

1892 CASTLEFIELD VIADUCT
HERITAGE IMPACT ASSESSMENT

ISSUE 02

SEPTEMBER 2021



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On behalf of Purcell ®

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1892 CASTLEFIELD VIADUCT: HERITAGE IMPACT ASSESSMENT

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SECTION 1.0

INTRODUCTION

1.1 AUTHORSHIP

This document has been prepared by Purcell, a firm of conservation architects and heritage consultants, specialising in the conservation of the historic environment. Specifically, it has been prepared by Mark Clifford (Bsc. (Hons), MA, IHBC), Senior Heritage Consultant, Purcell, on behalf of the National Trust.

1.2 AIM OF THIS REPORT

This document has been commissioned by the National Trust for the 1892 Castlefield Viaduct to assess the impact of the proposals to utilise the currently vacant structure as a temporary urban park.

The report draws on other best practice guidance documents from Historic England such as *Conservation Principles* (2008) and Historic Environment Good Practice Advice in *Planning Note 3 - The Setting of Heritage Assets* (2017) whilst complying with the tests and requirements of the *National Planning Policy Framework* (NPPF).

This document should be read in conjunction with the 1892 Castlefield Viaduct: Statement of Heritage Significance by Purcell, dated June 2021, which has a full historic background, statement of significance and archaeological gazetteer for the structure, not presented here in full.

This document, along with the accompanying statement of significance, follows the staged approach to decision-making set out within Historic England Advice Note 12 - *Statements of Heritage Significance: Analysing Significance in Heritage Assets* (2019):

- 01 Understand the form, materials and history of the affected heritage asset(s), and/or the nature and extent of archaeological deposits
- 02 Understand the significance of the asset(s)
- 03 Understand the impact of the proposal on that significance
- 04 Avoid, minimise and mitigate negative impact, in a way that meets the objectives of the NPPF
- 05 Look for opportunities to better reveal or enhance Significance

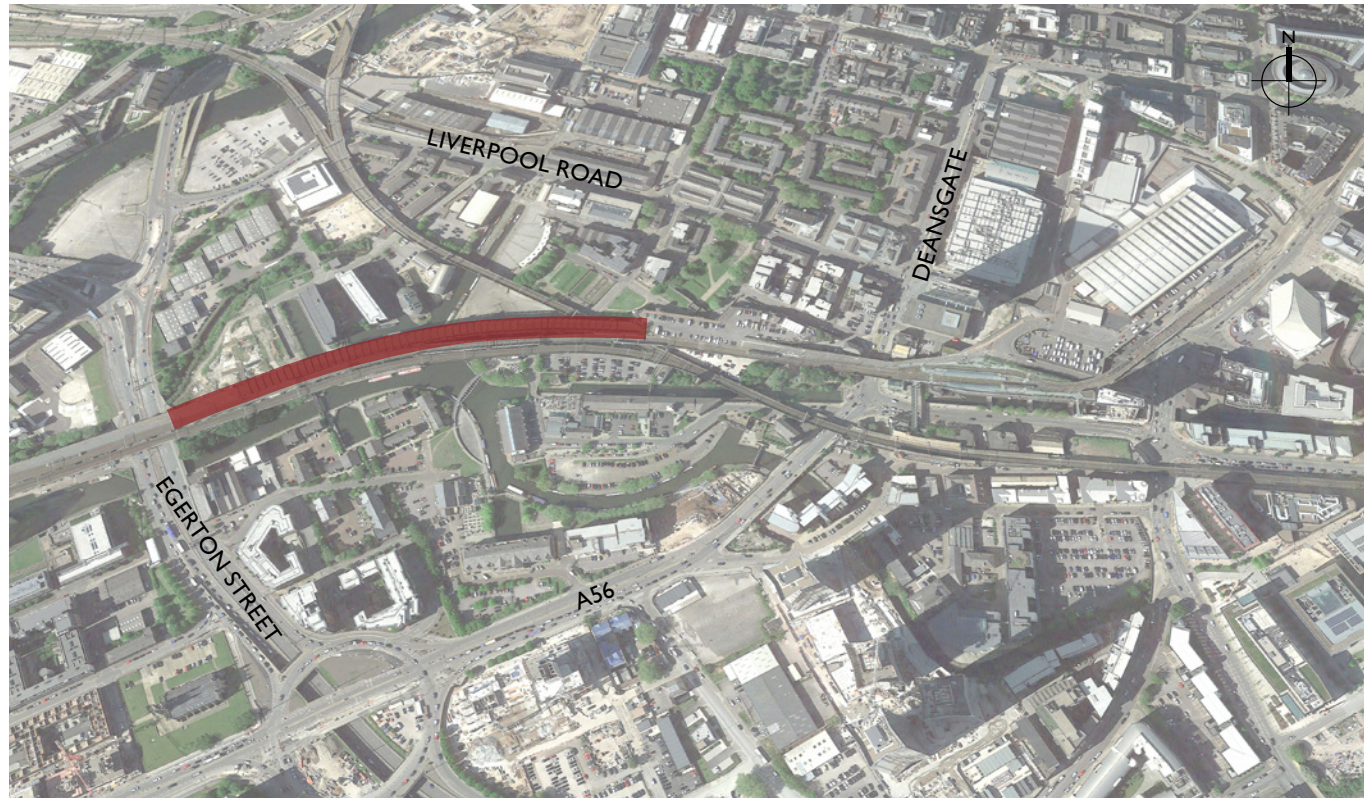
SECTION 2.0

UNDERSTANDING THE SITE



2.1 LOCATION

The 1892 Castlefield Viaduct⁰¹ sits across Castlefield Basin which is just to the south of Manchester City Centre. The structure meets the carpark of Deansgate Metrolink station to the east and runs linear to the Metrolink line running towards Cornbrook, it crosses over the canal and various other rail viaducts below. At lower level the viaduct is supported on a series of columns that both sit within the canal and around it. The extent of the listing (as defined by an email from John Whyard, Manchester City Council, Urban Design & Conservation Team) extends past Deansgate car park to the convention centre, however, no works are currently proposed along this section.



The location of the viaduct (© GoogleEarth 2021) [Click on the viaduct to find it on Google Maps.](#)

⁰¹ A date stone on the bridge over Egerton Street dates the line to 1892 and the viaduct is therefore referred to by this date, however, it was load tested and opened in 1893.

