SIM New Warehouse

Heritage Assessment
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1.0

Introduction

1.0 Introduction

1.1 Background

This Heritage Assessment has been prepared to support the application for Listed Building Consent for proposed works to the Grade II listed New Warehouse that forms part of the wider Science and Industry Museum Site in Castlefield, Manchester. The following report provides an understanding of the heritage significance of the asset(s) and assess the potential impacts of the proposed work on its significance.

This Assessment has been prepared as acknowledgement of the multiple designations that apply to the assets across the museum site.

NOTE: The Assessment of Significance and Heritage Impact Assessment chapters only address the Grade II listed New Warehouse, and do not provide an assessment of the Castlefield Conservation Area or the Group Value of the site. This is due to the fact that the proposed works are entirely internal and do not have the potential to impact upon the setting or character of the Castlefield Conservation Area, or any of the other listed assets within close proximity to the site.

1.2 Methodology

The document surveys the heritage, providing an overview of important information to foster better understanding of the site and its context. This is done through an assessment of historical development and the surrounding area. This is followed by an assessment of significance, based on the information gathered. Significance is assessed in relation to the heritage interests outlined by Historic England. The aim of the assessment is to understand the site through analysis of physical evidence and desktop research. A description of the site and its history will help to provide context for this significance assessment and inform the basis for heritage impact judgements.

This report has been written in accordance with the *National Planning Policy Framework (2021)*, *Historic England's Statements of Heritage Significance (2019)*, and *Conservation Principles, Policies & Management for the Sustainable Management of the Historic Environment (2008)*, and *BS7913 - British Standards Guide to the Conservation of Historic Buildings.*

The Historic Environment Record (HER) has been consulted as standard and the results of the HER search have been used to inform the contents of the report.

This Statement is written without prejudice to previous reports about the site, particularly previous Heritage Statements and Assessments of Significance.

1.3 Authorship & Ownership

This document has been prepared by Freya Needham MA, Heritage Consultant at **Buttress**.

1.4 Location & Description

The Science and Industry Museum is located in the western part of Manchester city centre, on the site of the former Liverpool Road railway station.

The wider museum site is bounded to the north by a number of large warehouses including the site of the new Factory International building (in construction), to the south by Liverpool Road, to the east by Lower Byrom Street, and to the west by the River Irwell as well as Stephenson's Viaduct.

Figure 1 Location Plan

- Site Boundary

- Wider Museum Complex



2.0

Understanding the Heritage

2.0 Understanding the Heritage

2.1 Designation

The New Warehouse is Grade II Listed (Manchester Museum of Science and Industry, Former Lower Byrom Street Warehouse, List Entry No. 1283016). The warehouse, as well as the wider museum site, is located in the Castlefield Conservation Area, known for its canals, warehouses, and industrial architecture.

The wider museum site also contains 5 other listed structures, as well as 2 curtilage listed structures. These are:

- Station Building - Grade I (Former Liverpool Road Railway Station Masters House, List Entry No. 1291477)
- 1830 Warehouse - Grade I (Old Warehouse to North of Former Liverpool Road Railway Station, List Entry No. 1282991)
- 1830 Viaduct - Curtilage to the Grade I listed 1830 Warehouse, see above.
- Water Street Bridge - Grade II (Railway Viaduct Linking Bridge Over Irwell to Liverpool Road Station, List Entry No. 1254726)
- 1867 Viaduct - Grade II (Colonnaded Railway Viaduct at Former Liverpool Road Goods Depot, List Entry No. 1200805)
- Upper Yard - Curtilage to the Grade II listed New Warehouse, see above.
- Power Hall & Gantry - Grade II (Power Hall Of Museum of Science and Industry, List Entry No. 1291458)

These assets can bee seen marked on Figure 2 Designation Map, overleaf.

Water Street Bridge - Grade I Listed. The boundary of this listed structure includes the viaduct spanning the River Irwell with attached animal ramp at east end of south side, and extends to the east edge of the bridge spanning Water Street. Full extent of the listed structure further west is not shown on this diagram.

Lower Yard - Considered Curtilage of:

- Grade I 1830 Warehouse - connected to the northern elevation of the warehouse and used concurrently.
- Grade II 1867 Viaduct (The Pineapple Line) - connected structures used concurrently.

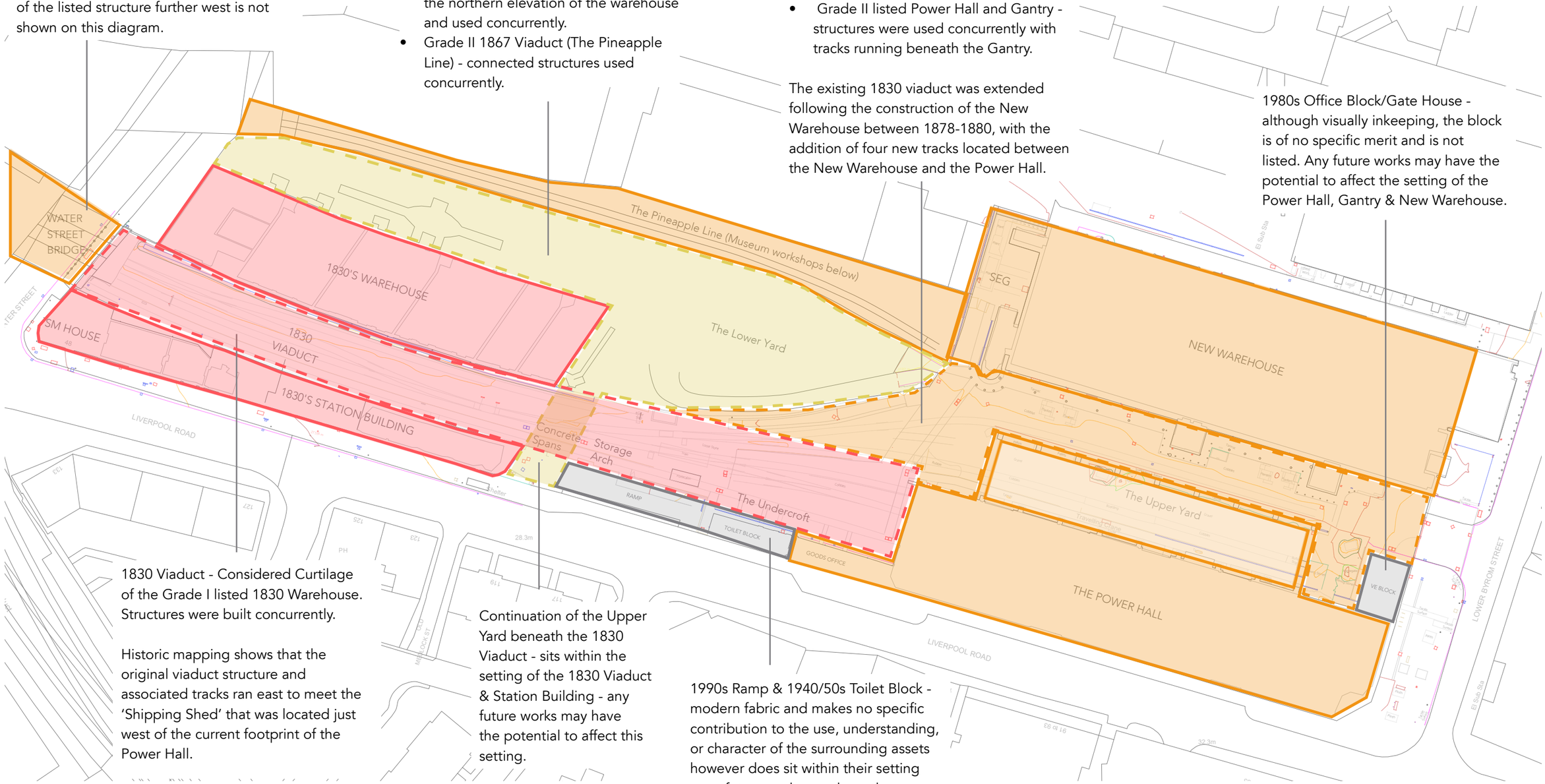
Upper Yard - Considered Curtilage of:

- Grade II listed New Warehouse - Structures were built and used concurrently.
- Grade II listed Power Hall and Gantry - structures were used concurrently with tracks running beneath the Gantry.

The existing 1830 viaduct was extended following the construction of the New Warehouse between 1878-1880, with the addition of four new tracks located between the New Warehouse and the Power Hall.

- Not Listed
- Grade I Listed
- Grade I Curtilage
- Grade II Listed
- Grade II Curtilage
- Grade I & II Curtilage

1980s Office Block/Gate House - although visually inkeeping, the block is of no specific merit and is not listed. Any future works may have the potential to affect the setting of the Power Hall, Gantry & New Warehouse.



1830 Viaduct - Considered Curtilage of the Grade I listed 1830 Warehouse. Structures were built concurrently.

Historic mapping shows that the original viaduct structure and associated tracks ran east to meet the 'Shipping Shed' that was located just west of the current footprint of the Power Hall.

Continuation of the Upper Yard beneath the 1830 Viaduct - sits within the setting of the 1830 Viaduct & Station Building - any future works may have the potential to affect this setting.

1990s Ramp & 1940/50s Toilet Block - modern fabric and makes no specific contribution to the use, understanding, or character of the surrounding assets however does sit within their setting - any future works may have the potential to affect this setting. Structure is not listed.

Figure 2 Designation Map

2.2 Building Identification

For the purpose of this report, assets will be referred to by the names detailed in the 'Museum Name' column.

Listing Name / Historic Name	Grade	Approx. Age	Museum Name (used within this report)	Other Name(s)
Former Liverpool Road Railway Station, and Station Master's House	I	1830	Station Building	Passenger Station or Departure Station
Old Warehouse to North of Former Liverpool Road Railway Station	I	1830	1830 Warehouse	The Old Warehouse
Curtilage to Old Warehouse to North of Former Liverpool Road Railway Station	Curtilage to Grade I	1830	1830 Viaduct	
Railway Viaduct Linking Bridge Over Irwell to Liverpool Road Station	II	1830	Water Street Bridge	
Colonnaded Railway Viaduct at Former Liverpool Road Goods Depot	II	1867	1867 Viaduct	The Pineapple Line
Manchester Museum of Science and Industry, Former Lower Byrom Street Warehouse	II	1878 - 1880	New Warehouse / Main Building	Great Western Railway Warehouse, Continental Warehouse, Lower Byrom Street Warehouse
Power Hall of Museum of Science and Industry	II	1855	Power Hall (including Gantry and Offices)	Shipping Shed, Transit Shed, Goods Shed, Freight Shed

2.3 Description of the Heritage

The following building description has been extracted, either wholly or in part, from the site's 2007 *Conservation Plan*[1]

The full listing description for the structure can be found in **7.2 Appendix 2: Listing Descriptions.**

The three-storey warehouse (with basement) is a large seven-bay rectangular building on a east-west axis with entrances for railway lines through the west end from the 1876 viaduct. The original Lower Byrom Street façade was L-shaped; this has been filled in and extended to the street edge with a modern glass structure, which opened in 2000, housing a café/shop on the ground floor and offices above. The building is of red brick with detail in blue brick and sandstone, with a pitched slate and glass roof over each bay. The southern elevation overlooks the Upper Yard and each bay has two pairs of segmentally headed windows of diminishing height. The blue brick is used for the plinth, the keystones, the bands between the floors and vertical strips extending to the windows and doors.[2]

A large four-storey glazed external staircore abuts the western elevation of the building proving access to the Special Exhibitions Gallery (SEG) which occupies the western basement area of the New Warehouse. The SEG can also be accessed via large doors located in the undercroft of the 1867 Viaduct.

Abuting the southern elevation of the New Warehouse is the Upper Yard. This is a largely cobbled area currently used as outdoor dwell and circulation space for the museums visitors. The yard features historic railway tracks set into the cobbles, freestanding planters, and a series of concrete and metal bollards. The Upper Yard connects the New Warehouse to the Power Hall and is enclosed to the east by a large gate.





Figure 3 Top: New Warehouse East Elevation

Figure 4 Bottom: South and East Elevations of the New Warehouse



Figure 5 New Warehouse South Elevation and Upper Yard



Figure 6 New Warehouse South and West Elevations



The following section provides a concise history of the New Warehouse. A comprehensive history and context of the site can be found in the site's *2007 Conservation Plan*.[3]

2.4 New Warehouse: Summary of History & Development

The New Warehouse, or Great Western Warehouse, was constructed between 1878 and 1880 following the destructive fire of 1866 and the subsequent acquisition of a parcel of land large enough for the building by the London and North Western Railway.

The building was four storeys, the bottom of which was at basement level in relation to the lower yards.

