect team will oversee the project on site as Contract Administrator (CA) along with the Clerk of Works (CoW) and identify the level of inspection required.

The Project Delivery team (Construction Services (CS) and Design and Property Services (D&P)) personnel ensure quality control via tracking quality, time and cost as part of ongoing review meetings throughout the programme. The Project Delivery team includes a Contract Administrator (CA) and instructs a Clerk of Works (CoW), both these teams sit within D&P.

Prior to going to the site, the CA Chairs the “Pre-Start” meeting. The CA is responsible for the onsite monitoring and will arrange and attend regular meetings with the relevant stakeholders for the works. The Clerk of Works, who are on site on a regular basis, report to CA. They provide each other with updates on the work in progress.

The CA prepares architects instructions; and checks to identify any issue on drawings and if any amendments are required. If such changes are required then the CA works closely with the lead architect to make these. We understand that CoW who reports to the CA on a project is asked to include inspections of ongoing works to ensure that the standard of work is compliant with the design and technical specification throughout the programme, signing off work or raising concerns as they go.

The CoW processes have been further enhanced through checking over the specification and construction drawings prior to the site start and liaison with the CS Site Manager to discuss the planned inspections and progress of work meetings. Records and evidential photographs of each stage of the works and of materials used ensuring that the work is in accordance with the design and specification, and the required standards. A final check on site with the site manager is undertaken to ensure any snagging issue has been rectified prior to sign off.

The CoW will submit a report to the CA at regular intervals through to final practical completion certification by the CA. All contract documentation at the end of the project is required to be recorded and filed.

Review quality management systems now in place within the Clerk of Works Team and evaluate whether they would have identified the failure around the standard of roofing not being in accordance with the design documentation at an earlier stage *(continued)*

The Contract Administration RIBA Stage 5: Construction process flow diagram sets out a number of processes that need to be followed by the CoW on a project, such as the completion of site welfare facilities checklist, completion of CoW weekly report and the completion of CoW directions. The Contract Administration process includes checks such as how many people are on site, what were the weather conditions, hours lost during the day, any issues noted in the day, etc, and also provides support on CoW forums. The draft process flow chart gives a step-by-step instruction of what actions should be taken by each team.

The Council has a well established “Quality Management System (QMS)” within its Design and Property Services Division, which meets ISO 9001 and their processes are certified by internal and external accreditation. Within the system there are process driven checks and peer reviews for output project information, including the level of checking to be undertaken. In addition, third party external audit reviews are carried out twice yearly to ensure control procedures, consistent standards across the design division and a platform for continuous improvement are compliant in this area.

An ISO 9001 accredited QMS process was introduced for City Architects in 2019, although we understand it is still in the work-in-progress for some areas with amendments being made to include QS and CoW processes. We understand from the interviews completed and the review of documentation provided that the QMS is used for procedural guidance and provides a framework to help to ensure a consistent level of quality is maintained throughout the process. We also understand that the QMS requires proportionate reviews and desk checks of work undertaken.

We consider that the use of and completion of checklists at key stages in the capital project lifecycle, including at the various handover points between teams would strengthen the controls in place. Such checklists could be used to confirm that the QMS processes have been followed, other requirements set out in the agreed workflows have been completed, including appropriate governance meetings and handovers, as well as to confirm the standards and their application has been checked at each stage.

As set out in this section a number of positive steps have been taken by management to strengthen the control environment in place. To help further reduce the risk of similar issues arising in the future we have made a number of recommendations in this report to strengthen the controls in place. These findings and recommendations are set out in Appendix 1 of the report.

Consider whether there are now appropriate procedures in place to cascade changes in specifications within Construction Services to relevant teams involved in carrying out construction or installation work. This includes that procedures are in place to cascade any changes in British Standards to the Clerk of Works Team overseeing each site

A number of positive actions have been undertaken by CS and other teams involved in capital projects to improve the awareness of and in turn compliance with legislative, regulatory and other standards, which are set out below. In addition, we note that there has been a commitment made to continuous professional development and training within the workforce and that this has been implemented alongside enhanced communication with all other teams and parties involved to deliver a consistent, high-quality service and product.

