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Science and Industry Museum

Heritage Impact Assessment for Power Hall Plant and Trenching in the Curtilage Part of the Power Hall + Decarbonisation Project

April 2021

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1.1 *Map of nearby listed buildings, indicating curtilage listing of Upper and Lower Yards*

1.0 Summary of Heritage Impact Assessment

1.1 Introduction

Donald Insall Associates was commissioned by the Science and Industry Museum (SIM) in November 2019 to assist them in producing a Heritage Impact Assessment for the creation of openings and installation of plant in the Power Hall, and service trenching within the curtilage. This forms part of the wider Power Hall + Decarbonisation project at the Museum to restore and refurbish the Power Hall and to substantially improve energy efficiency and lower carbon emissions across this globally significant site.

The investigation has comprised historical research, using both archival and secondary material, and a site inspection. A brief illustrated history of the site and building, with sources of reference and bibliography, is in Section 2; the site survey findings are in Appendix I. The investigation has established the significance of the building and its setting, which is set out in Section 3.

The specific constraints for this building and its setting are summarised below. This report has been drafted to inform the design of proposals for the building, by Carmody Groarke and Max Fordham, so that they comply with these requirements. Section 4 provides a justification of the scheme according to the relevant legislation, planning policy and guidance.

1.2 The Building, its Legal Status and Policy Context

The Power Hall is a Grade II-listed building located in the Castlefield Conservation Area in the City of Manchester. It is on the SIM complex, which includes the following listed buildings **[Plate 1.1]**:

- Former Liverpool Road Railway Station, Station Master's House / 1830s Station Buildings (Grade I);
- The Old Warehouse to North of Former Liverpool Road Railway Station / 1830 Warehouse (Grade I);
- Railway Viaduct lining Bridge over Irwell River to Liverpool Road Station / 1830 Viaduct (Grade II)
- Manchester Museum of Science and Industry, Former Lower Byrom Street Warehouse / New Warehouse (Grade II);
- The Air and Space Museum (Grade II);
- The Former Grape Street Bonded Warehouse (Grade II);
- The Colonnaded Railway Viaduct at the Former Liverpool Road Goods Depot / 1867 Colonnaded Viaduct / 'Pineapple Line' (Grade II).

Also within the setting of the Power Hall, but outside the complex are the following listed buildings:

- Former St Matthews Sunday School (Grade II);
- 123 Liverpool Road (Grade II);
- The Former Commercial Hotel (Grade II).

The statutory list descriptions are included in Appendix VI and a summary of guidance on the Castlefield Conservation Area provided by the local planning authority is in Appendix VII, along with extracts from the relevant legislation and planning policy documents.

The Planning (Listed Buildings and Conservation Areas) Act 1990 is the legislative basis for decision-making on applications that relate to the historic environment. Sections 16, 66 and 72 of the Act impose statutory duties upon local planning authorities which, with regard to listed buildings, require the planning authority to have *'special regard to the desirability of preserving the listed building or its setting or any features of special architectural or historic interest which it possesses'* and, in respect of conservation areas, that *'special attention shall be paid to the desirability of preserving or enhancing the character or appearance of that area'*.

Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires planning applications to be determined in accordance with the development plan, unless material considerations indicate otherwise. The development plan applicable to the site comprises the Manchester City Council: *Core Strategy Development Plan* (2012).

The courts have held that following the approach set out in the policies on the historic environment in the National Planning Policy Framework 2019 will effectively result in a decision-maker complying with its statutory duties. The Framework forms a material consideration for the purposes of section

38(6). The key message of the NPPF is the concept of 'sustainable development' which for the historic environment means that heritage assets 'should be conserved in a manner appropriate to their significance'.

The NPPF recognises that, in some cases, the significance of a designated heritage asset can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. The NPPF therefore states that any harm or loss to a designated heritage asset 'should require clear and convincing justification' and that any 'less than substantial' harm caused to the significance of a designated heritage asset should be weighed against the benefits of the proposal including, where appropriate, securing its optimum viable use. A designated heritage asset is defined as a World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area.

2.0 Historical Background

2.1 The Development of Liverpool Road Station

2.1.1 The First Passenger Station in the World

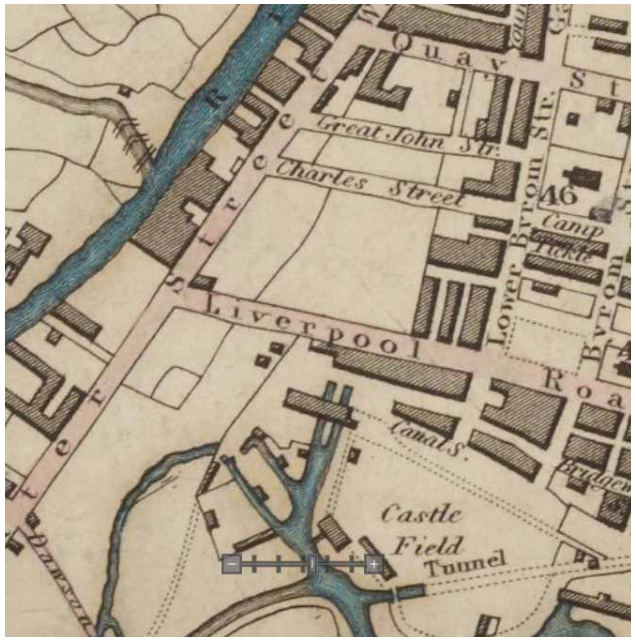
By the 1820s, the North West of England had become the global centre of the textile industry and an improved transport link for goods transport between Liverpool and Manchester was required.[1] Engineers had been surveying potential routes for a rail link as early as 1797, but it was not until the 1820s that the network began to materialise.[2]

The site chosen for the Manchester terminus of the Liverpool & Manchester Railway was on the eastern side of the River Irwell, adjacent to Liverpool Road and close to the Castlefield terminus of the Bridgewater Canal **[Plate 2.1]**. The railway line was carried over the Irwell by a double-arch skew bridge and over Water Street by an iron girder bridge - both by George Stephenson.[3]

Two structures were initially constructed in 1830: a railway viaduct and also a five-bay goods warehouse. Shortly thereafter, a station for passengers was erected opposite the warehouse **[Plate 2.2]**. The immediate popularity and success of the station rendered its warehousing capacity inadequate and in 1831 two new cotton stores were added, along with a 'shipping shed'.[4] A third warehouse was built in 1837 - resulting in a considerable complex, linked by numerous rail tracks **[Plate 2.3]**.

When Victoria Station (then Hunt's Bank) opened in 1844, Liverpool Road became a dedicated goods station.[5] The London & North Western Railway (LNWR) took over operation of the Station in 1846 and some of the older buildings were gradually replaced as the site expanded under their auspices. The first of these was the new Shipping Shed (now known as the Power Hall) in 1855, replacing the 1831 building. An associated Goods Office was erected in the first half of the 1860s, abutting the west end the Shipping Shed.[6]

A fire in 1866 destroyed the 1830s cotton stores and they were replaced by the 5 ½ storey Grape Street Bonded Warehouse (1867-9).[7] A cast-iron viaduct was built over the Irwell, abutting Stephenson's bridge



2.1 *1828 map by Banck's & Co. (University of Manchester Maps Collection).*

1 SIM Archives, YA1996.1034, p.11

2 Hulme, C, 1991, pp.6-7

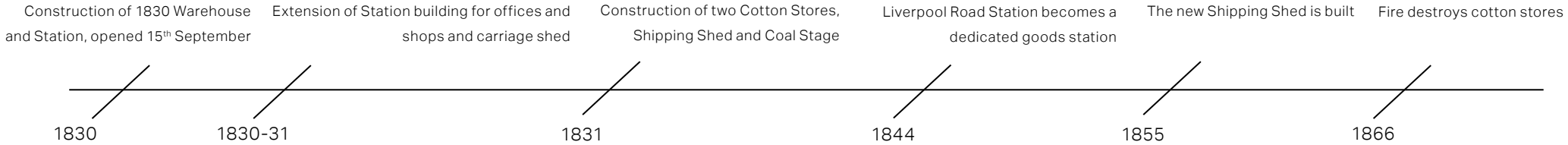
3 Biddle, G & Nock, OS, 1983, p.104

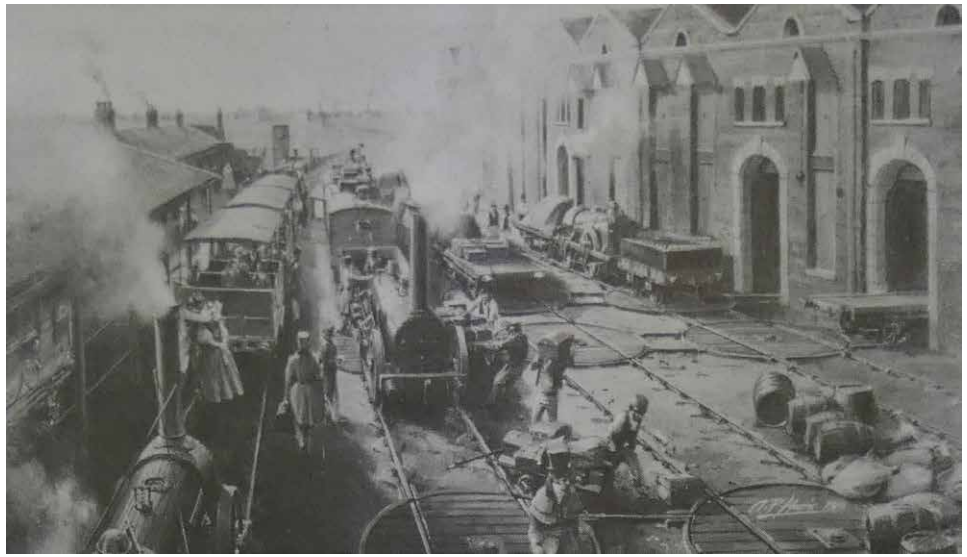
4 SIM Archives, YA1996.1034, pp.11-13

5 Hulme, C, 1991, pp.8-9

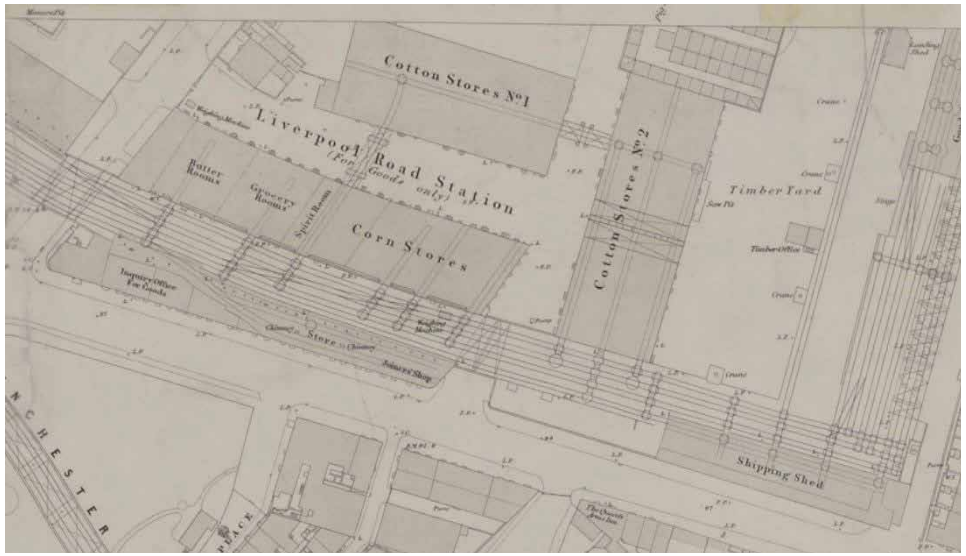
6 Kathryn Sather & Associates, 2007, p.67-8

7 Pevsner, 2010, pp.353-4

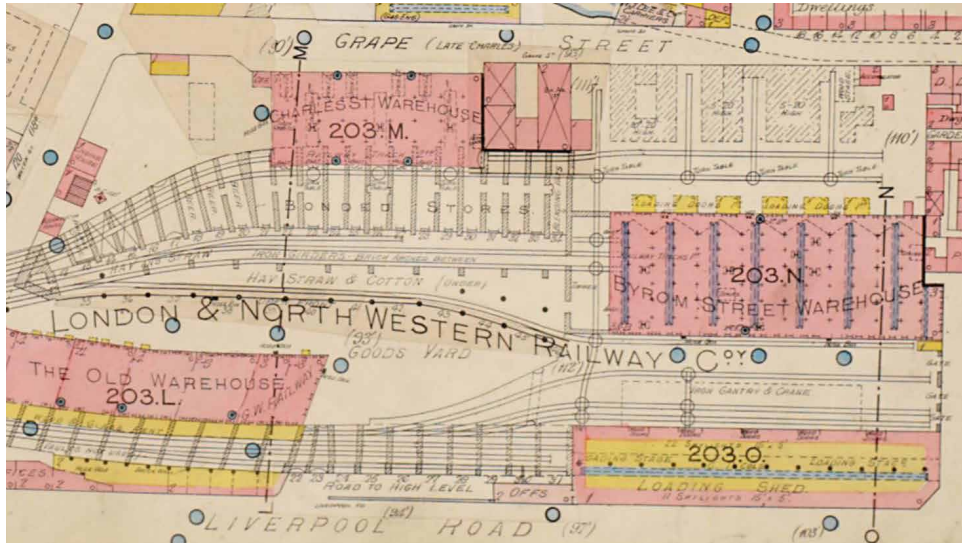




2.2 *Impression of the 1830 station and warehouse (SIM Archive, YA 1996.1034).*



2.3 *1850 Ordnance Survey map (University of Manchester Maps Collection).*



2.4 *1889 Goad Insurance Plan (Manchester Archives).*

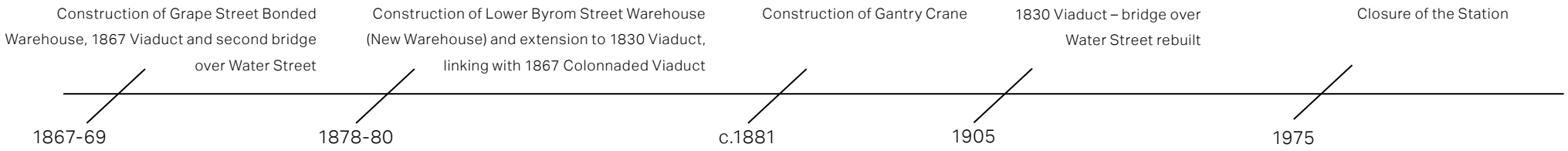
and continuing through the site to serve this new warehouse (1867 Colonnaded Viaduct). From 1878-80, the Great Western Warehouse (or Lower Byrom Street / New Warehouse) was built on the north side of the Upper Yard, opposite the Shipping Shed; it used the latest in fireproof construction.[8] The 1867 Colonnaded Viaduct was extended to serve this building and a roughly triangular extension was made to the north of the 1830 Viaduct to link the two and provide linked rail access to the Upper Yard. By 1881, a gantry crane had been added to the yard between the Shipping Shed and New Warehouse - directly abutting the north elevation of the Shipping Shed **[Plate 2.4]**.

Liverpool Road Goods Station became one of the busiest centres of goods distribution throughout the North West with its peak activity between 1890 and 1940.[9] **Plate 2.5** shows an aerial of the station at its peak.

2.5 *The City Centre from the South-West, 1934 with Liverpool Road Station on the left (Britain From Above, EPW045993).*

8 ibid

9 SIM Archives, YA1996.1034, p.13



2.1.2 Decline and Reuse

The decline of Liverpool as a major port in the 20th century, the shift in preference to road freight following the Second World War and the loss of industry in central Manchester led to the gradual decline of the station. Part of the site, including the Grape Street Warehouse, was sold to Granada Television in the 1950s, who redeveloped the building to form studios.[10] The rest of the station remained in use by British Rail until 1975, when it was sold to Greater Manchester Council. From this point, plans emerged for the site to become the new home of the North Western Museum of Science and Industry.[11] Complete refurbishment of the site was not possible prior to the anniversary celebrations in 1980, and so the focus was placed on restoring the Shipping Shed and converting it to an exhibition hall. Following this, the whole site underwent gradual repair and redevelopment for museum use, having been in very poor condition by the time it was sold in 1975[12] **[Plate 2.6]**. After the exhibition, the Shipping Shed was more thoroughly converted to become the Power Hall which housed engine exhibits and the 1830 station was also restored; the site was opened as the Greater Manchester Museum of Science and Industry on 15th September 1983.

Phased restoration of the buildings continued throughout the late-20th century. In the 1980s, the basement and ground floor of the New Warehouse was restored to create exhibition galleries and between 1987 and 88, the upper floors were restored and a library and record centre were added to the western end of the basement. Shortly after (c.1991) a car ramp was constructed to provide vehicular access between the Upper and Lower Yards.

From 1985-1993, the 1830 Warehouse was restored to designs by BDP Architects and the National Electricity Gallery was introduced in the easternmost bay from 1985-86. In 1990-91, the two arches of the 1830 Viaduct to the east of the 1830 Station and Warehouse were renovated to create the Gas Gallery, involving the insertion of concrete floors and ceilings into the former arches. In 1995, the ground floor Textile Gallery in the New Warehouse was reconfigured and from 1999-2000, self-contained units were installed within the colonnaded area of the 1867 Viaduct. The south eastern end of the viaduct was also altered when the area beneath the car ramp was enclosed to form a plant room and a spiral staircase was added externally.

