



Atelier MB
Urban Architects



Paragon Mill External Plant Design, Access and Heritage Statement

Client:
NQC

September 2021

Job 1887
Revision -

Executive Summary

AtelierMB were appointed by NQC to prepare proposals for the conversion of the ground floor of the Grade II* Paragon Mill, to form their new offices.

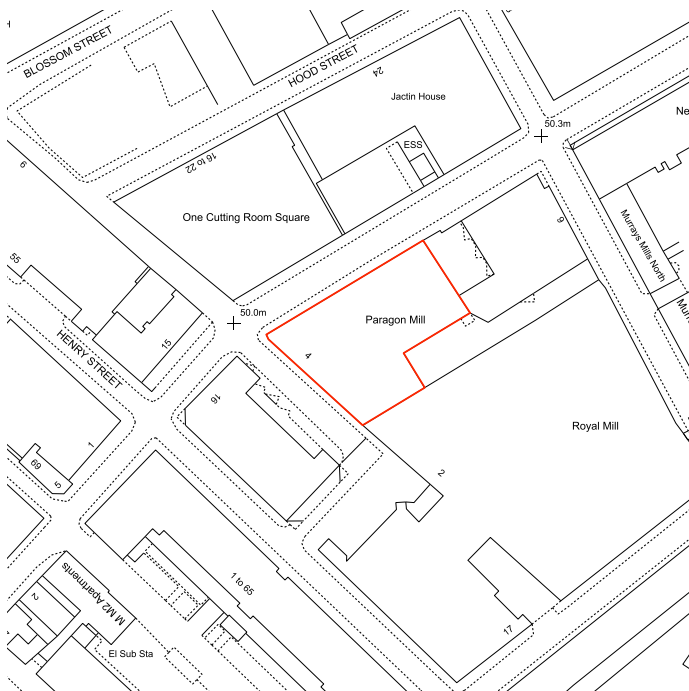
Paragon Mill is a former cotton spinning mill, and one of the key buildings in a complex of historical industrial properties which formed the McConnell Kennedy site, in Ancoats, Manchester. The site is located in the Ancoats Conservation Area.

Following receipt of Planning and Listed Building consent in 2020 (refs 126171/LO/2020 and 126170/FO/2020), detailed design determined that the proposed plant equipment was undersized, and redesign and relocation of the plant was required to meet acoustic requirements within the space available.

This report pertains to the redesign of this external plant only.