We understand that within CS, building services-related sections such as electricians, gas and plumbing trades currently utilise and benefit from ongoing trade body best practice guidance and updates. The Head of Construction in CS is reviewing membership options across a number of other industry recognised trade organisations such as Chartered Institute of Building and Construction related Associations in order to provide a similar level of knowledge and understanding for all work trades. We have seen examples of emails shared with appropriate team members as evidence of information being disseminated.

From our stakeholder interviews, we also were made aware that there are other avenues for disseminating information, including through direct project briefings, regular Trade Continuing Professional Development (CPD) events and training sessions. We were provided with details of conventional toolbox talks as an example. Management in City Development and Neighbourhood Services are working more closely to share knowledge of any updates and amendments to industry practice. We understand that CPD is a key aim for the Council to help ensure that the teams involved in the capital works are up to date on their technical knowledge in their respective areas. The training completed is recorded formally in the staff training records and where it is a requirement for staff who are members of professional bodies to obtain CPD confirmation on an annual basis to be able to continue with their professional membership.

We have seen evidence of sharing reference materials from various construction and building services bodies within CS. In addition, a number of those interviewed were continuing to explore what materials were available to support their teams in the delivery of their work. This included providing access to relevant information services, electronic specification systems, online Standards libraries and access to the latest updates for all other work trades. We understand that at present City Development use the subscription based National Building Specification (NBS) to develop technical specifications, however not all teams involved in the capital project delivery process currently have access to this, including CS and as per finding 5 (Appendix 1) access to this and other information sources should be considered for all relevant teams.

Consider whether there are now appropriate procedures in place to cascade changes in specifications within Construction Services to relevant teams involved in carrying out construction or installation work. This includes that procedures are in place to cascade any changes in British Standards to the Clerk of Works Team overseeing each site (*continued*)

As part of our review, we spoke to the Council's Internal Audit function and received a copy of their draft report titled Legislative and Regulatory Updates. This specifically focused on the arrangements in place across the Council to ensure that new or changed legislative or regulatory requirements were identified and, where appropriate, addressed. The report identified a number of areas of good practice, as well as several areas for development, including:

- The need to remind services of their responsibilities in regard to communication of and adherence to current legislation.
- Arrangements should be in place to ensure that staff have access/membership to relevant professional, trade and other bodies.
- The sharing of current arrangements for dealing with legislative and regulatory updates across teams to help improve current arrangements and share good practice.

We have considered and agree with these findings and recommendations as they apply to the scope of this review. A number of actions are already being taken in respect of these recommendations and in applying them in the context of the teams involved in capital project delivery it will further strengthen the arrangements in place.

As set out on the previous page, a number of positive steps have already been taken to help ensure that all teams involved in capital projects of the nature of the roof replacement project are aware of changes to standards, technical and other regulatory and legislative requirements. This is really important as although the key structures and controls are now or being put in place for delivering capital projects, there will always be a critical need to know what standards are applicable to a particular project and whether those being applied are up to date. This will then enable all teams involved to have the ability to ask questions or challenge if they are unsure of a design or the way an agreed design is being delivered to help reduce the risk of the issues with the roof replacement project occurring in the future.

We have raised a finding and recommendation in Appendix 1 regarding reviewing what information is available to teams and how this could be expanded to ensure that each team has what it needs from a training and information perspective to fulfil their role.

Other areas identified relevant to the review

In delivering the scope of this review there were a number of areas that were identified which cut across the different teams involved in capital projects. We have brought these out in this section with the associated findings and recommendations.

Client and Contractor Arrangements

The Council has a Partnership Agreement in place between the following teams: Corporate Finance, Housing and Communities Services, City Development and Construction Services. The Partnership Agreement came into place in 2018 and was updated in April 2021.

Due to this agreement being put in place, we noted that Housing and Communities Services tends not to look at their role as a “client - contractor” split, because the teams are in partnership within the Council. Although having a close working arrangement is a positive, it can also create a risk. For example, as the various teams have worked closely for an extended period of time, elements of custom and practice may materialise, as may have been the case in the earlier phases of the roof replacement project. This can result in the level of scrutiny and challenge not being as rigorous as it would be if a third-party contractor(s) was involved.

