

MANCHESTER MEDIEVAL QUARTER AND GLADE OF LIGHT

DOCUMENT CONTROL

FILE NAME

PL1784-ID-034-03-DESIGN-ACCESS-STATEMENTCOPY

PREPARED BY (INITIALS) **JTO**	
CHECKED BY (INITIALS) **FF**	

Contents

1 INTRODUCTION 5

1.1 Introduction 6
1.2 Wider Context 7
1.3 Site Description 8
1.4 History 9
1.5 Architectural Context 10
1.6 Masterplan Context 12
1.7 Our Brief 14
1.8 Project Phasing 15

2 BASELINE 17

2.1 Site Context 18
2.2 Assets 19
2.3 Opportunities 20
2.4 Constraints 21
2.5 Heritage 22
2.6 Archaeology 23
2.7 Existing Materials 24

3 VISION 27

3.1 Aspirations and Opportunities 28
3.2 Spatial Sequence 29
3.3 Site Arrival 30
3.4 First Ditch Gardens 31
3.5 Riverside Walk 32
3.6 Glade of Light 33
3.7 Cathedral Square 34

4 LANDSCAPE DESIGN 37

4.1 Design Principles 38
4.2 Masterplan 40
4.3 Masterplan Detail Areas 42
4.4 Illustrative Visualisation 46
4.5 Material Strategy 48
4.6 Material Palette 49
4.7 Planting Strategy 50
4.8 Planting Palette 51
4.9 Street Furniture 52
4.10 Lighting Strategy 54
4.11 Lighting Products 55
4.12 Signage and Wayfinding 56
4.13 A Safe Environment 58
4.14 Security Strategy 59
4.15 Hostile Vehicle Mitigation 60
4.16 Vehicular Access 62
4.17 Pedestrian Access 63
4.18 Disabled Drop-Off Locations 64
4.19 Inclusive Design 65
4.20 Highways 66
4.21 Below Ground Utilities and Highways Structures 67
4.22 Heritage Statement 68
4.23 Planning Statement 69
4.24 SUDS and Drainage 70
4.25 Construction Phase Works 72
4.26 Interim Treatment of Phase 1b 73
4.27 Stakeholder Engagement 74
4.28 Public Consultation Feedback & Design Response 75

5 GLADE OF LIGHT 77

5.1 Glade of Light 78
5.2 Contents 80
5.3 Stillness 81
5.4 Tranquillity 82
5.5 Remembrance 83
5.6 A White Halo 84
5.7 In Memoriam 85
5.8 Love Will Triumph 86
5.9 Grace & Gravitas 87
5.10 Timeless 88
5.11 Wild Beauty 89
5.12 A Woodland Glade 90
5.13 Heathland 92
5.14 Light & Shade 94
5.15 A Place To Dwell 96
5.16 Inclusive Understanding 97

6 APPENDICES 99

6.1 Ecological Survey 100
6.2 Tree Survey 101
6.3 Topo Survey 102
6.4 Ground Penetrating Radar Survey 103
6.5 Crypts Structural Survey 104





1

INTRODUCTION

1.1 Introduction

This design and access statement has been produced for Manchester City Council by Planit-IE on behalf of the design team, for improvements to the public realm alongside the River Irwell in central Manchester. The scheme seeks to redevelop what was formerly Victoria Street into a linear park that provides opportunities for a range of public uses, in addition to creating a green link to the north of Deansgate, and improving the setting of Manchester Cathedral and Chetham's School of Music. In response to the Manchester Arena Attack of 2017 the site is also the location of the Glade of Light which is a memorial and a central feature.

The scheme has been developed in accordance with the broad principles set out in the overall vision document for the Medieval Quarter authored by Simpson Haugh Architects.

The document should be read in conjunction with all other supporting drawings and documentation that accompany the application.

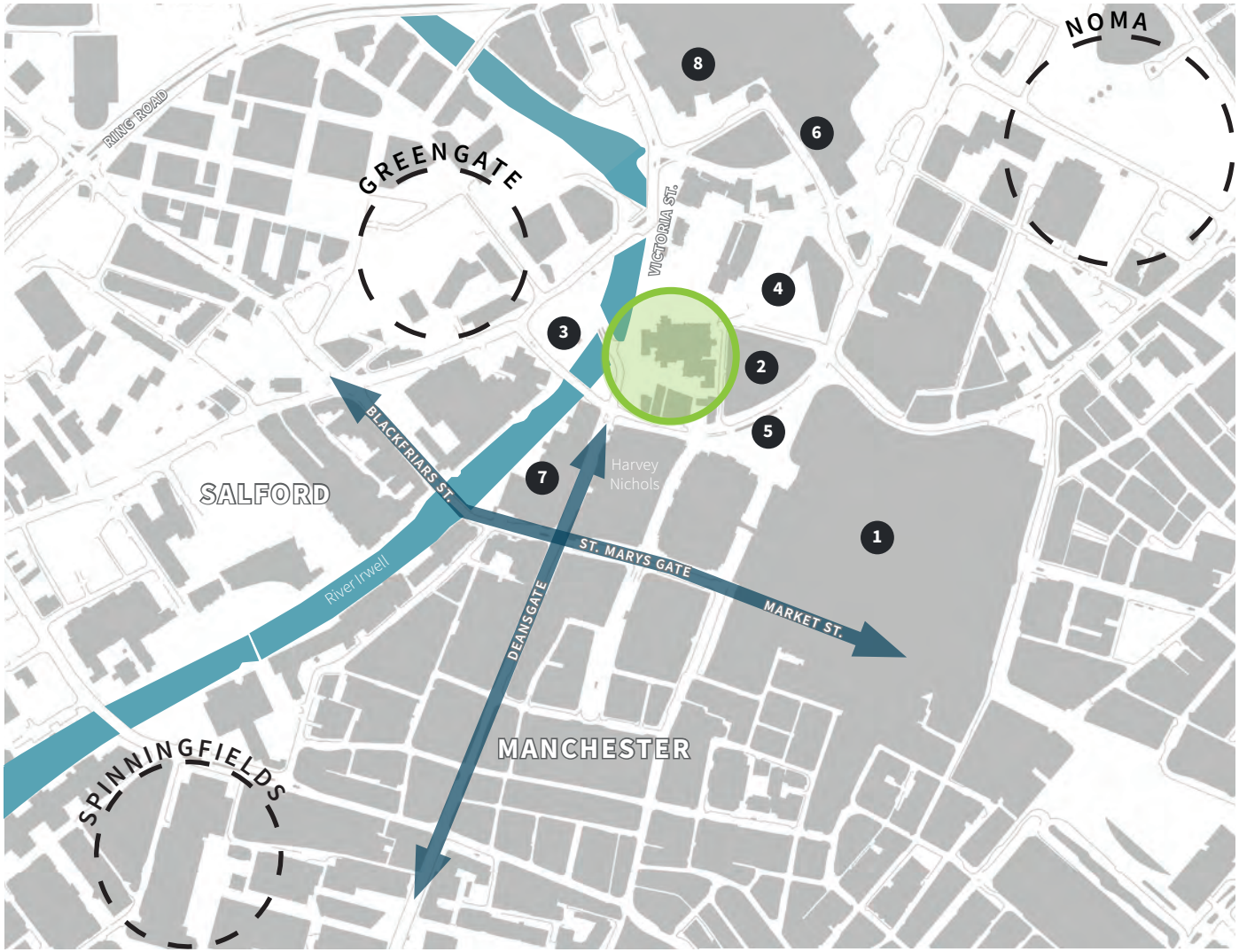


VIEW OVERLOOKING THE SITE FROM THE SWINTON BUIDING, SALFORD

1.2 Wider Context

The Medieval Quarter is a strategically important gateway site that sits at the boundary between Manchester and Salford, across the river from the Greengate development area and near to Victoria Station, Cathedral Gardens, Exchange Square and NOMA.

It also occupies a key location at the end of Deansgate where it will interface with the development planned for the Renaissance Hotel site.



KEY

1. Manchester Arndale
2. Corn Exchange
3. Greengate Square
4. Cathedral Gardens
5. Exchange Square
6. Victoria Station
7. Renaissance Hotel
8. Manchester Arena

FIGURE 1: WIDER CONTEXT

1.3 Site Description

The site itself runs from Hunts Bank to the north, along what was formerly Victoria Street to the Cathedral's west entrance to the south. It also includes the area of land that has been created through the demolition of the Palatine Building against the Chetham's west boundary.

The majority of the site is occupied at present by temporary landscape interventions that have been placed along the length of Victoria Street. Despite the fact that a traffic restriction order is in place to remove cars from this space, it does still feel like a highways environment due to the kerb upstands, the materiality and the now redundant paraphernalia associated with the highway such as controlled road crossings and highways lighting.

The site also includes an area of lawn and trees implemented as part of the Cathedral Gardens scheme to the east.









EXISTING SITE PHOTOGRAPHS

1.4 History

BRIEF HISTORY

The Medieval Quarter is one of the most historically significant areas of Manchester as the medieval heart of the city, and boasts impressive archaeological and architectural heritage.

The area contains the surviving sections of Hanging Bridge and First Ditch (exposed upon the demolition of the Palatine Building), both thought to be tributaries running between the River Irk and the River Irwell that pre-date the surrounding buildings.

Although a church is believed to have been present on the site from as early as the 7th century, the current Cathedral is thought to have been constructed circa 1215 AD. Chetham's School of Music is constructed on the site of Manchester Castle, which has been referred to as early as 1184. The library at Chetham's is the oldest in the English-speaking world and the building was constructed in 1421.

As Manchester grew, houses and other buildings were built in close proximity to the Cathedral, including over the two tributaries that form First Ditch and Hanging Ditch.

In more recent years the area was regenerated following the 1996 IRA bomb. Shambles East was demolished and New Cathedral Street and No. 1 Deansgate arrived bringing shops and apartments.

The surface car park behind the Corn Exchange was also redesigned to become Cathedral Gardens. Cathedral Gardens is a very popular and well-used site providing a thoroughfare between the Cathedral, the Triangle and Victoria.

Within the site itself Victoria Street was closed to traffic and a temporary landscape scheme was implemented that included planters and elements of children's play equipment. This temporary treatment is now run-down and ready to be replaced by a more permanent designed solution.



HANGING DITCH



HISTORIC URN OF CATHEDRAL

1.5 Architectural Context

The site is surrounded by a number of significant buildings shown on the plan to the right. The buildings have been constructed at different times, and vary in age and architectural style. Several of them are listed and contribute to the potential richness of the future Medieval Quarter.

KEY

1. National Football Museum
2. Manchester Cathedral
3. The Corn Exchange
4. The Arndale Centre
5. Selfridges
6. Harvey Nichols
7. Exchange Square
8. Chetam's School of Music
9. Printworks



FIGURE 2: ARCHITECTURAL CONTEXT













EXISTING SITE PHOTOGRAPHS OF SURROUNDING BUILDINGS

1.6 Masterplan Context

SIMPSON HAUGH MASTERPLAN

The development proposals sit within a wider masterplan for the Medieval Quarter undertaken by Simpson Haugh Architects.

The Planit design proposals draw upon the general principles set out in the Simpson Haugh masterplan for the first phases of the development.

It is important to note that the masterplan by Simpson Haugh was submitted in 2016 prior to the Manchester Arena Attack of 2017. Since the masterplan submission the arena attack took place and the Medieval Quarter was selected as the location of the memorial due to its pivitol location. The Glade of Light memorial has become a new addition to the scheme and integrated into the masterplan.

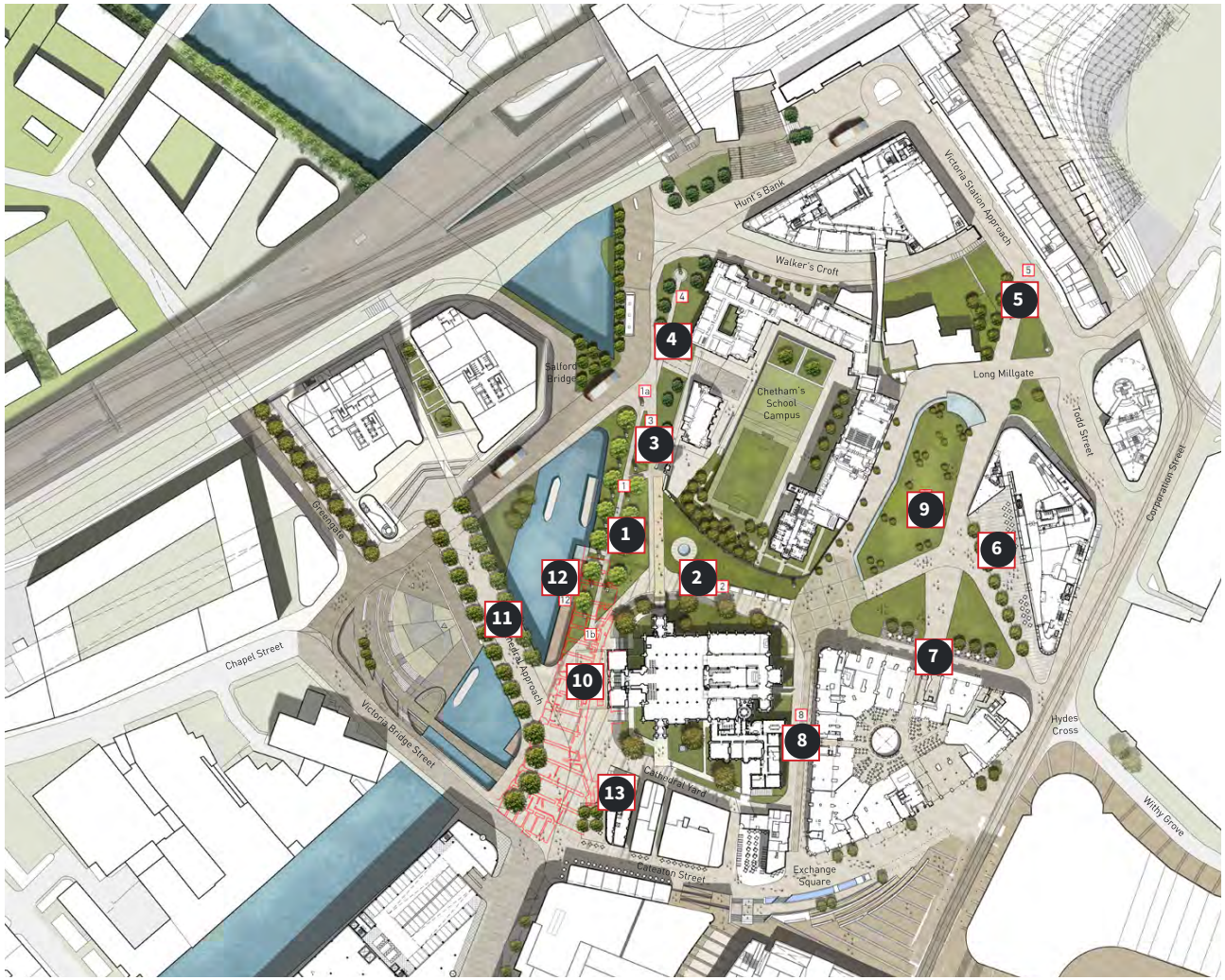


FIGURE 3: SIMPSON HAUGH MASTERPLAN

1 'Withy Grove'

New landscaped public space incorporating grove of willow trees and statues of iconic Manchester figures.

2 'The Apple Market'

Reinstatement of original market place. Realigned public park to river. Incorporates new cathedral steps and new landscaped space. New fountain and water feature.

3 'Hunts Bank'

Reinstated public route aligned on original pathway of Hunts Bank, linking Cathedral north door with Chetam's new visitor entrance.

4 Revealing Manchester's Historic Past

Reinstated public route aligned on original pathway of Hunts Bank linking Cathedral north door with Chetam's new visitor entrance.

5 New Arrival Space for Victoria Station

Improved arrival experience from Victoria Station into the Medieval Quarter. Reconfigured public realm.

*EXTRACTED FROM SIMPSON HAUGH DOCUMENT

6 National Football Museum external space

Stronger definition of an approach/entrance space definition to National football museum.

7 The Corn Exchange external public space

Incorporate tree planting and seating areas.

8 Cathedral Street upgrade

Flush road surface, opening up to the east door. New lighting and banners. External seating to Corn Exchange.

9 Cathedral Gardens

Existing public realm and seating areas retained.

10 Cathedral main entrance

Creating a new setting for Manchester Cathedral. New public realm lighting and approach sequence.

11 Victoria Street bridge

Creation of green bridge.

12 Historic Waterfront

New access into catacombs and deck along River Irwell. Link to crypt and Cathedral visitor centre.

13 Opening up hanging ditch

New direct access to Cathedral arches and visitor experience.

1.7 Our Brief

The Simpson Haugh Masterplan also defined the project brief for each phase of the wider masterplan, of which the relevant elements have been extracted below:

1. A new park on the river.
2. Improving the setting of Manchester Cathedral and connectivity to Chetham's.
3. Chetham's and surroundings, creating an integrated visitor experience.

The brief is from the Simpson Hough Masterplan of 2016 which was submitted prior to the 2017 Manchester Arena Attack. Since this the Medieval Quarter has become the location for the Glade of Light Memorial and part of the brief.

SimpsonHaugh AND PARTNERS

MASTERPLAN OPPORTUNITIES IN DETAIL

REDEFINING THE MEDIEVAL QUARTER : MASTERPLAN ASPIRATIONS & OPPORTUNITIES

1. A NEW PARK ON THE RIVER

-A new sculpture park on the river celebrating significant people and events in the story of Manchester.
-A place of commemoration.
-Creating new pedestrian routes, reinstating historical linkages along Hunts Bank.