Paragon Mill from Jersey Street



Location plan

1.0 Introduction

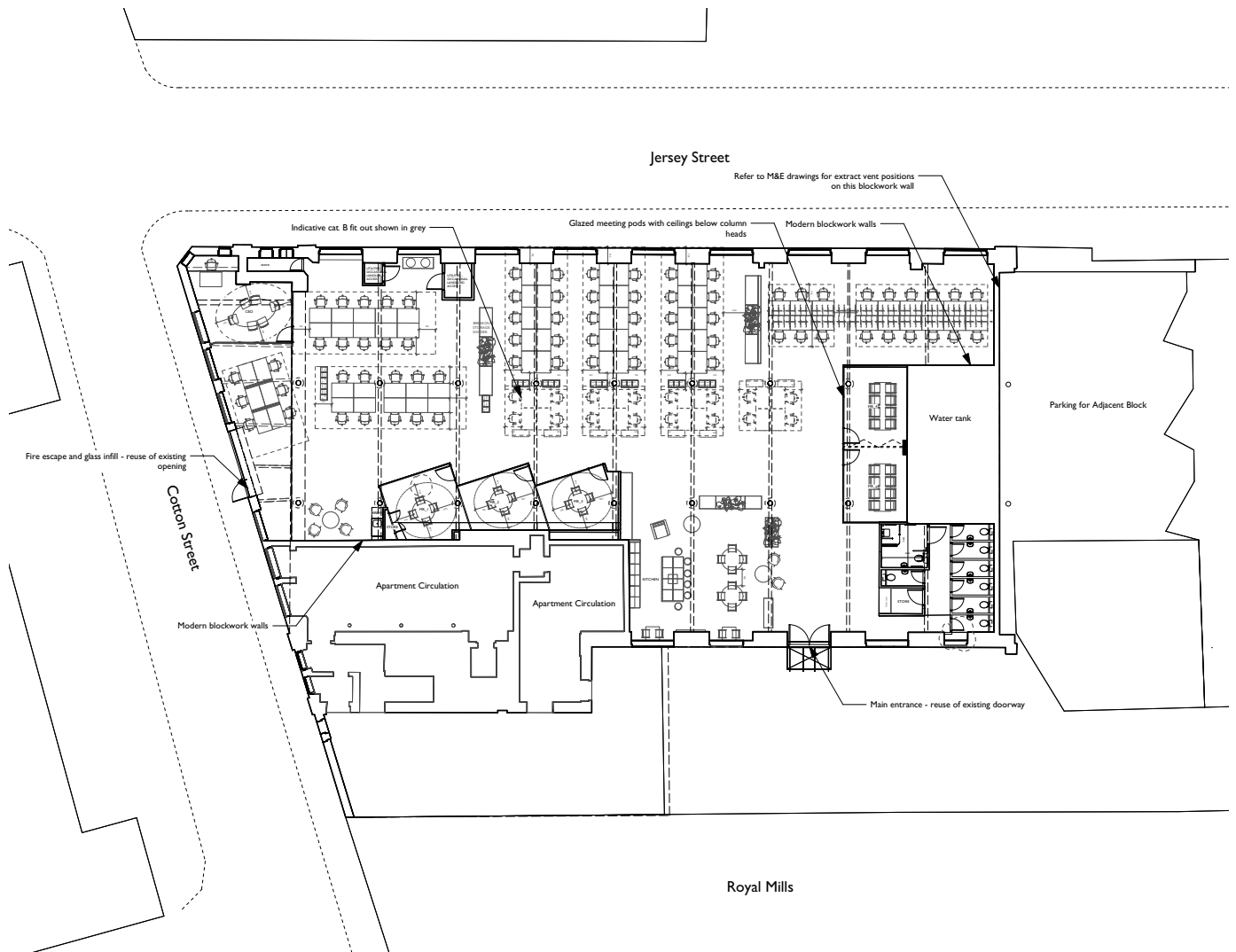
This Design and Access report has been prepared by Atelier MB in support of a Planning & Listed Building consent application.

The property has been vacant for some years, although the upper floors were developed into apartments around 2015. As part of that development, the Planning consent included the subdivision of this unit to form a series of offices (app. Refs 065206/LO/NORTH1/02; 065195/FO/NORTH1/N1).

These proposals were never carried out fully, although the remainder of the buildings were fully converted and in this suite a waterproof membrane has been laid at some point, along with SVP running through from the new apartments above.

The property is of a traditional masonry construction, with a grid of circular cast iron columns internally, and a reinforced slab floor with beam down stands.

Parts of the original rectangular floor plate have been absorbed into the apartment scheme, such as a lift core facing Royal Mill, and a water tank facing the adjoining carpark and new build property the Kennedy Building.



approved plan refs I26171/LO/2020 and I26170/FO/2020

2.0 Site Appraisal

2.01 History

The Heritage Statement below has been prepared by the architectural historian Laura Jessup of Atelier Heritage.

Paragon Mill is a grade II* designated heritage asset, and forms part of the McConnel Kennedy site in the Ancoats Conservation Area.

These proposals have been designed in response to our understanding of the significance of this heritage asset (outlined below). This has ensured that the impact of any intervention is positive or neutral overall, whilst enabling the re-use of this building.

2.02 Context

Sited within the Ancoats Conservation Area, Paragon Mill forms part of the Royal Mills mixed use complex of former industrial mills. The wider area is also characterised by a wide mix of residential and commercial properties.