In 2001, a glass and metal-framed entrance extension was introduced to the New Warehouse (now the café)[13] and in 2009-10 further alterations were made including the addition of glazed stair cores and a series of internal refurbishments. In 2018, the Museum undertook a rebranding exercise and became known as the Science and Industry Museum (SIM). In March 2021, the Special Exhibitions Gallery (SEG) was completed on the lower ground floor of the New Warehouse with an outdoor welcome area in the Lower Yard, set beneath the 1867 Colonnaded Viaduct.

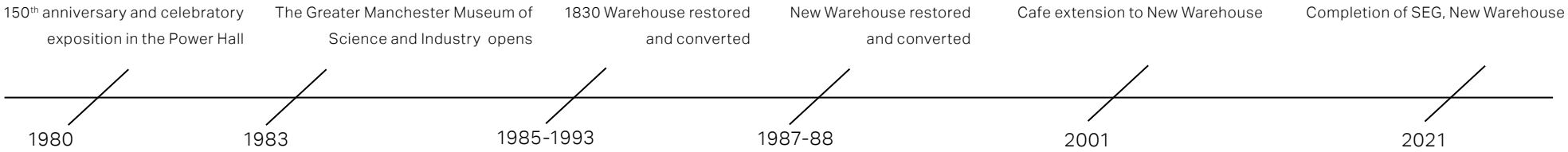
2.6 *1830 Station and Warehouse in 1975 (MMU Visual Resources Centre).*

10 Hulme, 1991, p.9

11 SIM Archives, YA1996.1034, pp.33-35

12 SIM Archives, YA1996.1034, p.29

13 Pevsner, 2010, p.354



2.2 The Building: The Power Hall

Alternative names: *Shipping Shed, Goods Shed, Goods Transfer Shed, Transit Shed, Freight Shed and the Continental Shed.*

2.2.1 Initial Construction and Form

The Power Hall was constructed in 1855 for the LNWR as a Shipping Shed as part of the expansion of the Liverpool Road Station site for the transport of goods. The large rectangular building was placed at the south-east corner, at the junction of Liverpool Road and Lower Byrom Street which allowed the necessary access for the railway tracks and for road vehicles off Liverpool Road, with a canted corner at the road junction to provide through-access. The Goad Fire Insurance Plan of 1889 provides useful detail regarding the building's layout and construction materials (see Plate 2.4) – it was single storey, of red brick with a slate roof, with central roof lights in the valley, 22 lights on the north slope and 11 on the south, in what was a fairly standardised system of illumination for LNWR (see section Appendix VI). The large M-shaped roof was of timber, and due to its width was supported on a series of central cast iron columns which carried a timber beam, which in turn supported the inner ends of the pairs of roof trusses. In addition, wrought-iron straps were used to strengthen the main truss joints.

The elevations to Liverpool Road and Lower Byrom Street had only very simple decorative features in the form of repeating blind windows with stepped surrounds (again characteristic of LNWR's buildings), a brick dentil cornice and a cream brick cyma recta frieze. The station-facing elevations were far more utilitarian – with a series of arched openings in the north elevation with all but the westernmost fitted with wooden doors (as noted on the Goad plan), and two squared openings in the west.

In terms of plan form, the shed roughly conforms to a fairly standard 'through-type' which was already in place by the 1840s. The common layout was for the track to run through the shed with access for customers' carts on the opposing side of the loading stage. This building is something of an amalgamation of the through-road type with the inclusion of additional entry points in the side elevations.[14] The use of a through-road for cart access was also fairly early and provided far easier access to the loading stage than those sheds with a cut-out for carts.

A Goad Plan from 1913 shows the internal layout, with a central timber loading stage with rail access to its north and road access to its south. Carriages entered from the west, with two tracks running its full length, and there were two turntables at this end and corresponding 'cut outs' on the loading stage to enable goods carriages to be manoeuvred within the shed. A short platform at the east end of the tracks enabled access between the two sets of rails. A number of cranes and weighing machines (marked W.M) were placed along the stage for the loading and unloading of goods. It is likely that the entire floor, outside of the tracks, was finished with setts originally, as this was a common feature of goods yards.[15]

In c.1881, an electrically-operated iron and steel gantry crane was added to the yard to the north of the shed, most likely to cope with the increased capacity of the goods station following the completion of the New Warehouse in 1880. The gantry bears no maker's name, simply a plate reading 'LNWR 2399'. Due to its position within the yard, above two parallel tracks branching off the 1830 Viaduct, it is most likely that the gantry was used for transhipment (transferring goods from one train to another for onward transport).

A photograph from 1934 shows a busy scene in the shed, with a tobacco shipment being unloaded into vans which are backed up against the loading stage **[Plate 2.7]**. The timber sliding doors to the cart entrances were a common feature for goods sheds,[16] however, no doors are visible within the openings in the west wall nor the two visible openings in the north wall. The photograph also shows the internal walls and roof timbers were lime-washed which would have enhanced illumination within the space, and was a common feature in all types of goods sheds. The photograph also shows that the rooflights in the south slope were set higher within the roof.[17]

The 1913 Goad Plan shows a small structure against the north-east corner of the shed which was later altered with a lean-to extension to serve the gateway, seen in a photograph from 1965.[18] By 1941, it also appears that some alterations were made to the Lower Byrom Street elevation where a weighing machine

14 Historic England, 2016, p.25

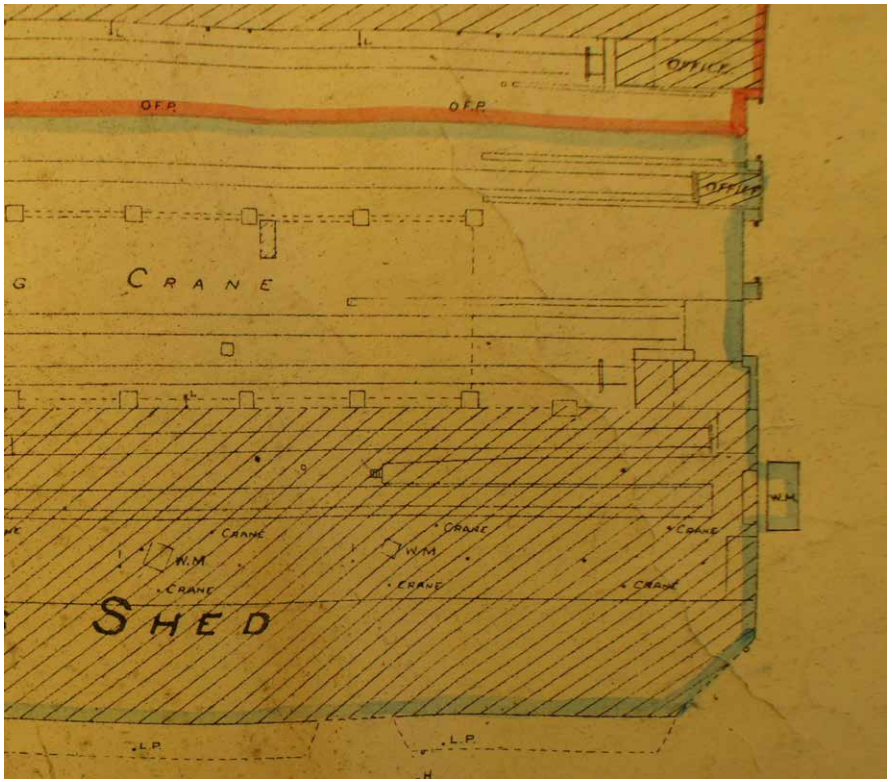
15 Pixton, B, 2007, p.63

16 Historic England, 2016, p.23

17 Nelson, J, 1975, p.141

18 Unavailable due to copyright.

2.7 *Liverpool Road Goods Shed, 1934 (Science Musuem LMR Collection)*



2.8 *1941 plan of Liverpool Road Goods Station (Manchester Archives)*

(marked W.M.) had been installed on the pavement on the east side of the shed **[Plate 2.8]**. Photographs held by Historic England and at the SIM Archive[19] taken following the sale of the site show six square openings in the east elevation and a number of timber kiosks within the building, therefore it is possible that these openings were used to provide public services for the shipment of smaller goods items. Despite the gradual decline in goods traffic after the Second World War, the Shipping Shed continued in use under British Rail. Photographs from the 1970s show that the building had fallen into a state of disrepair by this time, most likely due to its reduced use.

19 Unavailable due to copyright.

2.2.2 Redevelopment as the Power Hall

Liverpool Road Station was sold to Greater Manchester Council by British Rail in 1979. All of the buildings were in a very poor condition, including the Shipping Shed. Here, many roof slates had slipped, exposing the timber trusses to water ingress as well as damaging the external brick walls. Urgent restoration work began in June 1979 in order to make the building suitable for use as the exhibition hall as part of the 150th anniversary celebrations of 1980. Over the next year, the roof structure was strengthened, with metal plates fitted to the trusses and the roof was re-slated, incorporating new glazing and insulation.[20] The rooflights on the outer slopes were amended: those in the south and north slopes were reduced in number and positions shifted, those in the south slope were lowered in position and those in the east slope were introduced as new. The walls were also repaired and the shed was cleaned and retained in its original layout, the only other addition appears to be the incorporation of emergency exit doors within the openings on the south elevation. **Plates 2.9-2.11** show the site and the Power Hall in the early stages of restoration in c.1979. Temporary railway tracks were installed within the building, raised off the setts and covered with gravel. Temporary tracks were also laid to the north of the building, terminating in a new brick and concrete platform set under the gantry crane **[Plates 2.12 and 2.13]**.

20 SIM Archives, YA1996.1034, p.36

Following the Exposition, development started on the transformation of the Liverpool Road site into a museum. It was at this point that the Shipping Shed was further altered to house a collection of steam, gas and electric engines alongside railway engines. A layout plan from 1980 shows the Power Hall with a raised section in the centre which incorporated the existing loading stage and the railway tracks to the north-west **[Plate 2.14]**. The entrance at the north-east corner led to a raised platform displaying a horse wheel, and looking down on a water wheel. Just east of this, a brick structure was built to house the Haydock Beam Engine (1830).[21] Part of the loading stage to the east was removed and by 1981, hinged doors were installed in the western openings to the yard (later replaced by concertina doors). The openings along the north wall were infilled with glazing and central doors, and major interventions were required to install the engines and other exhibits including creating large new concrete footings **[Plates 2.15-2.18]**.[22] A new internal gantry crane was installed, presumably to lift the heavy museum exhibits and the setted surfaces were re-laid with a network of concrete paths introduced throughout. In addition, two cooling towers were fitted externally to the north wall, connected to the exhausts from some of the exhibition engines.[23] The setted surfaces outside the Power Hall, around the modern platform were repaired and re-laid where they were missing **[Plate 2.19]**.

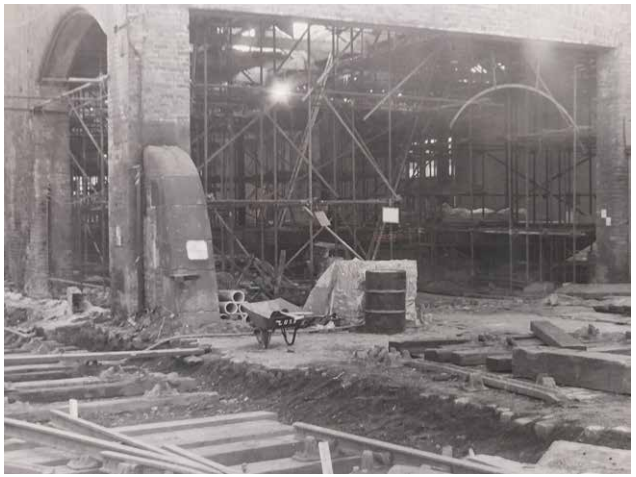
21 SIM Archives, SM4/40

22 Kathryn Sather & Associates, 2007, p.82

23 SIM Archives, MM679/4D

2.9 *View of Upper Yard to Power Hall. (SIM Archive YA2007.4129. Licence CC-BY-NC-SA 4.0)*

2.10 *Power Hall, c.1979 (SIM Archive YA2007.4129. Licence CC-BY-NC-SA 4.0)*



2.11 *West end of Power Hall, 1979-80 (SIM Archive 1996.1539219. Licence CC-BY-NC-SA 4.0)*

2.12 *c.1980 Photogrpah of the Power Hall and Upper Yard (SIM Archive YA2007.4129. Licence CC-BY-NC-SA 4.0)*

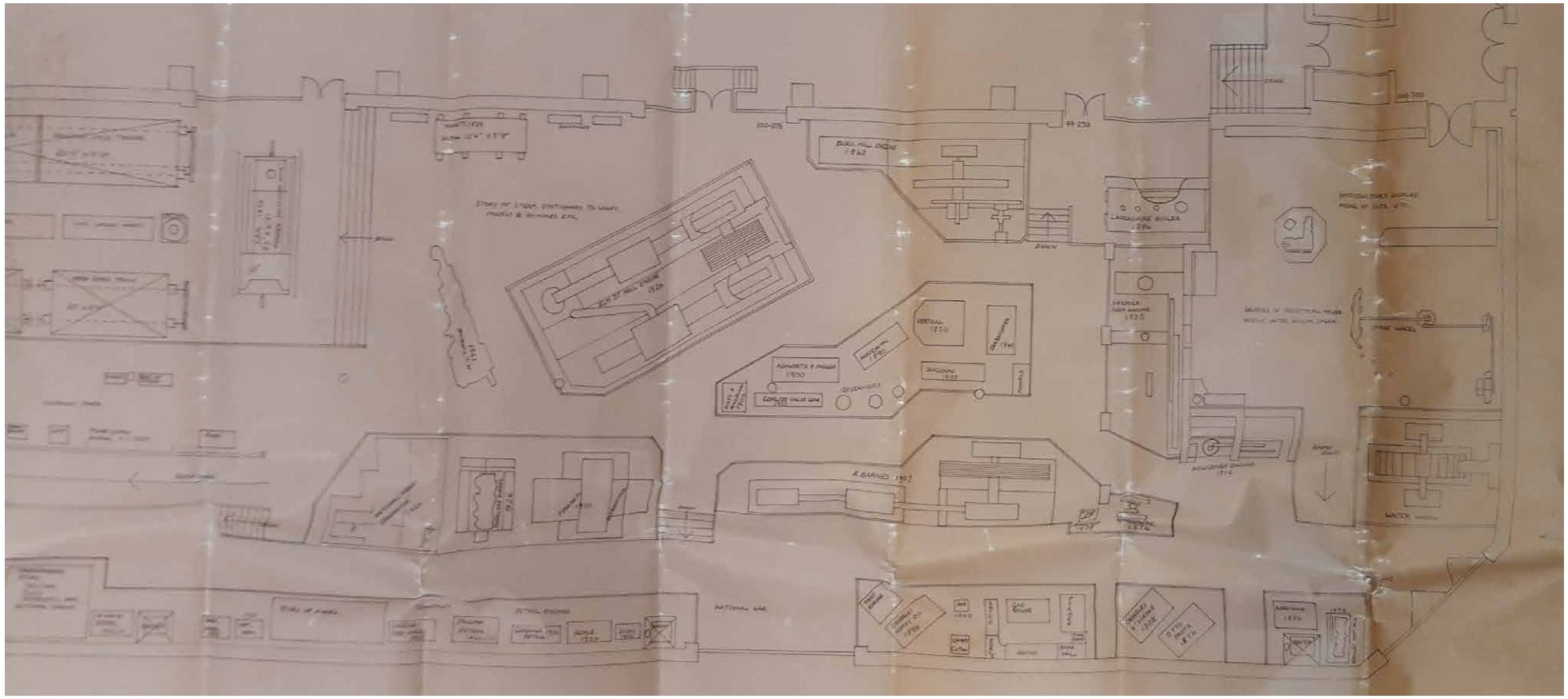
2.13 *c.1980 View of the Upper Yard (SIM Archive YA2007.4129. Licence CC-BY-NC-SA 4.0)*

The next phase of the conversion involved the addition of a two-storey brick extension to the north-east corner of the building to house the visitor entrance facilities. It was brick built, with a slated hipped roof, and tall, round-headed openings to reflect the blind windows adjacent **[Plate 2.20]**. A door opening was formed in the north wall of the Power Hall to provide direct access. It is presumed that the conversion of the Power Hall was designed by Thomas Worthington and Sons – who undertook the contract for the conversion of the remainder of the museum site and who are known to have designed the Visitor's Entrance Block.

On 15th September 1983, the former Shipping Shed was opened to the public as the Power Hall at the Greater Manchester Museum of Science and Industry. The building housed the Museum's collection of steam, gas and electronic engines, most of which were made in the Greater Manchester area. In 1988 the Museum was awarded the 'Heritage in Britain Award', for the best project which secures the long-term preservation of a site or monument.

A plan dated 1988 shows the addition of two plant enclosures, one on the north wall and one at the south-west corner, as well as the introduction of a ramp at the west end of the former loading stage.[24] In March 2006, listed building consent was granted for the installation of air handling equipment to address issues with the air quality and humidity within the Power Hall. This involved installing large ductwork within the building and six extract fans in the roof. Plans were submitted in 2013 to demolish the 1980s Visitor Entrance Block as part of a scheme to install a new glazed gateway to open up the entrance to the museum site. Whilst the gateway was installed, the 1980s extension was not demolished. The opening between the Power Hall and the Visitor Entrance Block has been bricked up and the latter is now in use as a security office. The external platform has been modified since its erection in 1980 – a canopy removed and the access to it changed – however, the date of these works is uncertain.