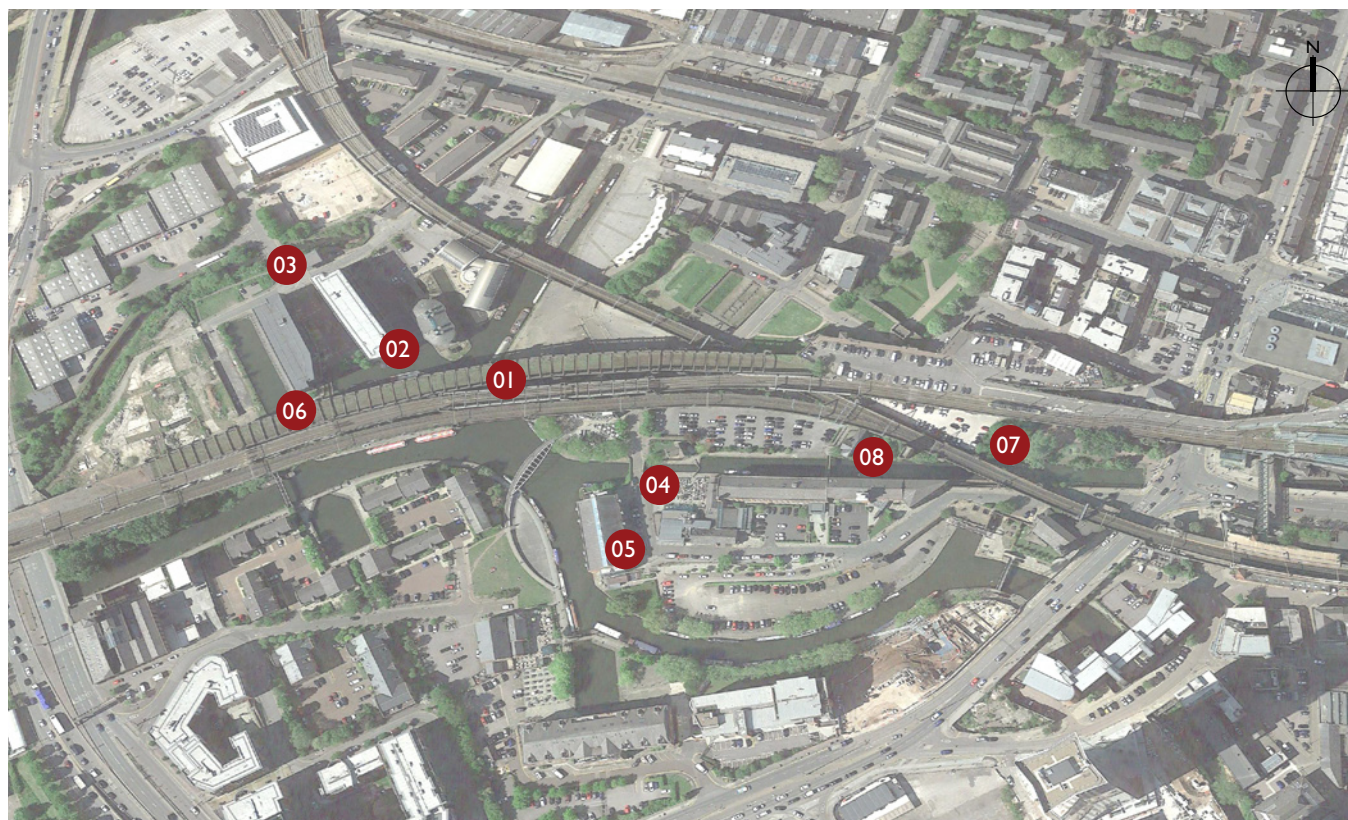
2.2 DESIGNATIONS

The structure itself is grade II listed and sits within the Castlefield Conservation Area with the conservation area boundaries extending a further 200m south of the viaduct towards the ring road and a further 600m north past the Science and Industry Museum, the western boundary is defined by the River Irwell and to east the boundary runs along Deansgate. The viaduct is listed as CASTLEFIELD RAILWAY VIADUCT FROM G-MEX TO DAWSON STREET (see appendix B). There are several other designations in the immediate vicinity listed below and shown on the plan opposite.

The listing description provides a basic description of key features:

*"Railway viaduct. c.1880. Cast iron and wrought iron (?);redbrick to east of Duke Street. Runs south-west from former Central Station, then westwards, dividing into two over Castlefield and re-joining west of River Medlock. Cast iron drum piers rising to square castellated towers supporting metal lattice parapet. Castellated brick piers with stone dressings to Gothic style skew bridges over River Medlock and roadways. To east of Duke Street viaduct is of brick with segmental arches and castellated brick piers. At western end a blue brick bridge over Dowson Street."*⁰²

The 1892 viaduct is within the Castlefield Conservation Area, designated on 13 October 1979. The Conservation Area Appraisal notes that there is great opportunity for improvement and enhancement, "as Castlefield has always been a centre of innovation, imaginative new proposals for development [and] are likely to receive a warm welcome."⁰³



The location of nearby designated assets © GoogleEarth 2021

- | | |
|--|---|
| 01 <u>Castlefield Railway Viaduct from G-Mex to Dawson Street: Grade: II</u> | 05 <u>Merchants Warehouse: Grade II</u> |
| 02 <u>The Giants Basin: Grade: II</u> | 06 <u>Bridgewater Canal Basin At Potato Wharf: Grade: II</u> |
| 03 <u>Pair Of Culvert Arches Over River Medlock And Associated Overflow Channel: Grade: II</u> | 07 <u>Remains Of Eastern Wall Of The Roman Fort: Scheduled</u> |
| 04 <u>Rochdale Canal Lock Number 92 And Castle Street Bridge: Grade: II</u> | 08 <u>Manchester South Junction and Altrincham Railway Viaduct: Grade: II</u> |

This plan is not to scale

⁰² <https://historicengland.org.uk/listing/the-list/list-entry/1292315>

⁰³ https://secure.manchester.gov.uk/info/5111/conservation_areas/972/castlefield_conservation_area/7

SECTION 3.0

SUMMARY OF SIGNIFICANCE

3.1 STATEMENT OF SIGNIFICANCE

The 1892 viaduct is an impressive structure and symbolises the power, wealth and influence of Manchester in the 19th century. Today, it forms the backdrop to several views around Castlefield and much of its original industrial setting remains intact. Built by the Cheshire Lines Committee, it facilitated the movement of construction material for the Manchester Docks and improved the rail congestion entering Central Station. The structure was built by contractors of note Heenan and Froude partly using carbon steel, an early example of its use, alongside their work on Blackpool Tower at the same period (also of steel).

The significance of the viaduct is best understood as part of the group and context of wider assets. It crosses over the remains of the Roman fort with the nearby Roman road and the River Irwell both used for early transport. It passes over the Bridgewater Canal which kickstarted the canal age in 1763 and runs alongside the later Rochdale Canal of 1804. The 1892 viaduct is also 200m away from the Liverpool Road Station which was the world's first passenger railway station in 1830 and is surrounded by several railway lines and viaducts of different eras up the 20th century Manchester Metrolink station at Deansgate. The collective group value of the assets makes it one of the most significant collections of heritage assets of transport infrastructure in the country, demonstrating a range of transport modes dating back almost 2000 years to which the 1892 viaduct makes a significant contribution.

3.2 CAPACITY FOR CHANGE

At the privatisation of the rail network a large number of assets such as this were separated out and put in a government departments for long term care but with no use.

There is an opportunity to bring this structure back in to use in a way that enhances its significance to the people of Manchester. Overall, the Castlefield area has long represented the innovative, industrial heart of Manchester and is, if not unique in its individual components, certainly of the highest heritage interest for its significance as a group and the contribution it makes to our understanding of Manchester at the heart of global industrialisation. From the 1830s railway station to the 20th century Metrolink, each piece of infrastructure contributes to this story, as well as having its own story to tell. The CLC railway has national interest for connecting north-west industrial towns, and by extension, the wider British empire.

In 2021, the condition of the 1892 Viaduct has deteriorated. There is great potential for imaginative new proposals to be put forward that finds a beneficial new use for the structure. The viaduct is of high significance as a structure of national and international historic value, high aesthetic interest due to its design and wider group value and considerable public and archaeological value.

Characteristics and features that define its significance

- The monumental scale of the structure.
- The large round columns and fish bellied deck when seen from below.
- The lattice steelwork by Heenan and Froude.
- The castellations.
- The demonstration of the power and wealth of Manchester and the railway industry in the 19th century.
- The wider setting and group value of industrial buildings and other transport infrastructure.

The viaduct crossing the Bridgewater Canal

The Viaduct is of high significance for its special architectural and historic interest

SECTION 4.0

THE PROPOSALS

The proposal is for a pilot scheme of an urban green space located on the Castlefield Viaduct. The scheme introduces a new pathway made of geo-cell retained gravel down the middle of the viaduct, crossing the following four zones:

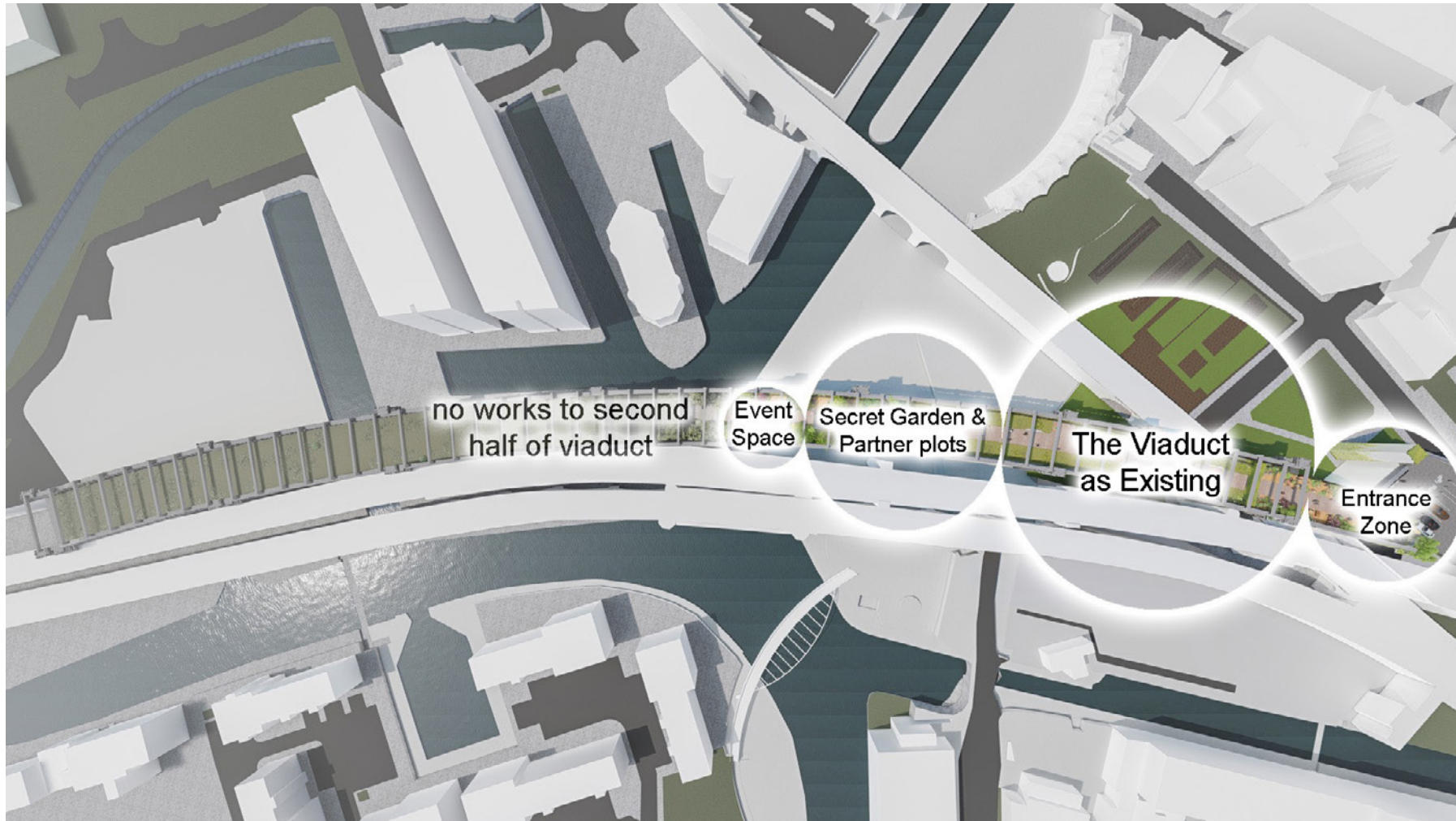
- A welcome area with a geo-cell retained gravel floor finish, containing a welcome kiosk, loose seating, two compost toilets, three cycle loops, low level planting within the depth of the gravel and a green screen gate at the end
- 'The viaduct as existing', a zone where the existing vegetation is retained at the sides, bordered by low level fencing, two benches and two sign boards, with free standing 1110mm tall safety guarding against the existing parapets
- A secret garden / partner plot area, with modular planters and timber platforms, as well as free standing safety guarding against the existing parapets
- An events space; a prefabricated, modular, temporary building, with an external canopy

The scheme is intended as a temporary 'testing' one. If the proposition and development prove viable then the National Trust and their partners will commence design development for the full scheme. This testing phase we help develop a better understanding of what works from a design perspective and materials angle but also critically what has worked in terms of visitor engagement. So, this is a phase that has physical reversibility, with the need to keep costs level, at its heart.

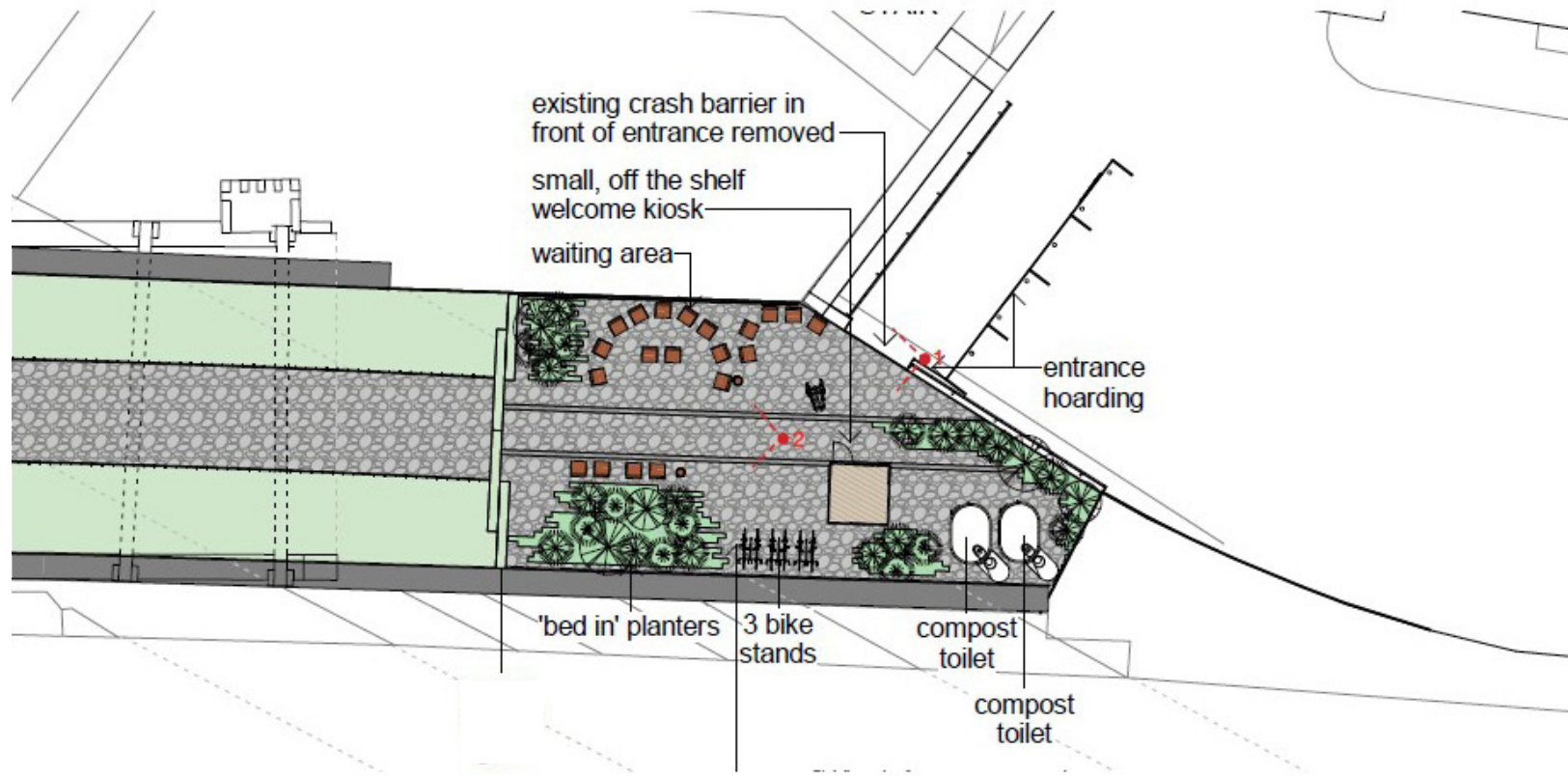
This document will support both planning permission (PP) and listed building consent (LBC) applications. The planning application is intended as a temporary one, whereas the LBC can only be permanent, as there is no such thing as a temporary LBC, although it is the intention of the project for the entire scheme to be temporary.

