

COURT PROCEEDINGS BY NHS GREATER GLASGOW & CLYDE

AGAINST

**MULTIPLEX CONSTRUCTION EUROPE LIMITED, CURRIE & BROWN LIMITED AND CAPITA
PROPERTY AND INFRASTRUCTURE LIMITED**

On 22 January 2020 NHS Greater Glasgow & Clyde raised Court proceedings against Multiplex Construction Europe Limited, Currie & Brown and Capita Property and Infrastructure Limited in connection with the Queen Elizabeth University Hospital in the Court of Session in Edinburgh (“Court Proceedings”).

In the Court Proceedings NHS Greater Glasgow & Clyde are seeking recovery for loss and damage they have suffered and will suffer as a result of various technical issues. In relation to these technical issues it is NHS Greater Glasgow & Clyde’s position that Multiplex Construction Europe Limited, Currie & Brown and Capita Property and Infrastructure Limited were in breach of their contracts and were in breach of the common law duties to NHS Greater Glasgow & Clyde.

As the technical issues are now the subject of the Court Proceedings NHS Greater Glasgow & Clyde is not in a position to comment in detail on the issues. However, the technical issues can be summarised as follows.

Issue 1: Water System

After handover of the Hospital to NHS Greater Glasgow & Clyde, systemic contamination of the domestic water system was identified. NHS Greater Glasgow & Clyde has had to install an extensive chlorine dioxide dosing system to control the domestic water bacteria. Issues which have been identified in relation to the water system in the Hospital include (without being limited to) the following: (1) The use of mild steel pipework; (2) The use of copper pipework; (3) The use of flexi-pipes; (4) The use of pipework from manufacturers not included in the O&M Manuals and not relevantly approved; (5) Leaving pipework open during installation work (making it vulnerable to contamination); (6) Pipework and fittings corrosion; (7) Corrosion of domestic water meters; (8) Use of a disinfectant (Sanosil Super 25) which includes silver and hydrogen peroxide, without evidence of relevant advice to do so; (9) Small debris in a cold water storage tank, indicating a failure to clean and flush the cold water storage tanks; (10) Pressure testing being carried out after a leachate flushing regime, rather than before; (11) Lack of commissioning information in O&M manuals; (12) Lack of a water risk assessment in the O&M manuals; (13) Storage volumes of the water system larger than required; (14) Inadequate provision for filling and top up of the water system; and (15) Incoming water main not being to Scottish Water requirements.

Issue 2: Standard isolation rooms ventilation

Issues which have been identified in relation to standard isolation rooms ventilation in the Hospital include (without being limited to) the following: (1) Isolation suite extract vents terminate behind louvres on façade and formed turrets above plant room; (2) Safe change filter housings installed

internally to the building; (3) Non-standard extract ventilation between bedrooms and en suites; (4) No low level air transfer grilles within the en suite doors; (5) Excessive access hatches in ductwork; (6) No gas tight shut off damper or spectacle plate on extract systems prior to extract fans; (7) No audio and visual alarms outside entrances to gowning lobbies; (8) No common alarm panel at nurse station; (9) Supply and extract plant and duct access hatches not identified as a biohazard; (10) Supply and extract plant and duct access hatches not identified with the rooms they serve; and (11) Lobby dial pressure gauges inappropriate for monitoring the requisite pressure differential.

Issue 3: Adult Hospital Ward 4B ventilation

Issues which have been identified in relation to Adult Hospital Ward 4B ventilation in the Hospital include (without being limited to) a failure to achieve the following: (1) The requisite positive air pressure differential in patient rooms, relative to adjacent space; (2) The requisite air change rate in patient rooms; (3) The requisite positive air pressure differential between the general ward and the remainder of the hospital; and (4) The requisite classification of HEPA filtration of air.

Issue 4: RHC Ward 2A Ventilation

Issues which have been identified in relation to RHC Hospital Ward 2A ventilation in the Hospital include (without being limited to) a failure to achieve the following: (1) The requisite positive air pressure differential in patient rooms, relative to adjacent space; (2) The requisite air change rate in patient rooms; (3) The requisite positive air pressure differential between the general ward and the remainder of the hospital; and (4) The requisite classification of HEPA filtration of air.