Two railway tracks ran into the west end of the Great Western Warehouse from the 1867 viaduct across an apron, which was created by the westward projection of the building at basement level. Their loading platforms were integral to the structure. To join up the two viaducts and create access to the 1830 viaduct, a roughly triangular extension was made to the latter so that the two viaducts converged. Four new tracks were laid between the Shipping Shed and Great Western Warehouse, three from the 1830 viaduct and the other from the 1867 viaduct, all running through to the east end of the Station. These were linked by a cross track running from the inner end of the Shipping Shed to and in front of the west end of the Great Western Warehouse. The crane gantry, equipped with two 10-ton travelling cranes and abutting the Shipping Shed, was erected during this period.[4]

The Warehouse was not significantly modified during its railway life and, becoming the only operational warehouse as goods traffic declined, was maintained in good working order through to the closure of the Station.[5] The warehouse was sold to Greater Manchester Council [sic] in 1982, for use as part of the museum.

The Museum renovated and converted the Warehouse in several phases between 1984 and 2000. Initially minimal works were carried out in order to allow the ground floor to be used for gallery space, meeting space and workshop facilities, and the basement for large object storage.

The first major scheme was carried out in 1987-88. Its key objectives were the conversion and partitioning of the eastern half of the upper floors to provide gallery space, education facilities and conference facilities, and the reconfiguration and partitioning of the eastern half of the ground floor to provide a new main entrance, toilets and shop, whilst retaining gallery space. In order to provide adequate visitor access to the upper floors, a ground-to-roof slit was cut through the western half of the building to accommodate a ramp and a lift, which, in combination with the insertion of skylights in the roof, increased the natural light at ground, first floor and second floor levels. The slit also served to reveal the internal structure of the Warehouse at the entry points. Three fire escape staircases were located on the external walls.

In 1989, the easternmost quarter of the basement was converted to form the Museum's Library and Record Centre, conforming to BS5454, and the former van yard was decoratively paved to create a forecourt with anamorphic sculptures. In 1992, the Museum shop was extended by building a new glass frontage on Lower Byrom Street flush with the entrance frontage, thus occupying the forecourt, which was reinstated to the south. A self-contained large object store was created in the basement in the same year. In 1995-96, the ground floor was reconfigured by the creation of a Changing Exhibition

Gallery in the space formerly occupied by the Textiles Gallery, followed by the conversion of the former restoration workshop to accommodate a new, larger Textiles Gallery, thus making the whole ground floor a public area. In addition to new partitioning, this development entailed the insertion of a raised floor over part of the original rail well in the Changing Exhibition Gallery space and the introduction of a ramp, providing access to the southern loading deck, and two bridges across the rail well in the Textiles Gallery.

Upon completion of these internal works, the Museum decided to waterproof the 'apron' between the west elevation of the Lower Byrom Street and the colonnaded viaduct, which forms the ceiling of the westernmost section of the Warehouse basement. Preparation for the tanking work revealed two rail turntables, which were recorded.

The second major renovation scheme took place in 1999-2000. It entailed the conversion of the vacant western halves of the first and second floors of the Lower Byrom Street Warehouse, the construction of a largely glass lift and stair tower and a fire escape tower abutting the west elevation and the expansion of the shop extension. The latter element involved extending the frontage closer to the road, in order to accommodate new entrance facilities as well as a shop, and adding a first floor, in order to create an office and boardroom suite for the Museum's Directorate. The western half of the first floor was partitioned to extend the Learning Centre and provide a large permanent gallery space, now the Manchester Science Gallery. The top floor was partitioned to create a large restaurant (with kitchen), with a raised floor at the western end, a reconfigured interactive science gallery, Xperiment, and two new meeting rooms. In the basement, a new concrete floor was laid along the southern side and the space was re-partitioned to enlarge the existing objects store and create new storage for smaller object and new visitor facilities, whilst retaining the existing Library and Record Centre. Together with the new stores and staff workshops in the adjacent Colonnade, these facilities formed the new Collections Centre.[6]

Between 2009 and 2010, Buttress Fuller Alsop Williams Architects (now Buttress Architects Ltd.) completed another round of restoration and expansion works to the New Warehouse.

The works included the removal of modern ramps, staircases and partitions, the introduction of a series of new partitions, the construction of a new entrance extension, the construction of glazed external stair cores and rooflights.

In 2021, the lower ground floor of the New Warehouse was converted into the Special Exhibitions Gallery (SEG). The SEG connects out to the lower yard with a secondary entrance leading to the undercroft of the 1867 Viaduct.

Figure 7 Overleaf: View of SIM site from 20 Stories, Spinningfields


MANCHESTER STUDIOS

3.0

Assessment of Significance

3.0 Assessment of Significance

Following guidance outlined in Historic England's *Conservation Principles, Policies and Guidance* (2008), along with the more recent *Historic England Advice Note 12 Statements of Heritage Significance*: Analysing Significance in Heritage Assets, the following section will aim to assess any heritage interest(s) that the site might hold.

The level of significance will be assessed based on the scale below:

Exceptional: Heritage interests having national or international importance, usually found where assets are designated at grade II*, grade I, scheduled monuments and UNESCO World Heritage sites.

High: Heritage interests having national importance, usually found where assets are designated at grade II*.

Medium: Heritage interests having regional importance, usually found where assets are designated grade II. Also, generally applies to Conservation Areas.

Low: Heritage interests that make a positive contribution to their area, group or setting. Usually, non-designated heritage assets and historic townscapes.

Neutral: Historically unimportant. These ratings are intended to address the heritage values outlined below, and do not relate to the significance of specific buildings, spaces, or areas of fabric.

Understanding of significance is broken down into the following categories:

Archaeological Interest

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 & 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 skills, 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.

The following breakdown of significance address each asset on the site individually. Those assets addressed are those which will be subjects to works included in the proposed development.

The significance of each asset has been written and understood in accordance with the Statement of Significance found in the 2007 MoSI (now SIM) Liverpool Road Station: Conservation Management Plan, for consistency. Sections of the following assessment of significance have been taken directly from the Conservation Management Plan, and the report should be referenced and credited accordingly.

3.1 New Warehouse

3.1.1 Archaeological Interest

3.1.1.1 Prehistoric

The understanding of prehistoric settlement in Manchester is still poorly understood. Physical evidence for prehistoric settlements are fragmentary. An excavation carried out in 2007 at 73/83 Liverpool Road (Adjacent to the Power Hall) yielded 'slight evidence of prehistoric activity in the area… in the form of two Mesolithic flint, one Neolithic/Bronze Age waste flake and one fragment of Late Bronze Age/Iron Age pottery. All of these artefacts were recovered from either Roman or 1th century deposits'.[7]

The potential for buried archaeological remains deriving from prehistoric activity within the Site Area is considered to be **low**. Some isolated finds may be possible however, due to the former agricultural use of the area, and the significant disturbance as a result of the industrial development and construction of the warehouse, this is unlikely.