Full details of the proposals are included within the supporting documentation, primarily the design and access statement. The works are summarised into the following broad categories:

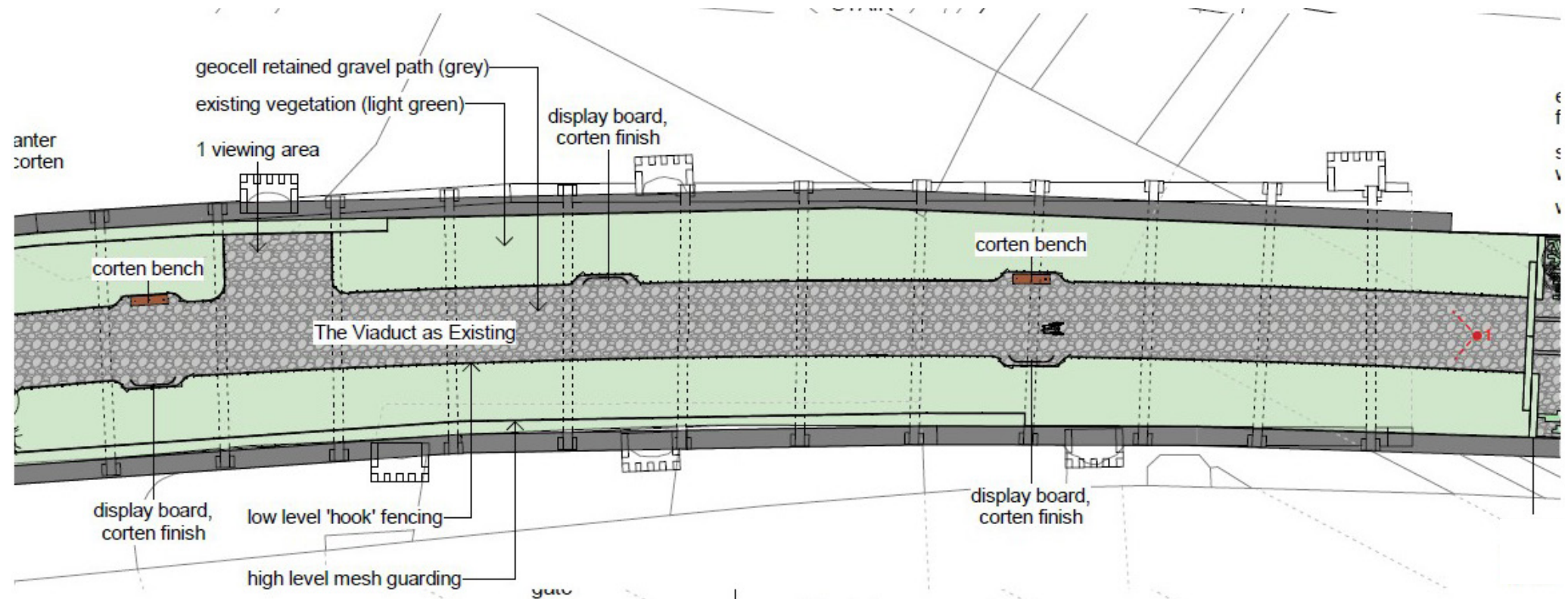
- Structural interventions (LBC).
- The additional loading and redistributed loads/stresses on the structure and its potential impact (LBC).
- Water management (LBC).
- The new events space structure (PP and LBC).
- Landscaping including - planters, paths, new ballast, lighting, graffiti boards, security, safety fencing (PP and LBC).
- Planting (PP and LBC).
- Services (LBC).



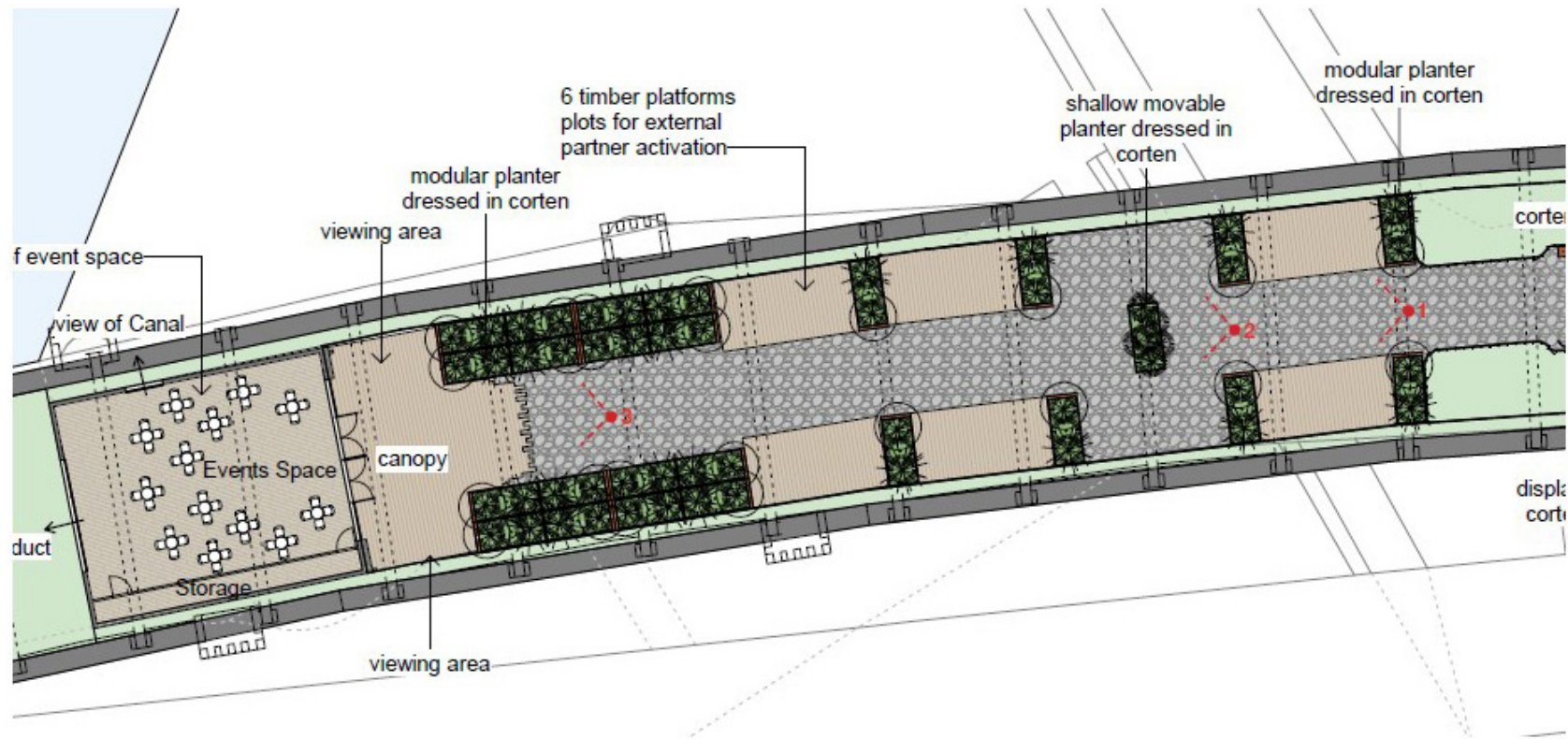
The high level concept plan for the site