2. IMPROVING THE SETTING OF MANCHESTER CATHEDRAL AND CONNECTIVITY TO CHETHAM'S

-Creating a new setting for the Cathedral main entrance.
-Creating a permeable edge. Modification to adjacent landscape and boundary walls, the creation of 'Cathedral steps' .
-Uncovering and rediscovering Manchester's historical waterfront.
-Reintegration of Hanging Ditch and the Cathedral crypt arches into a visitor experience.
-Linking the Cathedral and Chetham's via an integrated visitor experience.
-Linking the north door of the Cathedral with the new Chetham's visitor entrance aligned with the former Hunts Bank.
-Reinstatement of the historic 'Apple Market', linking the Cathedral and Chetham's, a place of activity and connection.

3. CHETHAM'S AND SURROUNDINGS, CREATING AN INTEGRATED VISITOR EXPERIENCE

-Integration of the proposed visitor experience.
-Integrating the 'First Ditch' archaeological dig site into the wider Medieval Quarter landscape

4. REDEFINING AND UPDATING CATHEDRAL GARDENS

-Defining space within Cathedral Gardens for use by the Corn Exchange, National Football Museum and Chetham's.
-A new approach sequence and protected external areas for the National Football Museum.
-Sheltered external seating for the Corn Exchange.

5. VICTORIA STATION

-Create an improved arrival route into the city from Victoria Station.
-Updated formal gardens in front of Chetham's School of Music.

1.8 Project Phasing

The diagram to the right shows the first phases of the wider masterplan. The areas covered by this design and access statement include phases 1a, 1b and 1c, which are described below.

Phase 1a

This phase stretches between Chetham's School of Music to the north and Manchester Cathedral to the south, alongside the RIver Iwell.

Phase 1b

Phase 1b is the northernmost extent of the site and includes the footway to Victoria Street and the area of land vacated when the Palatine Building was demolished, to the west of Chetham's School of Music.

Phase 1C

Phase 1c includes the area immediately in front of the Cathedral, up to the parapet of the Irwell and the easternmost extent of Cathedral Approach.

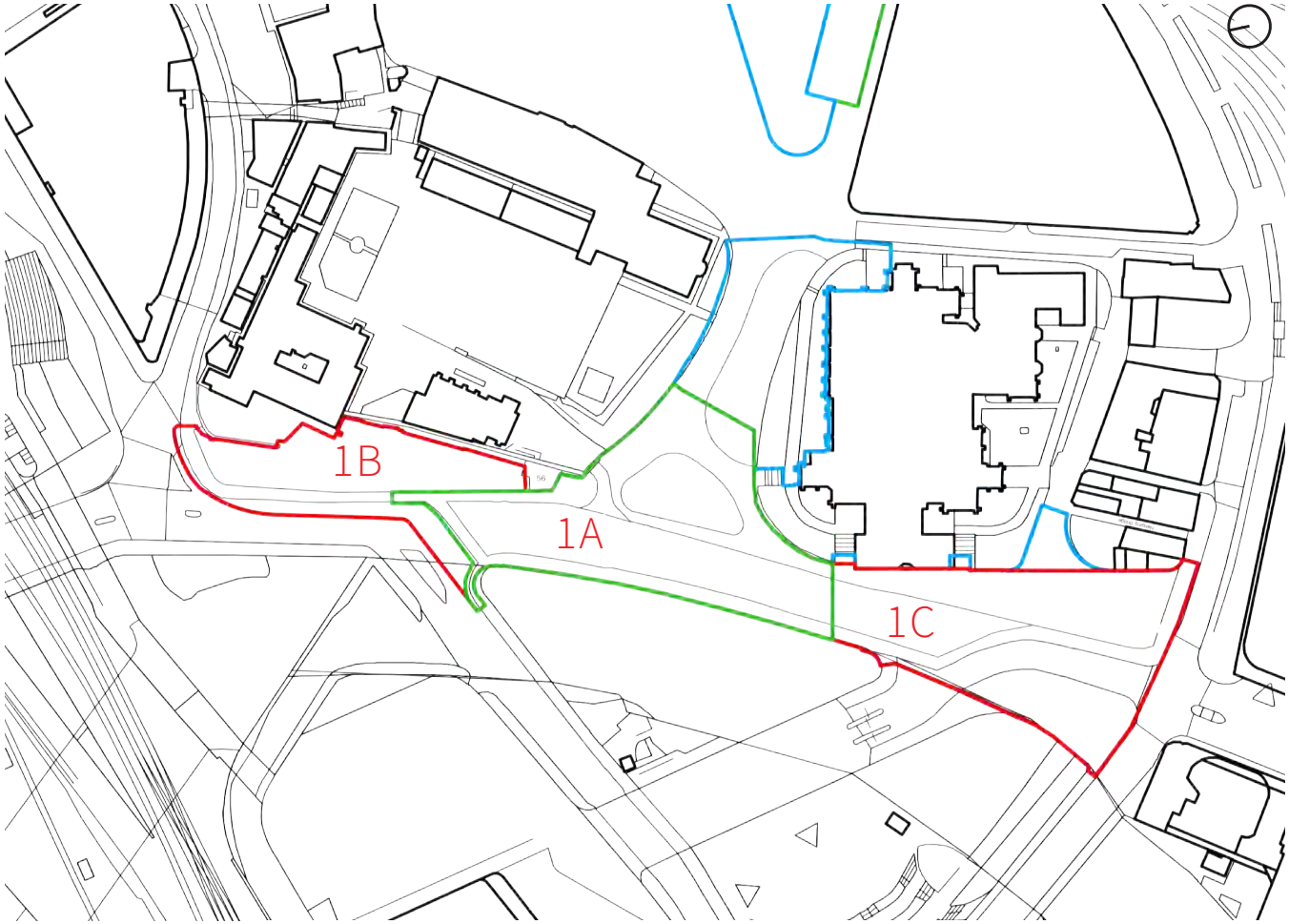


FIGURE 4: PHASING BOUNDARIES





2

BASELINE

2.1 Site Context

Given the sites location in central Manchester there are a number of existing attractions within the vicinity that bring people into the area.

It is hoped that the proposed public realm scheme will become a new destination in its own right, adding to the existing offer and resulting in increased footfall in this part of the city.

The Medieval Quarter's close proximity to Manchester Arena was an important part of the location selection for the Manchester Arena Attack memorial. The site is close enough to allow movement between the arena to the memorial during times of remembrance, but far enough away to restrict views of the arena from the memorial.

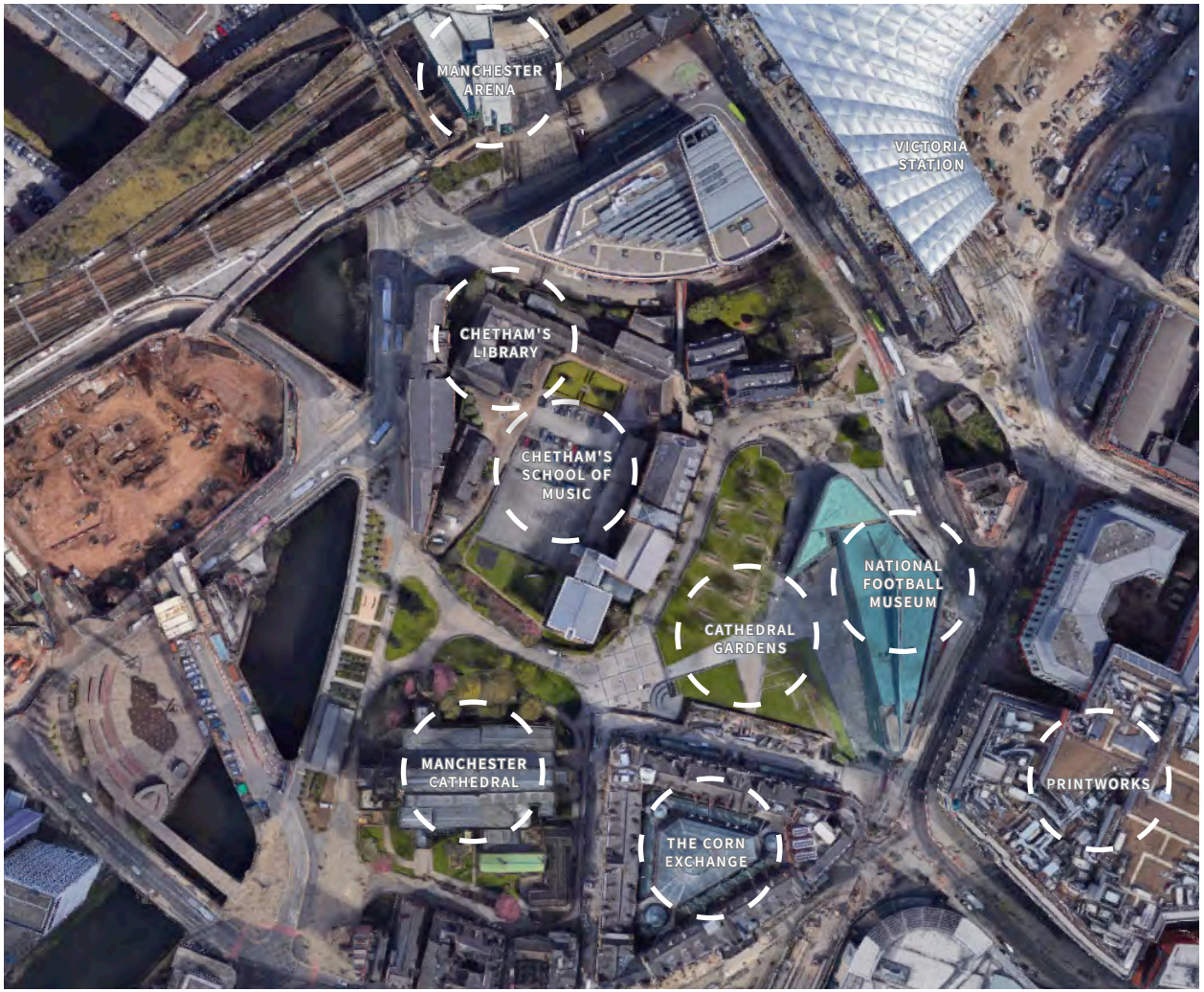
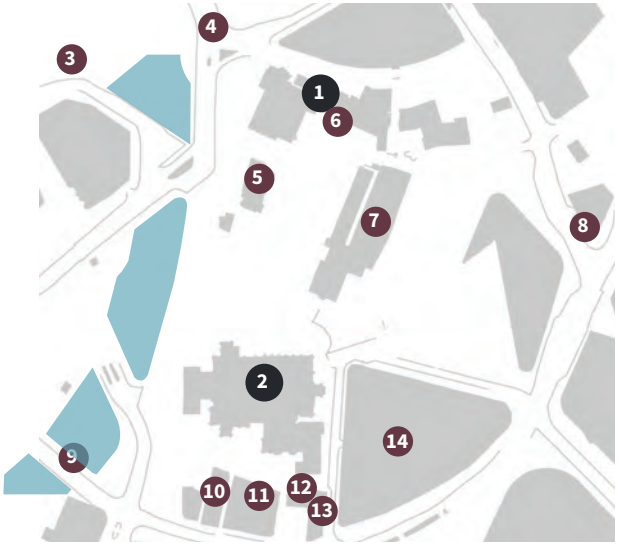


FIGURE 5: SITE CONTEXT

2.2 Assets

Listed buildings



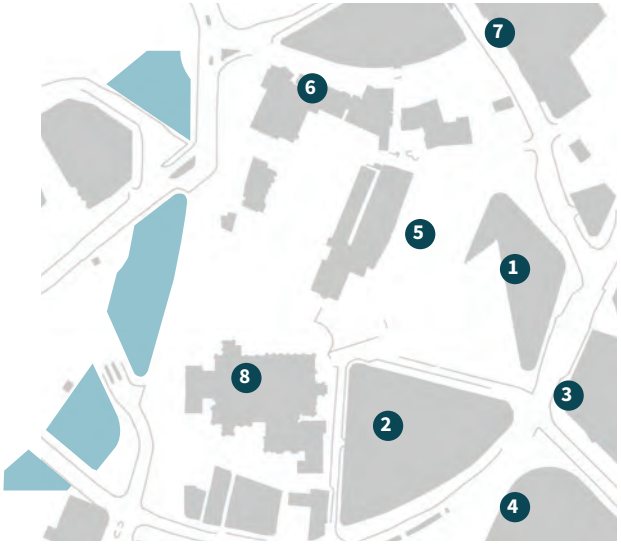
Grade I Listed Buildings:

1. Chetham's Hospital and attached Wall
2. Cathedral Church of St Mary

Grade II Listed Buildings:

3. Stephenson bridge
4. Victoria Station including concourse to rear
5. Chetham's detached school room block
6. Fragment of Hydes Cross
7. Southeast wing to Chetham's hospital
8. City buildings
9. Railway viaduct and retaining walls
10. Mynshulls House
11. Mitre Hotel
12. The Old Wellington inn
13. Sinclairs Oyster Bar
14. Former corn and produce exchange

Destinations



1. National Football Museum
2. The Corn Exchange
3. The Printworks
4. Arndale Centre
5. Cathedral Gardens
6. Chethams Library
7. Manchester Victoria Station
8. Manchester Cathedral

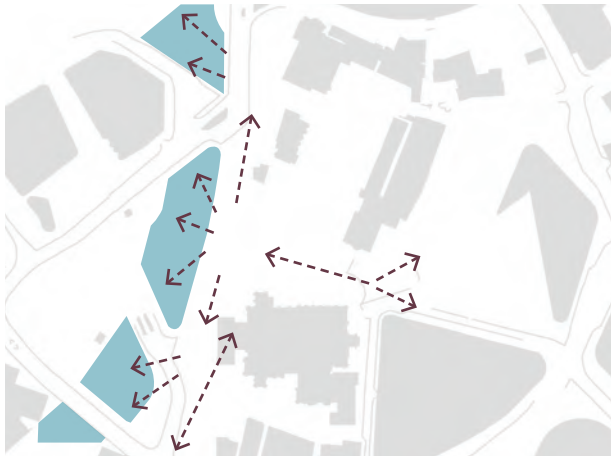
Greenspace



Cathedral Gardens and the grounds to the Cathedral are one of the greenest parts of the city centre and comprise well used areas of lawn and amenity planting. The proposed scheme will draw on this green identity and extend it towards the Irwell and to the end of Deansgate.

2.3 Opportunities

Views



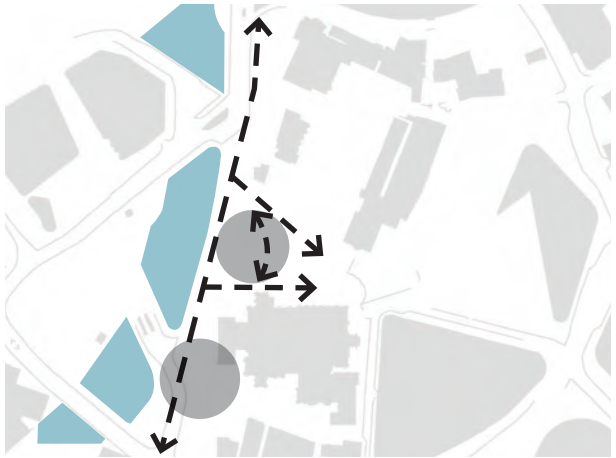
- There is a real opportunity to build upon existing views across the site in addition to opening up and encouraging new views.
- Existing views to be maintained include the view through the site to the end of Deansgate, and from Deansgate to the Cathedral's clock tower.
- Views that could be enhanced include views of the River Irwell and between Victoria Street and Cathedral Gardens.

Green links



- There is potential to deliver positive green linkages that extend the green nature of Cathedral Gardens along the frontage of the Irwell.
- The Glade of Light acts as a central green core to the site which the green links travel around and through.

Access & nodes



- There is the opportunity to create an enhanced pedestrian route alongside the Irwell leading towards the north end of Deansgate.
- Key nodes also represent opportunities for positive public realm interventions and these include the centre of the site between the Cathedral and Chetham's where the Glade of Light is located, and in front of the west entrance to the Cathedral.

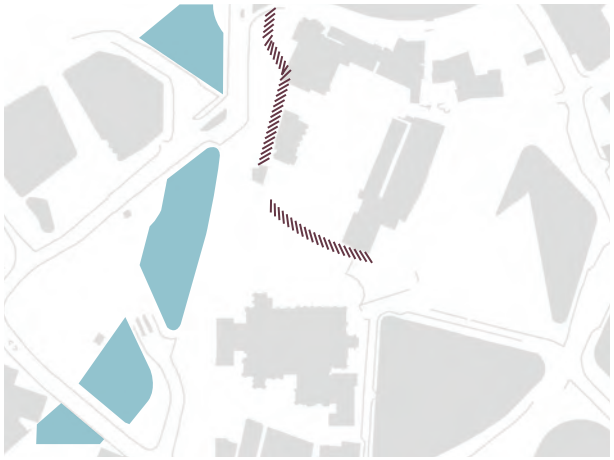
2.4 Constraints

Existing trees not to be removed



- Existing trees are intended to be retained where possible, and are therefore considered to be a constraint. The existing tree stock is of mixed value, as demonstrated by the tree survey undertaken. However, there are some specimens of high amenity value.

Chethams boundaries



- Careful consideration is required to the boundaries of Chetham's to ensure the continued safeguarding of pupils despite a predicted increase in footfall in the area.

Listed buildings



- The site is located within a conservation area, with a number of listed buildings in the immediate vicinity of the site. Therefore, the design needs to respond to the sensitive setting.

2.5 Heritage

The Site is located within the Medieval Quarter of Manchester City Centre, which is subject to an endorsed public realm masterplan, the Medieval Quarter Masterplan (October 2016).

The wider area is typified by largely low density development, with late 19th and early 20th century buildings, which typically range between two to four storeys in height. These buildings have been built along a fairly tight urban grain surrounding the Cathedral along Cathedral Yard up to the Corn Exchange, following medieval street patterns. There have not been many recent developments in the area.