3.1.1.2 Roman

'The first [Roman] military occupation of Manchester was established during the governorship of Agricola (AD 77-84), and commenced with a five-acre wooden fort, known as Mamucium.[8] The site of this encampment is marked today by Camp Street in Castlefield, situated c 250m to the south-east of the Site

Excavations carried out 73/83 Liverpool Road uncovered truncated Roman remains providing evidence that the *Vicus* (or village) of the Castlefield Roman fort extended north-west, representing three distinct phases of activity. [9]The lack of cellars in some of the Georgian housing resulted in many of the remains being preserved in situ.

Additional excavations and finds in the area have revealed that the extent of the *Vicus* extended north of the fort, terminating at Quay Street. The western end of the museum site therefore sits within the possible settlement boundary.

There is little evidence within the site of Roman activity between the *Vicus* and the River Irwell, with the exception of the discovery of six unstratified Roman coins found 'in 1876 while foundations were being dug for a bridge over the Irwell, near Quay Street'.[10]

Due to the extensive development and redevelopment of the site, along with the construction of the basement and foundations of the Warehouse, the potential for any subsurface remains within the footprint of the warehouse are negligible. Trial pit excavations carried out in 2009 'revealed that the solid geology lay immediately beneath the floor, and that any archaeological remains within the footprint of the building had been entirely destroyed'.[11]

A watching brief carried out in 2012, maintained during a construction programme, confirmed that no archaeological remains of Roman date survive in situ in the area immediately to the south the Lower Byrom Street Warehouse.

The potential for buried archaeological remains deriving from Roman activity within the Site Area is considered to be **low,** with any potential remains being located within the upper yard, rather than the warehouse itself.

3.1.1.3 Medieval

There is very little archaeological evidence in the region as a whole that represents the period between the end of the Roman occupation and the Norman Conquest.

Given the location of the Site Area away from known medieval settlements and Manchester's medieval centre, the potential for buried archaeological remains is unlikely. The possibility of medieval finds should not be ruled out given the agricultural use of the area and practice of manuring arable fields, however it is unlikely that any in situ finds will be recovered.

The potential for buried archaeological remains deriving from Medieval activity within the Site Area is considered to be **low**, with any potential remains being located within the upper yard, rather than the warehouse itself.

3.1.1.4 *Post-medieval*

'During the 18th century, south-east Lancashire was predominantly agricultural with isolated settlements, market towns and Manchester at its heart. By the 1780s, Manchester became the centre of a factory-based cotton manufacturing industry of international repute. The industrialisation of Manchester was greatly facilitated by the expansion of the canal network and canalisation of the city's waterways during the 18th century, which provided the first efficient means of transporting bulk loads of goods'.[12]

The area remained largely rural until the construction of terraced worker cottages in the 19th century, just prior to the construction of Liverpool Road Station. Figure 8 shows the approximate location of the New Warehouse in relation to the former cottages.

Trial pits excavated in 2010 revealed fragmentary remains of the cottages in the upper yard. The same excavation revealed that any archaeological remains within the footprint of the warehouse has been entirely destroyed.

The potential for buried archaeological remains deriving from post-medieval activity within the Site Area is considered to be **low/medium**, with any potential remains being located within the upper yard, rather than the warehouse itself.

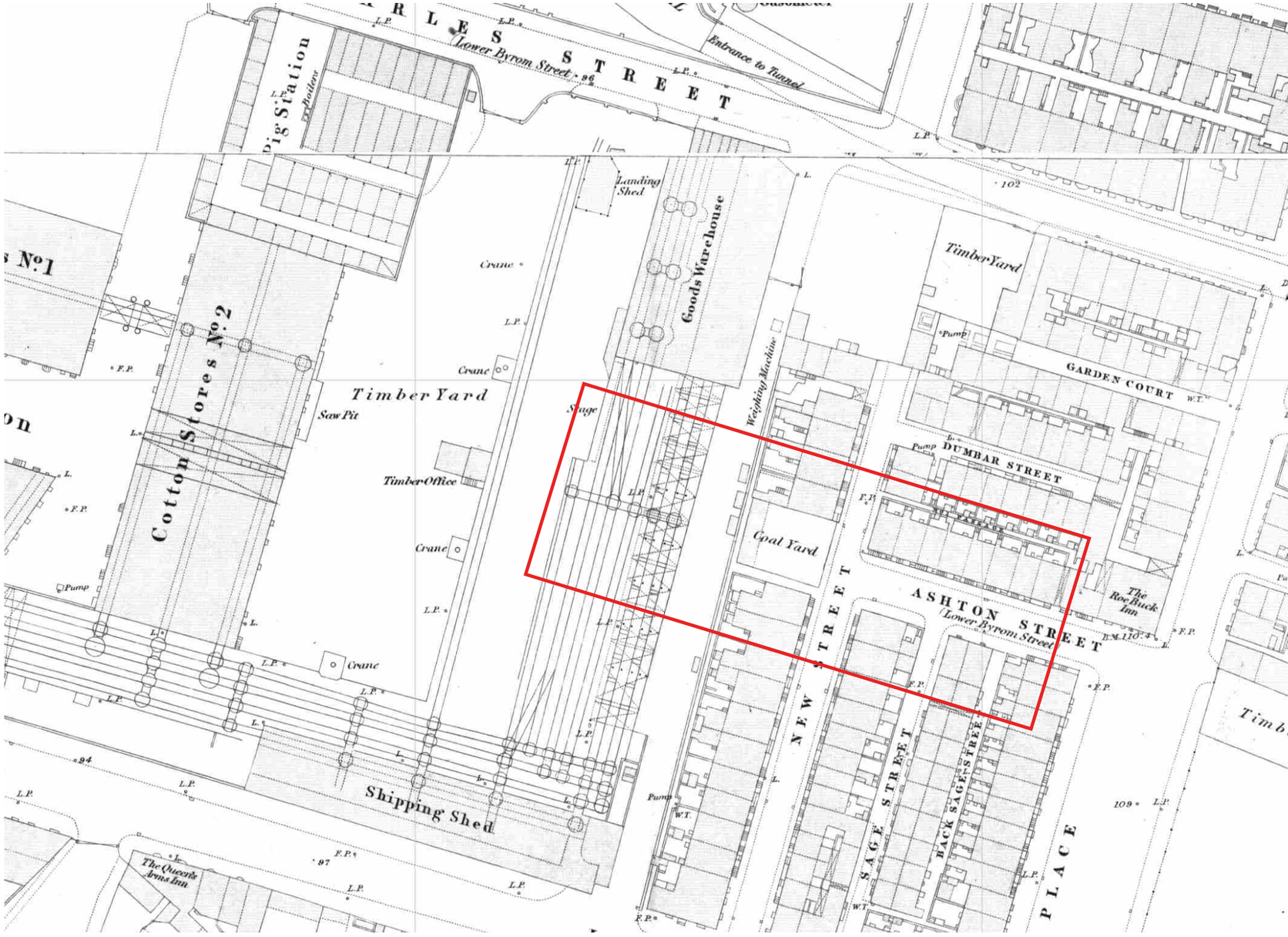


Figure 8 1851 Map Showing Approximate Existing Location of the New Warehouse - the site of the New Warehouse was situated over a former area of terraced housing.