24 SIM Archives PC1/7



2.14 *1980 plan showing the proposed layout of the Power Hall (SIM Archive)*

2.15 *c.1981 View of the Power Hall. (SIM Archive YA2007.4129. Licence CC-BY-NC-SA 4.0)*

2.17 *c.1983 View of the Power Hall (SIM Archive YA2007.4129. Licence CC-BY-NC-SA 4.0)*

2.16 *c.1981 View of the Power Hall (SIM Archive YA2007.4129. Licence CC-BY-NC-SA 4.0)*

2.18 *c.1983 View of the Power Hall (SIM Archive YA2007.4129. Licence CC-BY-NC-SA 4.0)*

2.19 *c.1983 View of the Upper Yard (SIM Archive YA2007.4129. Licence CC-BY-NC-SA 4.0)*

2.20 *c.1983 View of the Visitor Entrance Block (SIM Archive YA2007.4129. Licence CC-BY-NC-SA 4.0)*

2.3 The Site: The Upper Yard

These areas evolved along with the continuing development of the Liverpool Road Station site and were further affected by the restoration works to convert the complex to museum use in the late-20th century.

The Upper Yard was created following the construction of the 1867 Colonnaded Viaduct and the New Warehouse (1878-80). The extensions to the 1830 and 1867 viaducts (1878-80) allowed rail access to continue through the site all the way up to Lower Byrom Street, with tracks laid alongside both the Power Hall and New Warehouse. Further tracks between the two buildings, and the addition of the Gantry Crane to the north of the Power Hall (c.1881) provided additional capacity for the transfer of goods between wagons in the Upper Yard, making the area an essential part of the goods station. The nature of the floor surface in the Upper Yard is revealed by photographs held by the SIM Archive taken shortly after the station's closure and during the early phases of the restoration. While a large proportion of the Yard was covered in setts – particularly to the sides of tracks – in areas where a number of tracks crossed, the spaces between were uncovered down to the sleepers which allowed the points to operate **[Plate 2.21]**. In areas where a single track ran, it was occasionally laid inside the setts.

Archive photographs show the phased restoration of the site in the early-1980s and reveals the extent to which the setts were lifted in the Upper Yard to the north and west of the Power Hall **[Plates 2.22 & 2.23]**.

The minutes of the Liverpool Road Station Society record that this work was carried out to enable the replacement of worn tracks, points and the installation of inspection pits for locomotives **[Plate 2.24]**.[25] This work was initially undertaken by working parties from the Society, along with young offenders as part of community service. Some setts were salvaged for reuse but the tracks were re-laid, all remaining historic turntables were removed and tarmac paths were introduced along with a series of protective barriers **[Plate 2.25]**. The setting of the Upper Yard was altered during the museum development of the early-1980s which involved the construction of the former Visitor Services Block along Lower Byrom Street and the short station platform beneath the Gantry Crane (1980) **[Plate 2.26]**. A small brick gatehouse and metal gates were also installed, imitating a historic gated entrance from Lower Byrom Street (c.1913), these were replaced with the present glazed gates following consent in 2013. The large stair extensions to the New Warehouse have also affected the form of the Yard.

25 SIM Archives YA1996.1539

2.21 *View of the tracks entering the Upper Yard (SIM Archive YA 2007.41).*

2.22 *Restoration of tracks joining the Upper Yard (SIM Archive YA 2007.41).*

2.23 *Installation of inspection pit in the Upper Yard (SIM Archive YA 2007.41).*

2.24 *View of Upper Yard following conversion to museum site (SIM Archive YA 2007.41).*

2.25 *View of track works around the Power Hall (SIM Archive YA 2007.41).*

2.26 *1980s platform in the Upper Yard (SIM Archive YA 2007.41).*

3.0 Assessment of Significance

3.1 Introduction

The purpose of this section is to provide an assessment of significance of The Power Hall so that the proposals for change to the building are fully informed as to its significance and so that the effect of the proposals on that significance can be evaluated. The assessment begins with a general summary of the building's history and significance; then the various elements of the building are assessed according to a sliding scale of significance, reflecting the extent to which they contribute to the special architectural and historical interest of the listed building.

This assessment responds to the requirement of the National Planning Policy Framework to 'recognise that heritage assets are an irreplaceable resource and conserve them in a manner appropriate to their significance'. The NPPF defines significance as:

> *'The value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological (potential to yield evidence about the past), architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting'.*

3.2 The Site

The Liverpool Road Railway Station opened in September 1830 as the Manchester terminus of the world's first inter-city passenger railway which renders it of the highest significance. The station quickly changed to a goods station in 1844, when Victoria Station opened, and was thereafter operated by the London and North Western Railway company (LNWR). Its rapid conversion to a goods station essentially saved it from the future, fast-paced upgrades required of passenger stations; which ultimately contributed to the retention and preservation of the original buildings in a substantially unaltered form.

3.3 The Power Hall

The vast Power Hall was built as a Shipping Shed in 1855 for the LNWR to provide space for immediate unloading and transhipment of goods on to carts and trucks and overnight garaging for locomotives. It was located at the corner of Liverpool Road and Lower Byrom Street, further east from its smaller predecessor. Offices were built at its western end in the early-1860s, also facing Liverpool Road, to serve the burgeoning administrative functions of Shipping Shed. In c.1881, a substantial electrical travelling gantry crane was installed by the LNWR, adjoining the north elevation of the Power Hall – intended for transhipment (transferring goods from one train to another for onward transport). The building remained in use until 1975, when the station closed. It was repaired in 1979 and used as part of the station's 150th anniversary celebrations, following which it was converted into the Power Hall between 1980 and 1983.

- The Power Hall is of **high historic value** for its role as one of Manchester's key hubs for goods transfer and it represents the success of the Liverpool Road Station as part of a wider network of goods distribution across the country and throughout the world; it is also representative of the site's historic development – as the first major building to be erected following the station's transfer to a goods only station in 1844;
- The building is also significant as the first building to be converted and used by the North Western Museum of Science and Industry (now the SIM) to celebrate the station's 150th anniversary;
- The site and the building are of **high evidential value** for the continued development of the site for goods / shipping sheds;
- The building has **strong group value** with the other railway buildings and structures on the site;
- It is of **high aesthetic value** – as a rare survivor of an early urban goods transfer shed and is representative of development of the railway good sheds as a building type;
- Some of its features exemplify LNWR's architectural standards – including the roof lights and the blind arcading to its street-facing elevations, which contributes to its significance;
- The layout follows something of a hybrid plan for good sheds of the time – a through-type, with openings in the short elevations, with rail tracks along the north side of the building and a roadway on the south, for direct transfer from rail to road vehicle across a loading stage;
- The former Goods Offices contribute to the building's significance and are representative of the mid-Victorian development of the goods station and are a decent, if not rather typical

example of their type;

- The late-19th century travelling crane, located along the north elevation is of **high significance** as an increasingly rare survivor of its type;
- The mid-20th century WC block has little or no architectural value and does not contribute;
- The early-1980s Visitor Entrance Block was designed to reflect the architecture and detailing of the Power Hall, however it fails to contribute as its details are not well-handled and it features large expanses of smoked brown glazing, which detracts; overall this building is of **neutral significance**.

The building's special interest is manifest in the fabric and form of the building, which has the following hierarchy of significance:

Of **high significance** and particularly sensitive to change are:

- The principal external elevations to Liverpool Road and Lower Byrom Street, with blind arcaded windows (typical of LNWR buildings) and cornice details which alleviate the longest elevation, the original openings are of high significance, whilst the glazing is neutral.
- Its yard-facing north and west elevations are purely utilitarian and the contrast between the public-facing and working elevations is also of interest; the original openings are of high significance, whilst the modern glazing and concertina doors are neutral.
- The expressed original structure, which includes the external load-bearing brick walls, M-shaped roof form, original elements of its exposed queen post timber roof structure, supported on a series of cast iron columns with splayed capitals (although the structure itself is not cutting-edge in terms of railway design).
- The principle of sky-lit illumination, though the openings themselves have been adapted (and some of its outer ones shifted and reduced in number) and contain modern framing, which is neutral.
- The remainder of the timber-boarded loading stage and tracks, which once stretched the entire, considerable, length of the building.
- The setted floor finishes, curbs and tracks, some of which appear to have been re-laid, whilst others are replacements (and are therefore of lower significance).
- The travelling crane, dating from c.1881, adjoining the north elevation is of a typical design for the era, but is an increasingly rare survivor of its type.
- Fragmentary fixings relating to the building's original use, including the gasket clamps to the columns as well as the capstan and weighing capacity signage.
- The engines on display undoubtedly add an additional layer of significance and interest as part of the building's current museum use.

Of **medium significance** and therefore less sensitive to change are:

- The building's Welsh slate roof was re-laid in the late-1970s as part of the major repair works, though some areas appear to retain original, rehung (random size) slates.[26] With the exception of the original slated area(s), the slates themselves are of low evidential value. Whilst the newer slates do not follow the original slating pattern, the overall effect – of a Welsh slated roof – is of aesthetic value.
- The central and northern rooflights, although not original glazing and reduced in extent, exhibit the LNWR's preference for rooflights rather than windows in the side walls. The rooflights within the south slope, which were reduced in number and shifted to new lower positions in 1979 are of lower significance overall.

Of **neutral significance, neither contributing to nor detracting** from the significance of the whole and therefore a clear opportunity for change are:

- The glazing to the large carriage openings in the north and south elevations and concertina doors to the west elevation.
- The 1980s internal raised platform, brick exhibition plinths, two-storey brick beam engine housing, internal steel gantry crane and railings are mostly of neutral significance, though some of it clutters the space and detracts.

26 Identified on one of the internal slopes, 2020. A full inspection has not yet taken place.

- Modern floor finishes including the concrete screed paths, lino and timber boards.
- Modern lighting, which dates from the 1980s works.
- Modern roof structure, including the purlins and the rather crude structural repairs to the trusses (large riveted steel plates).
- The rooflights in the eastern roof slope, which were introduced in 1979.
- The 1980 external platform to the north of the Power Hall holds some limited historic value as part of a rail installation associated with the launch of the Museum and 150th anniversary celebrations, however it is of low significance overall. It clutters the Upper Yard with its modern structure and railings, which are set directly beneath the Victorian gantry crane.[27] It retains a small section of reused historic flags.
- The large attenuators/boiler plant within the yard, abutting the north elevation.

Factors which are negative and detract from the building's significance and offer an opportunity for enhancement are:

- Unsympathetic cabling, services, such as those which pass over the external cornices.
- Ad hoc and bulky lightings, cabling, trunking and ducts - fitted to walls both internally and externally.
- The over-engineered and unsightly 1970s steel splice plates to the roof structure.
- The tubular steel railings around the exhibits and the 1980s crane.
- Internal plant enclosures, which clutter the space.
- Poorly-repointed or repaired areas of brickwork.
- Replacement concrete coping stones, at the western end of the building.
- Plasterboard sarking.
- The rooflight glazing – Georgian wired glass over timber rafters; which was installed in the 1980s and does not reflect the original patent glazing system.
- The polycarbonate panels which have replaced some of the rooflights.
- Vents at roof level.
- The extremely large gas pipe which passes externally and internally and other large ducts / pipework throughout.
- Safety access ladder, which clutters the angle between the 1980s Visitor Entrance Block and the north elevation.

3.4 The Upper Yard

The Upper Yard was formed following the construction of the 1867 Viaduct and the New Warehouse, this area became a goods yard, characterised by the open space between tall railway buildings, the crane gantry and the rail tracks. This area was integral to the functioning of the station complex. Some of the original stone setts remain, though many have been reset and in some areas they have been replaced with tarmac, which detracts. All of the turntables have been removed. Despite its alteration, the Upper Yard retains its identity as a former goods yard.[28]

- The Upper Yard is considered to be of moderate historical, evidential and aesthetic significance and forms a key element of the setting of the Grade II-listed New Warehouse, Power Hall and 1830 Viaduct in particular.
- The Upper Yard is curtilage listed in association with the aforementioned listed buildings.
- The tarmac surfaces are inappropriate to the otherwise setted and railed Yard, and the plant and 1980s platform visually clutter the space.

3.5 The Setting

The Power Hall is located within the SIM complex, which occupies a prominent site within the **Castlefield Conservation Area** - one of the largest conservation areas in the city. Castlefield is significant as a site of Roman origin with subsequent phases of industrial development - mainly between the Georgian and Victorian periods - which has created layer upon layer of distinctive industrial structures. Overall, the character of the conservation area is defined mainly by the early-19th century brick-built industrial buildings, along with later viaducts to the south. The viaducts are prominent in views due to their elevated position

27 Donald Insall Associates, *Power Hall Heritage Assessment*, February 2020

28 Kathryn Sather & Associates, 2007, p29 and p121

and the former Liverpool Road Station complex is visible particularly in views from the viaducts across Castlefield. Although a particularly urban and historically industrial area, there is a generous green network owing to its pockets of parks and front gardens within 20th century housing developments.

The SIM complex is highly significant as the first passenger station in the world and is a physical representation of a testbed for railway architecture and design. Its buildings, massing and their relationship with one another set across a series of yards, as well as the less obvious series of surfaces - rail tracks, setts, York stone paving and curbs - attest to this development and provide an extremely cohesive complex, which contributes considerably to the conservation area and the setting of the listed building.

The **Power Hall** is sited prominently at the corner of Liverpool Road and Lower Byrom Street. Its extremely long and imposing Liverpool Road elevation forms the frontage of the Museum's site, representing the Victorian phase of its development as a goods station and makes significant contribution to the character and appearance of the conservation area

As set out above, despite its alteration, the **Upper Yard** retains its essential character and contributes positively to the setting of the listed buildings on the site – namely the Power Hall and New Warehouse – through its historic association, form and its setted and railed finishes. These make a modest contribution to the significance of the former station site, a considerable contribution to the setting of its listed buildings and in turn the character and appearance of the Castlefield Conservation Area.

There are some features within the setting of the listed building which do not contribute, these include the modern mixed use blocks on Liverpool Road and the Visitor's Entrance Block adjoining the building – which although feature similar architectural details and/ or materials, fail to contribute due to poorly-handled architectural features or extensive use of contrasting materials such as glass and metal.

4.0 Commentary on the Proposals

4.1 Description of the Proposals and their Impact on the Heritage Assets

4.1.1 Introduction

Design work began in 2019 to restore the nationally important Grade II listed Power Hall as part of the globally significant site, thanks to £6 million from the Department of Digital, Culture, Media and Sport and additional funding from the Science Museum Group to facilitate urgent and major repairs to the roof and a redisplay of the gallery content gallery refurbishment.

The proposals relate to the creation of an opening and installation of water source heat pumps and other associated plant in the Power Hall and water source heat network pipework within the listed building's curtilage. Whilst these proposals presently stand in isolation, they represent the first phase of a wider holistic refurbishment of this Grade II-listed building. These proposals, and how they sit within the wider project, are shown in the drawings and Design and Access Statement by Carmody Groarke and Max Fordham. Accompanying methodologies have been prepared by HH Smith.

4.1.2 A Brief Description of the Proposals

The Power Hall

The proposals relate to the eastern portion of the Power Hall's interior. This area was altered considerably in the 1980s with the removal of the central loading platform, lowering of the floor level and laying of a screed surface, the installation of a raised platform, concrete plinths and exhibits including the horse gin and the water wheel – which have already been moved from this location.

An electrical 'exhibition boiler' and water source heat pumps are proposed in this area to power the historic working machinery within the Power Hall. This equipment will not only be used to re-power the historic working machinery but to demonstrate the measures SIM are taking to reduce their carbon footprint and enhancing carbon literacy for future visitors. The equipment will rest on a new steel base, on the concrete screed floor. This plinth is required to raise the boiler to align with the proposed visitor platform area (which will form part of the forthcoming Works Package 4 application). The pipework and equipment will be finished in polished metal.

A trial hole is proposed in advance of the following trenching / pipework connection into the building in order to determine the location of the building's footings. (the sequence of works and dimensions of these are included in HH Smith's methodology).

A new opening is required in the north elevation for pipework; it would pass from the Upper Yard below ground level in a service trench, into the Power Hall via an opening measuring 1,650mm x 500mm and set under a concrete lintel. Given the lower floor level at this end of the building, the opening would be temporarily visible inside the building – before being concealed beneath a future visitor platform (to be proposed as part of the forthcoming Works Package 4 application). The new pipework – which will also be on show within the building - will require far shorter runs and pass directly to the boiler, rather than across the exterior and interior of the building. The new switch room and transformer will be temporarily housed within an enclosure in the north east corner of the building. The enclosure will align the north wall, will be fixed to the concrete floor and screwed into mortar joints in the east wall only – avoiding the need for fixings into the brickwork. This proposal has already facilitated the removal of two existing plant rooms, which have been removed by prior agreement via exchange of correspondence which has confirmed that there would be no impact on the special interest of the listed building and therefore listed building consent is not required.

Trenching

To serve this new equipment within the Power Hall, a series of service trenches are proposed within the Upper Yard, which lies within the curtilage of the Power Hall (and also the New Warehouse). Those proposed within the Upper Yard which affect modern surfaces / areas are being discussed as part of an exchange of correspondence as outlined above, whilst those proposed beneath setted and railed areas and those close to the Power Hall are proposed within this application.

There are three key areas – the area to the west of the gantry crane and the area to the north of the Visitor Entrance Block, the surfaces comprise historic stone setts and also an area containing tracks. The final section is proposed beneath modern concrete paving, where it leads into the Power Hall.

Trial holes are proposed in advance of any trenching in order to determine the trenching route and the location of the borehole (the sequence of works and dimensions of these are included in HH Smith's methodology).