The current Partnership Agreement is at a very high level. It does not specify, for example, the roles and responsibilities of the partners, monitoring and review, etc. and it is also missing some vital areas, such as complaints and remediation processes, escalation of issues, change management for projects, etc. There are also currently no Service Level Agreements (SLAs) in place that would clarify expectations between the teams and enable more effective management of the arrangements in place.

Governance Structure

We understand that the Council has the following Governance structures in place over the delivery of housing and other capital projects:

- The Housing Capital Investment Group oversees the housing capital programme at the Council. The asset managers and housing services managers from the Housing and Communities Services attend the group.
- The Partnership Agreement states that the Executive Board (the Board) is responsible for the performance of the services provided across the partnership teams. The day to day running of the service is delegated to the Steering Group, which is attended by the Services Managers from each partnership member. The Steering Group meets every four weeks and reports to the Executive Group on key performance measures and targets, the mutual objectives/success criteria and any other matter affecting the service. The Steering Group discusses topics such as capital programme, market conditions, impact and improvement and if there are any other specific issues, such as concerns around on-site team / contractor competencies.

Other areas identified relevant to the review (*continued*)

- We understand that when the issue came to light in October 2021, there were discussions held within the Council, including various separate meetings on what steps to take to rectify the issue. However, it was not clear if these discussions and the agreed actions went through the existing governance structure or whether these meetings or discussions had been minuted. If the defined governance structures are not followed, then there is a potential risk around a lack of evidence to support decisions being made and the required escalation and decision-making routes not being followed.
- Through recent organisational changes, the Design and Property Division has consolidated pre-dated practices within Architectural Services ensuring common governance across all services within the division.

As set out above there have been a number of changes in management roles, which has started to provide a different focus. However more work is required to document the governance framework that is in place for the capital projects process, including roles and responsibilities (both teams and individuals), processes, controls and interdependencies and escalation pathways.

In addition, there is currently no overarching Governance Framework/ Map that sets out each of the forums, committees and the Board involved in the capital project process. Such a map would be beneficial from Member level down to operational teams to help provide clarity on roles and responsibilities, decision-making pathways, oversight and monitoring and escalation from issues. This would also help the Council to understand where there might currently be overlaps or gaps in the current governance arrangements for housing and other capital projects.

Working practices

Through our discussions with relevant officers in the Council, we felt that there is a good and close working relationship between the teams/individuals involved in the housing and other capital projects, including on projects such as the roofing project. We understand that these relationships have been in place for a long period of time, and although there have been movements at management level, particularly in Construction Services, the operatives and staff involved in delivery of the projects have remained relatively consistent. This close working relationship has potentially led to a custom and practice of doing things in the same manner as before, particularly for less complex and routine projects like roofing. This creates a risk that designs and technical specifications could be rolled forward and the installation techniques applied as they always have been.

Although we did not identify any examples of teams or individuals not being willing to speak out, there is a risk that without the formal governance structures being in place and also by the nature of working to custom and practice staff may not ask a question or raise a challenge if they are unsure both at the design and construction phases of a project.

As access to technical briefings and training is rolled out more widely, this will equip a wider range of staff to know where standards of change across all of the teams involved. It will therefore be important to encourage an environment where anyone, at any point of the process, can ask a question or provide a challenge if they are unsure about the design, technical specification or delivery of works.

Appendices

Appendix:

Appendix 1 - Findings and recommendations

Findings and Recommendations

Finding 1	Recommendations
New Process Notes and Map for Capital Works delivered internally	
<p>We understand that Construction Services has developed processes and notes for capital project works that cut across all the teams engaged, across Housing and City Development are also included within the process, to accompany a process map, which has been shared with us. We have reviewed this process map and the process maps prepared by Architects as part of our review and we have identified a few areas for consideration on the Construction Services process map, which are set out opposite and should also be considered, where relevant for the process notes.</p>	<p>We recommend that the following actions are implemented:</p> <ul style="list-style-type: none">• The process map needs additional detail to cover all processes and controls of monitoring of works and the team’s responsibilities for on-site works. Currently the process map is quite high level and would not provide a complete understanding of the proposed process, teams involved and controls in place.• The first column is titled “responsibility” currently and mixes responsibilities with stages. An additional column would help to include a subtitle for each stage and a column for a team/person responsible.• A checklist at the end of each stage to ensure each stage within the section has been completed by the respective teams and also rechecked the standards updates/amendments (see above). This checklist must be completed and formally signed by the Supervisor of that team before handing over to the next team or the next process.• Ongoing monitoring control check (checklist) should include checking back to the original technical specification for materials used and the work completed. Evidence of the Supervisor’s review should be included as part of the checklist.