- Approximate Location of the New Warehouse

3.1.1.5 Summary of Archaeological Interest

Due to the highly developed nature of the site, and the extensive disturbance that has resulted from the construction of the New Warehouse, the potential for archaeological remains from all periods is **low.**

Previous excavations carried out in 2010 confirm that any potential remains within the footprint of the building have been destroyed.

Areas immediately surrounding the New Warehouse, including the Upper Yard have potential to yield remains due to a lower level of disturbance from development. This potential is however low and considered unlikely, with the exception of the known remains relating to the former 19th century workers cottages.

Overall, the archaeological interest of the site is **low**.

3.1.2 Architectural & Artistic Interest

3.1.2.1 Aesthetic Value

The New Warehouse has high aesthetic value as a handsome late-19th century bonded warehouse with a decorative and functional use of blue engineering brick. Its grand scale, industrial aesthetic, and functional design all contribute to its architectural interest.

The building takes a prominent position within the streetscape and contributes to the character of Lower Byrom Street. The overall mass of the warehouse also makes an important contribution to the wider townscape, particularly when viewed from one of the operational railway viaducts that cross Castlefield.

3.1.2.2 Form and Function

The building's original internal structure, form and layout is demonstrative of the building's original use and cutting edge fireproof construction.[13] The entrances for railway lines through the western elevation from the 1867 Viaduct also contribute to its significance as they demonstrate the building's original use.

As the last of the Liverpool Road Station buildings, it illustrates the evolution of construction techniques and goods handling technology, and provides a striking contrast to the original 1830 Warehouse.

The architectural and artistic interest of the New Warehouse is **medium**.



Figure 9 Image Showing the New Warehouse and Gantry, 1978 © Manchester Libraries, M62941

3.1.3 Historic Interest

3.1.3.1 Illustrative of the Development of the Liverpool Road Station

The New Warehouse was originally constructed in the late 19th century as part of the development of Liverpool Road Station, which was the world's first passenger railway station. The station played a pivotal role in the development of railways and transport in the Industrial Revolution era and is illustrative of success and development of the site.

The New Warehouse was built following the end of passenger services at Liverpool Road Station and is representative in the shift to goods handling and processing.

3.1.3.2 Communal Interest

The site is greatly valued by local and national communities. The closure of the station was protested by many. The formation of the Liverpool Road Station Society in early 1978 serves as a reminder of the local interest and care for the site and its buildings. Society members were active in both campaigning for the Station's preservation and assisting with preparations for the 1980 Great Railway Exposition. When the Museum opened, the Liverpool Road Station Society was disbanded, but its members were invited to join the Museum's new Friends organisation and some remain Friends today.

The New Warehouse holds communal and social value as one of the museum buildings. The site is an educational resource and tourist attraction, promoting learning, community engagement and inspiring innovation and creativity. The site is visited by an average of 500,000-600,000 visitors per year, and will hold memory and meaning for many of those visitors.

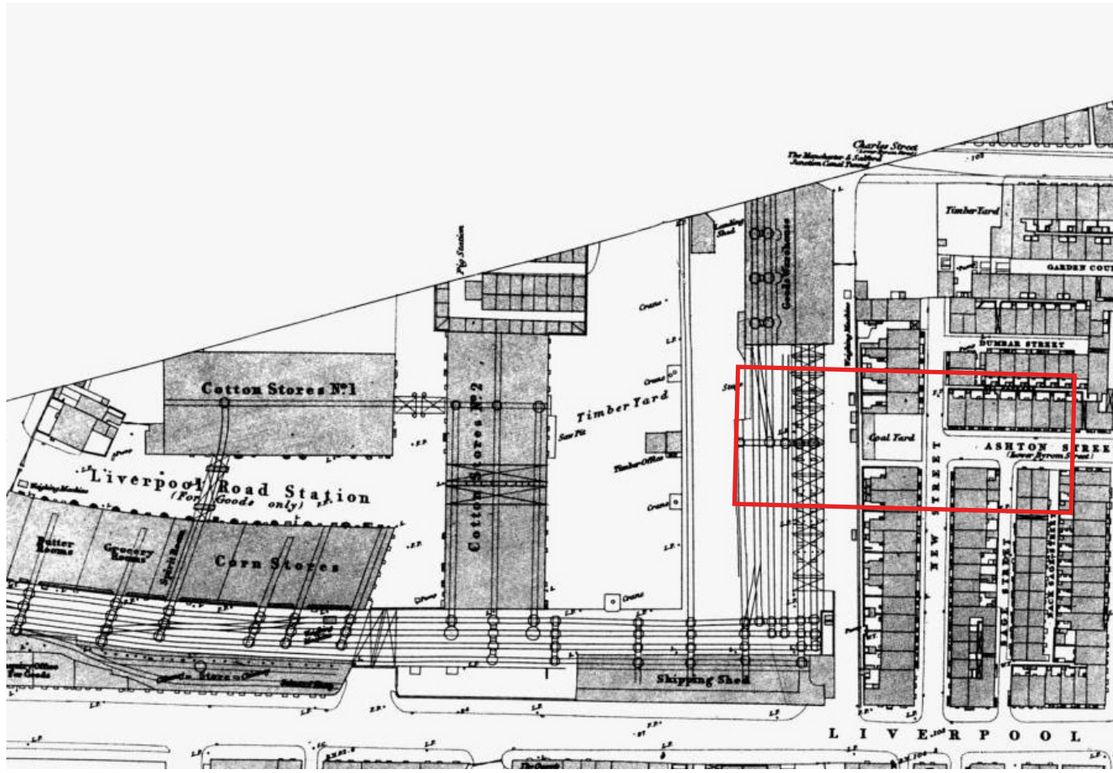
3.1.3.3 The interconnection between the railway and industrial development and trade