In the areas containing setts, HH Smith's document sets out a sequential methodology whereby the areas would be recorded photographically, the surrounding areas would be protected, setts lifted and following trail hole excavation and/or laying of pipework, the setts would be reinstated using the same mortar mix and in the same locations – according to the photographic survey. In the area containing rail tracks, in addition to the methodology for recording and removing setts, HH Smith propose to form a trench by hand excavating under the tracks (leaving them in situ) with temporary timber supports. In the paved area leading to the north elevation of the Power Hall, the concrete pavers would be lifted for excavation of the trench by hand and laying of pipework to take place. The pavers would not be reinstated – the finish here will be the subject of forthcoming proposals.

4.1.3 Impact on the Heritage Assets

The Power Hall

The proposals for the Power Hall are minor in nature, largely affecting modern fabric and areas of the building which have already undergone significant change.

The boiler and associated equipment would replace a series of museum exhibits (already relocated) and no significant fabric would be affected through its installation. The visual effect of the new equipment on the listed building would be in-keeping with the industrial character of the interior and its exhibits and the final result – with the polished equipment and pipework on show as an exhibit - will be presented within the forthcoming applications for a renewed visitor experience. The impact of a new volume in this area – replacing recently-removed exhibits and features - would be neutral given the much-altered space. Overall, it would result in major public benefits - providing the Museum with a more sustainable means of powering the historic working machinery and the building itself, whilst enhancing the Museum's offer and promoting carbon literacy.

The physical impact of these proposals would be limited to the formation of one opening in the external north wall for pipework, which would result in the loss of a minor amount of original wall fabric (which was once below ground level). Given its location and limited contribution to the significance of the listed building, its removal would not cause harm to the significance of the listed building overall and would facilitate the efficient servicing routes of the new boiler (avoiding lengthy service runs and fixings). The fixing of the enclosures to the concrete floor and mortar joints would cause no harm to the significance of the listed building.

The replacement boiler has facilitated the removal of the timber-clad plant rooms – which has decluttered the space and removed detracting elements from the listed building, which is entirely beneficial (removed by exchange of correspondence). The new boiler will also facilitate the removal of the unsightly pipework from the external elevation, gantry crane and interior and appropriate remedial works would result in a considerable benefit - to the Grade II-listed Power Hall, the character of the Upper Yard and the setting of nearby listed buildings. Though this will form part of a forthcoming application.

Trenching

These works would be carried out according to a careful, sequential methodology for removal and like-for-like reinstatement which would ensure the special interest of this area – namely the form and its series of historic surfaces and features - is not adversely affected. The Castlefield Conservation Area and setting of the nearby listed buildings - principally the Power Hall (Grade II) and the New Warehouse (Grade II) which this Yard contributes considerably to - would similarly not be affected by these works given the proposals for reinstatement.

The proposals to form a trench and connect through to the Power Hall would again be carried out by hand digging only, ensuring no harm would be brought about to the fabric of the Grade II listed building during the course of works.

4.2 Justification of the Proposals

The proposals are minor in nature and relate to the installation of a new plant within a much-altered area of the Power Hall - in place of recently removed exhibition exhibits. The proposals for trial holes and trenching have been developed to ensure the significance of the

Upper Yard – which resides in its form and setted and railed finishes – and the fabric of the Power Hall would remain entirely unharmed.

Planning (Listed Buildings and Conservation Areas) Act 1990

The proposed works to enhance the environmental performance of the building represent the first step in bringing this much loved building and its collection into the 21st century. They will not only provide the sustainable 're-powering' of the Power Hall, but they will enhance its relevance and role within the Museum site by promoting carbon literacy through the exhibition – all ensuring the beneficial long-term and optimum viable use of the listed building. They would accord with MCC's relevant Policies EN 3 and DC19.1, whilst contributing towards the Museum's sustainability positioning statement, MCC's zero carbon target and the objectives of the *Climate Change Action Plan*.

*T*he proposals have been sensitively designed and it is considered that overall they would not cause harm to the significance of the listed building or the curtilage listed Upper Yard. Given the location of the proposals, the setting of the Power Hall, that of other nearby listed buildings (particularly the New Warehouse) and the character and appearance of the Castlefield Conservation Area would be maintained. Therefore the special architectural and historic interest of the listed building and the character and appearance of the conservation area would be preserved, in accordance with the statutory duties in accordance with the statutory duty imposed by Sections 16, 66 and 72 (I) of the Planning (Listed Buildings and Conservation Areas) Act 1990.

These statutory requirements set a high bar for allowing development that would harm heritage assets. However, the statutory requirements must be viewed in light of the relevant heritage policies in the National Planning Policy Framework (NPPF). As noted by the court in *Mordue v Secretary of State for Communities and Local Government* (2015): *'Paragraph 134 of the NPPF appears as part of a fasciculus of paragraphs, set out above, which lay down an approach which corresponds with the duty in section 66(1). Generally, a decision-maker who works through those paragraphs in accordance with their terms will have complied with the section 66(1) duty.'* Although the court was concerned with the previous version of the NPPF and section 66 specifically, the same approach is considered appropriate in respect of the heritage policies in the current NPPF and in respect of the section 16 and 72 duties. It is therefore important to consider the proposed development against the relevant NPPF policies.

The NPPF

As explained above, it is considered that the proposals would result in no harm to the significance of heritage assets overall. They would therefore accord with the relevant policies of the NPPF, including policies 185, 192 and 193 and with the relevant policies of the *Core Strategy Development Plan* as outlined above and the proposals are considered to be acceptable in heritage terms.

Should the decision maker disagree, any perceived harm would be considered very much 'less than substantial harm' in accordance with the terminology of the NPPF. Whilst the *Core Strategy Development Plan* makes no provision for harm to heritage significance to be weighed directly against public benefits, the NPPF, which is a material planning consideration, does allow for this. As noted above, the courts have previously held that a decision-maker that properly works its way through the relevant paragraphs of the NPPF will typically have satisfied its statutory duties under the 1990 Act (see *Mordue v Secretary of State for Communities and Local Government (2015)*). Paragraph 193 of the NPPF makes clear that great weight should be given to the conservation of designated heritage assets, irrespective of whether the harm amounts to substantial harm, total loss or less than substantial harm to its significance. Paragraph 196 of the NPPF states that any less than substantial harm to the significance of a designated heritage asset should be weighed against the public benefits of the proposal. Any perceived 'less than substantial' harm to the listed building resulting from these proposals would be considerably outweighed by the following public benefits:

- Enhancing the environmental performance of the building and contributing towards the Museum's sustainability positioning statement, MCC's zero carbon target and the objectives of its *Climate Change Action Plan*.
- The creation of this functional new exhibit provides the opportunity for the SIM to enhance public understanding about climate change and the role historic buildings can play in a more

sustainable future.

- Significantly, they would facilitate the enhancement of this building's optimum viable use as a vital part of the popular SIM, which would in turn support and be beneficial to the long-term conservation of the Grade II-listed building and the wider Museum complex.
- They would enable the future removal of a series of bulky gas pipework (as part of a forthcoming application).

4.3 Conclusion

The proposals are the first phase in the decarbonisation of this listed building and the sustainable operation of the much-loved historic working machines, furthermore it will form part of the Museum's exhibition to improve visitor's carbon literacy – which would result in a considerable public benefit. It is considered that the proposed development meet the requirements of the Planning (Listed Buildings and Conservation Areas) Act 1990, the tests outlined in the National Planning Policy Framework insofar as they relate to the historic environment and Manchester's local policies. It is therefore the conclusion of this report that they should be recommended for approval.

The Setting of the Building and the Conservation Area Context

The Wider Setting

The Power Hall is located within the Castlefield Conservation Area, which is one of the largest in the city. The area is the site of the Roman fort of Mamucium and therefore the first known human settlement in Manchester. The industrial development of the area from the mid-18th century has created layer upon layer of distinctive industrial structures which were built over the Roman remains, such as the canal basin at the junction of the Bridgewater and Rochdale Canals and the Castlefield Viaduct (Grade II) with its crenelated towers standing above. Overall, the character of the Conservation Area is defined mainly by the brick industrial buildings which mark the development of this part of the city form the early-19th century along with the later viaducts to the south as this continued. The viaducts are prominent in views due to their elevated position on ground, which descends to the basin. Modern buildings are somewhat unsympathetic in massing but are generally faced with brick, which is in-keeping with the area's origins.

Liverpool Road runs east-west across the Conservation Area and is a major thoroughfare, lined with a series of nationally significant buildings including the former Deansgate Free Library (Grade II, Castlefield Information Centre), the Former Market Hall (Higher Camp Field Market, Grade II). **Lower Byrom Street** runs north-south from Liverpool road to Quay Street. The northern end is dominated by seven-and eight-storey office and residential blocks dating from the late-20th and early-21st century, which are a mixture of concrete, steel and brick. St John's Gardens, on the east side of the street, is a formal park enclosed by a stone wall and railings.

The Immediate Setting

The Power Hall is situated at the south-east corner of the SIM site, within the Upper Yard, at the corner of Liverpool Road and Lower Byrom Street **[Plate A.1]**. Formerly the Liverpool Road Station complex, the site comprises a range of mostly Georgian and Victorian buildings, which form a cohesive complex representing the railway station's evolution. Immediately to the north is the main museum building which occupies the New Warehouse (Grade II). When built in 1880, the warehouse was the latest in technology, with fireproof construction utilising iron beams and brick jack arches. A glazed extension was added in 2000, intended as a new entrance and this now houses the museum café **[Plate A2]**.

The oldest part of the Liverpool Road Station site lies to the west of the Power Hall. The 1830 Station and Master's House and opposite, the 'Old' or '1830 Warehouse' (all Grade I) are situated across the Upper Yard, formed by a viaduct carrying the railway tracks to the Power Hall **[Plate A.3]**. The 1830 Station's elevation to Liverpool Road is loosely Classical, with regular fenestration, stuccoed ground and first floor, prominent pilaster door surrounds and a high brick parapet. The station building is exposed on the north side, where the original timber platform sits under a canopy supported by iron columns, part of this area has been enclosed with glazing. The red brick warehouse opposite is a skewed parallelogram in plan and consists of a repetition of short gables, large timber loading doors and arched glazed carriage openings, detailed in stone.

To the west of the Good Offices is a ramp from Liverpool Road to the Upper Yard. The current structure dates from 1985 but is broadly in the place of the earlier access to the first Transit Shed, which provided cart access from Liverpool Road to the Upper Level. This modern ramp runs between blue engineering brick walls, with tubular steel handrails and which form large planters.

To the east of the Power Hall is a large paved area and the SIM industrial sculpture. Across Lower Byrom Street is the Air and Space Hall, also part of the museum complex but originally a market hall known as the Lower Campfield Market (1876, Grade II). This decorative cast iron, timber and glass structure was converted into a museum in 1983 and provides a contrast to the brick railway structures across the street, and a group with the Higher Campfield Market Hall / Air and Space Hall to the east (also Grade II).

To the south-east of the Power Hall is the modest Gunn House (1827, Grade II), a simple red brick Gothic building with apsidal southern end, which was once the Sunday School to St Matthew's Church by Charles Barry – this stood between the market buildings prior to its demolition in 1951.

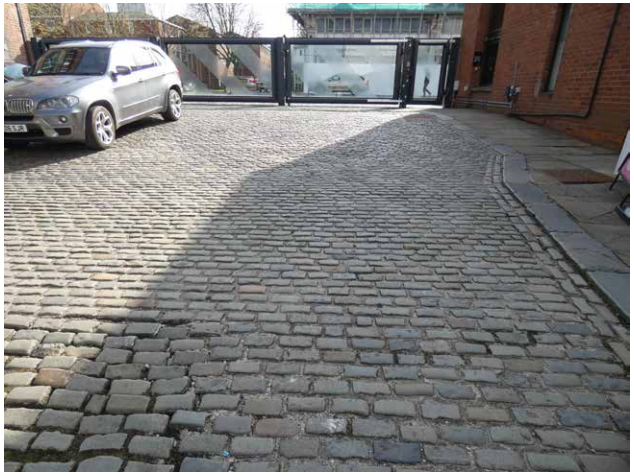
The buildings facing the Power Hall on Liverpool Road are four-storey mixed use blocks containing residential apartments and restaurants. They are faced in red brick, reflecting the materials of the

A.1 *The splayed corner of the Power Hall (SIM).*

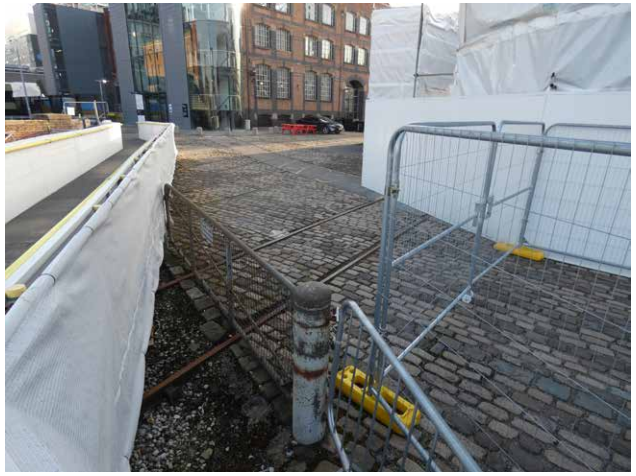
A.2 *The muesum entrance from the south (Insall).*

A.3 *1830s railway buildings, west of the Power Hall (Insall).*

A.4 *The Upper Yard to the north of the Power Hall (Studio Downie).*



A.5 *Setts in the Upper Yard, close to the entrance (Insall).*



A.6 *Setts in the Upper Yard, west end of Power Hall (Insall).*

surrounding industrial structures and they do help to give an impression of the area's industrial past, however their overall massing is slightly overbearing on the single-storey (albeit large) Power Hall. Further west along Liverpool Road, steps lead south, down to the Castlefield Basin. The Castlefield Hotel (1990s) makes good use of brick detailing and fenestration to portray the history of the Conservation Area and the 19th century multi-storey warehouses found within it - it is of its time.

The **Upper Yard** stretches from Lower Byrom Street, west between the Power Hall (which lies on its south side) and New Warehouse (to the north) and out over to the 1830 and 1867 viaducts. Views across the yard are open, enabling museum visitors to see the various railway buildings and structures from a distance and this gives a good impression of the scale of the former goods yard. The interrelationship of the buildings and the form of this yard is key to understanding their former use. It is finished with a mixture of setts - many re-laid and new ones set between rail tracks, concrete paving, patches of historic York stone paving and curbs, asphalt/tarmac paths and an access ramp to Liverpool Road **[Plates A.4-A.6]**. All of the turntables have been removed. Beneath the gantry crane runs a track (likely laid in c.1980) surrounded by setts, parallel is strip of tarmac which terminates in a short red brick platform topped with concrete paving (some areas of reused York stone flags at the western end) and tubular railings. It was installed as part of the 1980s conversion of the site to a museum and has subsequently been altered (its canopy has been removed and access rearranged).

The Building

The **Power Hall** is architecturally relatively plain, even austere, particularly given its scale and it has a rather Georgian character. It is single storey with an elongated rectangular plan, its longest elevations running parallel to Liverpool Road, and is of red brick in English garden wall bond with limited sandstone and cream brick dressings and a hipped slated roof. The building houses the SIM's collection of locomotives, rolling stock and steam, gas and electric engines.

Immediately adjacent to and abutting the north of the Power Hall is the **travelling crane** (c.1881), see **Plate A.4**. This is mounted on a simple frame, supported by nine cast-iron columns on the two longest sides, with the girder sections most likely of steel (composite, riveted). The remains of the electric motor survive of the top side of the crane bridges.

Immediately to the west and adjoining the Power Hall are the former **Goods Offices** and adjoining toilet block. The Offices are Grade II listed as part of the Power Hall, they are not part of the forthcoming proposals but are included here for completeness. They date from the 1860s and are an expression of the success of the goods station at that time. The red brick structure is of four main bays, each with paired round-headed windows with stepped surrounds, stone cills and keystones. The right hand bay contains a six-panel double-door with a later plain overlight and stone pediment. A brick dentil string course above the ground floor windows - denoting the original eaves of the building – which was later extended. The height of the offices now matches that of the Power Hall with the brick plinth continuing as the street level drops away to the west **[Plate A.7]**. The single storey toilet block adjoins the west elevation of the offices. It dates from 1948-1955 and was built on the site of the road access ramp to the upper yard from Liverpool Road. It is a squat red brick structure, which is functional and of little architectural merit **[Plate A.8]**. Adjoining the north east angle of the Power Hall is the two-storey early-1980s **Visitor Entrance Block** extension – designed to complement the Power Hall in materials and detail but of little architectural merit.

The Building Externally

The building is currently under scaffold and a temporary roof, which has meant that not all areas of the building were accessible at the time of the site surveys.

Principal South Elevation

The building's long south elevation runs parallel to Liverpool Road and is formed of 19 bays. Rising from a brick plinth capped with blue engineering bricks, the elevation is fairly plain with a repetition of round-headed blind windows with stepped architraves and stone cills **[Plate A.9]**. There is a simple dentil cornice supporting a cyma recta moulded cornice, and above is a brick parapet with a stone coping. The two openings on this elevation were originally for vehicular access from Liverpool Road; they have bull-nosed architraves, flat-headed arches and stone fenders **[Plate A.10]**. The eastern opening has a segmental brick relieving arch above a square opening. The openings contain full-height glazing, with metal glazing

A.7 *The 1860s Goods Offices (Studio Downie).*

A.8 *Toilet Block west of the Power Hall (Insall).*

A.9 *View east along Liverpool Road (Studio Downie).*

A.10 *The western opening on the south elevation (SIM).*

A.11 *The Power Hall from the north (Studio Downie).*

A.12 *West elevation of the Power Hall (Studio Downie).*

bars – which dates from the 1980s conversion. At the easternmost end of this elevation is a canted corner, which is almost entirely occupied by a large opening, again with bull-nosed architraves, a flat-headed arch with brick relieving arch and stone fenders (see Plate A.1). This opening contains fully glazed metal doors with four large overlights above, which date from the 1980s conversion. At the western end is a red circular plaque by the Transport Trust and a crude pipe which penetrates the wall above the plinth. There are also other services and cables which pass over the cornice. At the west end is the 'Liverpool Road' street sign - fitted roughly half-way up the wall.