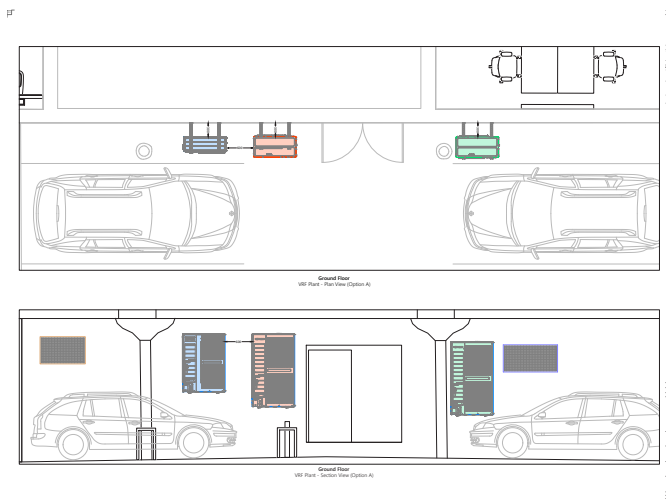
2.03 Condition

As stated above, the ground floor of Paragon Mill has suffered with the conversion of the upper floors to residential. This has both resulted in portions of the floorplate being taken over to serve the apartments, including two risers located along the Jersey Street wall of the space. There are also a plethora of soil vent pipes which pepper the floorplate serving the accommodation above.

Works have commenced on site to convert the space into the Client's office.

2.04 The Brief

The proposed external plant equipment is required to provide a comfortable office environment complying with all current standards. This includes acoustic standards as set out by MCC.



MT Elevation Drawing

2.05 The Design

The M&E consultant (Marketailor) and acoustician (Ryan Swales) have worked to produce a revised solution which fits not only the acoustic requirements, but the limited space available between the wall of Paragon Mill and the car parking already in place.

The approval is for 2 no. larger units - but this has now been revised to 3 no. smaller units with lower acoustic output.

As previously agreed with the Planning officer, the condenser units will be vinyl wrapped using a photograph of the painted blockwork wall behind. This will ensure that the units are visually as unobtrusive as possible.

As covered below in more detail, the new scheme has a slightly higher acoustic output during maximum heating output.

We have consulted with the Environment Health Officer via the Planning Officer, and they have agreed to a slight dispensation on the standard rules. A revised acoustic report accompanies this application.

We have considered other locations - but all would be unsuitable on heritage grounds. The location chosen is the only elevation with a non historic modern blockwork infill, facing only a new build carpark, and closed off from the remainder of the Royal Mills complex. All other elevations face main streets or the remainder of the Royal Mills historic building complex.

We have even explored locating the plant in the existing water tank room - but this is not feasible due to air movement limitations, and would increase the acoustic output.

Larger slightly quieter units cannot be accommodated in the limited space available on this facade due to the proximity of existing car parking spaces let to other tenants.

Therefore this dispensation of acoustic standards is justified as the solution offers the minimal physical and visual intrusion to the Listed Building.

2.06 M&E Strategy Commentary

The ground floor unit to be occupied currently has no form of heating or cooling. Given the requirement to reduce CO₂ and NO_x emissions is a core part of Manchester City Councils planning policy, a decision was made to condition the unit, which is to be used as office space, using a fully electric solution. As such, the proposed office accommodation was thermally modelled, and it was thereafter deemed necessary to provide comfort cooling in addition to space heating to ensure the wellbeing of the occupants during peak external ambient conditions.

On this basis, the intention is to heat and cool the office space using an air-source heat pump type solution which comprises a series of indoor units and remote external condensing units. The Car Park elevation is the only space available by which to locate the external equipment. The solution has been designed to reduce sound power levels as far as feasibly possible. Given the site restrictions it is not possible to accommodate the addition of acoustic treatments and equally, the appearance of such installations would have a detrimental impact on the aesthetics and general heritage of the building. Therefore, our approach has been to revisit selections from various manufacturers to ensure the proposal put forward, is the optimum solution in terms of sound power level performance for this type of equipment and in the absence of any acoustic treatments. The result is that the acoustic performance in cooling mode satisfies the requirements of Manchester City Council whilst in heating mode, the levels slightly exceed the requirement. Manchester City Council have subsequently accepted our proposal given that the potential noise impact to the nearest noise sensitive recipient is likely to be negligible on the basis that the proposed equipment operates beneath the existing extraneous noise levels and will only operate during office hours.