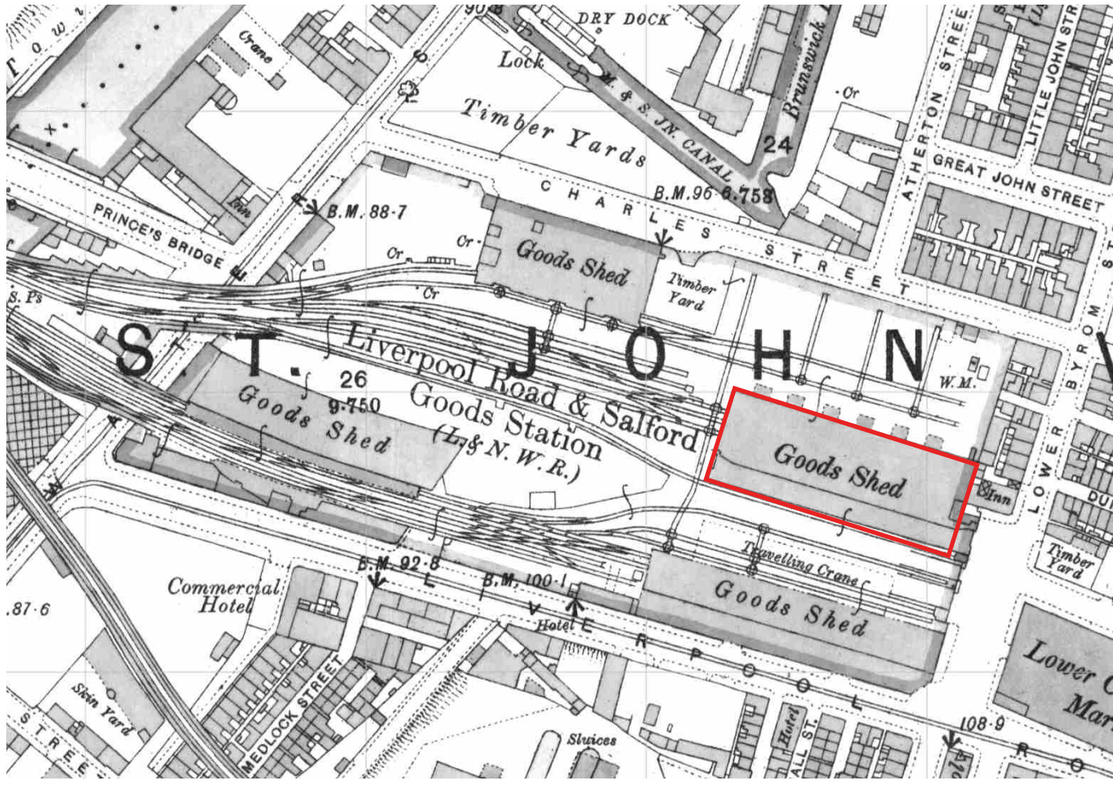
Railways proved to be economically beneficial, not just by facilitating trade, but also by increasing demand for raw materials that they directly consumed, such as coal, iron and steel.

The construction of the New Warehouse, in response to increasing demand for the storage and handling of industrial goods, is illustrative of the relationship between the railway system and the industrial growth and development of the time.

The Great Western Warehouse is symbolic of the last phase of Victorian railway expansion, when traffic was still expanding. By this period, there was little opportunity for the creation of new independent railways, but there was potential for existing railways to extend their networks and thus increase their traffic.

The historic interest of the New Warehouse is **high**.





- Approximate Location of the New Warehouse

Figure 10 Top: 1850 Map showing earlier site layout, before the fire of 1866 and the subsequent construction of the New Warehouse.

Figure 11 Top: 1893 OS County Series Map showing later site layout, following the expansion of the site and the construction of the New Warehouse.

3.1.4 Summary of Significance

The New Warehouse's **medium** heritage significance is captured by its Grade II designation.

The building is representative of the growth, expansion and change in use of the Liverpool Road Station site. The building is of high architectural quality and its form and layout is indicative of its former industrial use.

Along with surrounding buildings, the New Warehouse contributes to the group value held by the assets on the museum site. The warehouse contributes to the surrounding townscape and takes a landmark streetscape position on approach to the museum.

The overall heritage significance of the New Warehouse is **medium**.

Figure 12 Overleaf: The New Warehouse from Lower Byrom Street



4.0

Summary of Proposed Works

4.0 Summary of Proposed Works

The proposed works include the addition of new structural brackets to the internal roof structure and masonry of the New Warehouse. The new brackets are required to provide strength and support to the assets due to the strain placed upon it by a new scaffold which will be constructed as part of on-going conservation and repair works.

The proposed strengthening consists of installing steel brackets to the inside face of the masonry wall at roof level, to better connect the walls to the roof purlins. These will be required at all purlin positions – typically 7 no. per bay. To account for dimension differences between valley purlins and other purlins, multiple bracket types are required. All details can be seen in the drawings submitted as part of this application and should be referenced accordingly.

5.0

Heritage Impact Assessment

5.0 Heritage Impact Assessment

5.1 Methodology

Impacts will be assessed and scaled per British Standards BS7913 guidance for the scale of impacts, which correlates with the ICOMOS Guidance on Heritage Impact Assessments. ICOMOS suggest a 9-point scale spectrum for defining the impacts of proposed changes, which is included here in Figure 15. This scale is a useful tool within the context of the benefit and harm dichotomy of the NPPF. The scale provides the opportunity for beneficial outcomes to be quantified, balanced, and considered alongside the NPPF outcomes of: no harm, less than substantial harm, and substantial harm. Together they create a holistic approach to assessment.

5.1.1 Assessment of Scale of Specific Impact and Change

The scale of change is based on the level of proposed intervention and how much potential the intervention has to alter fundamental principles of significance of the asset. The scale of impact relates this to the significance of the asset in question. It is important to note that impacts can be both direct and indirect, and do not only relate to the physical fabric. Change and impact can also be primary or secondary; temporary or permanent; reversible or irreversible; and may arise as a consequence of construction or operation of the proposed development. For the purpose of this assessment, the following definitions have been applied:

Direct impacts are those that arise as a primary consequence of the Scheme. Direct impacts can result in the physical loss of part or all of an asset, and/or changes to its setting. Setting is, 'the surroundings in which a place is experienced, its local context, embracing present and past relationships to the adjacent landscape.'

Direct impacts resulting in physical loss are usually permanent and irreversible; normally occur as a consequence of construction; and are confined within the development footprint. The magnitude of these impacts will depend on the proportion of the asset affected, and whether its key characteristics would be affected.

Direct impacts that affect the setting of an asset can occur as a consequence of construction or operation of the scheme and can affect assets some distance from the development. Assessment of impacts on setting refers to perceptible visual and aural effects that can be appreciated at a given time. Such impacts may be temporary or permanent, reversible or irreversible depending on the extent to which the cause of the impact can be removed. Impacts may also be transient where occurrence is sporadic or of limited duration, for example related to hours of operation or the frequency of passage of vehicles.