East Elevation

The short four-bay return elevation to Lower Byrom Street (east elevation) shares the same features as the principal south elevation, with just four of the blind arcaded windows with stone cills. There is a good deal of replacement brickwork beneath the central and left hand windows – scars of former, later openings, and various repointing. The 'Lower Byrom Street' road sign is attached to the left hand bay, alarm box is fitted and there is some surface-mounted cabling over the cornice.

North Elevation

This elevation faces the New Warehouse across the Upper Yard. The travelling crane abuts and is attached to this elevation (described above). Again this elevation is faced in red brick, but is markedly plainer than the Liverpool Road elevation, with no decorative features and has six equally-sized openings under segmental arches **[Plate A.11]**. Each of the openings contains modern glazing (of the 1980s), subdivided by metal glazing bars and thick transoms, and they have emergency exits incorporated. The second opening from the left has modern brick and concrete steps, with tubular steel railings. Cabling for external lights is fitted along the length of this wall and abutting the centre of the elevation are two large metal cooling towers. At the western end of the elevation, further services and security ephemera are fitted to the building. Historic signs marking the capstan locations are also located on this elevation. Substantial gas pipework is attached to the travelling crane and passes into the north elevation of the Power Hall. The elevation has been subject to a series of ad hoc repairs and poor quality repointing.

West Elevation

The return elevation within the yard historically provided access for goods carriages and road vehicles - formerly having direct vehicle access to Liverpool Road via a ramp and direct rail access. Like the north elevation, it is plain, with no decorative features **[Plate A.12]**. The northernmost former rail opening is double-width with bull-nosed jambs, a cast-iron lintel and a brick relieving arch above which is disrupted by a series of metal plates and ties – the relieving arch and lintel look to be fairly early interventions. The left-hand jamb is formed of stone blocks at the lower level, where a short buttress-fender abuts it. This buttress-fender is of brick and stone and has a metal plate affixed, reading '3^{IN} HP (high pressure) Stop Valve to Shipping Shed 20^{FT}', it also has an oversized metal bracket fixed to one corner which was likely fitted with an iron bar to function as a rubbing post for ropes, as often found in canal infrastructure. The metal concertina doors run in a metal rail (set internally). The right-hand opening is single-width, with the same bull-nosed jambs, concertina door and a cast-iron lintel supporting the flat-headed opening with relieving arch (again there seem to have been relatively early repairs/strengthening). There are two further smaller stone fenders protecting the jambs. There is a modern fully glazed single door set between these two main openings – this was installed as part of the conversion to a museum in the 1980s. This elevation has only a few items fitted to it, including a CCTV camera at the northern corner and a light and cabling in the centre.

The Roof

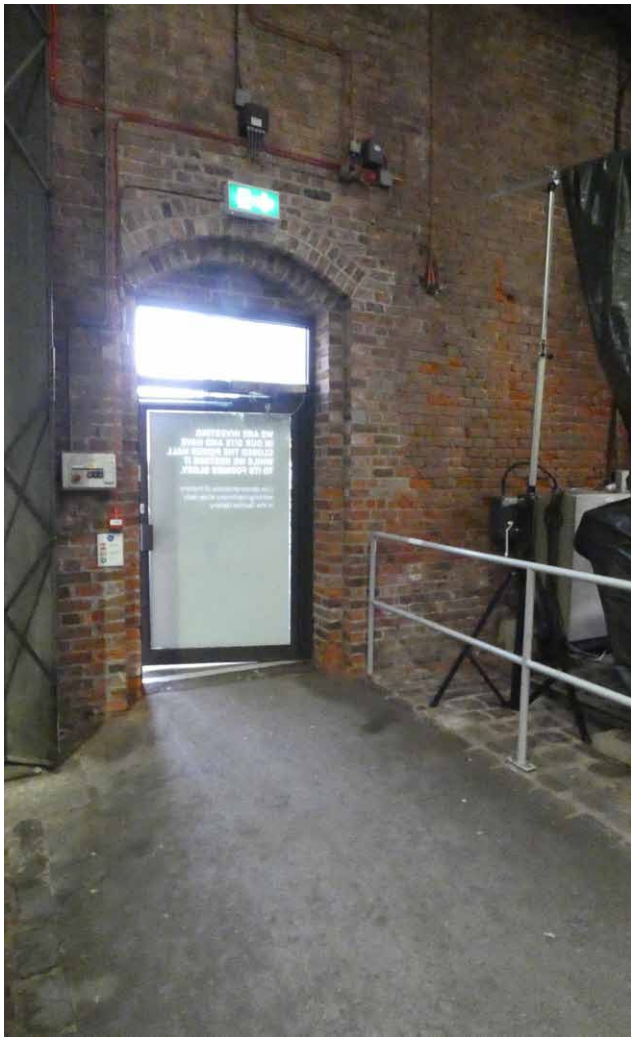
The M-shaped roof is formed of two pitches running east-west and is hipped at each end. The central valley has continuous skylights and there are 10 panels of grouped skylights on the north and south pitches, with two more panels on the eastern pitch **[Plate A.13]**.

1980s Visitor Entrance Block

Adjoining the north east angle of the Power Hall is the two-storey early-1980s **Visitor Entrance Block** extension; the east elevation of which has three double-height round-headed windows with stone cills and reflect those of the Power Hall, containing rather dated smoked brown glass which is accentuated by the scale of the openings **[Plate A.14]**. The ground floor portion of each has small metal pivoting casement windows at the top and the left-hand window contains an emergency exit at ground floor level. A shallow brick dentil cornice also attempts to

A.13 *Power Hall Roof - Central Valley (Insall)*

A.14 *East elevation of the 1980s extension (Insall).*



A.16 *Railway entrance in the west elevation (Insall).*

A.15 *View looking west (Insall).*

A.17 *Pedestrian entrance in the west wall (Insall).*

mimic the detailing of the Power Hall and there is also a plain brick parapet with stone coping, though result is architecturally weak.

The Building Internally

Internally, the **Power Hall** is a simple structure - basically a large shed - which retains much of its original fabric, including a section of the loading stage and rail tracks. The description below is separated out wall by wall and also describes the roof structure, flooring and exhibition fittings. The services throughout the building are rather ad hoc and include historic cast iron rainwater pipes and boilers, as well as modern cabling, ducts, trunking, heaters and lighting. The building currently contains a crash deck and scaffolding, which has meant that not all areas of the building were accessible at the time of the site surveys.

West Wall

The west wall contains two large openings which provide access from the yard **[Plate A.15]**. The right-hand entrance provides access for two railway tracks via a metal concertina door (dating from the early-1980s). A metal channel at the bottom of these doors is set into a concrete threshold, with the railway tracks set into stone setts **[Plate A.16]**. To the left of this door is a pedestrian entrance, set within a stepped architrave with a segmental arch - which was created in the 1980s. Within this opening is a 20th-century metal-framed glazed automatic-door with a rectangular over light **[Plate A.17]**. To the left is another large entrance (though narrower than the rail entrance) from the yard, fitted with the same metal concertina doors as on the railway entrance. This opening is set within a projecting brick panel, which has bull-nosed jambs rising the full height of the elevation. The metal channel for the doors is again set within a concrete threshold **[Plate A.18]**. To the left of this, at the south-west corner of the Power Hall is a further opening, containing a doorway through to the original Goods Offices. This is a simple modern timber four-panel door with the panels containing Georgian wired glass. The architrave is stepped with a segmental arch, in the same style as the external blind windows and there is a stone threshold **[Plate A.19]**. Above this doorway and slightly offset is an arcaded blocked window opening (original). This western elevation has a great deal of wiring and trunking fitted to the brickwork. Above the doors and running the width of the wall is a timber and metal rail, which without close inspection is difficult to attribute a purpose; potentially a rail for former sliding doors.

North Wall

The north wall is long and punctuated by six carriage openings, each set within a projecting brick panel, the full height of the wall and with bull-nosed jambs **[Plate A.20]**. These openings all have wide segmental brick arches and the opening at the north-west corner has an iron lintel as additional support, most likely added due to the two openings at this corner. Each opening contains windows within metal frames and emergency push-bar double doors dating from the early-1980s; above are modern steel I-beams **[Plate A.21]**. There is some evidence of alteration to the brickwork above each of the openings on this elevation which marks the location of the runners which allowed the original timber doors to slide open. Within the reveals of the openings are metal plates fitted to the brickwork - probably remnants of hinges **[Plate A.22]**.

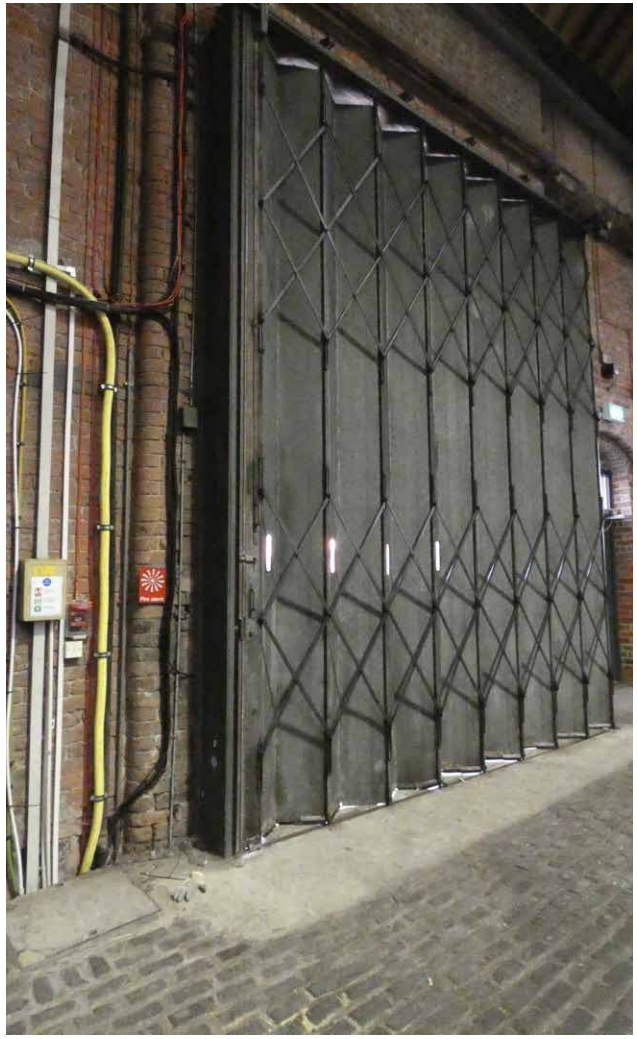
To the right of the centre of the elevation is a timber enclosure which was inaccessible at the time of survey but contains plant and associated services. At the eastern end of the elevation there is a blocked opening under a concrete lintel – the opening relates to the 1980s extension to the north, which originally served as the Visitor Entrance block, but it is not certain when this was infilled **[Plate A.23]**. Along the north elevation are a number of rainwater downpipes and electrical wiring, mainly to serve the emergency exits.

East Wall

The east wall is short and rather plain. At the lower level on the north side is significant scarring, marking the level of the original loading stage **[Plate A.24]**. A modern brick wall abuts the elevation and was installed as part of the museum exhibition space **[Plate A.25]**.

South Wall

The opening on the canted corner to the south-east of the building contains fully glazed metal doors with four large overlights above. The south wall contains just two openings which were the original cart entrances for road vehicles. Both openings have modern steel lintels fitted and have large metal framed windows. Above the eastern opening, a cast-iron runner for the timber doors is preserved **[Plate A.26]**. Below this, the trace of the limewash has been preserved showing that the interior was finished in the same way as most railway goods sheds, traces of limewash are



A.18 *Former roadway entrance in the west wall (Insall).*

A.19 *Doorway to the former Goods Offices (Insall).*

A.20 *View of the north wall (Insall).*

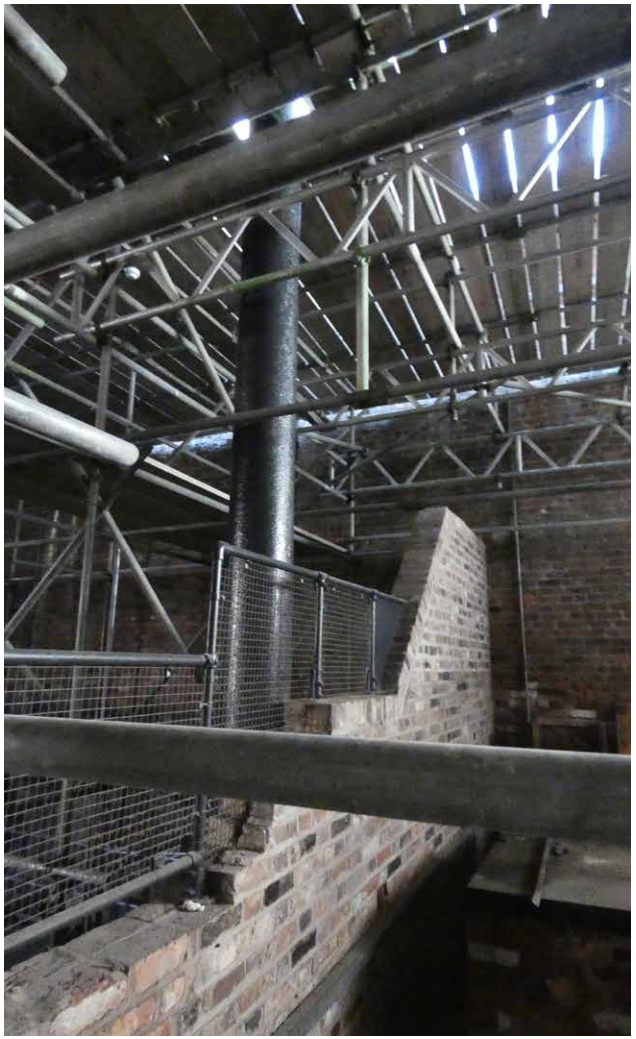
A.21 *Glazing and door on the north wall (Insall).*

A.22 *Metal plates within carriage door reveals (Insall).*

A.23 *Blocked opening at the north-east corner (Insall).*

A.24 *View of the east wall (Insall).*

A.26 *Iron runner and limewash above the east opening (Insall).*



A.25 *Modern brick abutment (Insall).*

also preserved on some roof timbers. The western opening has lost its original mechanism, however the same remnants of limewash are visible to either side **[Plate A.27]**. At the south west corner of the building a modern timber enclosure contains various plant and services **[Plate A.28]**. Just beneath the trusses, metal cable trunking is fitted to the wall, running the length of the building and connected to the services at the west end.

The Roof Structure

The roof structure is formed of paired timber queen post trusses supported in the centre by a timber beam which rests upon a series of twelve cast-iron columns with sweeping splayed capitals (which also house the drainage downpipes) **[Plates A.29 and A.30]**. The roof structure features flitch beams and the trusses have a number of wrought-iron straps fitted, dating from the original construction, and later steel splice plates which date from the structural restoration work carried out in the late-1970s – these are crude and over-engineered. Interstitial beams are located between some of the trusses, previously acting as fixing points for the cranes (since removed). The rooflights, along the valley, and to the north slope of the north roof and south slope of the south roof, were installed in the 1980s. They are not in their original locations on the north and south slopes - rooflights were reduced in number on the north and south slopes, on the south slope were relocated lower (see **Plate 2.7** for their previous location and **Plate 2.14** for their location following the conversion of the building). All sit within timber rafter-frames, with Georgian wired glass; some have been replaced with polycarbonate panels, some of which have discoloured. Most of the padstones supporting the trusses have been replaced with concrete blocks as part of the late-1970s structural works but there are a few timber ones remaining. There are gasket clamps to some of the capitals, which are likely to be related to the former cranes and lifting restriction notices attached to the beams **[Plate A.31]**.