However, there has been the recent successful refurbishment of the Grade II listed Corn Exchange following the 1996 IRA bomb which destroyed much of the interior of the building. The Corn Exchange is now comprised of a mix of restaurants on the ground and mezzanine levels, as well as a 114 room hotel on the upper floors.

The Grade II listed Victoria Station has also been recently sympathetically restored with its reopening in 2014. The restoration works included the ornate Victorian stained glass dome over the current bar area and three war memorials which were existing at the station. A new roof was also included, as well as the installation of a new mezzanine access deck to the adjacent Manchester Arena plus a gateline, concourse flooring and external doors.

The Urbis building, built in 2002 and designed by Ian Simpson of Simpson Haugh Architects, was originally a cultural hub. However, the building was re-purposed and opened as the National Football Museum in 2012, and has over half a million visitors each year.

The Site is located within the Cathedral Conservation Area. The Site is approximately 200m from the Shudehill Conservation Area boundary, 200m from St. Ann's Square Conservation Area boundary and approximately 200m from the Flat Iron Conservation Area. There are no listed buildings within the Site.

There are twenty-two listed buildings within the immediate vicinity of the site. These include two Grade I listed buildings and fourteen Grade II listed buildings which include a number of viaducts,railway arches and bridges listed below:

- Cathedral Church of St Mary (Grade I);
- Chetham's Hospital and Attached Wall (Grade I);
- Detached Block of Schoolroom Approximately 20 Metres South of Chetham's Hospital (Grade II)(which is also sometimes referred to as the Waterhouse Building);
- Fragment of Hydes Cross Approximately 20 Metres South of Chetham's Hospital (Grade II);
- South East Wing to Chetham's Hospital (Former Manchester Grammar School) (Grade II);
- Victoria Bridge (Grade II);
- Mynshulls House (Grade II);
- Mitre Hotel (Grade II);
- Sinclairs Oyster Bar (Grade II);
- The Old Wellington Inn (Grade II);
- Former Corn and Produce Exchange (Grade II);
- Railway Viaduct and Retaining Walls at Junction with Greengate (Grade II);
- Stephenson Bridge (Grade II);
- Victoria Station including Concourse to Rear With Restaurant and Booking Hall (Grade II);
- City Buildings (Grade II);
- North Bridge (Grade II); and,
- Middle Bridge (Grade II)
- Manchester Parcel Office (Grade II)
- Cooperative Wholesale Society (Grade II)
- Former Royal Exchange (Grade II)
- Blackfriars Bridge (Grade II)
- 62 Chapel Street (Grade II).

2.6 Archaeology

Given the rich history that surrounds the site, there is a great deal of archaeological interest within the site and the surrounding area.

Features of particular note include 'Hanging Ditch' and the more recently discovered 'First Ditch' which was partially uncovered when the Palatine Building was demolished.

Given the presence of these features a watching brief is required during any on-site excavation works over the most sensitive areas of the site. A Written Scheme of Investigations has been produced by Salford Archaeology to submit alongside the planning application.

There is an opportunity for new forms of interpretation for both of these known historic features which will be given particular focus in phase 1B of the masterplan.



FIGURE 6: ARCHAEOLOGICAL FEATURES

2.7 Existing Materials

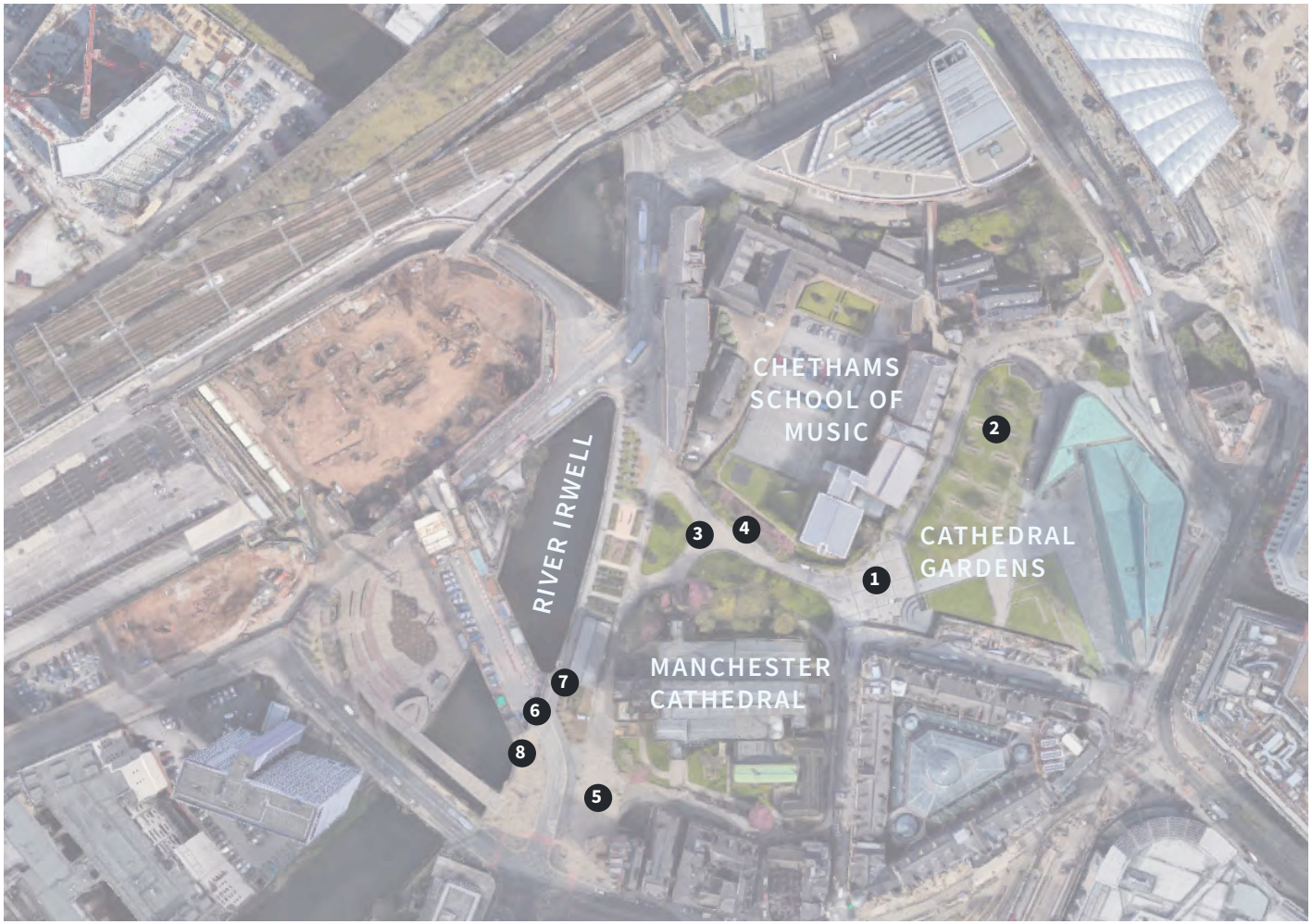
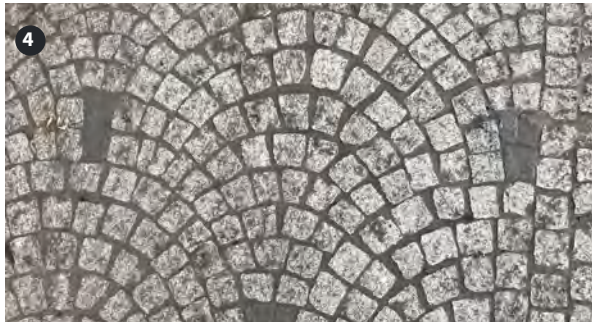


FIGURE 7: EXISTING MATERIALS







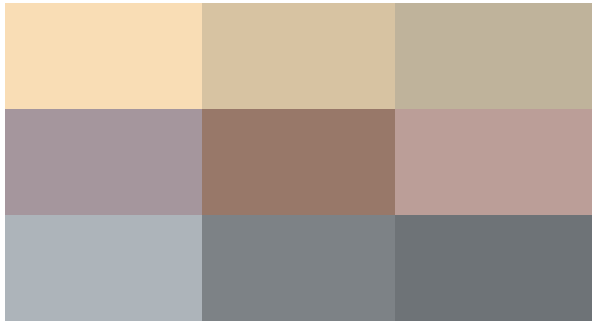












EXISTING MATERIAL PHOTOS AND LOCAL COLOUR PALETTE





3

VISION

3.1 Aspirations and Opportunities

VISION

A new park on the River Irwell that draws upon the best of what the locale has to offer including a rich history, several listed buildings (most notably Manchester Cathedral) the River Irwell and the neighbouring Cathedral Gardens.

The Glade of Light at the centre of the site adds to the series of green spaces as a place of calm in the busy city centre and a place of rememberance of the Manchester Arena Attack in 2017.

A bustling Cathedral Square will be at the heart of the scheme, busy with tourists and locals alike visiting the cathedral or seasonal events on this newly created space.

A well-used spine route that links the north of the city and Victoria Station with Deansgate alongside the Irwell, actively enjoyed by pedestrians.

A leafy series of green spaces and seating niches that provide opportunities for both social gathering and seating for individuals going about their daily routine.



WESTERN ENTRANCE TO CATHEDRAL

3.2 Spatial Sequence

A sequence of spaces is proposed connected by a riverside walk that creates a vista with the end of Deansgate. For those moving towards the city centre this creates a clear legible route punctuated with dwell spaces along its length. Spaces that gradually increase in scale and grandeur creates a sense of anticipation culminating with the proposed Cathedral Square which will provide a greatly improved setting for this Grade I listed building.



FIGURE 8: SPATIAL SEQUENCE

3.3 Site Arrival



SITE ARRIVAL

The site arrival space welcomes visitors approaching from the north of the city and from Victoria Station to the Medieval Quarter. Users will be greeted by high quality natural stone paving and planting, and a direct vista to the north tip of Deansgate will extending into the middle distance.

After landing in the site users will be presented by two movement options - the direct and faster moving spine route towards Deansgate and the Cathedral, and a smaller meandering route moving through a series of spaces including the 'First Ditch Gardens' space adjacent to the Chetham's boundary.

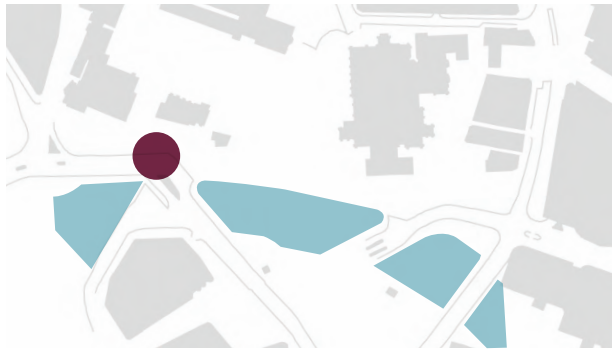






SITE ARRIVAL PRECEDENT IMAGES

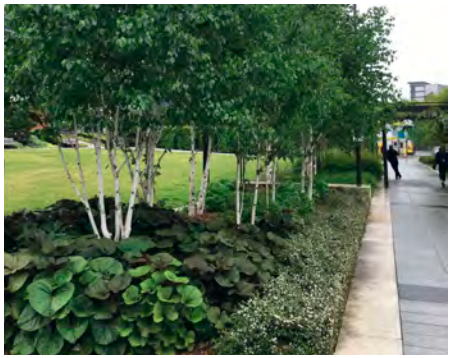
3.4 First Ditch Gardens

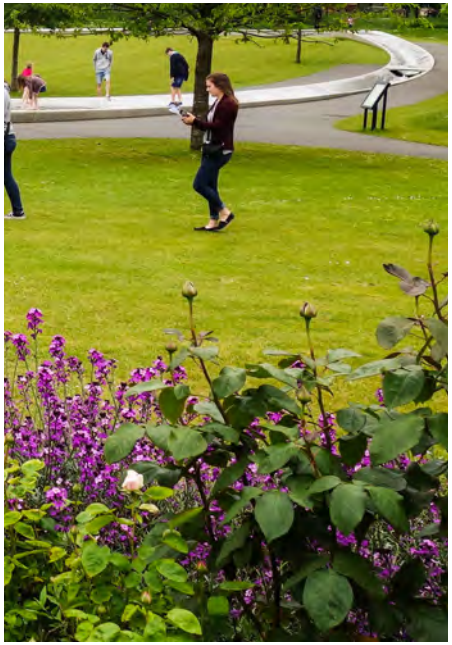


FIRST DITCH GARDENS

The First Ditch Gardens link the site arrival and central Glade of Light. The space is designed as a long linear park which draws pedestrians through the area. The route is wide with a gentle meander to allow slow movement where individuals can take in their surroundings along the edges, or quicker direct movement through the centre of the route.

The gardens are flanked by ornamental planting and lawn where users can relax on individual park benches or the lawn itself, and raingardens will mitigate the flow of rainwater whilst creating a rich biodiverse habitat for pollinators.









FIRST DITCH GARDENS PRECEDENT IMAGES

3.5 Riverside Walk

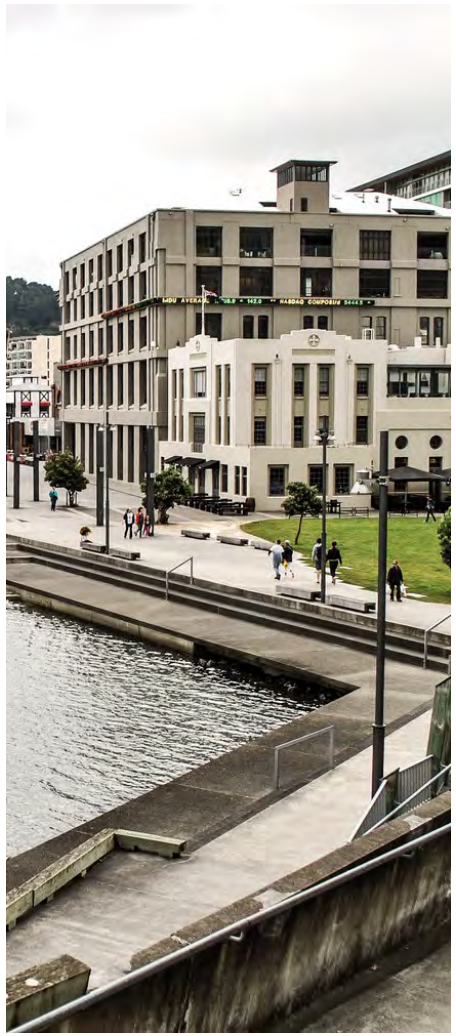


RIVERSIDE WALK

The walk alongside the Irwell will be a direct route towards the Cathedral and the city centre moving through a park setting. Linear lighting columns and an unobstructed route will create a clear vista for pedestrians travelling along this route.

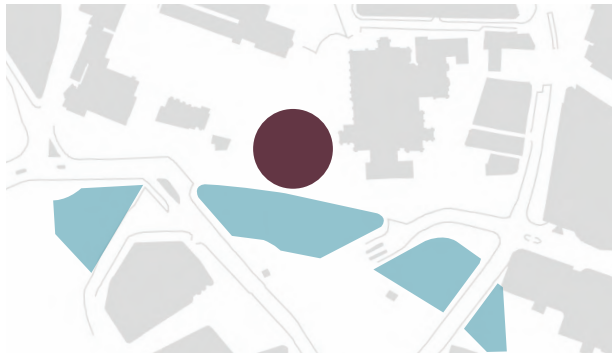






RIVERSIDE WALK PRECEDENT IMAGES

3.6 Glade of Light



GLADE OF LIGHT

The Glade of Light is the memorial to the Manchester Arena Attack of 2017 and is situated in the heart of the Medieval Quarter. This central location is ideal as a space of peace and remembrance in a historic part of the city with particular care taken to obscure sensitive views towards the arena itself.

The planting will be rustic including rough cropped stones in contrast with the central smooth halo of marble with bronze memory capsules which commemorate the victims of the attack.

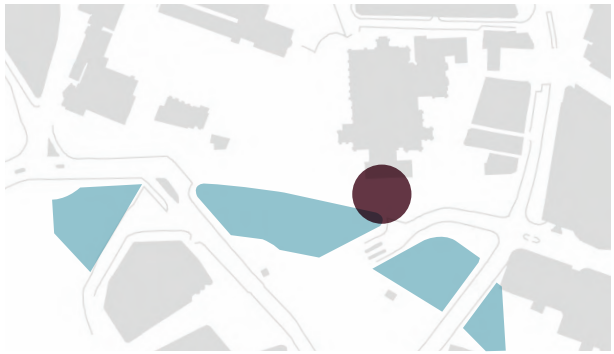






BCA LANDSCAPE GLADE OF LIGHT SKETCHBOOK EXTRACTS

3.7 Cathedral Square

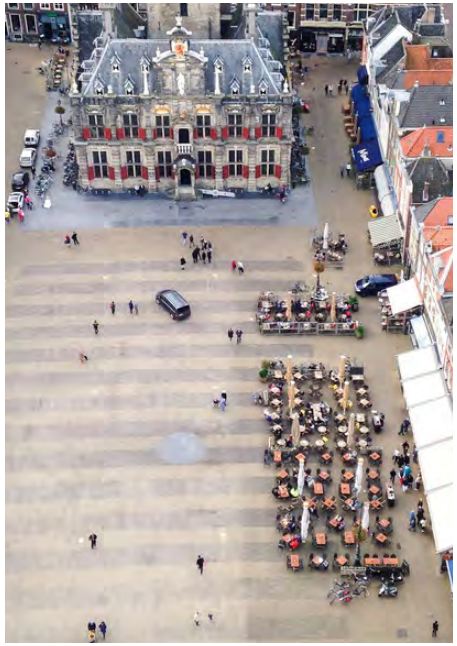


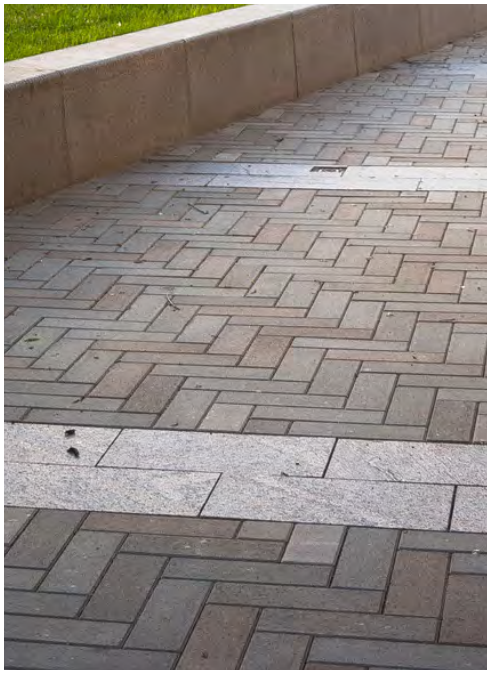
CATHEDRAL SQUARE

The area in front of the Cathedral's west entrance provides a key opportunity for the creation of a major civic space that greatly improves the setting of the Grade I listed buildings.