To achieve this approach, requires the installation of three-number smaller units as opposed to a single larger unit each of which, is strategically positioned so as to mitigate the impact on the adjacent car parking spaces.



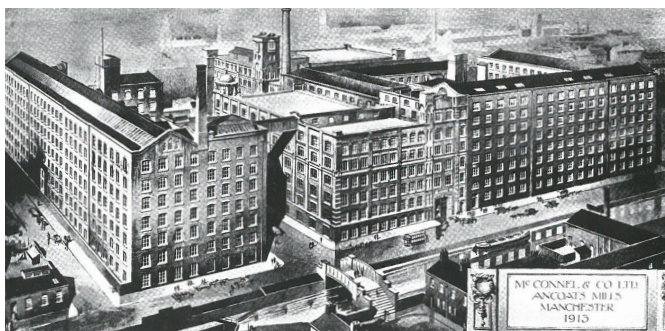
Paragon Mill from Jersey Street

2.07 Acoustic Statement

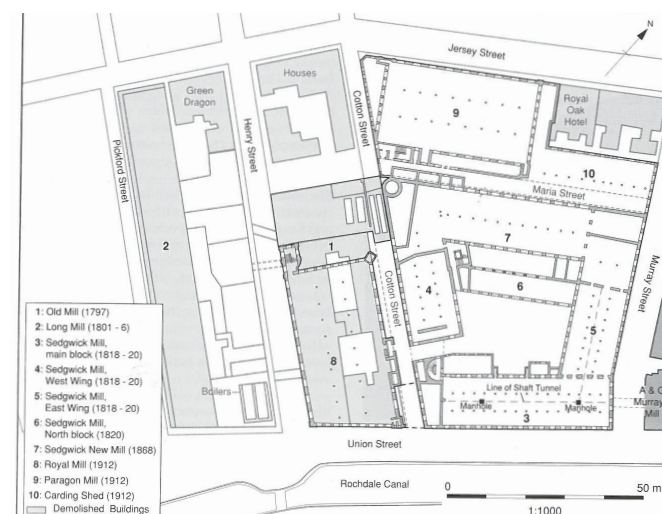
Please find below the conclusion from the revised Acoustic Impact report prepared by RS Acoustic Engineering. Please see the full report for further details:

- 5.1** The typical background sound level has been determined by continuous sound level monitoring over 24-hours.
- 5.2** The survey was conducted during the pandemic when commercial activity and local traffic flow was considerably reduced and therefore background sound levels are expected to be slightly higher than those measured during the survey.
- 5.3** Appropriate noise targets have been determined for the daytime and night-time period.
- 5.4** The air-conditioning system and ventilation system will operate during the daytime hours only.
- 5.5** Predictions indicate that the sound rating level of the newly proposed condenser units will achieve the target noise limit in cooling mode. The sound rating level is 5 dB below the lowest background sound level during the proposed operating hours.
- 5.6** With regard to heating mode, the condenser units could potentially be up to 2 dB louder than in cooling mode and in this instance would marginally exceed the ideal target. However, the rating level would still be 3 dB below the lowest background sound level and 4 dB below the typical background sound level during the proposed operating hours.
- 5.7** Noise from the condenser units in both cooling mode and heating mode is expected to have a low impact at adjacent dwellings. In practice, it is anticipated that noise from the condenser units will be inaudible and will not cause disturbance at the neighbouring dwellings.
- 5.8** Predictions indicate that the sound rating level of the supply and extract system is approximately 5 dB below the target noise limit and 10 dB below the lowest background sound level during the proposed operating hours.
- 5.9** On the basis of this assessment and BS 4142 guidance, the operation of the proposed plant is expected to have a negligible impact at the adjacent dwellings.