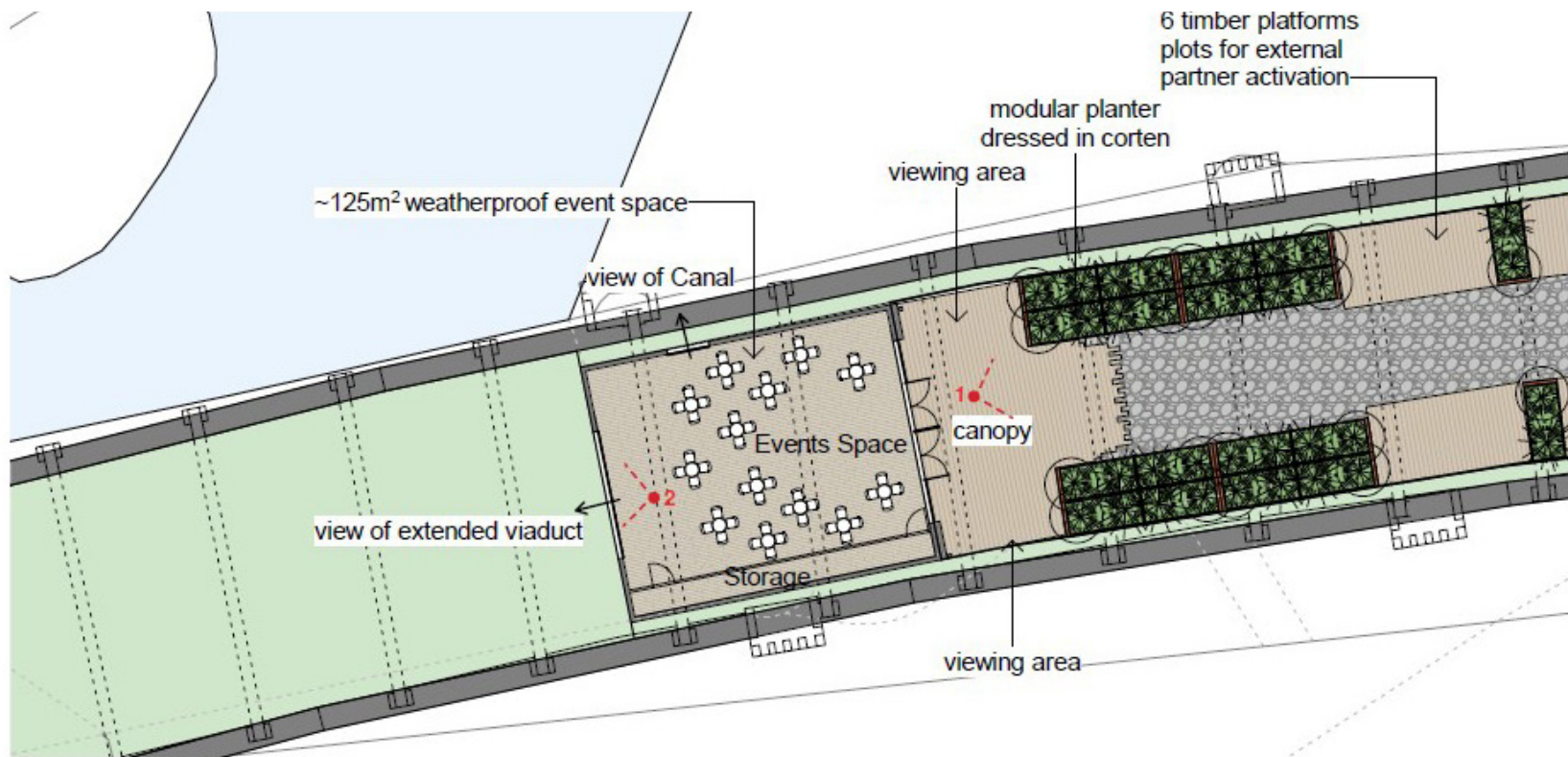
The proposal for part one of the structure (the entrance)