The square will provide opportunities for civic and ceremonial events, with seating opportunities overlooking the Cathedral's impressive facade and the River Irwell. The space will be activated by people visiting the cathedral or events in the space, and by those crossing through the space who are moving along the riverside spine route.









CATHEDRAL SQUARE PRECEDENT IMAGES

BLANK





4

LANDSCAPE DESIGN

4.1 Design Principles

INTRODUCTION

The design principles focus on creating a network of routes and connected public spaces within a park setting that draws upon the site's unique history and strategic location within the city centre, and extends the treatment of Cathedral Gardens to the west towards the River Irwell.

The public realm proposals hope to fundamentally change the Medieval Quarter from a fragmented and incoherent area into one of the most impressive destinations in the city centre. We hope to strengthen the identity of the area through the implementation of high quality public space, characterised through the use of high quality materials and, unlike many of the other inner city public spaces, trees, planting and lawns. It is hoped that The Medieval Quarter will become a recognised destination in it's own right.

Celebrate the Existing

Celebrate the presence of the existing . Features include but are not limited to listed buildings, the River Irwell, vistas and views, archaeological features, existing trees and structures such as the parapet wall and railings to the Irwell.

Develop Connections

Deliver high-quality streets and spaces that encourage positive social interaction and connect the key physical and historical assets.

Utilise Trees

Utilise trees to create a green backdrop to the public realm proposals. They will add scale, define spaces and mark seasonal change in addition to cleaning the air and supporting wildlife.



Become a Destination

Help the Medieval Quarter to become a destination in its own right. This will be strengthened by the presence of the Cathedral, archaeological features in the First Ditch Gardens, and the integration of the Glade of Light memorial.



Define Open Space

The proposals incorporate green space in the form of planting and lawns to promote the look and feel of a public park. In addition this green environment will provide a fitting setting for the inclusion of the Glade of Light memorial and intimate spaces in the First Ditch Gardens.



Utilise River Setting

The creation of a park and the spine route along the Irwell makes sense of this somewhat forgotten resource. The spine route places pedestrians in close proximity to the water and allows views of the river and across to Salford.



4.2 Masterplan

The landscape masterplan is the synthesis of all of the aforementioned design principles, along with extensive stakeholder engagement. It reflects the aspirations of the brief for a park on the river an improved setting for Manchester Cathedral and Chetham's, and the future opportunity to create an integrated visitor experience for Chetham's Library.

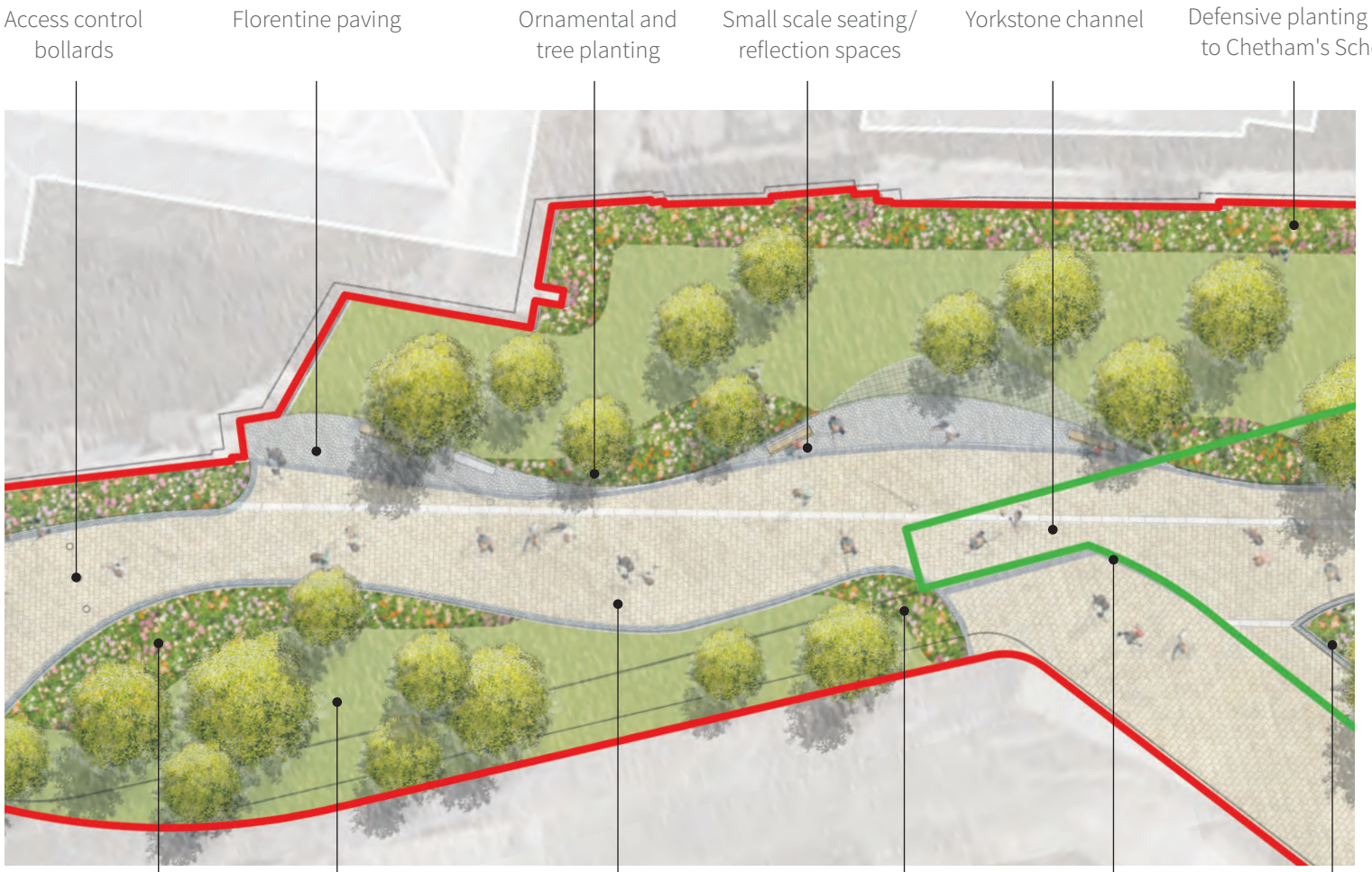
The scheme in it's entirety contributes a significant public park and green space for the city. It celebrates the River Irwell and creates a direct pedestrian link into the city centre.

The spine route creates a clear park vista with Deansgate and the Glade of Light acts as a place of quiet reflection and remberance away from the busy city. The route culminates in the new Cathedral Square which de-clutters the area and creates space for the Cathedral to breathe and be appreciated. In addition this space creates a destination for public events and ceremonies.




CATHEDRAL GARDENS
Access control bollards
MANCHESTER CATHEDRAL
Spill out zone for wine bar
Granite and timber seat
Raised seating edge and planting
Vista between Cathedral's north door / future Chethams visitor entrance
Defensive planting strip
Planting
Granite and timber seat
GLADE OF LIGHT
Raised lawn
Raised planting
RIVER IRWELL
Rain garden
Drainage channel
Raised lawn and seating edge
Feature entrance paving
Open events space
Access control bollards

4.3 Masterplan Detail Areas



MASTERPLAN DETAIL AREA A



LOCATION PLAN



MASTERPLAN DETAIL AREA B



LOCATION PLAN



MASTERPLAN DETAIL AREA C



LOCATION PLAN



MASTERPLAN DETAIL AREA D



LOCATION PLAN

4.4 Illustrative Visualisation

The illustrative visual demonstrates the entrance into the Medieval Quarter from the site arrival space where Chapel Street and Victoria Street meet.

The spine route is lined with an avenue of park trees and lighting columns which links the spaces of the First Ditch Gardens, and Glade of Light culminates with the Cathedral Square. The route is made of high-quality yorkstone with granite sett trims which reflect the many historical materials found in the surrounding area, and the benches have a 'park-like' quality which encourage users to sit and take in the view.

The ornamental planting and rain gardens soften the meandering route and create a green link for pedestrians to travel along.



LOCATION PLAN



ILLUSTRATIVE VISUALISATION



4.5 Material Strategy

A hierarchy of materials has been selected to reflect spaces of different functions and profiles. The vast majority of the proposed hard materials are natural stone products already used in the locality.

The perceived highest profile space is the west entrance to the cathedral and this will be highlighted with a mixture of materials laid in an ornate pattern picking up on some of the motifs used within the highly decorated facade of the building.

The majority of other spaces are proposed to be yorkstone which is the predominantly used material in the area, helping to unite the proposed scheme with the existing environment.

Granite is proposed as an edge trim detail in a small unit size and a cropped finish to act as a skate deterrent around raised edges. In addition the small unit size means that lighting columns and street furniture can be located within this band minimising paving cuts to larger paving units within the main body of the paving.

The unique florentine paving which runs along Chetham's School of Music will be matched and continue along the planting in the First Ditch Gardens to draw the eye along this edge. This leads onto a green-gap granite sett which allows easy access onto the lawn space whilst reducing the maintenance.

Large yorkstone flags from the centre of the existing site will be re-used on opposite sides of the feature entrance paving.



MATERIAL STRATEGY

4.6 Material Palette

1 Feature Entrance Paving

Materials: Limestone, Granite, Sandstone



2 Secondary Paving

Material: Yorkstone flags



3 Paving Body

Material: Yorkstone setts



4 Edge Trim Detail

Material: Granite sett edge trim
Permeable surfacing used in vicinity of existing trees to be retained



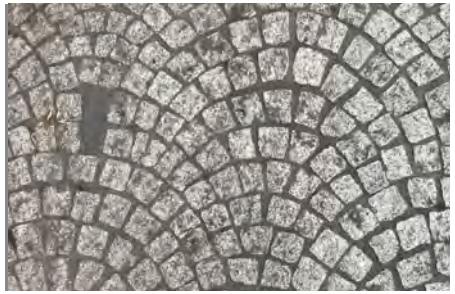
5 Green Gap Granite Sett

Materials: Granite setts, grass joints filter into lawn



6 Florentine Paving

Material: Match existing florentine



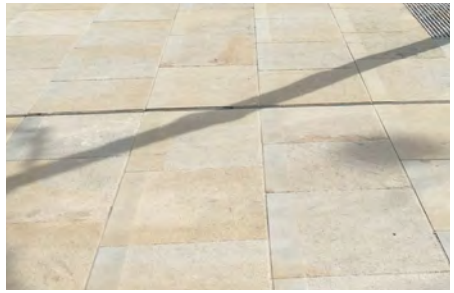
7 Yorkstone Channel

Material: Yorkstone flags



8 Reclaimed Yorkstone Flags

Material: Yorkstone



4.7 Planting Strategy

Planting is used across the scheme to create delight, define spaces, mark the changing of the seasons and contribute to the green park environment that forms a fundamental part of the proposals and the brief.

A range of different planting typologies have been selected for use across the scheme and each will play a specific role in the success of the park.

Planting and lawns also play an important role in the management of surface water. These permeable areas reduce the amount of rainfall falling onto impermeable surfaces that would otherwise flow directly into the drains.

Planting will be maintained to ensure that no plants overflow onto pedestrian routes.



4.8 Planting Palette

1 Rain Gardens

Attractive areas of planting characterised by species that can tolerate both wet and dry conditions. Due to the free draining substrate this allows water to infiltrate in these SUDs features.

2 Lawns

Lawns will create opportunities for seating and relaxing throughout the scheme and will be well used throughout the summer months.

3 Herbaceous and Shrub Planting

Highly attractive designed communities of plants selected for their colour, form, scent, size and flowering time. These areas will add a splash of colour to the otherwise green scheme. Species will also be chosen that survive through natural precipitation and that require a minimal maintenance.

4 Feature Trees

A variety of attractive and uncommon trees will be used to further the idea of 'the arboretum' that was first established by the Cathedral Gardens scheme. This will contribute to the rich varied environment that will be created by the park.

5 Defensive Strip Planting

Planting will be used as a protective layer along the Chetham's boundary. Species chosen will be robust and thorny to keep people away from the existing boundary walls.

6 Glade Of Light

Planting will be naturalistic and reminiscent of heathland in the colours and plant species chosen, and choice of trees which give the effect of a woodland glade. This loose style will create an informal sense of quiet and calm.



RAIN GARDENS



FEATURE TREES



LAWN



DEFENSIVE STRIP PLANTING



HERBACEOUS AND SHRUB PLANTING



GLADE OF LIGHT

4.9 Street Furniture



A suite of simple and beautiful street furniture has been selected for use across the park.

Free standing benches provide seating opportunities in the smaller-scale spaces in addition to the seating provided by raised planters and edges in busier, more heavily used parts of the scheme. Armrests will be timber as this is a comfortable material.

A range of fixed and removable bollards are used to control vehicle movements in an environment that is devoted entirely to pedestrians.

Litter bins are positioned at strategic locations to allow people to deposit rubbish in order to keep the park clean and free from litter and have a contrasting coloured top to increase visibility.

Street furniture specificaiton will be coordinated with Manchester City Council's public realm team to ensure accessible compliance.

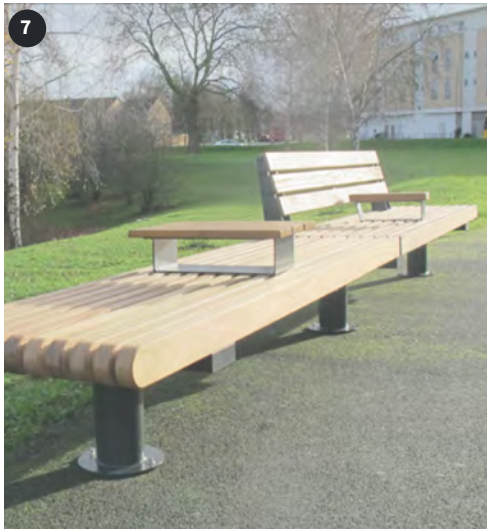
1. Litter Bin
2. Large Timber and Stone Seat
3. Fixed Bollard
4. Removable Bollard
5. Proposed Power Bollard
6. Signage and Wayfinding
7. Timber Slatted Stand Alone Seat
8. Timber Slatted Seat Under Tree



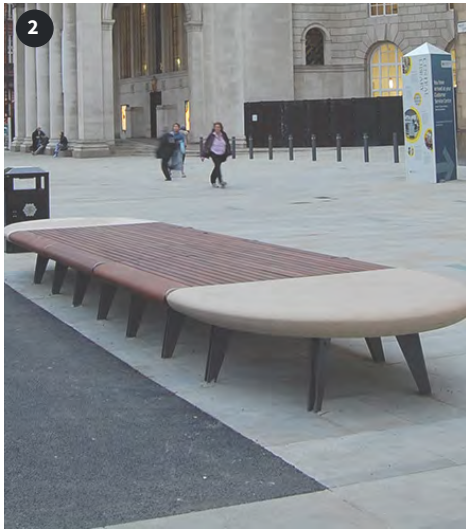
PROPOSED LITTER BIN



PROPOSED FIXED BOLLARD



PROPOSED STAND ALONE SEATING



PROPOSED LARGE STONE & TIMBER SEATING

4.10 Lighting Strategy



4.11 Lighting Products

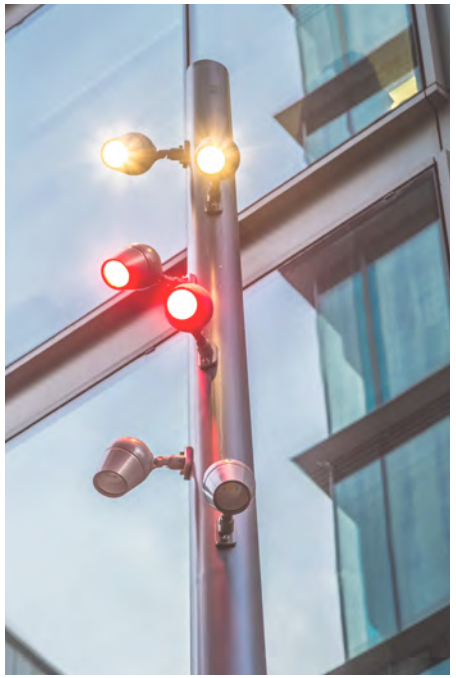
Lighting will play a number of important roles in the scheme, including:

- Ensuring a safe and usable park is created;
- Aiding with wayfinding;
- Punctuating the spine route along the Irwell;
- Highlighting public art and architectural details; and
- Ensuring sufficient lux levels to allow the effective use of CCTV across the scheme.

The lighting strategy has been kept extremely simple in order to not clutter the design - a single row of columns is proposed along the spine route which runs north to south throughout the scheme. Columns will allow for a wide distribution of light throughout the public realm below. Along the River Walk frontage the historical globe lanterns will be reinstated to provide light across the view.