3.0 Access Statement



Photograph taken in 1913 showing the Royal Mills with Paragon Mill located in the middle. Image courtesy of A&G Murray.



Historic map of the Royal Mills. Image courtesy of A&G Murray.

These revised plant proposals do not alter the approved access arrangements.

4.0 Description

Paragon Mill is located on Jersey Street in Ancoats, Manchester. It is a Grade II* listed former cotton spinning mill, now converted to residential accommodation above and with approved office use at ground floor level. The Historic England listing description is below:

MANCHESTER

SJ8498, JERSEY STREET, Ancoats, 698-1/17/453, (South side)

Paragon Mill

11/11/88

GV II*

Cotton spinning mill. Electrically powered. 1912 for McConnell and Kennedy. Brick with white stone and terracotta dressings. Concrete floor. Internal structure of cast iron columns, steel beams and concrete floors. Six storeys, ten bays, trapeziform plan, with ground floor extension designed to house preparation machinery. External stair tower against S elevation, and external towers built to house electric motors also built against this wall. Simplified baroque detail, with sill bands to ground and 1st floors, wide stone string course between 4th and 5th floors, pilasters above and below this, and corner turrets with segmentally-arched bands and banded parapets; segmental-headed 9-pane 3-3-3 windows divided by pilasters, with tower at SE corner surmounted by broken pediment and parapet. W return side in similar style, with narrow stair and sprinkler tower slightly canted back and rising 2 further storeys. Entrance advanced from base of tower, which is also linked by a bridge to the adjoining Sedgwick New Mill (Sedgwick Mills, qv). Single-storeyed extension (part of the original design) to the E of the site intended to house preparation machinery.

The mill was built to an advanced design for electric power using Manchester Corporation mains supply. The mill forms part of the McConnell Kennedy works, together with the earlier Sedgwick Mills and Royal Mill (qv). A further mill (Long Mill) is no longer extant. McConnell Kennedy formed one of the largest of the Manchester textile firms, which amalgamated with the Fine Cotton Spinners and Doublers Association in 1898. Early example of mains electrically powered mill, typifying early C20 construction; important part of group of McConnell Kennedy mills.

Listing NGR: SJ8496198591

5.0 History

In 1795 two Scottish born engineers, James McConnel and John Kennedy, established a cotton spinning business in Manchester. By 1797 they purchased land for building their own large mill in Ancoats, to the East of the city centre. Expansion followed and after 'Old Mill' came 'Long Mill', on the opposite side of the street. A little over ten years later, Sedgwick Mill was erected and in 1868 Sedgwick New Mill added to the estate. Having become part of the Fine Cotton Spinners and Doublers Association Limited in 1898, McConnel & Co. expanded the site further in the early 20th century, with Paragon and Royal Mills. The latter two buildings were designed by H. S. Porter in the Edwardian Baroque style using Accrington brick with terracotta and stone dressings. They had reinforced concrete floors, steel beams and cast iron columns. Significantly, they were some of the earliest to be purpose-built for power by electric motors.

Paragon Mill was built to the north of Sedgwick New Mill and had an attached carding shed. Together the (by then) McConnel complex of mills was on an immense scale, towering over the Rochdale Canal and forming the architectural aesthetic for which Manchester has become recognised and contributing to Ancoats' distinct industrial character.

Cotton spinning at the McConnel mills reached the height of its success at the time Paragon Mill was built (1912). Across Ancoats there later followed a brief post-war boom, but by the 1960s almost all cotton spinning had stopped as changes in the economy and cheaper imports moved industry overseas. With closures, the mills' working communities moved out and by the 1980s the area was suffering from neglect and decay and a number of key buildings were lost.

Ancoats was designated a Conservation Area in 1989 (many of its buildings were listed) and there followed a complex process of land assembly, agency intervention and public and private investment. In 1998 80% of the commercial space in Ancoats was empty but by 2006 the first phase of refurbishment of Royal Mills, as residential accommodation above business and leisure use, was completed. It has been followed by the phased refurbishment of the remaining McConnel and Kennedy site, including Royal Mill and Paragon Mill, New and Old Sedgwick Mills, and other key buildings within Ancoats.