Issue 5: Plant and building services capacity

Issues which have been identified in relation to plant and building services capacity in the Hospital include (without being limited to) plant and building services (including, without prejudice to that generality, the air handling units (known as "AHUs")) having insufficient capacity, and in particular (without prejudice to that generality) having no spare capacity, reducing NHS Greater Glasgow & Clyde's ability to facilitate future expansion or adaptation to the Hospital and its plant and building services.

Issue 6: Toughened glazing

Issues which have been identified in relation to toughened glazing in the Hospital include (without being limited to) instances of fractured glazing. Those include eleven recorded instances up to June 2019. Of those, two have been verified to have been as a result of nickel sulphide inclusions. [The Hospital did not include any means to mitigate the risk of fractured glass falling into trafficked areas. NHS Greater Glasgow & Clyde has had to carry out extensive mitigation measures to mitigate that risk.]

Issue 7: Doors

Issues which have been identified in relation to doors in the Hospital include (without being limited to) the following: (1) Use of MDF, rather than solid wood or metal, in door frames; (2) Hinges detaching

from door frames; (3) Length of screws used to fix hinges to doorsets too short; (4) Extensive impact damage; (5) Failure of door closers; (6) Delamination of door veneers; and (7) Issues with seals.

Issue 8: Heating system

The Hospital includes a heating system which contains MTHW (i.e. Medium Temperature Hot Water) heating installations with associated Combined Heat and Power (“CHP”) plant (the “Heating System”). Issues which have been identified in relation to the Heating System include (without being limited to) the following: (1) The CHP system is operating inefficiently with significant rejection of heat and with projected energy savings not having been realised; (2) The absorption chiller (an integral part of the CHP) is not operational; and (3) A water temperature to facilitate proper operation of the CHP is not being achieved.

Issue 9: Atrium roof

The Hospital includes a roof above the atrium in the Adult Hospital. That roof is constructed of a series of inflated cushions using an ETFE (i.e. ethylene tetrafluoroethylene) system (the “ETFE Roof”). Issues which have been identified in relation to the ETFE Roof include (without being limited to) the following: As part of the overall fire strategy, the ETFE Roof was fitted by Multiplex with a hot wire system. The purpose in doing so was that in the event of fire the hot wire system would operate to burn off parts of the ETFE to allow ventilation of the atrium. When tested in October 2017, 18 sections of the ETFE roof unintentionally burned off. The hot wire system is accordingly not operational due to it unintentionally burning off ETFE roof sections during testing. A revised fire strategy has had to be implemented by NHS Greater Glasgow & Clyde as a result. Moreover there is no evidence of CE markings in the ETFE roof and hot wire system.

Issue 10: Internal fabric moisture ingress

Issues have been identified in relation to the en suite facilities including (but not limited to): (1) Inappropriately high water absorption moisture readings in internal partition panels; (2) Sections of IPS laminate panels de-bonding; (3) Inappropriate detailing between walls and vinyl floor coverings; (4) Insufficient floor drainage falls; (5) Welds to vinyl floors deteriorating; (6) Vinyl floor coverings deteriorating; (7) Inappropriate welds and seals repairs; and (7) Use of partitioning material (such as, but not limited to, plasterboard) which is insufficiently resistant to water absorption.

Issue 11: Pneumatic transport system (“PTS”)

The PTS is a network for transporting specimens within the Hospital. Issues which have been identified in relation to the PTS in the Hospital include (without being limited to) the following: (1) The PTS has been unable to cope with the requisite volume of specimens; and (2) The PTS has suffered an excessive number of failures in operation, including at least 65 failures in the period from November 2018 to February 2019.

As outlined above, it is NHS Greater Glasgow & Clyde’s position that it has suffered loss and damage as a result of breaches of contract and breaches of duty by Multiplex Construction Europe Limited,

Currie & Brown and Capita Property and Infrastructure Limited. NHS Greater Glasgow & Clyde are not in a position to discuss the quantum of this claim at this stage. However, it should be noted that the sums sued for includes an allowance for costs which have been incurred to date by NHS Greater Glasgow & Clyde to ensure the health and safety of all users of the Hospital and an allowance for future costs which NHS Greater Glasgow & Clyde anticipate incurring in order to undertake remedial works and / or mitigate their losses. The total of those losses are currently estimated by NHS Greater Glasgow & Clyde at £72,800,000, although it should be noted that as this sum is an estimate it may be subject to change.