PROPOSED LIGHTING COLUMNS

4.12 Signage and Wayfinding



A simple signage and wayfinding strategy has been developed to aid navigation of the proposed park.

Finger posts are proposed at key gateways to the site directing users to key destinations.

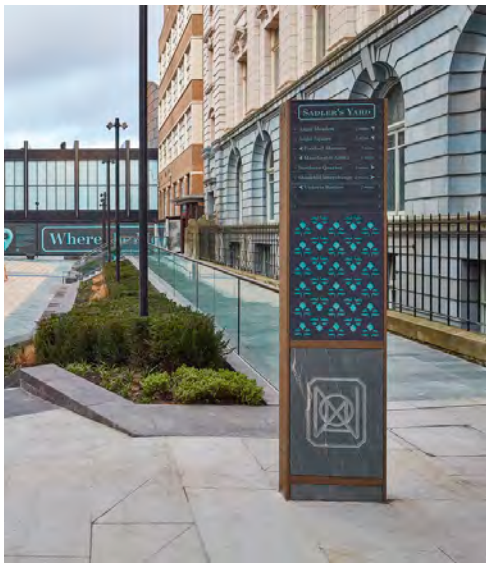
The finger posts will be selected to relate to the street furniture and lighting columns used elsewhere in the scheme, contributing to a family of street furniture distinct to the Medieval Quarter.

The fingerposts themselves and the choice of font, size and colour will ensure that those with impairments are incorporated in the design.

The Glade of Light will include two interpretive wayfinding signage pieces, for more detail see section 5.









PRECEDENT SIGNAGE AND DETAIL IMAGES

4.13 A Safe Environment



SAFE ENVIRONMENT DIAGRAM

4.14 Security Strategy

Security considerations have been a key design driver as the scheme has developed in accordance with Greater Manchester Police's Crime Impact Statement (URB: 2013/0127/CIS/01) - see appendix for more information. The finished park is designed to create an environment that makes users feel safe which will in turn encourage active use of the park and adjoining areas.

Key principles of the security strategy are as follows:

Linear route and passive surveillance

The proposed spine route through the site will be well used throughout the day and night by pedestrians, and will allow the whole site to be well observed by members of the public. This passive surveillance will contribute to a safe park environment.

Lighting and CCTV

A lighting scheme is proposed to keep the park well illuminated in non-daylight hours. Columns are proposed along the spine route which will allow a wide distribution of light. The lighting scheme will be combined with CCTV cameras that will provide a high level of coverage across the park.

Trees

Proposed trees will be installed that have a minimum clear stem of 2.2m to allow clear lines of sight beneath the canopy.

Planting height

Proposals for planting will include species that either do not grow above 1m in height, or are easily maintainable to beneath this level to ensure that clear sight lines are maintained.

Defensive planting strip

Defensive planting characterised by woody and thorny plant species will be used along the Chetham's boundaries to ensure the continued safeguarding of pupils, and to reduce the opportunity for abuse of the historic wall through graffiti.

In addition to the above a report was commissioned by Greater Manchester Police Design For Security appraising the scheme and advising minor changes which have been incorporated where possible.

4.15 Hostile Vehicle Mitigation



HOSTILE VEHICLE MITIGATION STRATEGY

Given the large numbers of pedestrians that will use the site on a daily basis, and also for more organised events, hostile vehicle mitigation has been considered to ensure that the site can be used safely by pedestrians - and the opportunity for access by hostile vehicles is minimised.

The approach employed minimises the visual intrusion of hostile vehicle mitigation features by using a landscape led approach that places emphasis on usable and visually recessive features.

The scheme uses the following features to control the movements of vehicles:

- Existing buildings and structures
- Raised planters
- Bollards





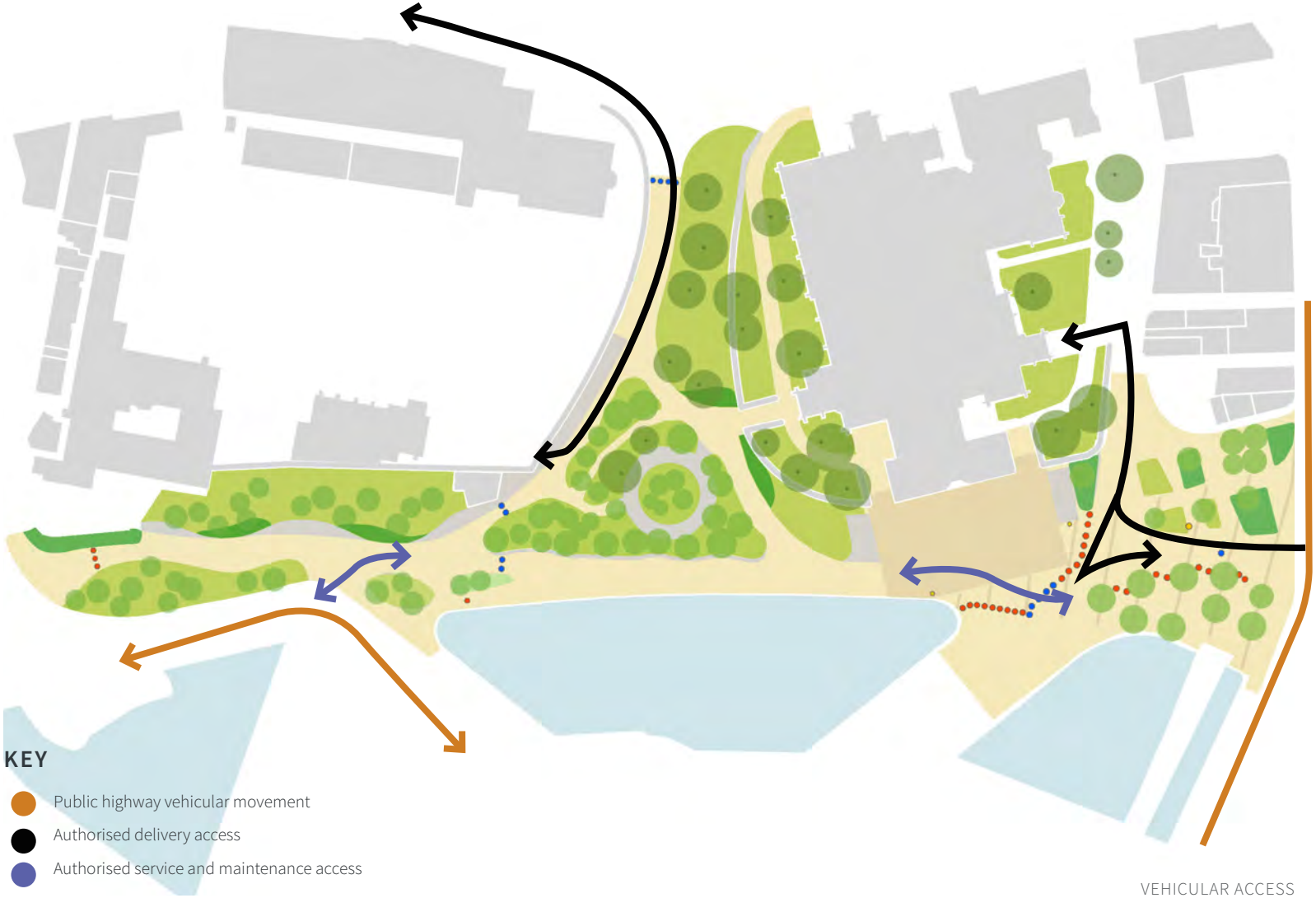




HOSTILE VEHICLE MITIGATION PRECEDENT IMAGES

4.16 Vehicular Access

Vehicular access will be permitted into the site to allow for deliveries to Chetham's School Of Music and the Cathedral. Static and access bollards will control movement ensuring that both Chetham's and the Cathedral are able to work as a fully functioning school and place of worship.



VEHICULAR ACCESS

4.17 Pedestrian Access

The large spine route through the site provides plenty of space for pedestrians. Pedestrians will be able to use the river wall as a guide for tapping sticks and the lack of steps through the site will ensure that wheelchair users are able to access the same routes as pedestrians.



PEDESTRIAN ACCESS

4.18 Disabled Drop-Off Locations

There are multiple drop-off and accessible parking opportunities around the site or within a short distance to ensure those with limited mobility are equally able to access the site.



DISABLED DROP-OFF LOCATIONS

4.19 Inclusive Design

The proposals for the park are intended to be as inclusive as possible in order to accommodate a range of users, allowing the park to be appreciated by all.

Its design is intended to be universal and appeal to a wide range of users and user groups, which is in keeping with the City Council's aim for Manchester to be recognised as the most accessible city in Europe.

In order to make the park as usable as possible the following considerations have been incorporated into the design as per the Design for Access document commissioned by Manchester City Council.

- Width and surfacing of access routes
- Steps and ramps minimised and designed to comply with best practice guidance and Part M building regulations.
- Street furniture located off main access routes
- Seating provided at regular intervals
- A range of seating designs, some including back and armrests
- Inclusion of well designed signage and wayfinding features
- Inclusion of lighting to allow ease of navigation after dark



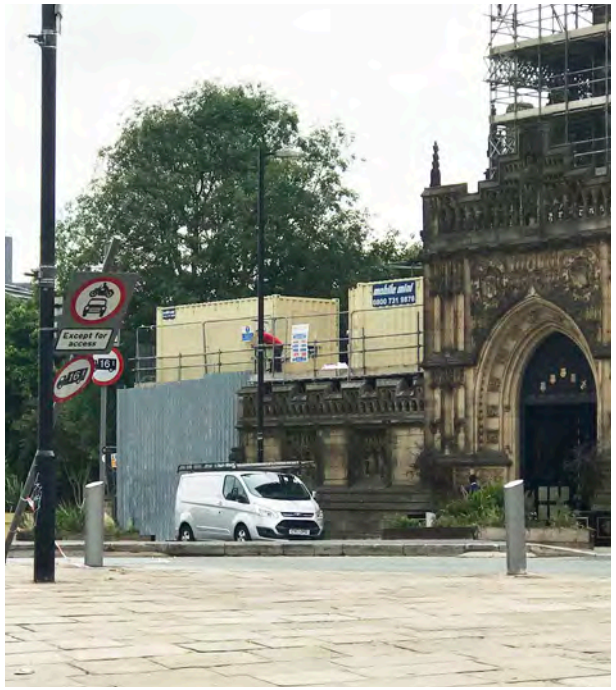
4.20 Highways

The majority of the area proposed for redevelopment falls within the boundary of the adopted highway. A number of consultations have been held with MCC Highways, and the principles of the scheme are agreed subject to formal approvals.

The proposed improvements include the section of Victoria Street which has been closed to through traffic and temporary interventions introduced to provide a positive pedestrian environment. Victoria Street is part of the Adopted Highway and there is no proposal to change its status as part of these works. Vehicular access for servicing, maintenance and emergencies will be retained.

Vehicular through movements are currently restricted by physical measures which are present at the northern end of the site, and accessing is maintained from Deansgate to the south. The proposed scheme introduces an area of planting in the centre of Victoria Street which would prevent vehicles traveling from south to north. As such, it is proposed to remove the physical barriers to the northern access and to instead manage movements through Traffic Regulation Order (TRO). The details of the TRO are to be agreed with MCC, but a Pedestrian Zone with provision for access only and no parking is a potential scenario that would meet with the objectives of the scheme.





Vehicle tracking has been undertaken, which demonstrates that vehicular access to both the Cathedral and Chetham's School of Music can be accommodated within the proposals.



4.21 Below Ground Utilities and Highways Structures

As with any city centre site, a number of utilities have been identified within the boundary of the site and have been taken into account when developing the design.

Initial enquiries were submitted to identify which utilities were present and mapping was provided. C3 enquiries were then submitted to the affected utility providers to determine whether any diversion or protection works might be required as part of the works. Responses have been received from the utility providers contacted, and there have been no issues raised with regards to the proposed works.

As part of the C3 enquiry process, MCC Highway structures were consulted and provided details of the structures which are within and adjacent to the site. Highway structures include the Victoria Street Retaining Wall and Victoria Street Arches; plans and elevations on the structures have been provided by MCC in order to inform the design. It is not anticipated that the presence of the structures will impact on the arrangement of the proposed public realm improvements. MCC will be consulted throughout the design process, and AIP submitted for approval if necessary before the relevant works commence.



4.22 Heritage Statement

A Heritage Statement has been undertaken by Deloitte that assessed the impact of the proposals on the conservation area and the setting of the surrounding listed buildings. The conclusions of the report are outlined below:

The Proposed Development will have a positive impact on the following assets:

- Cathedral Conservation Area;
- Grade I listed Cathedral; and,
- Grade I listed Chetham's Hospital and Attached Wall.

The prosed development will have a negligible impact on the significance of the following assets which were included within this assessment:

- Detached Block of Schoolroom Approximately 20 metres south of Chetham's Hospital, Grade II listed
- Victoria Bridge, Grade II listed
- Mitre Hotel, Grade II listed
- Stephenson Bridge, Grade II listed
- Burial Ground / Cathedral Yard North, non-designated heritage asset
- Cathedral Yard South (Graveyard), non-designated heritage asset

Overall, the Proposed Development will have a neutral to positive impact on the heritage assets identified for assessment in this report.

4.23 Planning Statement

The text below sets out the planning context that surrounds the development, and highlights key documents that are of relevance to the proposals.

At the highest level the proposals should be considered in relation to National Planning Policy. The current National Planning Policy Framework favours sustainable development and it is hoped that the proposals for a public park have been developed with this in mind.

At a more local level the proposals should be read in conjunction with Greater Manchester Strategy.

The following objectives have been selected as relevant to the scheme:

'A thriving and productive economy in all parts of Greater Manchester'.

The scheme will greatly enhance the image of the Medieval Quarter and will make this part of the city a place where people wish to live, work and play, which supports key city centre developments in the immediate locality - these include the Blackfriars scheme at the northern end of Deansgate and the developments at Embankment directly opposite the site in Salford.

'World-class connectivity that keeps Greater Manchester moving'.

The proposed scheme will deliver a key bit of pedestrian infrastructure that is entirely free from cars and traffic. The creation of a high quality walking route encourages sustainable forms of transport which make Manchester a greener and healthier place to live.

'A green city-region and a high quality culture and leisure offer for all'

It is envisaged that the park and the wider Medieval Quarter will become a destination in its own right, creating a greener city region with a variety of destinations for all. Furthermore the scheme will play an important role in improving the setting of the Cathedral, which is an important cultural destination, and supports the creation of a new visitor entrance for Chetham's library.

'Safer and Stronger Communities'

The scheme has been developed with security as a key factor shaping the design. The scheme has been reviewed by Greater Manchester Police with the design responding to their recommendations to create a safer city centre.

The proposals also contribute to some of the key aims of the Manchester Strategy 2016-2025 with the proposals contributing to the following three of the five key aims:

'A thriving and sustainable city'

'A liveable and low carbon city'

'A connected city'

Finally the scheme should also be read in the context of the Core Strategy of the Local Development Framework and falls within the designated City Centre as outlined in Policy CC1. It is thought that the scheme will contribute to the following policies within the LDF:

SP1 Spatial Principles

EC1 Employment and Economic Growth

CC1 Primary Economic Development

CC4 Visitors - Tourism, Culture and Leisure

CC5 Transport

CC8 Change and Renewal

CC9 Design and Heritage

CC10 A Place for Everyone

T1 Sustainable Transport

EN1 Design Principles and Strategic Character Areas

EN3 Heritage

EN8 Adaptation to Climate Change

EN9 Green Infrastructure

EN14 Flood Risk

EN17 Water Quality

DM1 Development Management

4.24 SUDS and Drainage



SUDS AND DRAINAGE DIAGRAM

The importance of surface water management has been brought to the fore over recent years with the need to mitigate the impacts of climate change and urbanisation, such as increased rainfall intensity and consequent surcharging of existing infrastructure and flooding and also to enhance the quality of water entering receiving water bodies.

Sustainable Drainage Systems (SuDS) reduce the rate and volume of water which runs off hard surfaces (in particular) with the aim of replicating as closely as possible the pre-developed condition where water would be slowed by vegetation, soak into soils and be absorbed by plants.

Drawing on the aspiration to create a network of continuous connected spaces, the SuDS strategy looks to utilise the green spaces within the public realm to collect, store, convey and filter surface water run-off from the hard paving.

A series of “rain gardens” are proposed as shown on the adjacent images. The rain gardens will consist of level areas of planting with the growing medium set slightly lower than the adjacent surface. Hard surfaces will be laid to fall towards these rain gardens and water will be stored within the raingarden at the surface and will soak into the soils before being absorbed by the plants. The rain gardens will intercept rainfall from more frequent, lower intensity storms such that the rainfall does not enter the drainage network. The rain gardens will be designed such that water from extreme events can also be stored within the structure before discharging at a controlled rate to the drainage network.

As well as having a significant positive impact on the quantity and quality of water entering the drainage network. The planted areas will contribute positively to the biodiversity and amenity value of the public realm.