Existing Wall Facing Courtyard

At ground level, a glazed atrium now links the individual front buildings of McConnell's spinning complex. Upper storeys are used as apartments and the ground floor is designated as food and drink outlets and business/office use. Paragon Mill was converted to residential apartments in 2015, with consent for subdivision of this ground floor unit as office use (not carried out). The overall design approach within the spaces has been one of preserving and exposing original features and integrating modern design to create new useable spaces. This philosophy of new and old has worked successfully, both in heritage and aesthetic terms, across the Conservation Area.

6.0 Significance

The McConnell and Kennedy site, of which Paragon Mill forms a part, was developed over a period of nearly 100 years, from 1818-1913. Individually the buildings which remain (Royal Mill, Sedgwick Old Mill, Sedgwick New Mill and Paragon) have high significance historically and architecturally, as recognised by their Grade II* listing. As a group within the Ancoats Conservation Area, their heritage value is very high. They are important as preserved examples of industrial structures from the era as well as displaying the early use of electric power in the cotton industry. In a wider context, the remaining buildings contribute significantly to the character of Ancoats and Manchester. They are rare in their completeness as a group, showing the immense scale and characteristic planning of the cotton spinning industry, which influenced not only the fortune of the city and its residents, but that of the country. The following individual elements of the building are deemed to be of high heritage significance:

6.01 Walls, where original:

The brick structure is characteristically exposed. Non-original blockwork has no heritage value.

6.02 Columns and beams:

Original elements of structure showing the architectural make-up of the building.

6.03 External openings

Although original doors and shutters are no longer present, the openings are evidence of how the space would have worked. Windows are replacement but within the original openings.

6.04 Internal spatial characteristics:

Whilst a degree of subdivision would have been in place to some parts of the lower floors, the overall plan was open in nature, enabling a view of the building structure and scale.

6.05 Proposals and impact upon significance:

The proposal relates to a revision to the external plant (part of an extant approval).

6.06 Side Elevation:

3 no. pieces of plant equipment will be mounted onto the existing contemporary blockwork wall which faces the car park. They will be vinyl wrapped to match the blockwork behind to minimise visual impact.

Impact upon significance: low, neutral

7.0 Planning considerations

Proposals for works to Paragon Mill have been considered within the relevant legislation, policy and guidance.

As a Grade II* listed building, Paragon Mill is protected by law contained within the Planning (Listed Buildings and Conservation Areas) Act 1990, requiring authorisation of works affecting heritage assets where they affect its character as a building of special architectural or historic interest.

The National Planning Policy Framework (NPPF, updated 2019), provides the policy for heritage assets and the historic environment. The NPPF recognises that sympathetic changes to heritage assets are necessary to ensure their viable ongoing use. Of relevance is NPPF, paragraph 192, which states,

'In determining applications, local planning authorities should take account of:

- The desirability of sustaining and enhancing the significance of heritage assets and putting them to uses consistent with their conservation;
- The positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and
- The desirability of new development making a positive contribution to local character and distinctiveness.'

The conversion to offices has already been approved. With regards to the changes affecting the plant equipment, these changes are considered to be appropriate and necessary in order to facilitate this.

When considering potential impacts of proposed development on an asset's significance, NPPF states that 'great weight should be given to the asset's conservation..... this is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm'. NPPF, para. 193.

and that

'where a development proposal will lead to less than substantial harm....this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use.' NPPF, para. 196.

Proposals will have a positive impact upon the significance of the building and demonstrate no degree of harm. The conservation of the most historic elements and sensitive integration of new elements which are recognisably modern additions is considered appropriate.

Relevant local policy set by Manchester City Council follows the principles established in the NPPF. In particular, Policy EN3, 'historic sites and areas of particular heritage value should be both safeguarded for the future and, where possible, enhanced for their own heritage merits...'

It is considered that the proposals are a positive response to above council policy and will ensure the ground floor has an active role and can be restored to a meaningful commercial end use.