The proposal for part two of the structure



The proposal for part three of the structure



The proposal for part four of the structure

SECTION 5.0

IMPACT ASSESSMENT

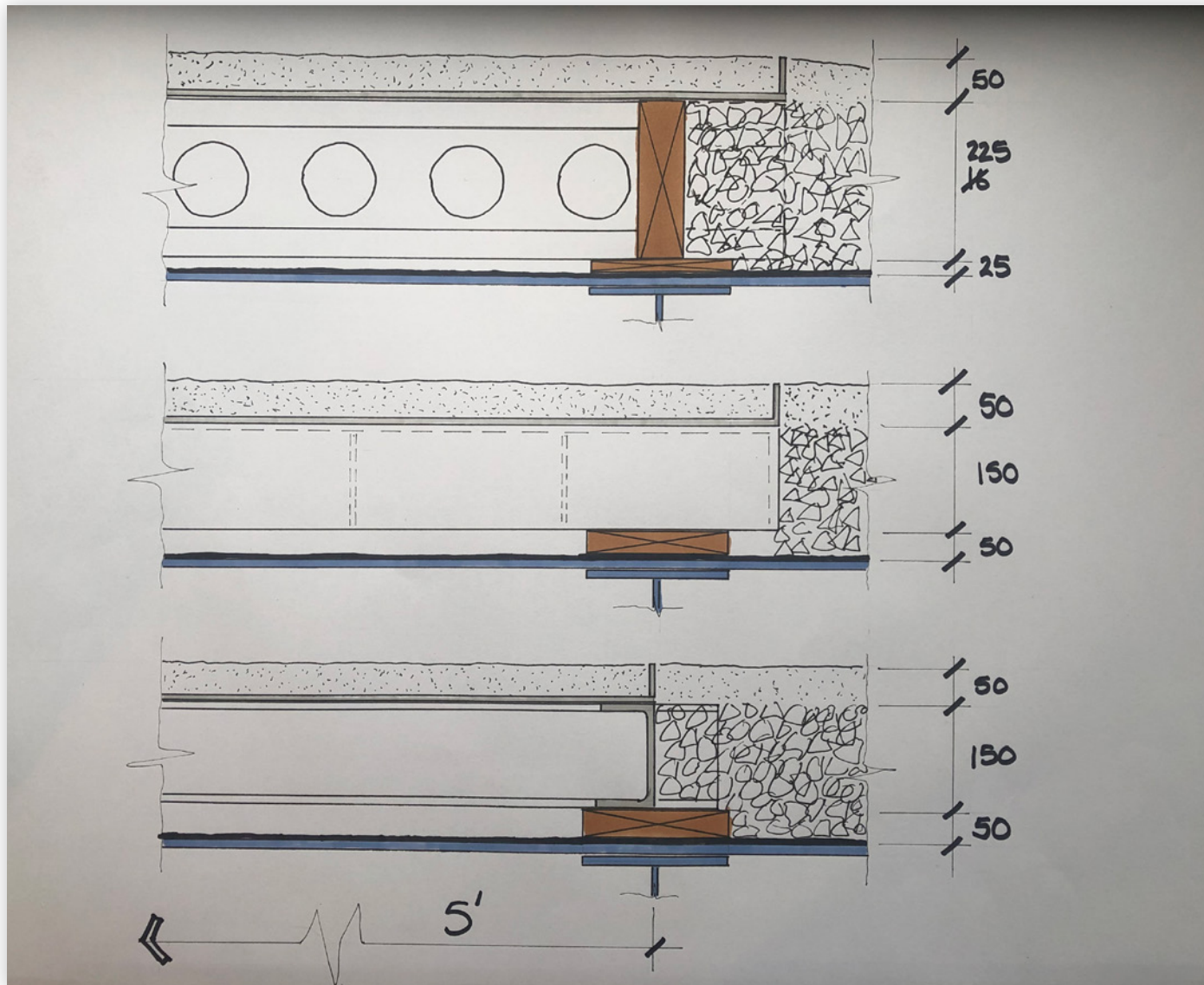


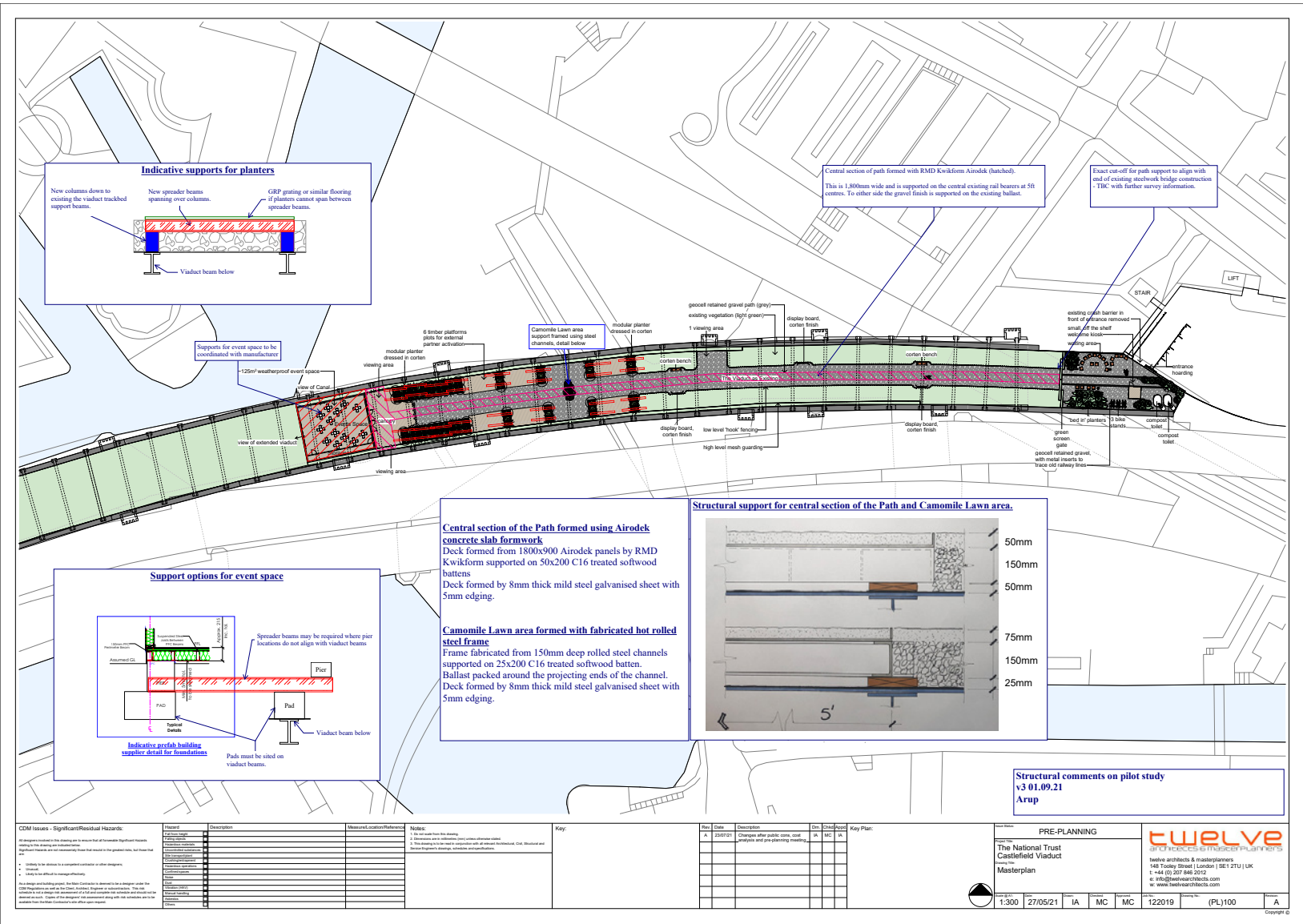
This Heritage Impact Assessment (HIA) sets out the ways in which the current proposals may affect the significance of the Grade II listed viaduct and the wider conservation area and will assess the overall impact of the proposed alterations across the site.

The level of impact will take into account the significance of the heritage asset in order to weigh this against the level of change. The impact will be assessed based on the following criteria:

MAGNITUDE OF IMPACT	DEFINITION
High Beneficial	The proposed changes will dramatically improve the overall setting and character of heritage assets and historic environment, revealing and/or enhancing important characteristics which were previously inaccessible. There would be a substantial improvement to important elements of the building. Any change resulting in a positive impact should be encouraged.
Moderate Beneficial	The proposed changes will considerably improve the setting or overall character of the heritage asset and surrounding streetscape. There may be an improvement in key uses and beneficial change (e.g. the creation of coherency) to the visual characteristics of the interior of the building. Any change resulting in a positive impact should be encouraged.
Minor Beneficial	The proposed changes may cause minimal improvement to the setting or overall character of a heritage asset or area. Any change resulting in a positive impact should be encouraged.
Neutral	The proposed changes will have no impact on the heritage asset.
Minor Adverse	The proposed changes will have minimal impact on the setting or overall character of a heritage asset. Change of this magnitude may be acceptable if suitable mitigation is carried out.
Moderate Adverse	The proposed changes will negatively alter the setting or overall character of the heritage asset or area. It will likely disturb key features and detract from the overall heritage significance. Change of this magnitude should be avoided where possible, but can be neutralised through positive mitigation.
High Adverse	The proposed changes will seriously damage the overall setting and character of heritage assets. They will cause a notable disruption to or in some cases complete destruction of important features. Change of this magnitude should be avoided

PROPOSAL	AREA AFFECTED	SIGNIFICANCE	ASSESSMENT / COMMENTARY	IMPACT
Structural interventions and physical connection to sleepers	The viaduct deck and ballast	The deck – High Ballast – Low	The viaduct was designed specifically for rail loading directly onto the longitudinal rail beams along the viaduct. The deck plate spanning between the rail bearing beams does not have much spare capacity beyond the weight of the ballast. Additional loading will be placed on the structure from the visitors to the planting and new structures. As a result, all loads must be transferred directly to the longitudinal rail bearing beams. Locations with additional applied loads require a support structure to transfer the loads to the rail bearing beams. Locations of applied load are: - the path / emergency access route - the planters - the event space building Solutions for all locations typically involve a structural beam to transfer load from point of application to point of support. The structural intervention required to carry the additional loads placed upon the structure will not be visible once pathways and ballast are reinstated. They are not mechanically fixed to the historic fabric as they sit on the asphalt/tar waterproofing to the deck plates. There will be a minimal physical impact on the structure, it is relatively reversible and will not visibly alter the appearance of the structure. There may be some loss of archaeological material when excavating the ballast.	Minor Adverse
The additional loading and redistributed loads/stresses	The entire structure	High	ARUP structural engineers have been involved throughout the project and the additional structural interventions outlined will ensure there is no further harmful loading to the structure.	Negligible





PROPOSAL	AREA AFFECTED	SIGNIFICANCE	ASSESSMENT / COMMENTARY	IMPACT
Rainwater management	The viaduct deck and ballast	The deck – High Ballast – Low	The existing drainage system appears to have been configured utilising a combination of transverse channel shaped carriers beneath the bridge deck that align with downspouts fixed to the supporting columns. Gullies within the deck are provided along the length of these transverse channels but are currently buried under ballast. This strategy will require existing viaduct gulley outlets/spitters to remain active. For this reason, repair works to existing rainwater pipework and outlets that are currently leaking will be required. The proposed arrangement continues the previous rainwater management and discharge and will have a negligible impact.	Negligible

PROPOSAL	AREA AFFECTED	SIGNIFICANCE	ASSESSMENT / COMMENTARY	IMPACT
The new events structure	The entire structure	High	Several design options were considered for the Event Space building, ranging from a flat roof prefab space, a portal frame 'warehouse style' design and a quonset hut structure, reminiscent of railway maintenance shelters. The deciding factors were: • Required beam depth to allow for required span • Cost of structure • Ease of installation and removal • Availability of competent installers • Ability to dress structure to blend into scheme The analysis made it evident that the flat roof, prefab building would be optimal, due to availability of this style of prefab structures, its height (restricted by the viaduct overhead beams), and the ability to dress it with 'green walls' as a continuation of the Secret Garden. The new structure is deliberately designed to be reversible reducing the impact of the scheme. The building will create some disruption along the key view along the length of the viaduct and will divide the length of the structure, although the 'green wall' will help blend this structure into the wider urban park. This interruption was considered, and large glazed doors are proposed on the entry wall and a large glazed window on the rear wall to allow visitors to see through, albeit not entirely. The viaduct latticework sides will largely shield the structure from long distance views	Minor adverse

PROPOSAL	AREA AFFECTED	SIGNIFICANCE	ASSESSMENT / COMMENTARY	IMPACT
Landscaping: paths			A geo-cell gravel path will run through from the existing viaduct area to the central building, bordered by ballast. The welcome space flooring to be of the same material, with ballast surrounding the planted areas. The material pallet has been carefully chosen to harmonise with the existing ballast surface and was part of the pre-application feedback that gravel is a nod to the historic surface of the structure. There will be some loss of the extant ballast and potential archaeological material.	Minor adverse
Entrance gate	Viaduct entrance	High	A gate is proposed at the visitor entrance. The gate will create disruption along the key view along the length of the viaduct and will divide the length of the structure. This is near the entrance to the structure so long views along the structure are largely unchanged. This disruption is intentional, to then allow for the reinstatement of the view and a 'surprise and delight' experience for visitors. There will be some hoarding near the car park entrance to guide visitors to the approach although this visual impact is low due to the crash barriers and palisade fencing already in this location.	Negligible
Edge protection barriers	Viaduct latticework	High	The guard rails chosen are freestanding barriers used at music concerts. This negates the need for any fixings into heritage fabric. The existing key clamp scaffold poles can be removed. The proposal is reversible but will inevitably create a visual barrier viewing both into and out of the structure. The proposed grill and material replicates the historic latticework and is less jarring than a glass screen. It is more visually intrusive than the extant scaffold bars but these are not appropriate for public use of the structure.	Minor adverse