CASE STUDY: GREY TO GREEN SHEFFIELD

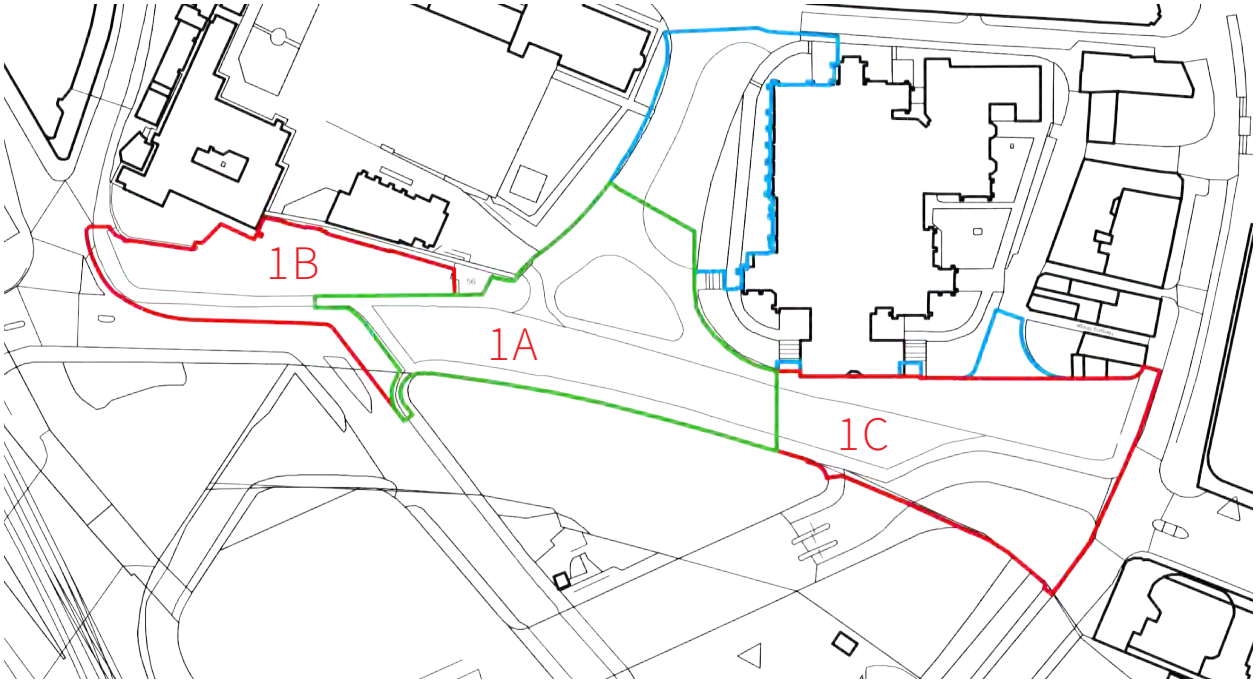






4.25 Construction Phase Works

- The phasing of the construction of area 1A will be such that public thoroughfare shall be maintained along Victoria Street wherever practicable.
- Access to Chetham's School of Music and Manchester Cathedral is to be maintained throughout the Construction Phase with regular liaison and dialogue with local stakeholders.
- The site boundary is to be secured by a temporary fencing to prevent unauthorised access.
- CCTV shall be employed throughout the works to ensure the security of the site and surrounding areas.
- All works shall be carried out during normal working daytime hours. Weekend working or out of hours working shall need permission from Manchester City Council plus liaison with local stakeholders.
- Liaison with both Chetham's School of Music and Manchester Cathedral shall be maintained to ensure that works wherever practicable are managed to mitigate nuisance and disruption during programmed events such as exam periods, services, weddings and the like.
- Dust suppression and extraction shall be utilised throughout the construction phase to mitigate airborne dusts.



PHASING WORKS

Phasing work schedule:

- Phase 1A: Commence 2021
- Phase 1B: Subject to further design development dependant on evolving brief and future funding streams.
- Phase 1C: When funding becomes available

4.26 Interim Treatment of Phase 1b



1A: Completed

1B: Yorkstone is over-paved and removed later on once MCC obtains land from Chetham's School of Music

1C: Existing site features retained

INTERIM TREATMENT OF PHASE 1B STRATEGY

4.27 Stakeholder Engagement

Consultation:

As a result of the change of scope to the original planning submission, the approach to engagement for the updated masterplan has been determined by the inclusion of the memorial. As this feature will now be the focal point of the scheme, it necessitated a wider-ranging and a more in-depth consultation process to be held.

Families:

The process taken for the memorial design has been the 'families first' approach. This refers to the order in which engagement occurs between the Council and stakeholders; ensuring the families are informed and consulted before other parties and that their opinions are taken on board first. This has been the approach since the conception of the memorial. In relation to the memorial, the families' views on what they would like to see as part of the design were drawn up into a brief which was then used to tender for the memorial design partner.

Families have been provided with a detailed sketchbook of the Glade of Light proposals and have been consulted on the design development to make the memorial more inclusive with the addition of an outer circulation ring to accommodate more visitors with new seating to allow for people to sit and reflect without undermining the intimate and personal nature of the design.

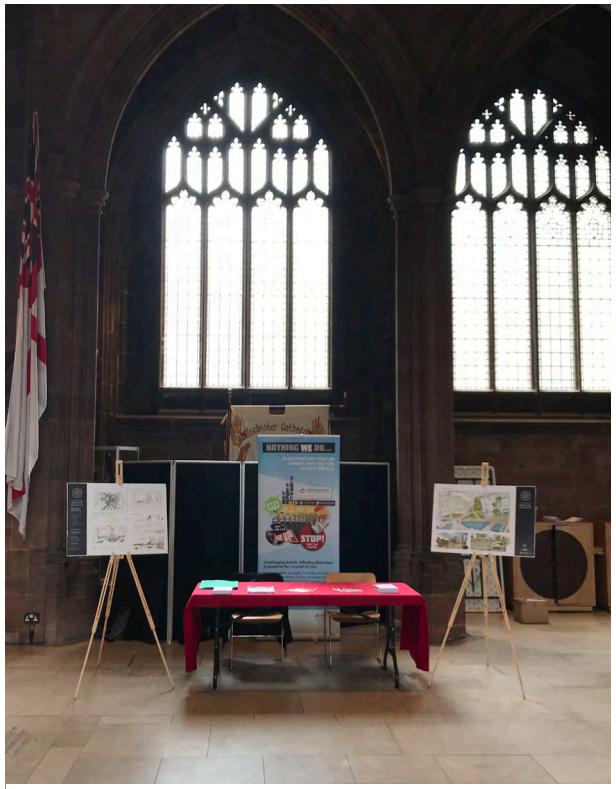
Following consultation with the families, the survivors of the attack and others who were caught up in the attack were informed and invited to comment on the proposals via the public consultation.

Access:

Targeted consultation was held with an access working group, put together from a number of access interest groups and individuals working in the field of inclusivity. Following on from the inclusive consultant's input, an access working group was brought together to review and comment from a wide range of perspectives relating to inclusion. A workshop was held with 19 representatives from 15 organisations which allowed for all involved to comment on both the memorial and the wider public realm proposals. The design team is responding to all the issues raised and will continue to work with the access working group as the design moves into the detailed design stage.

Key stakeholders and landowners in the area:

Presentations on the proposals have been made to the Manchester Cathedral and Chetham's School of Music, as key stakeholders in the area, and it is planned that further engagement will take place both during the detailed design and construction phases. The Manchester Arena operator and owner have also been involved in the discussions around the design and they have agreed to fund a memorial plaque to be located at the Arena which is currently being designed .



PUBLIC CONSULTATION EVENT IN MANCHESTER CATHEDRAL

4.28 Public Consultation Feedback & Design Response

Public Consultation:

The consultation ran from 18 May to 30 June 2020 for over 6 weeks in total. It was hosted on the Council's consultation pages on its website and widely publicised on social media and in the local press. There were a total of 66 responses to the public consultation.

The responses were broadly positive about the planned changes to the Medieval Quarter, with 94% supporting improvements to the Medieval Quarter. Amongst those respondents that commented that they did not support the design of the memorial, reasons given were that:

- Bees should be incorporated into the design
- There was concern about the potential for crime with the planting scheme
- The scheme was too expensive
- The design is too 'conventional'
- They believed maintenance would be an issue

Of particular importance to the design of the memorial is the support of the families. It was their input that informed the brief for the designers. To that effect, bees were not requested to be included in the design by the families. They have endorsed the memorial as a quiet, contemplative space that provides a tranquil and reflective environment to remember their loved ones. The project team will make commuted payments for the future hard and soft landscaping, street lighting and maintenance of the bollards. The future governance of the memorial will be overseen by the establishment of a new charitable trust who will oversee and liaise with the Council and other organisations on the future use of the site, the maintenance plan and the ongoing provision of maintenance services. They will be able to raise additional funds to support the maintenance of the memorial. Monies for the memorial have been fundraised by the Lord Mayor of Manchester's Charity Appeal Trust (also known as 'We Love Manchester Charity'). The potential for crime with the planting scheme has been addressed and appropriate lighting and CCTV will be provided.

Business groups:

The area has an active business community, with a number of businesses members of the Millennium Quarter Trust and/or the Medieval Quarter Business Forum. The businesses involved in the groups were invited to comment through the public consultation. A presentation of the Glade of Light was made by the project team to the Medieval Quarter Business Forum and engagement will continue as work progresses.

Statutory consultees:

Council departments have been engaged extensively throughout the process. These include:

- Highways
- Lighting
- Public Realm
- Planning

Greater Manchester Police's Secure by Design team have advised the project team in relation to safety aspects when creating the public realm and all partners involved will continue to be engaged during detailed design development.

Design Development:

The design has been informed by consultation and engagement with a number of key stakeholders, such as the Cathedral and the access working group. The design team continues to engage closely with these stakeholders.



5

GLADE OF LIGHT

5.1 Glade of Light



On 22 May 2017, twenty-two people, concertgoers and their loved ones waiting for them, had their lives taken in a terrorist atrocity.

Our values of love and decency will triumph.

JOHN ATKINSON

COURTNEY BOYLE

KELLY BREWSTER

GEORGINA CALLANDER

OLIVIA CAMPBELL-HARDY

LIAM CURRY

WENDY FAWELL

MARTYN HETT

ALISON HOWE

MEGAN HURLEY

NELL JONES

MICHELLE KISS

ANGELIKA KLIS

MARCIN KLIS

SORRELL LECZKOWSKI

LISA LEES

EILIDH MACLEOD

ELAINE MCIVER

SAFFIE-ROSE ROUSSOS

CHLOE RUTHERFORD

PHILIP TRON

JANE TWEDDLE

5.2 Contents

THE GLADE OF LIGHT

Stillness	83
Tranquility	84
Remembrance	85
A White Halo	86
In Memoriam	87
Love Will Triumph	88
Grace & Gravitas	89
Timeless	90
Wild Beauty	91
A Woodland Glade	92
Heathland	94
Light & Shade	96
A Place to Dwell	98
Inclusive Understanding	99

5.3 Stillness

Design is about and for people. It should be respectful, generous and inspiring. It is a living, changing and shifting series of moments in time.

The design of this memorial allows space and time for people to pause and find instants of stillness in their lives.

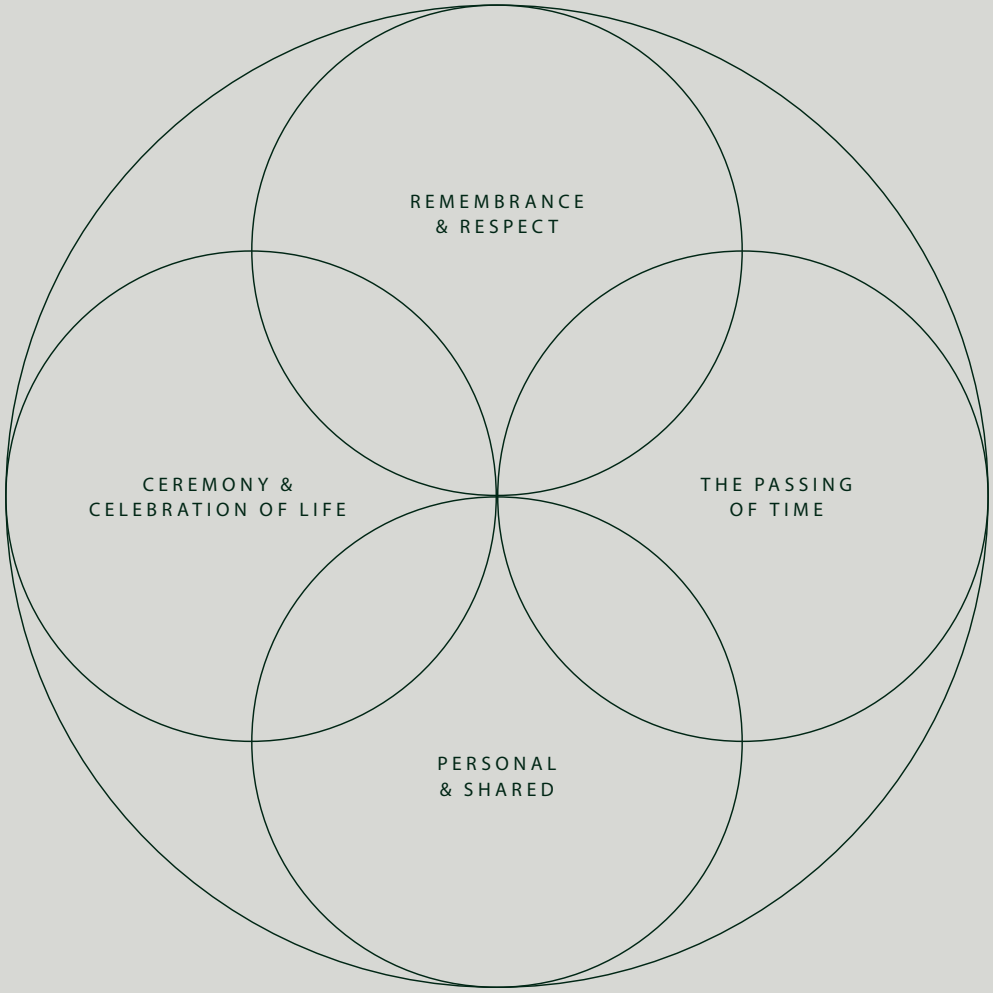
The design needs to understand the language of stillness. In Japanese culture this can be described by a single word Ma. Designing for Ma is about creating moments of awareness and quiet.

The process of remembrance and healing is always on-going and needs space, understanding and time.

The delicate and complex design process for the memorial needs to be welcoming and inclusive, but it also needs moments of silence and stillness.

It needs to feel like a special place where we can briefly pause time and reflect.

Ma speaks of silence as opposed to sound, of lack as opposed to excess. It is the momentary pause in speech needed to convey meaningful words, the silence between the notes....

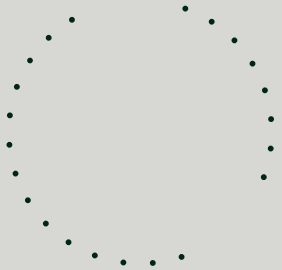


5.4 Tranquillity



5.5 Remembrance

REMEMBRANCE



MEMORY CAPSULES

Loved ones remembered. Names are set in bronze around the stone with personalised messages from families and friends hidden within personalised memory capsules.

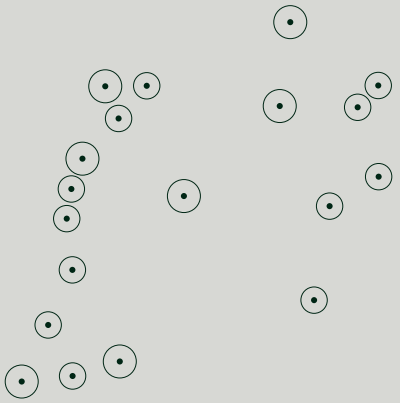
SOLITUDE / SHELTER



WILDERNESS

The rugged, elemental landscape provides a natural contrast to the pure white halo. Inspired by the sandstone scarps and the moorland Heath of the High Peak and meadows of the Limestone Dales.

GATHERING



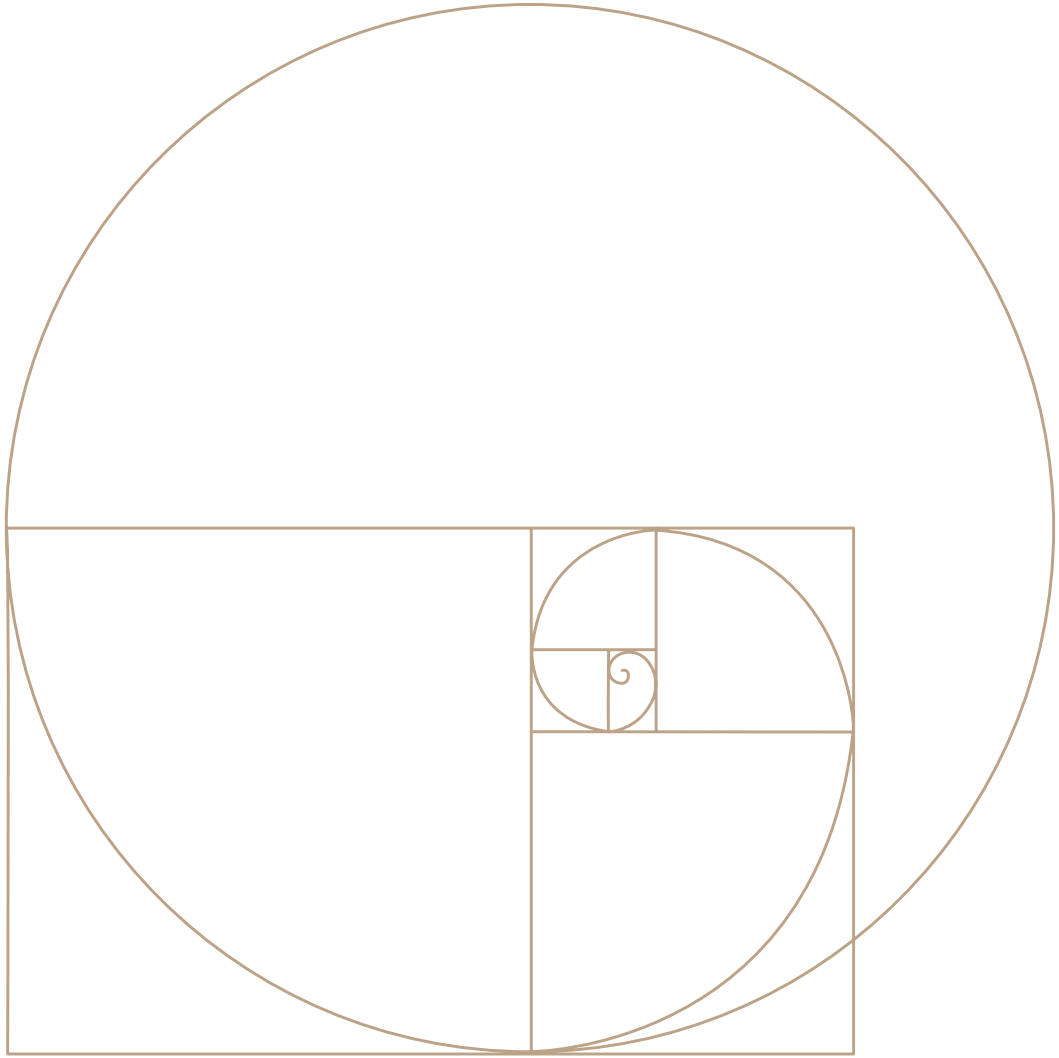
A GROVE OF TREES

A grove of trees are gathered together around the quiet glade. A soft green setting within the busy city, creating a place for people to escape the hustle and bustle of everyday life and come together.