Indirect impacts occur as a secondary consequence of construction or operation of the development, and can result in physical loss or changes to the setting of an asset beyond the development footprint.

Severity of impacts has been judged taking into account their direct and indirect effects and whether they are temporary or permanent, reversible or irreversible. The cumulative effect of separate impacts has also been considered. The magnitude of impact (summation of direct and indirect impacts) is assigned one of the descriptors; impacts may be adverse or beneficial.

VALUE OF HERITAGE ASSET	SCALE & SEVERITY OF CHANGE/IMPACT (EITHER ADVERSE OR BENEFICIAL)				
	No Change	Negligible Change	Minor Change	Moderate Change	Major Change
Very High (Grade I/Scheduled Monument)	Neutral	Slight	Moderate/ Large	Large/Very Large	Very Large
High (Grade II*)	Neutral	Slight	Moderate/ Slight	Moderate/ Large	Large/Very Large
Medium (Grade II/ Conservation Area)	Neutral	Neutral/Slight	Slight	Moderate	Moderate/ Large
Low (Locally Listed)	Neutral	Neutral/Slight	Neutral/Slight	Slight	Slight/ Moderate
Negligible (Non-Designated)	Neutral	Neutral	Neutral/Slight	Neutral/Slight	Slight

Figure 13 Significance/Scale of Impacts Table

No Change	Negligible Change	Minor Change	Moderate Change	Major Change
No material change to the heritage asset or its setting.	A small change or alteration, but unimportant. Having no visual or indirect impacts on the asset or its setting. Slight changes to use or access.	A small change to an element of fabric or setting that results in a noticeable difference. Limited indirect impacts or changes to character.	Changes to an element, including replacement, or insertion of a new element, where the asset or its setting has clearly been modified. Noticeable indirect impacts.	A change of great extent, including the complete removal of an element. Changes to most or all of the asset or its setting. Total alteration of the asset. Extreme indirect impacts.

Figure 14 Definition of types of change

Major beneficial	Moderate beneficial	Minor beneficial	Negligible beneficial	Neutral	Negligible adverse	Minor adverse	Moderate adverse	Major adverse

Figure 15 9-point scale of impact

5.2 Impact on the New Warehouse

Options for the bracing design have been worked up by the engineering and conservation teams to ensure that the option selected for consent is the most justifiable in terms of cost, time, and both visual and physical impact on the fabric.

The brackets are fundamental in providing the necessary structural support to the building in order to facilitate the essential consented repair and maintenance works to the asset. These works are crucial to the long-term care and maintenance of the building. Without the brackets, the scaffold may cause harm to the structural integrity of the warehouse due to the large loads impossed on the structure. This damage would be much larger in scale than any repairable disturbance caused by the installation of the proposed brackets.

Although the installation of the brackets will result in some minor areas of direct intervention with the historic fabric, this will be is reversible, and all making good works will be carried out in line with best practice, should their removal be required following the dismantling of the scaffolding.

While designed specifically for the structural needs of the building, the brackets are also in-keeping with the design language of the building and provide an additional layer to the numerous brackets and structural supports which have been added over time to improve the strength and integrity of the building. They are intended to be honest and visible parts of the building's structure and ongoing development. Nonetheless, the brackets will be small in size and, when painted red to match the existing brackets, will have only a small visual impact on the asset which will only be recognisable to those with a strong working knowledge of the building. The brackets will not compromise or affect the ability of the public to enjoy, understand, or appreciate the asset.

Should it be agreeable that the brackets remain in the building following the completion of the repair works, they will aid in strengthening the building further and will simplify future maintenance and/or conservation works by providing proven, engineered load paths for forces associated with scaffolding or other temporary works. The retention of the brackets beyond the completion of the current works would not result in any significant impact on the aesthetic or significance of the building and would still be reversable. Their retention would be considered beneficial overall.

Overall, the brackets are necessary to facilitate essential repair works to the asset and will prevent any major harm to the building as a result of the scaffold. It should also be noted that the design of the scaffold cannot be revised to prevent the issues relating to load due to the highly constrained nature of the site, and the reasons already discussed as part of the previous application (ref. CDN/24/0184).

The proposed works will result in a minor change to the asset which will have an overall slight impact. The brackets are necessary to facilitate the consented scaffolding works, which are essential for the ongoing repair and maintenance works. Consequently, the impact is negligible in nature and will result in **no harm** to the significance of the asset.

6.0

Bibliography & Sources

6.0 Bibliography & Sources

Historic England. Conservation Principles, Policies and Guidance, 2008. Accessed 20th March 2023 https://historicengland.org.uk/advice/constructive-conservation/conservation-principles

Historic England. Statements of Heritage Significance: Analysing Significance in Heritage Assets, Historic England Advice Note 12, 2019. Accessed 20th March 2023 https://historicengland.org.uk/images-books/publications/statements-heritage-significance-advice-note-12/heag279-statements-heritage-significance/.

Katherine Sather, Museum of Science and Industry (MoSI) Liverpool Road Station: Conservation Management Plan (Altrincham: Katheryn Sather & Associates, 2007) 12

Manchester Libraries, Information and Archives. Accessed via Greater Manchester Lives 20th March 2023 https://www.manchester.gov.uk/info/448/archives_and_local_history/7377/search_the_archives_catalogue

Manchester Archives, visited 23rd February 2023.

7.0

Appendices

7.0 Appendices

7.1 Appendix 1: Endnotes

1 Katherine Sather, Museum of Science and Industry (MoSI) Liverpool Road Station: Conservation Management Plan (Altrincham: Katheryn Sather & Associates, 2007)
2 Ibid, 18.
3 Sather, 2007a, 32-100.
4 Ibid, 71.
5 Katherine Sather, Museum of Science and Industry (MoSI) Liverpool Road Station: CONSERVATION MANAGEMENT PLAN APPENDIX 1: GAZETTEER, 2007, 120
6 Sather, 2007b, 121
7 University of Manchester Archaeological Unit, Liverpool Road 2001 Excavation Report. Accessed via the Archaeological Data Service, August 22nd 2023.
8 Oxford Archaeology North. 2015. Bonded Warehouse, Water Street, Manchester, Archaeological Desk Based Assessment.
9 University of Manchester Archaeological Unit, Liverpool Road 2001 Excavation Report. Accessed via the Archaeological Data Service, August 22nd 2023.
10 University of Manchester Archaeological Unit, Liverpool Road 2001 Excavation Report. Accessed via the Archaeological Data Service, August 22nd 2023.
11 Oxford Archaeology North. 2010. Liverpool Road, Manchester Archaeological Watching Brief Final Report.
12 Oxford Archaeology North. 2015. Bonded Warehouse, Water Street, Manchester, Archaeological Desk Based Assessment.
13 Sather, 2007b, 119