PROPOSAL	AREA AFFECTED	SIGNIFICANCE	ASSESSMENT / COMMENTARY	IMPACT
Planting	The entire structure	High	Planting will be in beds and planters which will not be fixed to the structure. This means the ballast can remain largely undisturbed. There will be a change in character from a former industrial space to a more landscaped and formal green park although this is not considered harmful. The overall appearance of the structure will be enhanced from its currently neglected state where weeds and buddleia are growing from the ballast. The viaduct landscape planting will be selected to minimise regular watering or irrigation. Irrigation for the planting will be at optimum levels to ensure there is no residual water discharge and so there is a net neutral effect. Where irrigation is required, this will be achieved via the use of watering cans filled from a mobile water tank rather than via a piped irrigation system.	Moderate beneficial
Services: lighting and cabling, water supplies	The entire structure	High	As there is currently no electrical supply a new system is proposed with a small pillar required at the entrance to the structure adding a small element of visual clutter. Cabling will be beneath the ballast and pathways avoiding any intrusive cables. Lighting concepts suggest a variety of approaches will be employed with a light touch approach and no fixings to heritage fabric. Water will be supplied by a mobile water tank and compostable toilets both used to avoid sanitary installations on the structure.	Negligible
Proposal on wider setting	The viaduct setting and conservation area	High	The proposals are contained on the viaduct itself with little wider impact. The partial illumination of the structure is considered beneficial and the scheme itself will largely not be visible from the wider setting beyond the partial views of trees and the new structure which will not detract from the overall setting or conservation area.	Minor beneficial

SUMMARY OF HERITAGE IMPACT

The proposals for the viaduct cumulatively will have a negligible impact upon the significance of the structure. There are small instances of harm to significance relating to the potential loss of archaeological material in the ballast (which could be mitigated further through recording) and the visual impact of new additions. However, all new additions are reversible, including the structural interventions, meaning should this temporary use not continue beyond the pilot then the viaduct could be returned to its extant state.

The planting and the overall scheme itself will enhance the appearance of the structure which is currently neglected and will enhance its significance. The project overall will result in a far better understanding of the structures significance to the public. Investigative work will also enhance understanding. The new use will hopefully be the ignition point for long term use which will sustain the structure and invigorate the conservation area.

The new edge protection is potentially the most harmful element as it partially disrupts views from the structure and into it, although due to the low height, for most users the eye level will not be disrupted. The current scaffold bars are less intrusive as they have a lower visual impact, however, they form little protective barrier against the edge and their replacement is a necessity to allow wider public access. Again, the edge protection is not fixed to the structure and is entirely reversible.

The wider setting and conservation area will remain largely unaltered with the majority of the new additions screened by the historic latticework of the viaduct.

Beyond the physical impacts outlined above, by increasing access and furthering the knowledge and understanding of the structure, this in itself increases the communal value and enhances significance.

The proposals will have a negligible impact on the significance of the structure with significant public benefits.

APPENDIX A

LIST DESCRIPTION OF THE 1892 VIADUCT

CASTLEFIELD RAILWAY VIADUCT FROM G-MEX TO
DAWSON STREET

Heritage Category: Listing

Grade: II

List Entry Number: 1292315

Date first listed: 14-Feb-1988

Date of most recent amendment: 06-Jun-1994

SJ8297NW 698-1/18/115 04/02/88

MANCHESTER DEANS GATE

Castlefield Railway Viaduct from G-Mex to Dawson Street
(Formerly Listed as: DEANS GATE Castlefield Railway Viaduct
from Central Station, dividing into 2, rejoining an) II

GV

Railway viaduct. c.1880. Cast iron and wrought iron (?); red brick to east of Duke Street. Runs south-west from former Central Station, then westwards, dividing into two over Castlefield and rejoining west of River Medlock. Cast iron drum piers rising to square castellated towers supporting metal lattice parapet. Castellated brick piers with stone dressings to Gothic style skew bridges over River Medlock and roadways. To east of Duke Street viaduct is of brick with segmental arches and castellated brick piers. At western end a blue brick bridge over Dawson Street.

Listing NGR: SJ 83220 97620

[Read it online here >>](#)

APPENDIX B

LIST DESCRIPTIONS



THE GIANTS BASIN

Heritage Category: Listed Building

Grade: II

List Entry Number: 1247068

Date first listed: 06-Jun-1994

MANCHESTER

SJ8297 POTATO WHARF 698-1/18/319 (East side) The Giant's Basin

GV II

Circular weir. Probably 1765, by James Brindley, for Duke of Bridgewater, altered in C19. Coursed squared sandstone. Circular structure approx. 10m in diameter, with 2-course sloped lip. Part of hydraulic system by which the Bridgewater Canal terminus basin exploited the course of the River Medlock, which was diverted through a culvert running from east of Deansgate at Knott Mill to Potato Wharf, and the canal overflow was returned to the river via this weir. Simple structure of national historical importance. Forms group with canal basin at Potato Wharf (q.v.), and with Castelfield Railway Viaduct (q.v.), and Culvert arches, New Elm Road (q.v.); associated with Floodgate, Deansgate (q.v.).

Listing NGR: SJ8298097679

[Read it online here >>](#)

PAIR OF CULVERT ARCHES OVER RIVER MEDLOCK AND ASSOCIATED OVERFLOW CHANNEL

Heritage Category: Listed Building

Grade: II

List Entry Number: 1283003

Date first listed: 06-Jun-1994

SJ8297 NEW ELM ROAD 698-1/18/245 (East side) Pair of culvert arches over River Medlock and associated overflow channel

GV II

Pair of culvert arches. Probably 1765, by James Brindley, for Duke of Bridgewater. Coursed squared sandstone. Two low segmental spans at an angle, over the outflows from the River Medlock culvert and the overflow culvert from the Giant's Basin, that on the right lower and with a plain arch-band. Part of hydraulic system by which the Bridgewater Canal terminus basin exploited the course of the River Medlock, which was diverted through a culvert running from east of Deansgate at Knott Mill to this position, and the canal overflow was returned to the river via a circular weir at Potato Wharf known as the Giant's Basin. Simple structure of national historical importance. See also Giant's Basin, Potato Wharf, and Floodgate, Deansgate.

Listing NGR: SJ8294997716

[Read it online here >>](#)

ROCHDALE CANAL LOCK NUMBER 92 AND CASTLE STREET BRIDGE

Heritage Category: Listed Building

Grade: II

List Entry Number: 1270858

Date first listed: 20-Jun-1988

Date of most recent amendment: 06-Jun-1994

SJ8397NW ROCHDALE CANAL 698-1/30/364 Lock No.92 and Castle Street Bridge 20/06/88 (Formerly Listed as: CASTLE STREET, CASTLEFIELD "Canal Bridge and over Rochdale Canal adjoining lock walls with 2 pairs.gates")

GV II

Canal bridge with attached ramp on west side and lock on east side. c.1804, altered. Coursed squared millstone grit, wooden gates. The bridge has a single segmental arch with rusticated voussoirs, keystone and arch-band, a plain band above, slab-wall parapets curved round at the outer ends, and a ramp at right-angles to the north-west corner. Lock of 14-foot width, with pairs of gates at both ends; overflow tunnel with circular brick-lined shaft to south side of Castle Street. The lock is the last in a series of 9 on the extension linking the Rochdale and Bridgewater Canals.

