

REPORT TO: SCRUTINY COMMITTEE – 23 SEPTEMBER 2020

REPORT ON: DUNDEE HOUSE CLOSURE 10/11 DECEMBER 2019

REPORT BY: EXECUTIVE DIRECTOR OF CITY DEVELOPMENT

REPORT NO: 225-2020

1.0 PURPOSE OF REPORT

The purpose of this report is to advise Scrutiny Committee on the events which led to the closure of Dundee House on the 10 and 11 December 2019, subsequent remedial actions taken in order to allow re-occupation of the building on 12 December 2019 and advise on further planned remedial action.

2.0 RECOMMENDATIONS

Note the content of the report, and the actions taken to rectify the damage caused and the steps undertaken to mitigate the risk of future disruption to the continuity of council services.

3.0 FINANCIAL IMPLICATIONS

The costs associated with the required remedial works to the pipework in Dundee House are of a capital nature and are currently being tendered with the costs reported to committee in due course.

The Head of Democratic and Legal Services is presently considering issues of liability for the damage, loss and expense caused to the Council both by the original events and by the remedial works which will be required and if he concludes that the Council have a right of recourse against any third party he will take all necessary action, including legal action, to protect the Council's interests.

4.0 MAIN TEXT

4.1 Sequence of Events

On Tuesday 10 December 2019 automated monitoring systems highlighted high temperatures in the server room of Dundee House.

Members of Property's Mechanical and Electrical Team and the Council's Health & Safety contractor, Lovat's were immediately mobilised. Interrogation of the Building Management System identified that the chiller units on the roof of Dundee House were inactive and not pumping water to provide cooling within the server room.

The chiller unit could not be reset as the chilled water pressurisation unit was in a fault condition due to low system pressure, causing the shutdown of the associated chilled water plant.

Investigations showed evidence of leaks and checks of the chillers, rooftop pipes and air handling units were carried out to identify the source of the leaks. A burst pipe in the north riser on floor 6 was identified.

The burst water pipe meant water ran down the riser to floor 1. This had caused a 'short circuit' of the electrical system in the north of the building which had resulted in the chiller units shutting down causing the temperature rise in the server room.

The Council's framework mechanical contractor, Richard Irvin, was called out to carry out remedial works to the failed pipework.

4.2 Service Disruption

Water ingress in the fire alarm panel triggered the alarm and the building was evacuated. The Council's fire safety contractor, Chubb, attended site and re-set the fire alarm system allowing re-occupation of the building.

The activation of the fire alarm had triggered the emergency lighting within the building. The emergency lighting battery packs provide emergency lighting for 3 hours. Electrical engineers on site advised the north side of the building would not have electricity restored within this period and, therefore, a phased evacuation of staff commenced as emergency lighting could not be guaranteed in the event of a further power loss.

By mid-afternoon, electricity had not been restored to the north side of the building. As it would take 18 – 24 hours to fully re-charge the emergency lighting, re-occupation of the building could not occur on 11 December and staff were advised that Dundee House would remain closed on 11 December.

Power was restored to the north side at 4.45 pm on 10 December allowing the emergency lighting to start re-charging and by 1.00 pm on 11 December all emergency lighting had been function tested and repairs completed.

4.3 Business Continuity

Throughout 10 and 11 December an emergency command room was set up and chaired by the Executive Director of Corporate Services to co-ordinate emergency repair works by multi-disciplinary trades, organise temporary re-location of key staff to other operational premises throughout the City and issue communications to staff.

Critical services continued to be delivered by the Council such as the payment of Housing Benefit, Education Maintenance Allowance and supplier payments. Other services such as Emergency Repairs were delivered from other Council Offices. Key staff were redeployed and critical services continued to be provided.

Alternative arrangements were also put in place to ensure applications and awards could be made for the Scottish Welfare Fund.

Desk space throughout all Council offices was utilised on the 11 December, along with Council officers working from home where this service was available.

Council IT was significantly impacted by this outage. Login processes to the Councils corporate desktop used by most users to access their applications were severely impacted with login profiles being held in Dundee House.

A number of major lines of business applications whose primary data store was in Dundee House were also made inaccessible.

Elements of the Council's IT infrastructure were maintained including the telephony service and access to the Councils website. The online portal for customer transactions was still available during the incident.

Disaster Recovery and Business Continuity plans were initiated. Standard maintenance of this equipment requires the equipment supplier, IBM, to come on site to carry out restart procedures. An IBM engineer was onsite by 12 noon.

The storage machine was restarted within 30 minutes and from that point all services were restarted in an orderly fashion with critical systems and the bulk of all systems restored by 3.00 pm.

4.4 Cause of the Failure

Subsequent investigations confirmed the cause of the leak was pipework failure due to an incorrectly fitted crimped joint on an 80mm carbon steel pipe, fitted during the construction of Dundee House. The joint failed allowing pressurised water to escape, entering the electrical system on the north side of the building and shutting down the chilled water system.

A visual inspection has been carried out to the existing pipework and any exposed joints have been checked. It has not been possible to inspect all joints due to access restrictions which would involve intrusive works to expose the joints. Pressure testing of the pipework cannot be carried out as this could rupture a weak joint and cause further flooding. Areas of pipework which cannot be inspected are assumed to be deficient and will be replaced to negate any risk of future failure.

4.5 Remedial Actions

Design work has now been carried out to allow the complete replacement of all pipework. Works will commence after the appropriate tender procedure has been carried out and phased to suit operations of council services within Dundee House.

It is intended to relocate the server units in Dundee House in the near future to an alternative site which will remove any future risk of the IT service within the Council being disrupted from a similar incident.

Interim measures to manage the ongoing risk have been put in place including night time manned monitoring of the server room and temperatures and hourly night time manned inspections of all risers containing the pipework to check for leaks.

5.0 POLICY IMPLICATIONS

This report has been subject to an assessment of any impacts on Equality and Diversity, Fairness and Poverty, Environment and Corporate Risk. There are no major issues.

6.0 CONSULTATIONS

The Council Management Team were consulted in the preparation of this report.

7.0 BACKGROUND PAPERS

None.

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NM/KAS

11 September 2020