5.6 A White Halo

The purity and simplicity of the circle references the infinite and the eternal. The circle is carved in Bianco di Carrara marble. Forged 190 million years ago in Northern Italy, each piece is distinct and subtly grained. The great sculptors of the world, including Michelangelo, celebrated its lasting beauty and timeless elegance.

The planting within the circle and the singular blossom tree are set out by the golden ratio and the divine and balanced proportions that are reflected in nature, in the curling fronds of a fern and the spiral of a nautilas shell.



5.7 In Memoriam



5.8 Love Will Triumph

The names of those that lost their lives taken away by the terrorist atrocity will be inlaid in bronze within the Carrera Marble circle.

To emphasise the grace and gravitas of the names, the bronze typeface 'Nantes' is proposed and combines a rich character with a solid and functional quality.

Historically, serif typefaces have been credited with increasing readability of text and helping the eye travel across a line, especially if lines have relatively open word spacing.

The choice of a serif typeface was also, to a degree, influenced by the intended application of the type, which is to be set in stone – mirroring the creation and use of serif fonts as conceived by the Romans.

Just as the stone mason chiselled into stone on the ancient monuments, like the ones we see in Rome today, the halo at the centre of the Glade of Light will also convey a timeless elegance through the specific application of this beautifully crafted typography.



5.9 Grace & Gravitas

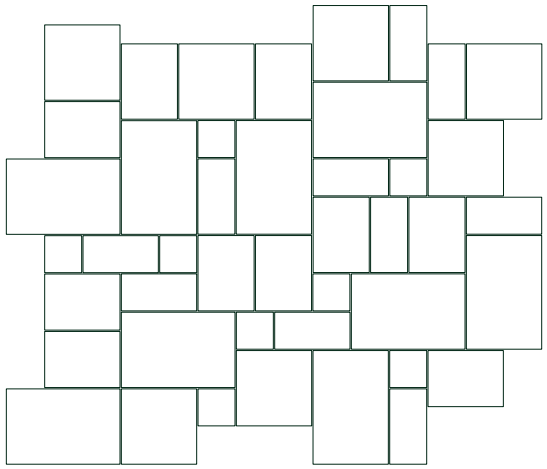


5.10 Timeless

The timeless Yorkstone paving will be reclaimed from the existing site next to the Cathedral and then refurbished, so it can be used in the new garden.

It will provide an important link to the past and a marker for a more sustainable future.

The Yorkstone will be laid out in a traditional 'Opus' pattern. This uses a series of different complimentary paving sizes combined to create a more randomised pattern than standard paving layouts. It will blend in softly with the surrounding planting design and provide a subtle contrast with the floating white marble halo above.





5.11 Wild Beauty

A wild and beautiful heather, grass and perennial garden sits within a grove of hawthorn, pine and birch trees. It is a place to feel connected with nature, where the changes in light and the passing of the seasons is an integral part of the atmosphere.





5.12 A Woodland Glade

A grove of trees, Sessile Oak, White Birch, Hawthorn and Pine, are gathered together around the quiet glade. A soft green setting within the busy city, creating a place for people to escape the hustle and bustle of everyday life.

The trees create an evolving landscape that changes character and creates interest throughout the seasons.

Each tree has distinctive characteristics, and each a place in Britain's rich landscape and folklore.





Snowdrops, ferns and sphagnum mosses create a woodland setting

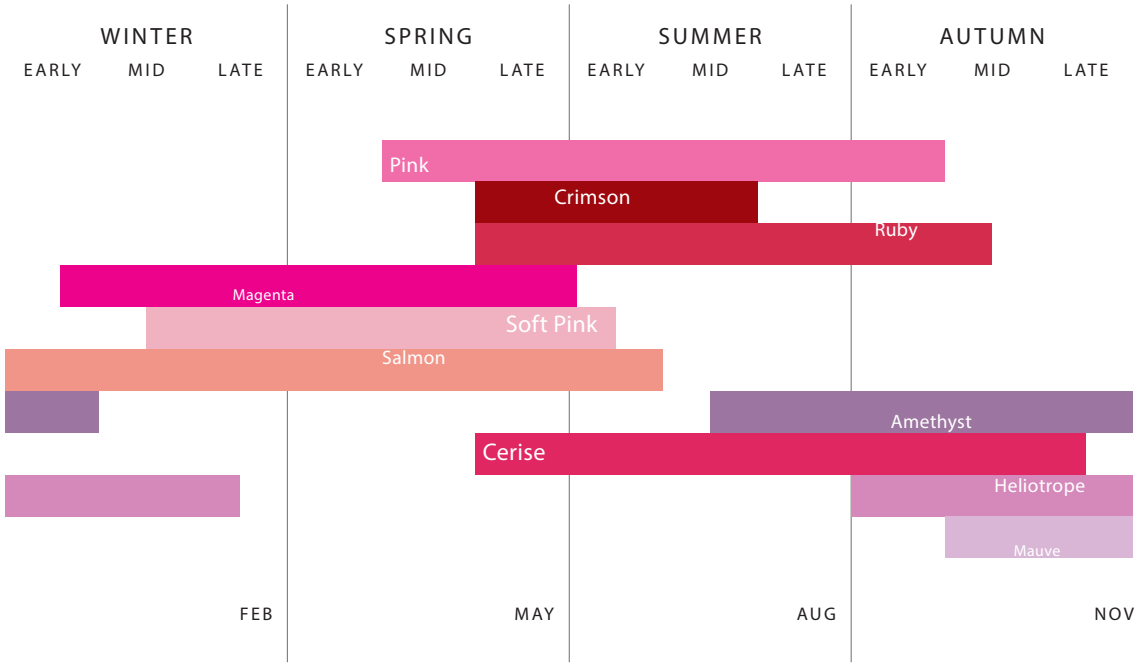


5.13 Heathland

Inspired by the purple colours of the upland heathers, the ground cover planting within the sunny glade of grasses, heaths, bulbs and perennials will change throughout the year - through crimson, cerise, ruby, magenta and amethyst.

In the dappled shade beneath the trees there will be sphagnum mosses, ferns, snowdrops, wood anemones and sages.

Within the planting will be ridges of weathered sandstone boulders, reminiscent of the High Peak escarpments or 'Scarps' and 'Edges' as they are known.





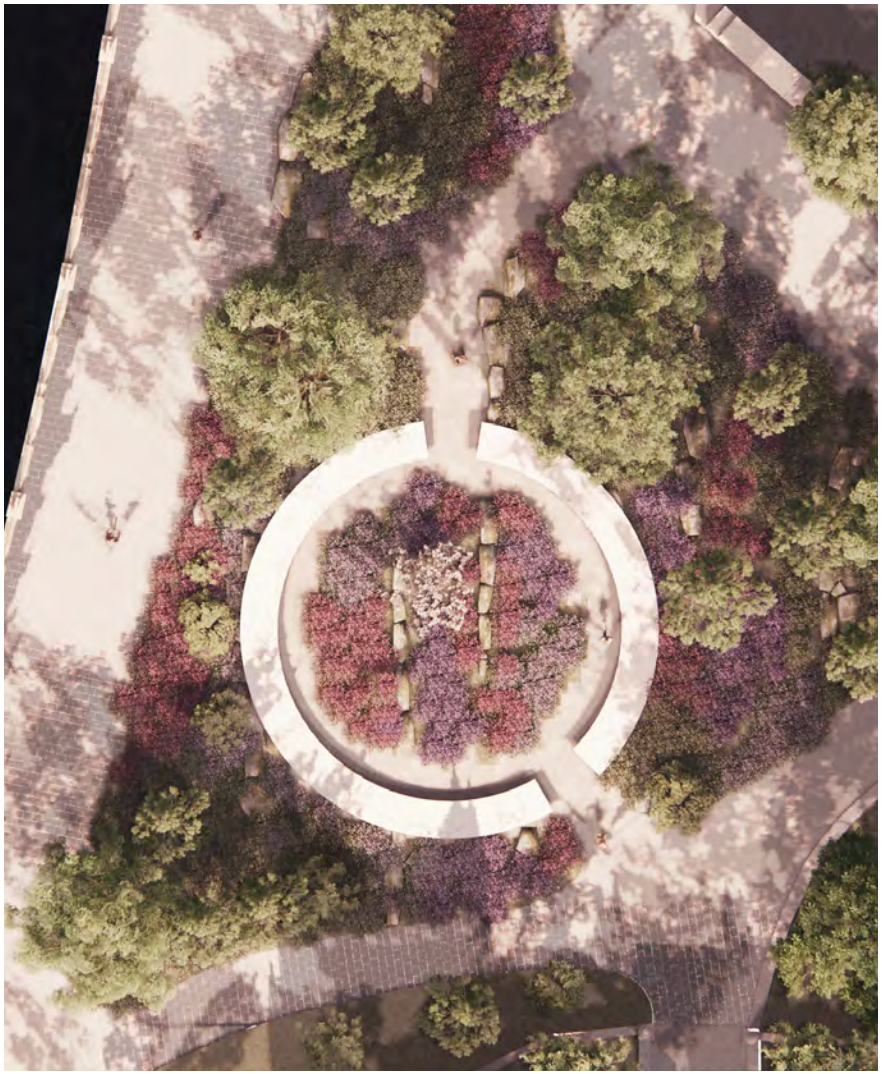
5.14 Light & Shade

The memorial has been designed to maximise the amount of light in to the Glade, with complimentary planting flowering colours over-lapping throughout the year.

Careful attention has been paid to the placement of the trees to create sunshine spots and areas of dappled shade. The plants have then been curated according to suit these scenarios.

By calculating where the sunlight will be at different times of day and in all seasons, we get a clear understanding of how to use the space best.





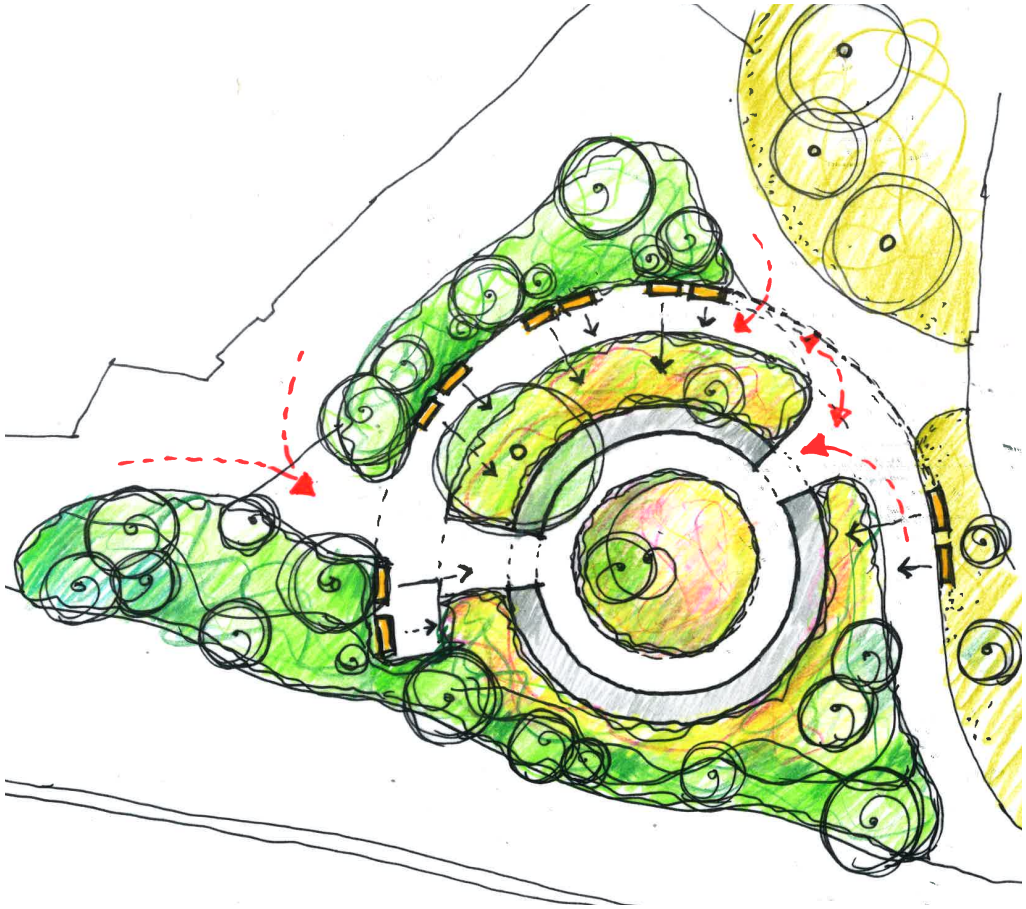


5.15 A Place To Dwell

Following on-going engagement with families, survivors and subsequently other consultees, we have designed in an additional outer-ring path to the Glade with extra seating. This crucially allows for a wider variety of inclusive seating, including for left and right hand transfer spaces at the end of seats.

It also helps the garden accommodate more visitors, without undermining the intimate and personal nature of the memorial.





5.16 Inclusive Understanding

There will be two raised interpretative plaques, one at each entrance in to the Glade. These will have inclusive information about the memorial, including a tactile map and pictorial representations of key themes. Further consultations will be held over the coming months to develop the detailed design.

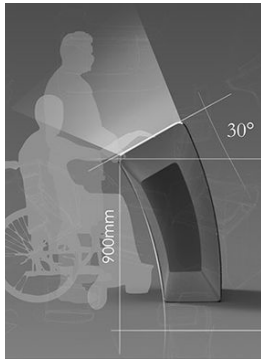
















6

APPENDICES

6.1 Ecological Survey

PENNINE ecological

Bolton Office:
Bob Leatham: Tel/Fax: 01204 844545
email bob@pennineecological.co.uk

Preston Office:
Ian Ryding: Tel/Fax: 01772 600441
email: ian@pennineecological.co.uk

web: www.pennineecological.co.uk

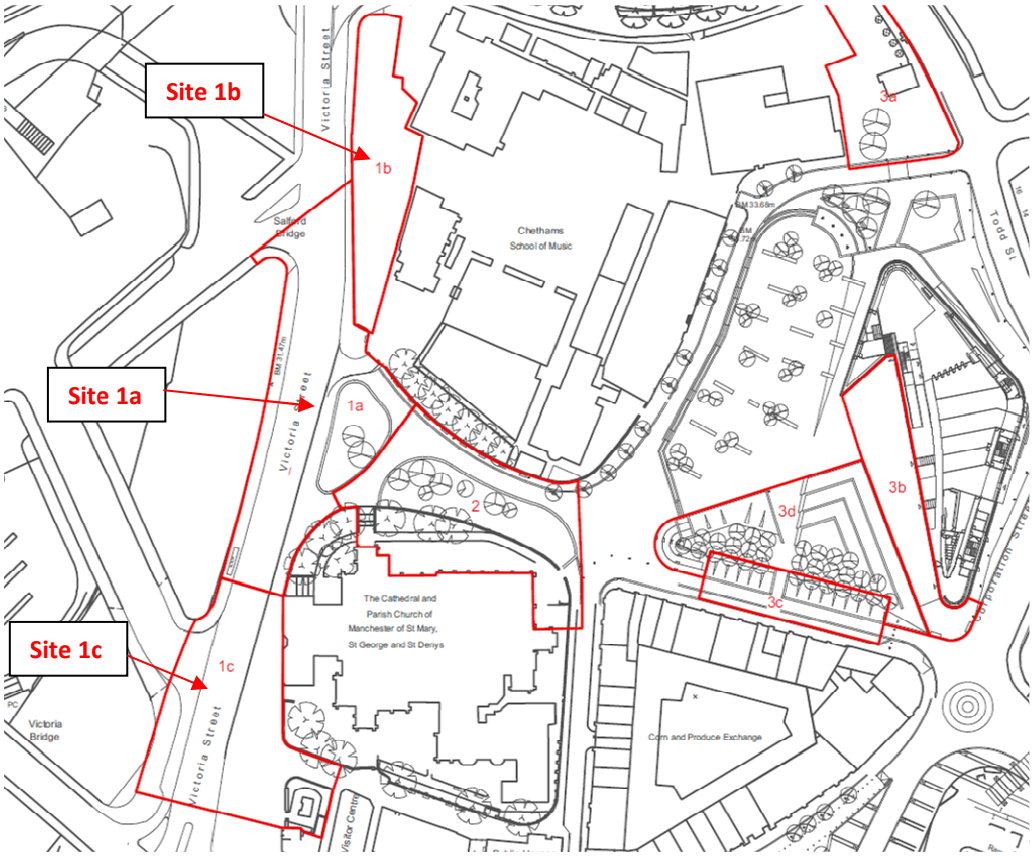
Galliford Try Infrastructure - Highways
Swinton Hall Road
Swinton
M27 4HH

Date: 18th June 2018

Re: Preliminary Ecological Appraisal: Land at the Medieval Quarter Manchester.