Exhibition Display, Fittings and Floor Finishes

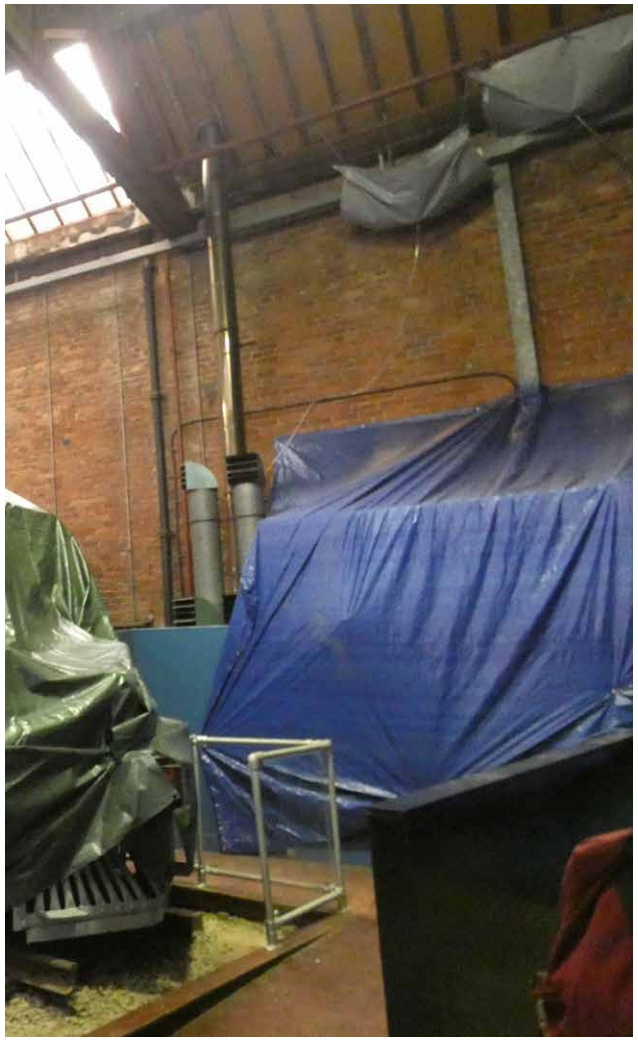
The **flooring** within in the Power Hall comprises a number of different levels and materials. In general, the flooring is stone setts set with rails – much of this appears to have been reset following the 1980s works and the cement is rather unsightly. Photographs of the conversion works clearly show the extent to which the floor finishes were disturbed during the installation of exhibits [see Plates 2.15 & 2.16]. Amongst the setts are modern concrete walkways, lino or timber plank flooring around the exhibits (laid in the 1980s) and a central raised platform with ramped access which incorporates a large portion of the fabric of the original loading stage (with wide timber boards). The flooring in the north-west of the building is a mixture of stone setts into which two railway tracks are laid and there are short concrete thresholds inside each of the fires escapes within the north wall **[Plate A.32-A.34]**. The setts located where the original loading stage would have been are larger in size than others found elsewhere in the building, suggesting the smaller setts may be 1980s replicas and the remainder reset historic setts. The area in front of the canted corner at the south-east is formed of setts on top of modern brick, suggesting they have been reinstated as part of the 1980s refurbishment **[Plate A.35]**.

The central section of the building is set at a raised level for the display of various engines. The western portion of this contains fabric from the original loading stage, with access via a ramp. A large section of the stage is lined with original timber boards – notable for their width in comparison with the narrower modern boards **[Plate A.36]**. The ramp itself appears to incorporate reused original boards, the infill beneath the stage is rebuilt in modern brick and timber (the structure beneath is not visible). The south side of the loading stage is lined by historic curbs and screed **[Plate A.37]**. Access to the stage is also provided elsewhere by modern steps. The rest of raised platform areas to the east are finished with a rubber/lino type floor covering, with a number of enclosures for the engine exhibits **[Plate A.38]**. Whilst a large proportion of this is modern construction, given the overlap with the position of the original loading stage, it is possible that further original boards could exist beneath (opening up works would be able to prove this).

At the east end is a red brick structure which was installed as part of a museum exhibit – it contains a beam engine. It has a simple pitched roof and double-height round-headed windows **[Plate A.39]**. It was not possible to investigate this structure fully due to scaffolding. Also at the east end of the building, the entrance area from the north-east entrance comprises entrance matting, to the east of this is a wide area of concrete screed which appears slightly lower than the exterior of the building and the original railway track level. The southern portion of the east end is at a higher level, raised in the centre on a modern brick

A.27 *Traces of limewash on the south wall (Insall).*

A.29 *View of capital with gasket clamp (Insall).*



A.28 *Enclosure for plant and services (Insall).*

A.30 *View of roof structure (Insall)*

A.31 *Interstitial beam for crane (Insall).*

A.32 *Cobbles in the north-west corner (Insall).*

A.33 *Cobbles surrounding exhibit plinth (Insall).*

A.34 *Concrete walkway between cobbles (Insall).*

A.35 *Cobbles with modern brick underneath (Insall).*

A.36 *Remaining portion of the Central Loading Platform (Insall)*

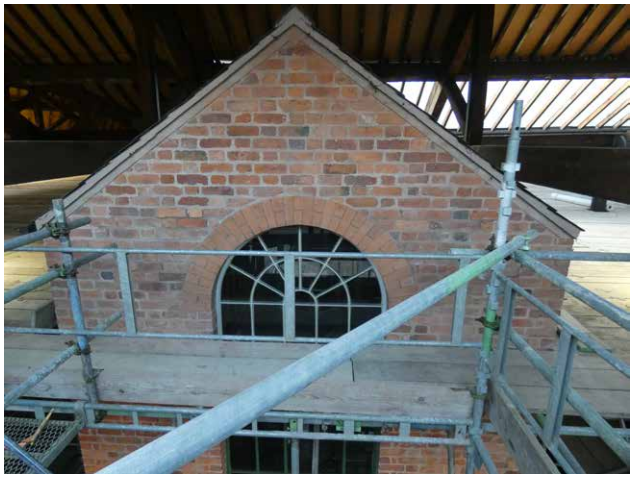
A.37 *South side of the Central Loading Platform (Insall)*

plinth **[Plate A.40]**. Adjacent to the canted entrance is a modern brick plinth with a concrete base and centre – housing for the water wheel (removed).

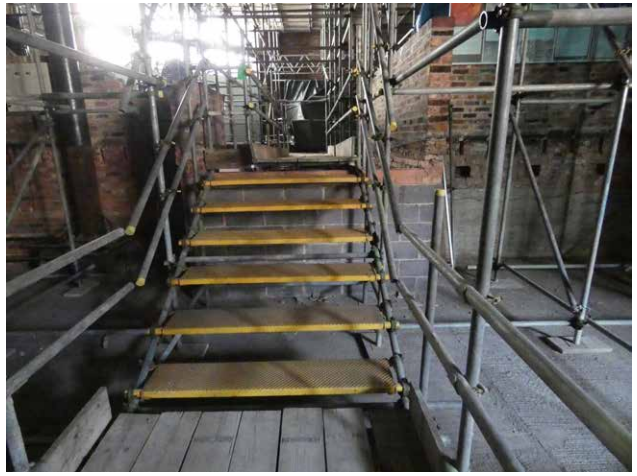
The southern portion of the Power Hall has a concrete walkway running the length of the building with setts either side, mainly surrounding the exhibits. A modern brick plinth supports one of the posts of a steel gantry crane, installed as part of the 1980s refurbishment; the other parts of the frames are fixed to the floor – the crane is required for the shifting of engine exhibits **[Plate A.41]**. At the south-western end, a short section of railway track has been laid on gravel, within a raised timber plinth.

The museum exhibits are generally surrounded by expanded metal railings, some of which fix into the external walls. There is large museum signage attached to the expanded mesh railings, which looks more recent. Lighting is provided by pendants suspended from the roof beams, fitted in the 1980s. A number of services are visually intrusive, especially around the structure of the roof which has trunking fitted to it in places and pipework supported from it. The c.2006 air handling duct is bulky and detracts [see Plate A.41]. There are a series of benches fitted throughout, some traditional in design, others expanded mesh – all modern.

A.38 *The modern raised platform, looking west (Studio Downie).*



A.39 *Brick built exhibit at the east of the Power Hall (Insall).*



A.40 *Change of level in the centre of the Power Hall, at the east end (Insall).*

A.41 *View of modern gantry and ductwork oover the platform (Insall).*

Appendix II – An overview of Goods Sheds and Warehouses

The first railway warehouses were probably inspired by the shipping and canal buildings which had been developed from the early-18th century. The 1830 warehouse at Liverpool Road in Manchester was the first major railway warehouse to be erected in the world. Smaller goods sheds had been constructed in the late-1820s on the industrial Stockton & Darlington Railway, but these did not influence later design as they had multiple tracks entering the building, rather than a line running straight through.[29] Outside cities, many goods sheds were initially constructed in timber, especially early on when the future success of the new transport method was unknown, as they could be easily replaced if required. Within cities, goods yards developed into larger complexes, built of more substantial materials and often clustered together.[30]

The standard layout of a goods shed comprised a track running through the length of the building, with waggon doors at either end. A platform or loading stage had cranes fitted to the roof truss and floor to assist the transfer of goods from rail to road vehicles and vice versa. Access for carts varied; some sheds had doors which opened directly onto the loading stage, at the level of the cart and an awning to provide shelter while loading; others were a modification of this with cut-outs in the loading stage for carts to reverse into; another type was the 'through' shed, in which the carts entered the building at one end and left at the other. A deviation from this was the transhipment shed, which was where goods were transferred from one railway waggon to another as part of a longer journey.

Offices for goods sheds in towns and cities were often of two storeys, owing to the number of staff required for the associated paperwork, the goods office adjacent to the Power Hall – the former shipping shed conforms to this standard.[31] The need for light as there was in a goods shed where goods were continually being unloaded and transhipped, where consignment notes had to be read and where there was constant movement with barrows and trolleys.[32]

Goods sheds were typically fitted with double doors across the track at both ends. Generally, these were of full height but occasionally half-height ones. Such doors were always liable to damage and were often replaced. Doors were usually hinged, but sliding doors, with small wheels located in iron runners, were frequently used on the cart entrances, placed either inside or outside the building and, less often, across the track.[33]

From the 1860s, multi-storey warehouses had become the common form of railway goods buildings in urban areas. These generally consisted of ground floor access for waggons (or on the first floor where access was from viaducts) and warehousing above. The ground floor often included road access to enable the transfer of goods from rail to cart/lorry. The earlier warehouses utilised cast-iron columns to support timber floors but attempts at fireproofing were introduced as early as 1869, as seen in the Grape Street Warehouse at the Liverpool Road complex. As technology and construction techniques progressed, most multi-storey warehouses were constructed as entirely fireproof units, using cast-iron frames and brick-jack arched floors. The New Warehouse at Liverpool Road exhibited this construction, and marks the final progression of railway building development on the site.[34]

From the early-1900s, the use of concrete and further reliance on structural steel and corrugated iron became more common. The major change in the early-20th century was the distribution of goods by motor vehicle, with many rail companies offering a door-to-door service to compete with the rise of road freight. Most warehouses in this period were extended rather than replaced due to post-war austerity and by the 1950s, many city-centre depots were closed and replaced with larger out of city sites. From the 1960s, rail freight became focused on trains carrying a single commodity in bulk from one destination to another and by 1984, the traditional waggon load goods traffic had ceased altogether, making goods depots redundant.[35]

29 *Historic England, 2016*, p.11
30 *ibid*, p.14
31 *Ibid,* 59-67
32 Ibid, p23
33 Ibid, p23
34 *Ibid*, pp.67-77
35 *Ibid*, pp.70-89

Appendix III – The London & North Western Railway

Different railway companies developed their own 'house style', depending on particular engineers or lines. However, a more standardised approach to architecture appeared later on the LNWR than on most other companies. The key features were the use of bricks made by the company itself at their Crewe works (established in 1862) and three round-headed louvred openings in the gable ends of smaller sheds to provide ventilation. Their goods sheds more commonly had an extended awning over the cart doors, rather than accommodation within the building itself.[36] The company also favoured the use of blind windows as a decorative feature on the elevations of goods sheds, with lighting instead provided via extensive roof lights, as seen with the former Shipping Shed at Liverpool Road.[37]

Similar forms of Shipping Sheds by the LNWR can be found at Warrington Bank Quay and Edgeley Warehouse, Stockport. Both had elongated rectangular plan forms, with tracks running the length of the building, an M-shaped roof supported by cast-iron columns and roof lights to illuminate the interior.

36 Historic England, 2016, p.13
37 Ibid, pp.46-7.

Appendix IV – Planning History

F15121/LA
4 March 1981 **No Objection**
G.M.C. DEVELOPMENT Change of use from railway goods yard to railway and Science Museum and extension and alterations to goods shed.

020158
5 October 1983 **No Objection**
G.M.C.DEVELOPMENT Provision of water cooling towers on plinth as part of works for stream supply to working exhibits in Power hall.

041457
7 May 1992 **Approved**
DETERMINATION BY THE CENTRAL MANCHESTER DEVELOPMENT CORPORATION Illuminated feature sign - Corner of Liverpool Road and Lower Byrom Street.

053338/FO/CITY3/97
15 April 1998 **Approved**
Alterations to 3 existing windows on Liverpool Road elevation.

075331/LO/2005/C3
24 March 2006 **Approved**
LISTED BUILDING CONSENT for the installation of air handling equipment internally within power hall, and 6 no. extractor fans to valley roof.

103464/LO/2013/C1
22 October 2013 **Approved**
LISTED BUILDING CONSENT for the reinstatement of north elevation masonry of the Power Hall, and associated works, including the erection of a retaining wall and hard landscaping, following the demolition of existing 2 storey Visitor Services block.

105308/LO/2014/C1
21 May 2014 **Approved**
LISTED BUILDING CONSENT - for the installation of a vinyl graphic internally to the large window on the corner of the east elevation of the Power Hall building.

121832/LO/2018
17 Jan 2019 **Approved**
LISTED BUILDING CONSENT for re branding signage, including removal existing signage, installation of fixed lettering above main entrance doorway, directional sign along Liverpool Road windows, and flexible advertising space on the corner of Liverpool Road glazing.

124422/LO/2019
9 October 2019 **Approved**
Listed Building Consent for the erection of a temporary enclosure (roof, scaffold wrap and hoarding to the vertical elevations), and an internal crash deck, to provide protection of the fabric and interior of the Power Hall and Gantry.

Appendix V – Sources & Bibliography

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GB124.A19/LNW/1/245 'London and North Western Railway Company - Manchester - Liverpool Road Goods station 1913'.

GB124.A19/LNW/1/312 'London Midland and Scottish Railway - Manchester Road Goods - Layout 1941'.

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YA1996.1034 'The Great Railway Exposition Souvenir Programme, 1980'.

YA1996.2130 'Black and White Photographic Prints of the Liverpool Road Station Site'.

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MM679/4D 'Power Hall Steam & Condensing Water Services, 1983'.

SM4/40 'Proposed Layout to Goods Shed, 1980'.

PC1/7 'Plan of Power Hall, 1988'.

YA2007.41 'Records of the Friends of the Museum of Science & Industry'

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Appendix VI – Statutory List Descriptions

POWER HALL OF MUSEUM OF SCIENCE AND INDUSTRY (Shipping Shed)

Grade: II

Date first listed: 6 June 1994

MANCHESTER LIVERPOOL ROAD (North side) Power Hall of Museum of Science and Industry

Railway goods transfer shed, now museum exhibition hall. 1855, for London and North Western Railway. Red brick with some sandstone dressings, hipped slate roof. Very long rectangular plan parallel to street, with wide splayed corner and short return to Lower Byrom Street. Single storey, 6:7:4 blind windows with wagon entrances between these groups and another in the splayed corner; round-headed blind windows with stepped surrounds and raised stone sills, large square-headed wagon doorways with flat-arched heads and stone fenders at the bases of the jambs (formerly furnished with sliding wooden doors but now glazed); continuous brick frieze with simplified corbel table and white brick band, brick parapet with stone coping. Three-bay return side similar.

Includes offices at the W end with four pairs of arched windows with keystones and shared stone sills to each of the two storeys, which are separated by a dentillated string course (formerly eaves, prior to the addition of the first floor). Rubbed-brick arched doorway on Liverpool Road with stone open pediment above retains timber double doors and later fanlight. Four-pane timber sash windows to front and rear elevation (some to rear altered during conversion to museum). Modillioned timber box gutter, central four-pot chimney stack and two-pot end stack. Rear (N) wall has carriage stones at each corner. Office interior said to retain fireplaces and cornices.

Listing NGR: SJ8315597820

FORMER LIVERPOOL ROAD RAILWAY STATION STATION MASTERS HOUSE (1830 Station Buildings)

Grade: I

Date first listed: 18 December 1963

Also known as: Museum of Science and Industry, Liverpool Road Station LOWER BYROM STREET. Passenger railway station at terminus of Liverpool and Manchester Railway, now part of museum complex. 1830, by George Stephenson for the Liverpool and Manchester Railway Company, with attached house of 1808, formerly occupied by station agent; altered. Red brick, the booking offices faced with sandstone ashlar and stucco; hipped slate roofs. Rectangular plan parallel to street, with house to left and added range of former shops to right. Classical style. The BOOKING OFFICES, which back onto an embankment carrying the railway line at 1st floor level to the rear, have a 2-storey 4-bay facade (2:1:2:1 windows), symmetrical except for the 4th bay, with channelled rustication to the ground floor, panelled pilasters to the upper floor, a moulded cornice and high parapet with cornice and blocking course. The 2nd bay (the centre of the symmetrical portion, containing the entrance to the 1st Class booking hall) breaks forward slightly, has a large square-headed doorway with an architrave of coupled pilasters, moulded cornice and blocking course surmounted by a vase-pedestal sundial, and a recessed panelled door with rectangular overlight; and at 1st floor a tripartite sashed window with a cornice. The flanking bays have 15-pane sashed windows at ground floor flanked by wide segmental-headed tripartite sashed windows with glazing bars, and 12-pane sashes at 1st floor with moulded architraves. The 4th bay, containing the entrance to the 2nd Class booking hall, has a doorway at ground floor similar to the other but with single pilasters, and a 12-pane sash above like the others. Interior: separate booking halls and staircases leading to platform. Rear: 2 doorways to the platform with moulded stone surrounds, a tripartite sashed window to the left of the 1st Class doorway and a one-light sash to the left of the other. To the east, an added hipped-roof platform canopy on slender iron columns (C20 offices with glazed screen wall inserted under this roof). The former HOUSE to the left of the booking offices, 3 storeys and 3 bays to the same height, symmetrical, has a doorway with pedimented stone architrave, sashed windows of 16 panes at ground and 1st floors and 12 panes at 2nd floor, all with raised sills and flat-arched heads, and modillioned eaves; and a double-splayed left corner to the return wall, with sashed and blind windows. To the right of the booking offices is a long 9-bay range, recently rebuilt or restored, formerly with shops at ground floor and a train shed above, which is stuccoed at ground floor, has coupled pilasters, 1st-floor sill-band, moulded cornice and high brick parapet (carried across from the booking offices), and most bays with symmetrical openings including a round-headed doorway at ground floor flanked by windows in segmental-headed blank arches, and 2 windows above. HISTORY: oldest

surviving passenger railway station in the world; ceased to handle passenger traffic in 1844 (when Hunt's Bank station was opened, now Victoria Station, q.v.), but continued in use as goods station until 1975. Forms group with Old Warehouse on opposite side of railway track (q.v.).