Findings and Recommendations

Finding 1	Recommendations
<i>New Process Notes and Map (continued)</i>	
	<ul style="list-style-type: none">• Process notes to support the process map need to be formalised as soon as possible so that any new staff joining the team can easily follow the processes in place.• The partnering teams within the process should similarly inform and expand on their relevant stages within the process as this covers all teams involved across services.

Findings and Recommendations

Finding 2	Recommendations
Design and Technical Specification Review Process	
<p>There is a peer-to-peer review process in place for design and technical specification documentation in City Architects team as part of the ISO 9001 QMS procedures. However, there is currently no senior review of design and technical documentation and the evidence of the review process could be enhanced, to include the nature and extent of the checking undertaken.</p> <p>We noted that there is currently no requirement to consider the utilisation of third parties to validate the accuracy and completeness of design and specification documentation to ensure that it picks up all the latest legal and relevant standards. We understand that this may not be cost effective or practical for all types of projects but is an area for consideration on larger, complex or high value programmes, where additional assurances may be required by key stakeholders.</p>	<p>We recommend that the current review process should document the nature and extent of the checking process, proportionate to the nature of the works, including where applicable, assessment that relevant and up to date standards are identified and integrated into the design and specification. Consideration should be given as to whether senior review, even if on a sample basis, would benefit some projects.</p> <p>In addition, on complex projects or high value programmes it should be considered whether external third party (external) quality review of the design and specification could be undertaken to ensure that all current standards and good practice are included. This might be done based on a risk assessment and consideration of whether suitable comfort can be obtained from the existing processes in place.</p>

Findings and Recommendations

Finding 3	Recommendations
Procurement	
<p>It is not clear how much emphasis is placed on manufacturers during the procurement process to provide input, and a check and challenge when procuring materials for specific projects. Some manufacturers have their own standards and would also be well placed to confirm whether certain materials and fitting instructions comply with this and relevant standards. It should be considered whether this should be integrated into procurement to identify suppliers who are willing to provide input at this stage to ensure that the correct materials are being purchased in accordance with the design and technical specification requirements and that requirements align to industry standards and good practice.</p> <p>Currently there doesn't appear to be a formal step in the design and procurement process to consider whether obtaining full manufacturer warranties for work should be obtained. We understand that where such warranties are offered, it could cost more but would provide an additional control, involving the manufacturer providing independent validation of works to ensure that they are fitted to their own and other relevant standards.</p>	<p>We recommend that the following actions are implemented:</p> <ul style="list-style-type: none">• Provide Procurement team with access to relevant portals, briefing and training (where appropriate) so that they have a better understanding of the materials and projects being commissioned.• Introduce a handover checklist to ensure questions about changes in the standards are asked and evidenced when the details are provided to the Procurement team/CS.• Procurement team to question the suppliers of their awareness of any changes in the relevant standards relating to a particular project.• Manufacturers' warranties, where offered, should be considered on some, if not all, capital projects. This will provide an additional independent check and validation to mitigate the risk of standards and regulations not being adhered to.