Listing NGR: SJ8311797566

[Read it online here >>](#)

MERCHANTS WAREHOUSE

Heritage Category: Listed Building

Grade: II

List Entry Number: 1197778

Date first listed: 20-Jun-1988

MANCHESTER, CASTLE STREET (West side), Merchants Warehouse

20.06.88

GV II

Former canal warehouse serving Bridgewater Canal terminus, offices from early C21. Dated 1823 on pier between shipping holes; altered, fire-damaged and derelict when surveyed: Brown brick in English garden-wall bond, with some sandstone dressings, slate roof (damaged). Rectangular plan of 6 structural bays occupying whole of west end of north quay. West facade (to the canal) 4 storeys and 1:2:6:2:1 windows separated by former loading slots. The centre has two semi-circular arched shipping holes rising into the 1st floor, with a cylindrical sandstone pier and responds which have concave caps brought to a square, that in the centre inscribed "1823", timber lintels and wooden screens in the arches above; the loading slots have doorways at ground floor but are otherwise bricked-up, and those to the right have wooden gabled hoist-canopies; small round-headed windows with glazing bars and tilting casement openings in the lower half, all damaged. Moulded stone cornice with blocking course. The east facade is 3-storeyed, with similar windows and 4 surviving 3-stage loading slots (only partly bricked up) but the top floor of the northern half and its roof are

missing. INTERIOR: not inspected, but reported to have timber beams, and remains of winding gear in roof. Distinctive feature of Bridgewater Canal terminus site, of considerable historical interest.

Listing NGR: SJ8309997526

[Read it online here >>](#)

BRIDGEWATER CANAL BASIN AT POTATO WHARF

Heritage Category: Listed Building

Grade: II

List Entry Number: 1246959

Date first listed: 06-Jun-1994

POTATO WHARF (East side), Bridgewater Canal basin at Potato Wharf

GVII

Canal basin. Probably c.1760-5, by James Brindley, for Duke of Bridgewater: Branches off north side of Bridgewater canal near Castlefield terminus. Lined with stone blocks. Forms group with the circular overflow basin slightly to the east (known as Giant's Basin) and with Castlefield Railway Viaduct.

Listing NGR: SJ8290497624

[Read it online here >>](#)

REMAINS OF EASTERN WALL OF THE ROMAN FORT

Heritage Category: Scheduled Monument

List Entry Number: 1001953

Reasons for Designation

Not currently available for this entry.

History

Not currently available for this entry.

Details

This record has been generated from an "old county number" (OCN) scheduling record. These are monuments that were not reviewed under the Monuments Protection Programme and are some of our oldest designation records. As such they do not yet have the full descriptions of their modernised counterparts available. Please contact us if you would like further information.

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MANCHESTER SOUTH JUNCTION AND ALTRINCHAM RAILWAY VIADUCT

Heritage Category: Listed Building

Grade: II

List Entry Number: 1200837

Date first listed: 06-Jun-1994

Date of most recent amendment: 26-Feb-2013

Summary

Railway viaduct for the Manchester South Junction & Altrincham Railway Company, 1846-9, constructed by David Bellhouse Jnr. Red brick with some small sections of blue brick, sandstone dressings and cast-iron bridges.

Reasons for Designation

The Manchester South Junction & Altrincham Viaduct is designated at Grade II for the following principal reasons:

* Design interest: it is an impressive 1 3/4 mile long urban viaduct incorporating a series of well-detailed bridges; some with highly decorative Gothic-style ironwork;

* Date: it is an early example of a railway viaduct dating from the second phase of railway development - the period from 1841-50 often referred to as 'railway mania' - in which commercial speculation and competition for routes led to the rapid construction of lines and expansion of the railway network;

* Historic interest: the viaduct forms an important and integral component of the Manchester South Junction & Altrincham Railway, which was one of the country's earliest suburban railways, and Manchester's first; helping to bring this form of transport to the hinterlands;

* Group value: the viaduct has strong group value with neighbouring railway structures (both contemporary and later), including two other railway bridges crossing the River Irwell (the 1830 Grade I listed stone bridge and the 1869 Grade II listed girder bridge) and their associated viaducts, the Grade II listed Castlefield Viaduct (c1880), the Grade II listed stations of Manchester Oxford Road (1958-60) and Deansgate (1896), and the Grade II listed former goods offices (c1850-60) and train shed (c1881) at Manchester Piccadilly Station.

History

The Manchester South Junction & Altrincham Railway viaduct was constructed in 1846-9 by David Bellhouse junior for the Manchester South Junction & Altrincham Railway (MSJ&AR) Company; Bellhouse was also responsible for laying the track. Several of the cast-iron bridges situated along the viaduct were built by his son, the engineer and iron-founder, Edward Taylor Bellhouse, along with others by the line's Chief Engineer, William Baker, and William Cubitt.

The MSJ&AR line is one of the country's earliest suburban railways and was the first in Manchester. It was started as a joint venture between the Manchester & Birmingham Railway (later the London & North Western Railway, LNWR) and the Sheffield, Ashton-under-Lyne & Manchester Railway (later the Manchester, Sheffield & Lincolnshire Railway, MS&LR) which operated London Road Station (known as Manchester Piccadilly Station since 1960). The aim was to create an extension of their lines, known as the South

Junction line, that would be carried along the southern boundary of the city centre on a viaduct and then join the Liverpool and Manchester Railway at Ordsall Lane in Salford, providing access to the lucrative port and city of Liverpool. A branch line, leaving the South Junction line at Castlefield, would also follow the Bridgewater Canal to Altrincham. The Manchester South Junction & Altrincham Railway Act received Royal Assent on 21 July 1845.

300,000 cubic feet of stone (91,440 cubic metres), 50 million bricks and 3000 tons (3048 tonnes) of cast iron were used in the viaduct's construction. The MSJ&AR line opened on 20 July 1849, although sections of the viaduct were not opened until 1 August 1849. The line ran for 8 1/2 miles from London Road Station via Oxford Road and Deansgate Stations to Altrincham, with the viaduct forming a 1 3/4 mile (2 3/4 km) long stretch: the northern branch terminating at the north-west bank of the River Irwell, and the southern branch terminating at the east side of Dawson Street.

Details

LOCATION: The viaduct runs from Manchester Piccadilly Station via Oxford Road and Deansgate, following approximately the route of the River Medlock (crossing it at a number of points), and then branches into two at Castlefield, with the northern branch terminating on the north-west side of the River Irwell, and the southern branch terminating at the east side of Dawson Street.

ARCHITECTURE: The viaduct is approximately 1 3/4 mile (2 3/4 km) long and incorporates 224 brick arches that average a span and height of approximately 30ft, and a width of 28ft; many of the arches, particularly those near to Manchester Oxford Road Station and Deansgate Station, have been in-filled and converted into commercial premises. The tallest arches can be found in the section between Manchester Piccadilly and Oxford Road stations where the ground level is lower. A brick parapet has been altered

and rebuilt in places and later repairs have been carried out to some of the arches.

The viaduct incorporates a series of predominantly arched, cast-iron bridges by Edward Taylor Bellhouse, William Baker and William Cubitt that cross various streets, the Rochdale Canal, and the Bridgewater Canal. The bridges have an average span of 70ft, although one of Baker's bridges, which spans the Rochdale Canal has a span of 105ft. A number of the bridges incorporate highly decorative Gothic-style ironwork and detailing and castellated towers (referencing the location of a Roman fort at Castlefield), whilst others, such as a bridge over Gloucester Street are more classically detailed. A bridge over Egerton Street by William Baker was replaced in steel in 1976. Some of the viaduct's brick arches and bridges are skewed. The Irwell Bridge at the north-west end of the viaduct is of brick with two segmental arches, each of approximately 65ft span, with a central pier and cut-water. Rusticated stone voussoirs and pilaster strips exist to the central pier and abutments, and the parapet above the western arch incorporates cast-iron panelling.

Following electrification of the line in the C20 the viaduct now incorporates a series of C20 and early-C21 gantries along its course. Also along the viaduct's course are a number of attached or abutting buildings, most of which are later in date and are un-related to the viaduct's use; all are excluded from the listing, which relates solely to the viaduct. Manchester Piccadilly Station, Deansgate Station and Manchester Oxford Road Station (the two latter stations being constructed on top of and to the side of the viaduct) are all separately listed at Grade II.

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