Listing NGR: SJ8295297867

OLD WAREHOUSE TO NORTH OF FORMER LIVERPOOL ROAD RAILWAY STATION (1830 Warehouse)

Grade: I

Date first listed: 8 May 1973

Railway warehouse. c.1830, together with Liverpool Road Railway Station (q.v.), by George Stephenson and his son Robert; altered. Red brick in Flemish bond, with sandstone dressings and slate roofs. Long slightly curved plan, convex to the railway line and concave to the rear. Three storeys but presenting only 2 storeys to the raised level of the track, 10 individually gabled bays arranged in pairs, with slotted pilasters between each pair and at both ends, a moulded stone cornice (carried round the whole), a small lunette on the cornice in the centre of each bay, and stone gable copings linked by short flats. In each pair of bays (except the 5th pair, at the right-hand end), one bay has a segmental-headed wagon archway with stone surround, 3 small segmental-headed barred windows above the archway with linked sills and wedge lintels (except the 4th bay where the wagon entrance has been raised so as to leave only the heads of the windows) and one 2-stage loading slot to left or right, and the other bay has 2 loading slots. The last pair of bays both have the wagon-archway form. The right-hand loading slot in the 3rd bay has a hoist pulley over the lintel, and apparently altered brickwork over the other loading slots suggests that all were formerly equipped with similar hoists. The left hand return wall has (inter alia) a small pediment to the centre, with an oculus; the 3-storey 6-window right-hand return wall has a doorway with stone surround at the left end of the ground floor, 2 segmental-headed doorways at 1st floor level, and narrow rectangular windows diminishing in the height. The 3-storey rear, with cornice and lunettes like the front, and pilasters which have small windows, has 3-stage loading slots arranged singly or in pairs corresponding to those at the front, with hoists over all except one at the west end and 2 at the east end, doorways with stone surrounds next to the single slots, and small rectangular barred windows with wedge lintels. Interior: timber construction visible.

Listing NGR: SJ8299097886

RAILWAY VIADUCT LINKING BRIDGE OVER IRWELL TO LIVERPOOL ROAD STATION (1830 Viaduct)

Grade: II

Date first listed: 20 June 1988

Railway viaduct, with attached animal ramp at east end of south side, including bridge carrying railway line over Water Street to former Liverpool Road Station. 1830 with bridge rebuilt 1905. Brick viaduct, iron bridge. Viaduct has arcade of segmental arches (that at the west end with springing built into stone abutment of bridge over river); animal ramp attached at right-angles, also of brick with parapets and cobbled deck. Iron-girder bridge over street. Retaining wall to Water Street with monumental banding. Although re-built, forms integral element of railway structures associated with Liverpool Road Station, the first passenger railway station in the world, linking it to the bridge over the river Irwell.

Listing NGR: SJ8291897896

MANCHESTER MUSEUM OF SCIENCE AND INDUSTRY, FORMER LOWER BYROM STREET WAREHOUSE (New Warehouse)

Grade: II

Date first listed: 6 June 1994

Formerly known as: Lower Byrom Street Warehouse of Liverpool Road Station LOWER BYROM STREET. Railway goods warehouse, now part of museum complex. 1880, altered. Red brick with dressings of red brick and some sandstone, slate and glass roof. Large rectangular plan on east-west axis with entrances for railway lines through west end. Three storeys and basement, with south facade of 7 gabled bays, each bay having 2 pairs of windows; blue brick plinth and bands between floors with vertical strips extended to the windows; segmental-headed windows diminishing in the height, with stone imposts and blue brick keystones and arch-bands, iron-framed small-pane glazing; large segmental-headed wagon archways to the 2nd, 3rd and 5th bays, 2-stage loading

slot to the upper floors of the 3rd bay. Eight-window west end, with 2 large square train entrances at ground floor; staggered east end with 4-window main facade, altered entrance at ground floor.

Listing NGR: SJ8317297868

MUSEUM OF SCIENCE AND INDUSTRY, AIR AND SPACE MUSEUM

Grade: II

Date of most recent amendment: 16 June 1994

Formerly known as: Lower Campfield Market
LIVERPOOL ROAD. Market hall, now museum. 1876, by Mangnall and Littlewood. Cast-iron and wood with slate and glass roofs. Large rectangular plan in the form of a nave with north and south aisles under parallel roofs, and north and south transepts to the centre and both ends. Two storeys, 1:3:1:3:1 bays, the centre and ends gabled, and the centre both wider and higher. Cast-iron columns with crocket caps, each bay divided horizontally by a moulded cornice, with small columns and decorated cast-iron railings below this and large-paned glazing above. The centre has a tall segmental-headed doorway rising into the glazed upper portion, a latticed band above eaves level, the gable filled with round-headed lights with slender shafts and margin panes, a bracketed cornice and the gable end of a continuous louvred ventilator, with a finial. Each end bay has a segmental-arched open-work panel in the centre, and an elliptical-arched iron bressummer to the gable, with glazing like that of the centre. The intermediate bays have oversailing eaves with scallop fringes, and continuous ridge ventilators. Three-bay east and west ends in matching style. Interior: cast-iron pillars with decorated caps carrying latticed girders, slender elliptical-arched latticed roof girders. Forms group with former Higher Campfield Market Hall to east (q.v.), by same architects in very similar style.

Listing NGR: SJ8327097786

FORMER GRAPE STREET RAILWAY BONDED WAREHOUSE

Grade: II

Date first listed: 31 July 2018

HISTORY

The former Grape Street bonded warehouse was constructed between 1867 and 1868 between Liverpool Road Station and Grape Street (originally known as Charles Street), as part of a complex of goods warehousing associated with the former Liverpool Road Station (listed Grade I). The station was built in 1830 (the oldest surviving terminal railway passenger station in the world) along with a warehouse opposite (the world's first large urban railway warehouse; listed Grade I). In 1844, following the opening of Manchester's Victoria Station, Liverpool Road Station became a goods depot under the ownership of London and North Western Railway. By 1851 two cotton stores had been built to the north-east of the station and in around 1855 a goods shed was built on the corner of Liverpool Road and Lower Byrom Street (listed Grade II). In 1866 a fire destroyed the cotton stores, which were replaced by the former Grape Street bonded railway goods warehouse. A further warehouse was built on Lower Byrom Street in 1888 (listed Grade II).

The former Grape Street bonded warehouse was a secure building where goods were stored in advance of any duty payments being made. The building is marked on historical late-C19 and C20 Ordnance Survey Maps as both a goods shed and warehouse and it is unclear whether it was used as a general goods store before it officially became a bonded warehouse. Originally goods were brought in by rail tracks, carried on a brick-vaulted viaduct which ran in front of the warehouse's south elevation; some of the viaduct arches in front of the warehouse were used as bonded stores. There were three turntables in front of the large doors on the south elevation that directed the tracks into the building. Three further turntables were located within the warehouse, linked to an internal railway track network. This included a track which ran through openings in the east and west elevations and along the south end. The ground floor on the north side of the building was at a lower street level. In the late C19 a timber yard was established on the east side of the warehouse, and between 1890 and 1908 was replaced by two parallel rectangular buildings containing stables, stalls and a harnessing room. The warehouse remained in operation as part of the wider railway goods complex until 1975, after which the building was sold.

In the mid-C20 Granada Television Centre was established on the north side of Grape Street and by the 1980s it had expanded south to incorporate part of

the former goods depot. The bonded warehouse was retained and converted to form part of the television studios which included the insertion of lifts, staircases, WC facilities and associated plant. The adjoining stables were also retained and converted into an experimental theatre with a performance space and a bar. New buildings were added to the site including those constructed above adjacent viaduct. The exterior television set for the soap opera Coronation Street was also built to the east side of the stables in 1982. In 1989 the basement and ground-floor levels of the bonded warehouse were further remodelled internally when the building was converted for use as part of the Granada Tours Scheme (the tours ended in 1999). Part of the single-storey stable range was converted to create a copy of the Coronation Street's Rover's Return, including a replica facade, to provide tour customers with a place to drink. Granada left the site in 2007. Since then parts of the warehouse have been reused on a temporary basis. The building is currently (2018) subject to internal and external refurbishment.

DETAILS

Former railway bonded warehouse, built 1867 to 1868 for the London and North Western Railway; it underwent internal modifications in the C20 and early C21.

MATERIALS: red-brick construction with blue-engineering-brick detailing including banding and quoins, with Welsh-slate roof coverings.

PLAN: the warehouse has a rectangular footprint and is orientated east-west. There are six floors including a lower and upper ground floor.

EXTERIOR: five-and-a-half storeys, with four storeys to the south side where the ground level is higher, beneath hipped roofs of slate. All windows have segmental heads, brick voussoirs, blue-brick keystones and reveals, ashlar springers and cills, and are fitted with metal multi-pane casements. Taking-in doors are timber with glazed uppers. Ground floor entrances are fitted with double battened timber doors.

The 12-bay north elevation has six loading bays arranged in three pairs, with taking-in doors to the first to fourth floors, and the remains of brackets for the hoists above. The ground floors of the loading bays have small window openings. The other bays have tall, wide, arched entrances to the ground floor, and arched windows to the upper floors. The six-bay west elevation has two loading bays with taking-in doors and three lower ground-floor doors. The ground level at the southern end of this elevation is higher and there is another door at first-floor level (formerly access for an internal railway line). The 12-bay south elevation has three large first-floor doors where the railway tracks would have originally entered the warehouse. The remainder of this elevation has a similar arrangement to the north elevation, but has three single loading bays. The east elevation is largely blind, with a regular arrangement of arched recesses and there is a first-floor door to the higher south end (similar to that on the west elevation). Part of the east elevation's lower floors is obscured by the attached former stable block. The building has a dentilled parapet. At the top of the west elevation is a painted sign reading BONDED WAREHOUSE. Behind the parapet is the twin-hipped roof housing some C20 plant.

INTERIOR: it was not possible to gain access to the buildings, and the following description is based on other available information. All of the floors are supported by cast-iron cruciform and circular-hollow columns. The lower and upper ground-floor levels are also supported by substantial brick piers, some of which have blue-brick quoins and chamfer detailing to the corners. Along the southern edge of the lower ground-floor are sections of brick arches. The three lower floors are fire-proof constructions with wrought-iron girders and brick-jack arch ceilings. The upper three levels have timber floors. Most of the ceilings are covered in modern ceiling tiles. The lower four floors are subdivided by C20 and C21 plasterboard and concrete-block partitions to form office and studio spaces, and there are several C20 and C21 inserted stairs and lift shafts, particularly on the north side of the building. The upper two floors remain as large open spaces. The top floor is open to the roof and is topped by a twin queen-post roof structure, within which there are the remains of the original hoist machinery.

COLONNADED RAILWAY VIADUCT AT FORMER LIVERPOOL ROAD GOODS DEPOT (1867 Viaduct)

Grade: II

Date first listed: 6 June 1994

Railway viaduct. Probably c.1870. Cast-iron. A series of cast-iron columns on stone bases supports the viaduct which has cast-iron beams showing at the sides.

Listing NGR: SJ8301397907

FORMER ST MATTHEWS SUNDAY SCHOOL

Grade: II

Date of most recent amendment: 6 June 1994

Mission church and Sunday School, now office. Dated 1827 over door; altered. Red brick in Flemish bond with some sandstone dressings (roof not visible). Rectangular plan with apsidal south end, on island site. Simple Gothic style. Gable to street, two storeys and cellar, three bays, symmetrical, with pilastered corners, 1st-floor sill-band; slightly raised centre with two semicircular steps up to 2-centred arched doorway which has fanlight with intersecting glazing bars, a large stone plaque above the door inscribed "SUNDAY SCHOOL / MDCCCXXVII", a large 2-centred arched 3-light window at 1st-floor with intersecting glazing bars, and another stone plaque above this (worn inscription illegible); smaller 2-centred arched windows to both floors of the outer bays, with Y-tacery; gable parapet with oculus (now open, the roof lowered). Five-window sides in similar style.

Listing NGR: SJ8321097758

123, LIVERPOOL ROAD

Grade: II

Date first listed: 6 June 1994

Pair of town houses, now office. Early to mid C19, altered. Red brick in Flemish bond with some sandstone dressings and slate roof. Double-depth plan with back extension. Three storeys, 4 windows (probably originally 2+2); round-headed doorway to the right with set-in wooden pilastered doorcase including dentilled cornice, plain fanlight; similar round-headed opening to 2nd bay probably formerly a doorway but now a window; otherwise, all windows have raised sills and flat-arched heads of gauged brick, and C20 top-hung casements imitating 4-pane sashes. Left return side similar. Included for group value.

Listing NGR: SJ8299097826

FORMER COMMERCIAL HOTEL

Grade: II

Date first listed: 6 June 1994

Hotel. Early to mid C19, altered. Red brick in Flemish bond, with some sandstone dressings, slate roof. Double-depth double-fronted plan, with rear wing. Three storeys and three bays; central round-headed doorway with set-in doorcase of Tuscan columns and dentilled cornice, plain fanlight; "corner-shop" shop-front to right-hand corner, with splayed doorway flanked by one window in each side, all in pilastered surround with right-angled frieze and dentilled cornice; windows with raised sills and flat-arched heads of gauged brick, that to left of door with altered glazing but 4-pane sashes to the upper floors. Four-window right-hand return wall with round-headed doorway and altered windows at ground floor and 4-pane sashes above. Interior altered.

Listing NGR: SJ8298297827

Planning (Listed Buildings and Conservation Areas) Act 1990

The Act is legislative basis for decision making on applications that relate to the historic environment.

Sections 16, 66 and 72 of the Act impose a statutory duty upon local planning authorities to consider the impact of proposals upon listed buildings and conservation areas.

Section 16 of the Planning (Listed Buildings and Conservation Areas) Act 1990 states that:

> *[...] in considering whether to grant listed building consent for any works the local planning authority or the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses.*

Similarly, section 66 of the above Act states that:

> *In considering whether to grant permission for development which affects a listed building or its setting, the local planning authority, or as the case may be the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses.*

Similarly, section 72(I) of the above Act states that:

> *[...] with respect to any buildings or other land in a conservation area, special attention shall be paid to the desirability of preserving or enhancing the character or appearance of a conservation area.*

Local Policy

Manchester City Council: Core Strategy Development Plan

Manchester's **Core Strategy** was adopted on 11 July 2012 and is the key Development Plan Document in the Local Development Framework (LDF).

Policy CC 9: Design and Heritage

Design of new buildings will need to be of the highest standard in terms of appearance and function. The standards and guidance explained in other LDF policies should be the basis for the approach to design, with particular attention to be given to the City Centre context and character. Development in Manchester City Centre should preserve or enhance the heritage assets that have been identified, including listed buildings, conservation areas and scheduled ancient monuments. The Council will support high density and mixed use development in the City Centre, but developers must recognise the specific design challenges that must be overcome to ensure complementarity of function and form. New development must support the range of uses the Council expects in the City Centre and contribute to a coherent and integrated physical environment.

Policy EN 3: Heritage

Throughout the City, the Council will encourage development that complements and takes advantage of the distinct historic and heritage features of its districts and neighbourhoods, including those of the City Centre. New developments must be designed so as to support the Council in preserving or, where possible, enhancing the historic environment, the character, setting and accessibility of areas and buildings of acknowledged importance, including scheduled ancient monuments, listed buildings, registered parks and gardens, conservation areas and archaeological remains.

Proposals which enable the re-use of heritage assets will be encouraged where they are considered consistent with the significance of the heritage asset.

The **Unitary Development Plan** for the City of Manchester (UDP) was adopted by the Council on 21 July 1995; the following relevant policies remain extant.

18. CONSERVATION AREAS

DC18.1

The Council will give particularly careful consideration to development proposals within Conservation Areas.

a. *The Council will seek to preserve and enhance the character of its designated conservation areas by carefully considering the following issues:*

i) the relationship of new structures to neighbour-

ing buildings and spaces;

ii) the effect of major changes to the appearance of existing buildings;

iii) the desirability of retaining existing features, such as boundary walls, gardens, trees, (including street trees);

iv) the effect of signs and advertisements;

v) any further guidance on specific areas which has been approved by the Council.

b. *The Council will not normally grant outline planning permission for development within Conservation Areas.*

c. *Consent to demolish a building in a conservation area will be granted only where it can be shown that it is wholly beyond repair, incapable of reasonably beneficial use, or where its removal or replacement would benefit the appearance of character of the area.*

d. *Where demolition is to be followed by redevelopment, demolition will be permitted only where there are approved detailed plans for that redevelopment and where the Council has been furnished with evidence that the development will be undertaken.*

e. *Development proposals adjacent to Conservation Areas will be granted only where it can be shown that they will not harm the appearance or character of the area. This will include the protection of views into and out of Conservation Areas.*

19. LISTED BUILDINGS

DC19.1

In determining applications for listed building consent or planning applications for development involving or having an impact on buildings of Special Architectural or Historic Interest, the Council will have regard to the desirability of securing the retention, restoration, maintenance and continued use of such buildings and to protecting their general setting. In giving effect to this policy, the Council will:

a. *Not grant Listed building consent for the demolition of a listed building other than in the most exceptional circumstances, and in any case, not unless it is satisfied that every possible effort has been made to continue the present use or to find a suitable alternative use;*

b. *Not permit a change of use of a listed building, where it would have a detrimental effect on the character or appearance of the building;*

c. *Not permit any external or internal alteration or addition to a Listed building where, in its opinion, there would be an adverse effect on its architectural or historic character;*

d. *Seek to preserve and enhance the settings of listed buildings by appropriate control over the design of new development in their vicinity, control over the use of adjacent land, and where appropriate, by the preservation of trees and landscape features;*

e. *Permit demolition only where there are approved detailed plans for redevelopment and where there is evidence of a firm building contract;*

f. *Not permit alterations to a listed building which would prevent the future use of any part of the building, in particular upper floors or basements, or where poor maintenance is likely to result.*

Castlefield Conservation Area

The following information was taken from the 'Conservation Areas' page on Manchester City Council's website.