Findings and Recommendations

Finding 4	Recommendations
<p>Use of Quality Management Systems</p>	
<p>We have identified that Quality Management Systems (QMS) are in place across various teams in D&P which have external Accreditation. There is also a form of QMS in Construction Services, albeit this is not externally audited/accredited. Consideration should be given to where these QMS processes are used, what is working and whether they should be used consistently across all aspects of capital project delivery.</p> <p>We understand that the QMS in place within D&P are electronic versions hence it is easy to access the flowcharts and the forms behind each stage. However, the QMS used by Construction Services is a paper manual. It is in a large folder and probably not as easy as the electronic version would be. We are assuming as it is in paper copy the search option for a specific area would not be available. In addition, this QMS in paper copy has not been reviewed since 2016.</p> <p>In addition the current Partnership Agreement, dated 2001, requires capital work to be delivered in compliance with the BS EN ISO 9001/9002. D&P has an accredited ISO 9001 process in place, however, other teams involved in the partnership, including CS, do not.</p>	<p>We recommend that consistent use of an appropriate Quality Management System should be considered for all teams. This will ensure key stages in the capital project process are not missed. This review should also consider how the QMS process incorporates a check that the up-to-date standards, legislation and regulations are included in the design and construction for each project.</p> <p>Construction Services should look into introducing an electronic Quality Procedures/QMS and access is provided to all staff to it. Where staff do not have easy access to an electronic version then consideration should be given to how to make hard copies more accessible to all staff, particularly those who are regular working onsite and away from the office.</p> <p>In addition, as part of the wider quality assurance processes reviews should be made of existing checklists for project lifecycle stages. This will help to evidence that all relevant elements of the proceeding stage have been completed and specific questions about changes in the standards have been asked prior to moving onto the next stage.</p> <p>It needs to be considered whether the requirement in the Partnership Agreement for works to be delivered in compliance with ISO 9001 is achievable for all of the teams involved and if not then it should be updated to reflect the actual Quality Management processes that are or will be put in place and followed.</p>

Findings and Recommendations

Finding 5	Recommendations
<p>Guidance and Training</p>	
<p>A recent Internal Audit Review identified areas for improvement, across the Council, in how teams and individuals are kept updated on changes to legislation and relevant guidance and standards.</p> <p>It was clear from our review that although improvements have been made, with a number of teams having more ready access to relevant industry and technical information this was not consistent across all teams and it needs to be ensured that all teams, from managers down to operatives have access to the most up to date materials, briefings and training to enable them to deliver their jobs in line with the latest legislation, guidance and standards.</p>	<p>We recommend that the following actions are implemented:</p> <ul style="list-style-type: none"> • At the beginning of the project, relevant teams involved on the project should undertake an internal research on the project type and identify any British Standards or other relevant standards and regulations. It should be evidenced that this research has been completed as part of the review process of the design and specification documentation. • Identified changes to legislation, standard and regulations should be passed to all teams involved in housing and other capital projects. • Different teams have access to different databases. We understand that some teams may require access to updates for their specific specialism / profession, however cascading of information is a must to all the team members from the top to the most junior level in that team. Forums or team updates could be scheduled for everyone to attend if key changes relating to standards impacting on projects delivered by in-house teams occur. • Records of the attendance at briefing and specific training or information research should be updated on personal CPD records.

Findings and Recommendations

Finding 6	Recommendations
<p>Formalisation of Governance and Roles and Responsibilities</p>	
<p>The teams in place across, Housing and Communities services, Construction Services and City Development have worked closely together for a number of years. This has a number of positive benefits, for example, good working relations but it has also resulted in a degree of familiarity and enhance the governance arrangements currently in place, including roles and responsibilities, interdependencies and processes. There have been a number of changes in management roles, which has started to provide a different focus, however more work is required to document the governance framework that is in place for the capital projects process, including roles and responsibilities (both teams and individuals), processes, controls and interdependencies and escalation pathways.</p> <p>Linked to the above there is currently no detailed overarching Governance Framework/Map that sets out each of the forums, committees and the Board involved in the capital project process. Such a map would be beneficial from Member level down to operational teams to help provide clarity on roles and responsibilities, decision making pathways, oversight and monitoring and escalation from issues. This would also help the Council to understand where there might currently be overlaps or gaps in the current governance arrangements for housing and other capital projects.</p>	<p>We recommend that the following actions are implemented:</p> <ul style="list-style-type: none"> • Roles and responsibilities for housing and other capital projects, with clear decision-making pathways, interdependencies, oversight and monitoring responsibilities and processes for the escalation of any issues should be formalised as soon as possible and communicated to the relevant teams and stakeholders. • The governance structure for housing and other capital projects should be updated to include an overarching framework/map that sets out defined roles and responsibilities for each forum, committees and the Board. • It should be ensured that any notes or minutes from governance meetings are sufficiently detailed to be able to understand what has been covered, the key actions agreed and who is responsible for delivering these actions to enable follow up at future meetings.