7.2 Appendix 2: Listing Descriptions

7.2.1 1830 Viaduct

Official list entry

Heritage Category: Listed Building

Grade: II

List Entry Number: 1254726

Date first listed: 20-Jun-1988

Date of most recent amendment: 06-Jun-1994

List Entry Name: RAILWAY VIADUCT LINKING BRIDGE OVER IRWELL TO LIVERPOOL ROAD STATION

Statutory Address 1: RAILWAY VIADUCT LINKING BRIDGE OVER IRWELL TO LIVERPOOL ROAD STATION, WATER STREET

Location

Statutory Address: RAILWAY VIADUCT LINKING BRIDGE OVER IRWELL TO LIVERPOOL ROAD STATION, WATER STREET

The building or site itself may lie within the boundary of more than one authority.

District: Manchester (Metropolitan Authority)

Parish: Non Civil Parish

National Grid Reference: SJ 82918 97896

Details

MANCHESTER

SJ8297 WATER STREET 698-1/18/428 (West side) 20/06/88 Railway viaduct linking bridge over Irwell to Liverpool Road Station (Formerly Listed as: WATER STREET (West side) Railway bridge (etc), attached viaduct, animal ramp, north of Liverpool Road)

GV II

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

7.2.2 Station Building

Official list entry

Heritage Category: Listed Building

Grade: I

List Entry Number: 1291477

Date first listed: 18-Dec-1963

List Entry Name: FORMER LIVERPOOL ROAD RAILWAY STATION STATION MASTERS HOUSE

Statutory Address 1: FORMER LIVERPOOL ROAD RAILWAY STATION, LIVERPOOL ROAD

Statutory Address 2: STATION MASTERS HOUSE, LIVERPOOL ROAD

Location

Statutory Address:

FORMER LIVERPOOL ROAD RAILWAY STATION, LIVERPOOL ROAD

Statutory Address:

STATION MASTERS HOUSE, LIVERPOOL ROAD

The building or site itself may lie within the boundary of more than one authority.

District: Manchester (Metropolitan Authority)

Parish: Non Civil Parish

National Grid Reference: SJ 82952 97867

Details

MANCHESTER

SJ8297 LIVERPOOL ROAD 698-1/18/213 (North side) 18/12/63 Former Liverpool Road Railway Station, and Station Master's House

GV I

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

7.2.3 1830 Warehouse

Official list entry

Heritage Category: Listed Building

Grade: I

List Entry Number: 1282991

Date first listed: 08-May-1973

List Entry Name: OLD WAREHOUSE TO NORTH OF FORMER LIVERPOOL ROAD RAILWAY STATION

Statutory Address 1: OLD WAREHOUSE TO NORTH OF FORMER LIVERPOOL ROAD RAILWAY STATION, LIVERPOOL ROAD

Location

Statutory Address: OLD WAREHOUSE TO NORTH OF FORMER LIVERPOOL ROAD RAILWAY STATION, LIVERPOOL ROAD

The building or site itself may lie within the boundary of more than one authority.

District: Manchester (Metropolitan Authority)

Parish: Non Civil Parish

National Grid Reference: SJ 82990 97886

Details

MANCHESTER

SJ8297 LIVERPOOL ROAD 698-1/18/208 (North side) 08/05/73 Old Warehouse to north of former Liverpool Road Railway Station

GV I

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

7.2.4 1867 Viaduct

Official list entry

Heritage Category: Listed Building

Grade: II

List Entry Number: 1200805

Date first listed: 06-Jun-1994

List Entry Name: COLONNADED RAILWAY VIADUCT AT FORMER LIVERPOOL ROAD GOODS DEPOT

Statutory Address 1: COLONNADED RAILWAY VIADUCT AT FORMER LIVERPOOL ROAD GOODS DEPOT, LIVERPOOL ROAD

Location

Statutory Address: COLONNADED RAILWAY VIADUCT AT FORMER LIVERPOOL ROAD GOODS DEPOT, LIVERPOOL ROAD

The building or site itself may lie within the boundary of more than one authority.

District: Manchester (Metropolitan Authority)

Parish: Non Civil Parish

National Grid Reference: SJ 83013 97907

Details

MANCHESTER

SJ 8397 NW, LIVERPOOL ROAD, 698-1/30/212, (North side)

Colonnaded railway viaduct at former Liverpool Road Goods Depot

GV II

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

7.2.5 New Warehouse

Official list entry

Heritage Category: Listed Building

Grade: II

List Entry Number: 1283016

Date first listed: 06-Jun-1994

List Entry Name: MANCHESTER MUSEUM OF SCIENCE AND INDUSTRY, FORMER LOWER BYROM STREET WAREHOUSE

Statutory Address 1: MANCHESTER MUSEUM OF SCIENCE AND INDUSTRY, FORMER LOWER BYROM STREET WAREHOUSE, LOWER BYROM STREET

Location

Statutory Address: MANCHESTER MUSEUM OF SCIENCE AND INDUSTRY, FORMER LOWER BYROM STREET WAREHOUSE, LOWER BYROM STREET

The building or site itself may lie within the boundary of more than one authority.

District: Manchester (Metropolitan Authority)

Parish: Non Civil Parish

National Grid Reference: SJ 83172 97868

Details

MANCHESTER

SJ8397NW LOWER BYROM STREET 698-1/30/230 (West side) Manchester Museum of Science and Industry, former Lower Byrom Street warehouse

GV II

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

7.2.6 Power Hall

Official list entry

Heritage Category: Listed Building

Grade: II

List Entry Number: 1291458

Date first listed: 06-Jun-1994

List Entry Name: POWER HALL OF MUSEUM OF SCIENCE AND INDUSTRY

Statutory Address 1: POWER HALL OF MUSEUM OF SCIENCE AND INDUSTRY, LIVERPOOL ROAD

Location

Statutory Address: POWER HALL OF MUSEUM OF SCIENCE AND INDUSTRY, LIVERPOOL ROAD

The building or site itself may lie within the boundary of more than one authority.

District: Manchester (Metropolitan Authority)

Parish: Non Civil Parish

National Grid Reference: SJ 83155 97820

Details

This list entry was subject to a Minor Amendment on 15/11/2016

SJ8397NW 698-1/30/218

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

GV II 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

Buttress

Architects | Masterplanners | Heritage Consultants