Castlefield and its buildings today

The recent revival of interest in Castlefield is having a significant impact on the refurbishment of buildings. Warehouses have been converted to flats, offices, galleries and studios. The various buildings in the Liverpool Road Station complex have undergone extensive repair and modification to house the exhibits in the Museum of Science and Industry. The buildings are exhibits in themselves, and provide an ideal setting for the smaller items within.

Liverpool Road Station was a pioneering and speculative venture, as no one knew in 1830 if the railways would be a successful means of transport. The station, constructed inexpensively in the Classical style, is a very modest building when compared with

the great train sheds of Piccadilly, Victoria and Central stations. The 1830s warehouse to the north of the station is a long, curved building with five bays, each with two roof ridges. It was not completed until after the opening of the station, but enough of it was built by then for it to house the lavish opening ceremony.

It then assumed its normal role as a store and interchange between rail and road transport. The different levels for servicing road and rail were crucial to its functioning. Railway waggons could be easily unloaded by being tipped into trucks on the lower level. These buildings and viaducts were the first of their type, and consequently are vital artefacts in the history of Manchester and the railways.

The Merchants and Middle warehouses also had interchange facilities. Canal arms allowed barges to enter the buildings and be off-loaded directly on to horsedrawn carts.

The Grocers Warehouse, Manchester's first (c.1775), also had water-powered lifting machinery which could hoist coal from barges to the street level high above. Unfortunately, this building was demolished in 1960. As far as is known, measured drawings were not made before this occurred, and the partial reconstruction of 1986 was very basic.

Trains were operated at high level, to prevent them from obstructing road and canal traffic, and this involved the construction of bridges and viaducts. The first of the railway viaducts was built across the River Irwell in 1830 by George Stephenson, the locomotive designer.

Acres Fair, which had been held in St. Ann's Square (and later at Shudehill) annually since 1222, moved to Castlefield in 1872 and remained there for four years. When it was abolished, the attendant market traders remained. The site they originally occupied was known as Lower Campfield Market, from which, in 1878, they expanded into the Higher Campfield Market. Both areas were covered over by large, glazed buildings with cast-iron frames.

The larger of the two, Lower Campfield, was used as the City Exhibition Hall for many years and is now the Air and Space Gallery. St. Matthew's Church, designed in 1825 by Sir Charles Barry, the most eminent British architect of the time, was built on Liverpool Road between what later became Higher and Lower Campfield Markets. It was demolished in 1951, but its Sunday School, now called Gunn House, still exists and has been converted to offices.

The most significant church still standing in Castlefield is the Church of St. George on Chester Road. It has been vacant for many years but current negotiations for commercial re-use will ensure the future of the building. It was designed by Francis Goodwin in the Neo-Gothic Perpendicular style and was built between 1826 and 1828.

Castlefield is still developing, and older buildings - particularly warehouses - are being adapted to other uses. New buildings include a stadium with a tensile skin roof for viewing spectacular events. A curvilinear footbridge across the Bridgewater Canal, the walkway suspended from an angled and counterbalancing arch, is an adventurous structure.

Control of development

Castlefield, Britain's first Urban Heritage Park, is the place where industrial innovation occurred, particularly in the area of transport.

Events are now organized which require large areas of paving together with new buildings such as a grandstand with a stressed-fabric, tent-like roof. The purpose of a conservation area is to preserve, and even enhance, the character of those elements which are of historic significance, but this does not rule out further development provided that it respects the character of the area. There is already some commercial property in Castlefield and there is room for more.

Present uses in Castlefield are mainly directed towards tourism and recreation, and this is likely to remain the case for the foreseeable future. However, this does not preclude further uses being introduced provided they are appropriate. For instance, in recent years a number of warehouses have been converted to residential use. Ideally, new development should incorporate a mix of uses. In places where existing buildings have narrow frontages, it is important that new proposals have similar dimensions. This will ensure that a vertical rhythm in the 'street wall' is maintained when viewed obliquely. The height and scale, the colour, form, massing and materials of new buildings should relate to the existing high-quality structures and complement them. This policy still leaves scope for innovation, provided that new proposals enhance the area.

The extreme diversity of form and style in Castlefield's existing structures makes it permissible for designers to use their imaginations freely. Where buildings are arranged along a street, new structures should follow the street frontage and no attempt should be made to iron out 'anomalies', such as a slight bend in the street.

Improvement and enhancement

In recent years Castlefield has undergone dramatic changes which have transformed it from a forgotten corner of the city to a thriving centre of activity. Many projects are currently underway, and some of these will serve to trigger further activity in both the private and public sectors.

Generally speaking, as Castlefield has always been a centre of innovation, imaginative new proposals for development are likely to receive a warm welcome.

Castlefield has for a long time been an area which could claim to be the centre of tourism in the north-west. It has become a generator of prosperity for the City, and it is the City Council's intention that this should continue for many years to come.

However, there is still room for improvement in the area, and there are many disused and semi-derelict buildings for which new uses should be found. Cafes, pubs, clubs and bars are suitable ground floor uses, though there is a limit to the number of these that the area can sustain. The upper floors of large buildings can be used for housing, offices, studios, galleries and museums.

The nature of Castlefield does not demand that new buildings should all be of brick and stone with slate roofs. Modern materials used in a modern manner can find a place here, but the resulting buildings must, above all, be of high quality.

National Planning Policy Framework

Any proposals for consent relating to heritage assets are subject to the policies of the NPPF (February 2019). This sets out the Government's planning policies for England and how these are expected to be applied. With regard to 'Conserving and enhancing the historic environment', the framework requires proposals relating to heritage assets to be justified and an explanation of their effect on the heritage asset's significance provided.

Paragraph 7 of the Framework states that the purpose of the planning system is to 'contribute to the achievement of sustainable development' and that, at a very high level, 'the objective of sustainable development can be summarised as meeting the needs of the present without compromising the ability of future generations to meet their own needs.

At paragraph 8, the document expands on this as follows:

> *Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives:*
>
> *a) an economic objective – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;*
>
> *b) a social objective – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and*
>
> *c) an environmental objective – to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.*

and notes at paragraph 10:

> *10. So that sustainable development is pursued in a positive way, at the heart of the Framework is a presumption in favour of sustainable development (paragraph 11).*

With regard to the significance of a heritage asset, the framework contains the following policies:

190. Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.

In determining applications local planning authorities are required to take account of significance, viability, sustainability and local character and distinctiveness. Paragraph 192 of the NPPF identifies the following criteria in relation to this:

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

With regard to potential 'harm' to the significance designated heritage asset, in paragraph 193 the framework states the following:

...great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether the any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance.

The Framework goes on to state at paragraph 194 that:

Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting) should require clear and convincing justification.

Where a proposed development will lead to 'substantial harm' to or total loss of significance of a designated heritage asset paragraph 195 of the NPPF states that:

...local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:

a) the nature of the heritage asset prevents all reasonable uses of the site; and
b) no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and
c) conservation by grant-funding or some form of charitable or public ownership is demonstrably not possible; and
d) the harm or loss is outweighed by the benefit of bringing the site back into use.

With regard to 'less than substantial harm' to the significance of a designated heritage asset, of the NPPF states the following;

196. Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use.

In terms of non-designated heritage assets, the NPPF states:

197. The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly non-designated heritage assets, a balance judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.

The Framework requires local planning authorities to look for opportunities for new development within conservation areas and world heritage sites and within the setting of heritage assets to enhance or better reveal their significance. Paragraph 200 states that:

Proposals that preserve those elements of the setting that make a positive contribution to the asset (or which better reveal its significance) should be treated favourably.

Concerning conservation areas and world heritage sites it states, in paragraph 201, that:

Not all elements of a Conservation Area or World Heritage Site will necessarily contribute to its significance. Loss of a building (or other

element) which makes a positive contribution to the significance of the Conservation Area or World Heritage Site should be treated either as substantial harm under paragraph 195 or less than substantial harm under paragraph 196, as appropriate, taking into account the relative significance of the element affected and its contribution to the significance of the Conservation Area or World Heritage Site as a whole.

National Planning Practice Guidance

The National Planning Practice Guidance (NPPG) was published on 23 July 2019 to support the National Planning Policy Framework (NPPF) 2019 and the planning system. It includes particular guidance on matters relating to protecting the historic environment in the section: Conserving and Enhancing the Historic Environment.

The relevant guidance is as follows:

Paragraph 2: What is meant by the conservation and enhancement of the historic environment?

Conservation is an active process of maintenance and managing change. It requires a flexible and thoughtful approach to get the best out of assets as diverse as listed buildings in every day use and as yet undiscovered, undesignated buried remains of archaeological interest.

In the case of buildings, generally the risks of neglect and decay of heritage assets are best addressed through ensuring that they remain in active use that is consistent with their conservation. Ensuring such heritage assets remain used and valued is likely to require sympathetic changes to be made from time to time. In the case of archaeological sites, many have no active use, and so for those kinds of sites, periodic changes may not be necessary, though on-going management remains important.

Where changes are proposed, the National Planning Policy Framework sets out a clear framework for both plan-making and decision-making in respect of applications for planning permission and listed building consent to ensure that heritage assets are conserved, and where appropriate enhanced, in a manner that is consistent with their significance and thereby achieving sustainable development. Heritage assets are either designated heritage assets or non-designated heritage assets.

Part of the public value of heritage assets is the contribution that they can make to understanding and interpreting our past. So where the complete or partial loss of a heritage asset is justified (noting that the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted), the aim then is to:

- capture and record the evidence of the asset's significance which is to be lost
- interpret its contribution to the understanding of our past; and
- make that publicly available (National Planning Policy Framework paragraph 199)

Paragraph 6: What is "significance"?

'Significance' in terms of heritage-related planning policy is defined in the Glossary of the National Planning Policy Framework as the value of a heritage asset to this and future generations because of its heritage interest. Significance derives not only from a heritage asset's physical presence, but also from its setting.

The National Planning Policy Framework definition further states that in the planning context heritage interest may be archaeological, architectural, artistic or historic. This can be interpreted as follows:

- **archaeological interest**: As defined in the Glossary to the National Planning Policy Framework, there will be archaeological interest in a heritage asset if it holds, or potentially holds, evidence of past human activity worthy of expert investigation at some point.
- **architectural and artistic interest**: These are interests in the design and general aesthetics of a place. They can arise from conscious design or fortuitously from the way the heritage asset has evolved. More specifically, architectural interest is an interest in the art or science of the design, construction, craftsmanship and decoration of buildings and structures of all types. Artistic interest is an interest in other human creative skill, like sculpture.
- **historic interest**: An interest in past lives and events (including pre-historic). Heritage assets can illustrate or be associated with them. Heritage assets with historic interest not only provide a material record of our nation's history,

but can also provide meaning for communities derived from their collective experience of a place and can symbolise wider values such as faith and cultural identity.

In legislation and designation criteria, the terms 'special architectural or historic interest' of a listed building and the 'national importance' of a scheduled monument are used to describe all or part of what, in planning terms, is referred to as the identified heritage asset's significance.

Paragraph 7: Why is 'significance' important in decision-taking?

Heritage assets may be affected by direct physical change or by change in their setting. Being able to properly assess the nature, extent and importance of the significance of a heritage asset, and the contribution of its setting, is very important to understanding the potential impact and acceptability of development proposals.

Paragraph 13: What is the setting of a heritage asset and how should it be taken into account?

The setting of a heritage asset is defined in the Glossary of the National Planning Policy Framework.

All heritage assets have a setting, irrespective of the form in which they survive and whether they are designated or not. The setting of a heritage asset and the asset's curtilage may not have the same extent.

The extent and importance of setting is often expressed by reference to the visual relationship between the asset and the proposed development and associated visual/physical considerations. Although views of or from an asset will play an important part in the assessment of impacts on setting, the way in which we experience an asset in its setting is also influenced by other environmental factors such as noise, dust, smell and vibration from other land uses in the vicinity, and by our understanding of the historic relationship between places. For example, buildings that are in close proximity but are not visible from each other may have a historic or aesthetic connection that amplifies the experience of the significance of each.

The contribution that setting makes to the significance of the heritage asset does not depend on there being public rights of way or an ability to otherwise access or experience that setting. The contribution may vary over time.

When assessing any application which may affect the setting of a heritage asset, local planning authorities may need to consider the implications of cumulative change. They may also need to consider the fact that developments which materially detract from the asset's significance may also damage its economic viability now, or in the future, thereby threatening its ongoing conservation.

Paragraph 15: What is the optimum viable use for a heritage asset and how is it taken into account in planning decisions?

The vast majority of heritage assets are in private hands. Thus, sustaining heritage assets in the long term often requires an incentive for their active conservation. Putting heritage assets to a viable use is likely to lead to the investment in their maintenance necessary for their long-term conservation.

By their nature, some heritage assets have limited or even no economic end use. A scheduled monument in a rural area may preclude any use of the land other than as a pasture, whereas a listed building may potentially have a variety of alternative uses such as residential, commercial and leisure.

In a small number of cases a heritage asset may be capable of active use in theory but be so important and sensitive to change that alterations to accommodate a viable use would lead to an unacceptable loss of significance.

It is important that any use is viable, not just for the owner, but also for the future conservation of the asset: a series of failed ventures could result in a number of unnecessary harmful changes being made to the asset.

If there is only one viable use, that use is the optimum viable use. If there is a range of alternative economically viable uses, the optimum viable use is the one likely to cause the least harm to the significance of the asset, not just through necessary initial changes, but also as a result of subsequent wear and tear and likely future changes. The optimum viable use may not necessarily be the most economically viable one. Nor need it be the original use. However, if from a conservation point of view there is no real difference between alternative economically viable uses, then the choice of use is a decision for the owner, subject of course to obtaining any necessary consents.

Harmful development may sometimes be justified in the interests of realising the optimum viable use of an asset, notwithstanding the loss of significance caused, and provided the harm is minimised. The policy on addressing substantial and less than substantial harm is set out in paragraphs193-196 of the National Planning Policy Framework.

Paragraph 18: How can the possibility of harm to a heritage asset be assessed?

What matters in assessing whether a proposal might cause harm is the impact on the significance of the heritage asset. As the National Planning Policy Framework makes clear, significance derives not only from a heritage asset's physical presence, but also from its setting.

Proposed development affecting a heritage asset may have no impact on its significance or may enhance its significance and therefore cause no harm to the heritage asset. Where potential harm to designated heritage assets is identified, it needs to be categorised as either less than substantial harm or substantial harm (which includes total loss) in order to identify which policies in the National Planning Policy Framework (paragraphs 194-196) apply.

Within each category of harm (which category applies should be explicitly identified), the extent of the harm may vary and should be clearly articulated.

Whether a proposal causes substantial harm will be a judgment for the decision-maker, having regard to the circumstances of the case and the policy in the National Planning Policy Framework. In general terms, substantial harm is a high test, so it may not arise in many cases. For example, in determining whether works to a listed building constitute substantial harm, an important consideration would be whether the adverse impact seriously affects a key element of its special architectural or historic interest. It is the degree of harm to the asset's significance rather than the scale of the development that is to be assessed. The harm may arise from works to the asset or from development within its setting.

While the impact of total destruction is obvious, partial destruction is likely to have a considerable impact but, depending on the circumstances, it may still be less than substantial harm or conceivably not harmful at all, for example, when removing later additions to historic buildings where those additions are inappropriate and harm the buildings' significance. Similarly, works that are moderate or minor in scale are likely to cause less than substantial harm or no harm at all. However, even minor works have the potential to cause substantial harm, depending on the nature of their impact on the asset and its setting.

The National Planning Policy Framework confirms that when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). It also makes clear that any harm to a designated heritage asset requires clear and convincing justification and sets out certain assets in respect of which harm should be exceptional/wholly exceptional (see National Planning Policy Framework, paragraph 194).

Paragraph 20: What is meant by the term public benefits?

The National Planning Policy Framework requires any harm to designated heritage assets to be weighed against the public benefits of the proposal.

Public benefits may follow from many developments and could be anything that delivers economic, social or environmental objectives as described in the National Planning Policy Framework (paragraph 8). Public benefits should flow from the proposed development. They should be of a nature or scale to be of benefit to the public at large and not just be a private benefit. However, benefits do not always have to be visible or accessible to the public in order to be genuine public benefits, for example, works to a listed private dwelling which secure its future as a designated heritage asset could be a public benefit.

Examples of heritage benefits may include:

- sustaining or enhancing the significance of a heritage asset and the contribution of its setting
- reducing or removing risks to a heritage asset
- securing the optimum viable use of a heritage asset in support of its long term conservation

Other Relevant Policy Documents

Historic England: Historic Environment Good Practice Advice in Planning (March 2015)

Historic England: Conservation Principles and Assessment (2008)

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