Appendix 1: Action Plan

Finding 6	Recommendations
Formalisation of Governance and Roles and Responsibilities (continued)	
<p>The need to update the governance framework for housing and other capital projects is compounded by there being no Service Level Agreements (SLAs) in place between the Client (Housing and Communities Services) and City Development and Construction Services for the delivery of capital projects. There is a partnership agreement in place but this is high level and does not include sufficient detail around areas like:</p> <ul style="list-style-type: none">❖ Roles and responsibilities❖ Monitoring and review❖ Detailed Performance targets and KPIs❖ Detailed Quality standards❖ Complaints and remediation processes❖ Escalation❖ Change management for projects❖ Insurance❖ Indemnity❖ Confidentiality❖ Use of relevant British Standards and any applicable legislative trade rules applicable to the delivery of capital projects	<p>We recommend that the following actions are implemented:</p> <ul style="list-style-type: none">● Introduction of an SLA(s) to cover where appropriate:<ul style="list-style-type: none">❑ Roles and responsibilities;❑ Monitoring and review❑ Detailed Performance targets and KPIs❑ Detailed Quality standards❑ Complaints and remediation processes❑ Escalation❑ Change management for projects❑ Insurance❑ Indemnity❑ Confidentiality❑ Adherence to British Standards and any applicable legislative trade rules applicable to the delivery of capital projects. <p>If preferable the existing Partnership Agreement could be expanded to include the relevant areas above.</p> <p>The adherence to the above should be monitored as part of the formalised governance arrangements that are put in place.</p>

Findings and Recommendations

Finding 7	Recommendations
Working Practices	
<p>When considering the structures and processes in place at the start of the roofing project there was a clear segregation between teams to theoretically raise concerns if the design and technical specification or actual build had not complied with known relevant standards.</p> <p>Although we have not sought to investigate the root cause of the failure to identify that the roofs were not being fitted to the revised British Standard it has become clear through our work that there are a number of factors that may have contributed to this going undetected, which include following standard custom and practice for roofing projects (which are relatively straightforward and repeatable from a capital project perspective), the non standard and inconsistent approach to the design documentation at the time; design documentation not being appropriately reviewed by the teams delivering and inspecting the works; and a lack of knowledge that the British Standard had changed across all the teams involved.</p> <p>As set out in our report, work has been done to provide better access to teams and individuals to relevant industry and technical information in the form of bulletins, portals and emails. To ensure that this is effective, we understand that the Council are now encouraging all staff who are involved in any part of the capital project process to ask what may be seen as an obvious question or challenge if they are unsure. In doing this, it would help to reduce the risk of missing a change in legislation or standards, if at least one person is aware and spots it hasn't been applied correctly in the design or build.</p>	<p>We recommend that the following actions are implemented:</p> <ul style="list-style-type: none">• The Council should continue to encourage team member(s) involved in housing and other capital projects, is not sure, for example, of the clarity of the design or specification, or sees something that is not right, then they are able to check with someone senior or raise their concerns.• Although the relationships between individuals and teams across the Council are generally good, it needs to be ensured that these close working relationships do not stop anyone challenging each other, scrutinising their work and decisions, or raising concerns and questions on the process if it does not look right. This behavioural change would be applicable not just to junior team members but also the senior team members.

Findings and Recommendations

Finding 7	Recommendations
Working Practices (continued)	
<p>During this review we have not identified any specific concerns around staff behaviours and/or their ability to raise concerns and provide effective challenge. In addition we noted that progress has been made in both the provision of training and materials to help staff to raise questions or challenge. A continuous training and knowledge sharing approach, along with continuing to encourage a culture of friendly and appropriate challenge across all of those involved will help to ensure that custom and practice (doing it as we always have done) does not set in and result in a similar issue happening in the future.</p>	

Appendix:

Appendix 2 - Teams involved and their roles in the roofing project

Teams involved and their roles in the roofing project

To understand the processes and controls in place it is important to appreciate the teams involved in delivering a housing and other capital project. The diagram opposite sets out the current teams involved in the delivery of housing capital works similar to the roofing project.

Neighbourhood Services are the client for the work, through the Housing Asset Management team.

The delivery of this work is undertaken by a number of teams within the Council. The key teams involved in delivery of these capital works are the Design & Property service within City Development and Construction Services. Architects are responsible for the design and specification of works, as well as providing the Clerk of Works and contract administrator role. Once the approval to proceed on the project is obtained from the Committee (Neighbourhood Committee), the pre-contract phase is entered into by all parties. The team's roles and responsibilities are explained briefly in the next section.



Teams involved and their roles in the roofing project

The following section sets out, at a high level, the roles and responsibilities for each of the teams involved in housing and other capital projects.

Housing Asset Management Unit

- ❖ Commissions the work that included the Housing (HRA) Capital Plan in the period.
- ❖ Prepare a brief of works required.
- ❖ Ensure the total costs for the repairs are within the budget.
- ❖ Ensure owner occupied properties are billed for the additional works carried out at their properties.
- ❖ Project Management, including engagement with all residents with a focus on customer satisfaction.
- ❖ Oversee all housing capital and planned maintenance programmes including roof renewals at strategic level.
- ❖ Ensure that there is sufficient budget for programmes of work and as representative of the client, ensure that sufficient resources (i.e. a Project Officer or an Assistant Project Officer) is allocated to the works.
- ❖ A Project Officer is responsible for ensuring a brief is completed that details key project information and this is passed to City Architects for developing a design and technical specifications.
- ❖ Asset Management would not normally be involved in the site works, and therefore are not required to carry out inspections or sign off work. However, they attend progress meetings and are involved throughout the project.

Teams involved and their roles in the roofing project

The following section sets out, at a high level, the roles and responsibilities for each of the teams involved in housing and other capital projects.

Design & Property Services

- ❖ The Design and Property Service (D&P) provides the service of Architects, Clerk of Works and Quantity Surveyors.
- ❖ D&P are commissioned by Housing to undertake the design specification as per the contract brief with the architect team fulfilling the role of lead designer/contract administrator.
- ❖ The architect sets out resource demands across different disciplines according to the requirements of the brief. Their role is also to prepare the technical designs and specifications to applicable British Standards and legislation.
- ❖ Quantity Surveyors create the bills of quantities based on the design specification and contract drawings. Once prepared, this is issued to Construction Services for costing.
- ❖ The D&P team will review the costs returned by Construction Services and confirm that Housing has the budget for the works and then prepare a Committee report to seek approval for the works to progress to construction.
- ❖ The architect team will oversee the project on site as Contract Administrator (CA) along with the Clerk of Works (CoW) and identify the level of inspection required.
- ❖ The CA role is mainly of contract administration from the pre-start of on-site work until the completion of works, including on site monitoring such as arranging and attending regular meetings with contractors and with the CoWs.
- ❖ The CA also prepares architects instructions and co-ordinate if there are any issues on drawings or any amendments required, monitor and record progress on site, supervise CoWs and manage contract documentation, such as practical completion certificates.
- ❖ The Clerk of Works role is to check the work on site regularly to ensure it aligns to the design and technical specifications and of required quality, reporting to the Contractor Administrator on a regular basis regarding any corrective action required or works signed off as satisfactorily complete.

Teams involved and their roles in the roofing project

The following section sets out, at a high level, the roles and responsibilities for each of the teams involved in housing and other capital projects.

Construction Services

- ❖ Construction Services are responsible for pricing the contract documents and bills of quantities provided by D&P. This is done in conjunction with the Council's Procurement team for obtaining sub-contractor elements of work packages, and once appointed to construction, the ordering of materials for the works.
- ❖ Prepare construction phase documentation such as method statements and programmes.
- ❖ Carry out work on site as per the technical design, drawings and specifications, ensuring that the products used on site are as per the required specifications and British Standards.
- ❖ As the appointed contractor, Construction Services are responsible for undertaking the corrective works if any issues are identified.

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