Dear Sirs,

PENNINE *Ecological* have been commissioned by Galliford Try to undertake a Preliminary Ecological Appraisal and assessment of land at the above site. The purpose of this study is to address any potential ecological issues arising from the proposed re-development of this part of Manchester's Medieval Quarter. The sites central grid reference is SJ 8384 9878, the sites locations (Areas 1a, 1b and 1c) are shown below. The sites are located between approximately 140 – 300m west / south west of Victoria Station, on and immediately east of Victoria Street.



1. Desk Top Study:

A desk top consultation study with Greater Manchester Ecology Unit's ecological data base was not undertaken for this particular study. However searches for statutory sites were undertaken as follows;

Statutory Sites:

Details of statutory sites were sought from the government web site search:

http://www.magic.gov.uk/MagicMap.aspx

There are no statutory sites within 500m of the site.

2. Site Survey / Walkover:

Refer to site photographs at the end of this report which illustrate features described below. Due to the small size of the sites and the artificial nature of the habitats, a Phase 1 Habitat map was not produced. The habitats and features present can be sufficiently described by the following description and reference to the site photographs.

The survey was undertaken by Robert Leatham on June 18th 2018. There were no constraints to the survey and all parts of the site were accessible.

Higher vascular plant species were recorded and given abundance values according to the standard DAFOR scale, where:

D = Dominant
A = Abundant
F = Frequent
O = Occasional
R = Rare

Where appropriate these values can be prefixed by the letter L (locally) or V (very), to provide more subtle biogeographical data.

Site 1a:

The site is approximately 100 x 40m in maximum dimensions and comprises a 100m length of the pedestrianised Victoria Street / pavements. A small oval area of amenity grassland is present to the east in front of the cathedral. Four trees are present including a non-native exotic species, two pine species and a horse chestnut tree.

Along Victoria Street raised wooden formal planting beds are present supporting non-native perennial plants.

Site 1b:

The site is approximately 100 x 16m in maximum dimensions forming a linear fenced off area on the eastern side of Victoria Street. The plot is the site of a former building which has now been

demolished. The area has been sown with a cornfield annuals wildflower seed mix. The eastern boundary of the site is formed by walls of the Chethams School of Music.

The following species were recorded from the site;

Species:	Abundance:
Bent species	A
Meadow-grass species	LA
Poppy	LA
Scentless mayweed	F
Yorkshire-fog	LF
Groundsel	VLF
Mugwort	VLF
White clover	VLF
Great willowherb	VLF
Curled dock	VLF
Broad-leaved dock	VLF
Common nettle	VLF
Common ragwort	VLF
Corncockle	O
Cornflower	O
Hedge woundwort	O
Wild mignonette	O
Greater plantain	O
Ribwort plantain	O
Corn marigold	O
Common couch	O
Creeping buttercup	O
Ox-eye	O
Cleavers	R
Dandelion species	R
Spear thistle	R

On the old sandstone walls forming the eastern boundary there are some holes and fissures that potentially provide points of ingress for crevice dwelling bats. This is examined in more detail in the following section.

Site 1c:

The site is located at the southern end of Victoria Street and is approximately 65 x 45m in maximum dimensions comprising pedestrianised lengths of Victoria Street / pavements. Four trees are present on a flagged pavement area in the south east corner of the site including a non-native exotic species, and three birch species.

Along Victoria Street raised wooden formal planting beds are present supporting non-native perennial plants.

Habitat Assessment:

There were no protected higher plant species recorded on the sites. There were no rare or uncommon species or habitats recorded on the site. There are no **Section 41 Habitats of Principal Importance in England (NERC) Act 2006** or **Greater Manchester Biodiversity Action Plan *Habitats / Species** associated with the site.

*The amenity grassland and artificial wildflower meadow may fall into the **Greater Manchester Biodiversity Action Plan Habitat:** *'Urban-managed Greenspace'* However this is under review by Greater Manchester Ecology Unit.

The habitats and species recorded on site are common and widespread and are considered to be of site value only.

With the exception of Site 1b, the sites are dominated by roads and paved areas of hardstanding. A small area of amenity grassland with planted native and non-native trees is present in Site 1a. Four non-native trees are present in Site 1c.

Site 1b comprises of a recently sown cornfield annual wildflower mix on shallow stony disturbed substrates.

Recommendations Plants and Habitats:

No further surveys are required.

3. Protected Species Survey / Assessment:

Badgers:

Badgers are protected under Schedule 6 of the Wildlife and Countryside Act 1981, and under the Protection of Badgers Act 1992, which prohibits deliberate interference with the animal or its sett.

The survey found no evidence of historic, recent or current use of the site by badgers for foraging, commuting or occupation and the species is considered to be absent.

<u>Recommendations: Badgers;</u>

There are no issues in relation to badgers arising from the development. No further surveys are required.

Birds:

The site supports potential breeding bird habitats associated with trees in Sites 1a and 1c. In addition the walls associated with Chethams School of Music have several small holes and fissures that could support small breeding birds such as wren.

<u>Recommendations: Birds;</u>

No strategic bird surveys are required. However before any development and in order to minimize impacts on birds any removal of the above features should take place outside of the breeding season,

i.e. between the end of August and end of February. Following any removal of trees, brash should be removed from the site, failure to do so could provide potential nest sites if left in situ until the following breeding season.

If disturbance to the above features is envisaged during the breeding season, then checks should be made to establish any nesting or breeding activity, prior to removal / disturbance.

Bats:

Bats are comprehensively protected under European legislation and the Wildlife and Countryside Act (1981).

The survey revealed that apart from the eastern boundary wall of Site 1b the sites have no bat roost potential.

The wall on the eastern boundary of Site 1b forms part of the Chethams School of Music. These old sandstone walls have some limited holes and fissures that potentially provide points of ingress for crevice dwelling bats.

These features do not appear to be very deep and are located at relatively low heights <3m above ground level with many well below this height. This reduces potential for bats.

The findings of the survey were discussed with Mrs. Kylee Wilding *(a highly experienced licensed bat surveyor)* who has over 10 years of bat ecology experience and licensing. The results, conclusions, and recommendations have been assessed by Mrs. Wilding and her assessment concurs with Mr. Leatham's.

These features are assessed as being of negligible potential for bats.

<u>Recommendations: Bats;</u>

Where bat roost potential has been identified as being negligible, guidance from the Bat Conservation Trust advocates adopting precautionary measures where applicable. In relation to the holes and fissures in the walls, if these are affected by any of the works they will be inspected by a licensed bat handler using an endoscope, prior to work.

As bats are a highly transient species and can use buildings/structures at any time of the year, it should be noted that if bats or evidence of use is located during the proposed work or at any other time then as a legal requirement the work at the site should immediately cease and a bat ecologist contacted for further advice.

If you require clarification on any issue, please contact me at our Bolton office address.

Yours sincerely

Robert N. Leatham

Robert N. Leatham, Ecological Consultant.

Site photographs are provided on the following pages.

Site Photographs: 18th June 2018:



Site 1c: Paved area in south east corner with birch species.



Site 1a: Southern end looking north.



Site 1c: Southern end looking north.



Site 1b: Showing cornfield annuals wildflower meadow and walls along eastern boundary.



Site 1c: Northern end looking north.



Site 1b: Showing cornfield annuals wildflower meadow and walls along eastern boundary with negligible bat roost potential.



Site 1b: Showing cornfield annuals wildflower meadow and walls along eastern boundary with negligible bat roost potential.



Site 1b: Showing cornfield annuals wildflower meadow and walls along eastern boundary with negligible bat roost potential.



Site 1b: Showing cornfield annuals wildflower meadow and walls along eastern boundary with negligible bat roost potential.

6.2 Tree Survey

Arboricultural
Constraints Report

Medieval Quarter
Victoria Street
Manchester

GODWINS ARBORICULTURAL LIMITED
www.godwins.co.uk

CONTENTS

1. Introduction 1

1.1. Project outline 1

1.2. Scope of this report 1

1.3. Data collection 1

2. Arboricultural Constraints 2

2.1. Tree retention categories 2

2.2. Tree age class and condition 2

2.3. Root Protection Areas 2

2.4. Tree protection status 3

Drawing 1. Tree Constraints Plan 5

Appendix 1. Tree Schedule 6

Appendix 2. Explanatory Notes 7

Appendix 3. Report Limitations & General Guidelines 10

1. Introduction

1.1. Project outline

1.1.1. This report has been produced in accordance with *British Standard BS5837: 2012 Trees in relation to design, demolition and construction* to achieve a harmonious and sustainable relationship where tree retention or planting is proposed in conjunction with nearby construction (site-based operations with the potential to affect existing trees).

1.2. Scope of this report

1.2.1. This report has been produced to comply with planning requirements where trees are to be considered as part of a proposed development. To achieve this, arboricultural constraints have been identified and a detailed plan (*Tree Constraints Plan*) has been produced showing the location, root protection areas and retention category of trees within the site.

1.2.2. This report does not form part of a tree safety inspection. To manage the safety and risk from trees it is advised that trees are inspected in detail for this purpose by an arboriculturist using a suitable risk management strategy.

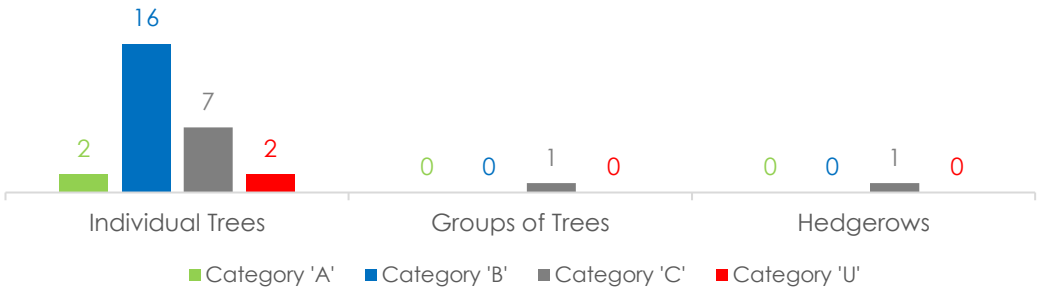
1.3. Data collection

1.3.1. A ground level inspection was undertaken by Godwins Arboricultural Limited on 27th June 2018. As recommended by *BS5837*, the position of all trees within the site with a stem diameter of 75 mm or more, measured at 1.5 m above highest adjacent ground level are recorded. The position of trees with an estimated stem diameter of 75 mm or more that overhang the site or are located beyond the site boundaries within a distance of up to 12 times their estimated stem diameter were also recorded. For individual trees the crown spread taken at four cardinal points; for woodlands or substantial tree groups the overall extent of the canopy was recorded.

1.3.2. Tree positions were plotted using a topographical plan supplied by the client, and were also plotted using a site location plan, aerial photography and on-site measurements, which is the basis for which the *Tree Constraints Plan* has been prepared.

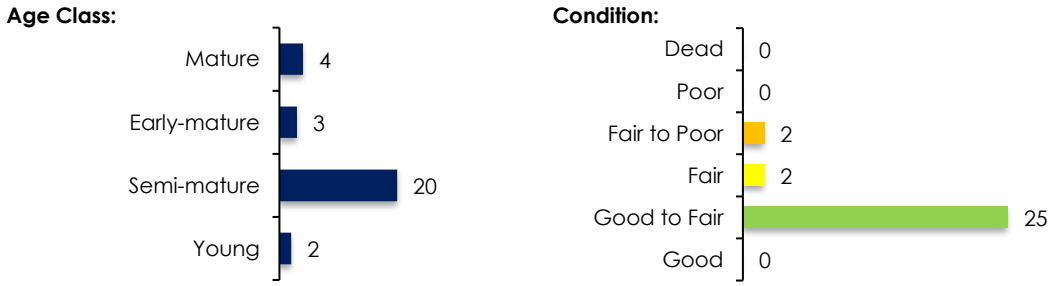
2. Arboricultural Constraints

2.1. Tree retention categories



2.1.1. Twenty-seven individual trees, one group of trees and one hedge were recorded. In accordance with *BS5837:2012 Trees in relation to design, demolition and construction* two individual tree were recorded as retention category 'A'; sixteen individual trees were recorded as retention category 'B'; and a mixture of seven individual trees, one group of trees and one hedge were recorded as retention category 'C'.

2.2. Tree age class and condition



(Includes groups and hedgerows as a single entity.)

2.2.1. The trees were generally found to be in a good to fair condition, however, two individual trees (**T23** and **T24**) were classified as retention category 'U' (unsuitable for retention).

2.2.2. Please see *Appendix 1* for the detailed list on existing species, age class, dimensions and condition of trees within the site, and *Appendix 2* for an explanation of retention category criteria. Tree locations can be seen on the *Tree Constraints Plan* at the rear of this report (*Drawing 1*).

2.3. Root Protection Areas

2.3.1. The tree Root Protection Area (RPA) is a layout design tool indicating the area around a tree that, along with the tree stem and branches, must be considered during development. The protection of the roots and soil structure within the RPA should be treated as a priority. The RPA of each tree or group is marked on the *Tree Constraints Plan* at the rear of this report.

2.4. Tree protection status

2.4.1. A statutory tree protection enquiry was made with Manchester City Council on 28th June 2018. We have been informed that the trees within the site are located within a Conservation Area.

2.4.2. **It is essential that no works are undertaken to any trees within the site, including works to category 'U' trees, prior to consideration and consent of the proposed works under full planning approval by the local planning authority regardless of whether the trees are currently protected or not.**

Client: GUN Limited
Project No: ACR.12850
Issue: 01

Date Issued: 28th June 2018
Status: FINAL

Signed for on behalf of Godwins Arboricultural Limited:

R Godwin

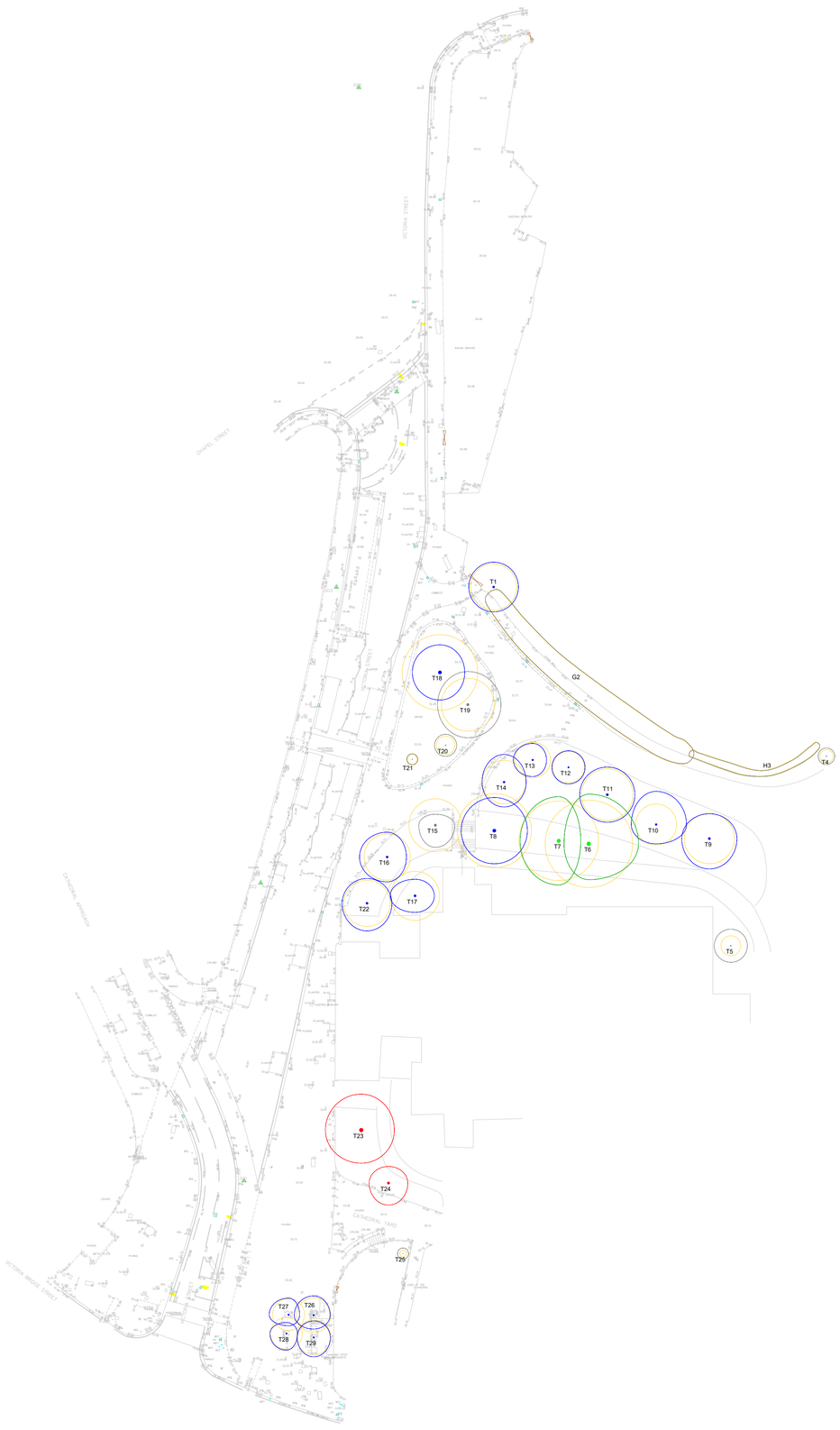
Robert Godwin MSc MArborA.
Arboriculturist

Contact Details:

Godwins Arboricultural Limited
Digital World Centre
1 Lowry Plaza, The Quays
Salford
Manchester
M50 3UB

www.godwins.co.uk
info@godwins.co.uk
0800 030 4045

Drawing 1. Tree Constraints Plan



T	G	H	W	S
INDIVIDUAL TREE	GROUP OF TREES	HEDGEROW	WOODLAND GROUP	SHRUB

EXISTING LAYOUT

TREE QUALITY ASSESSMENT CATEGORY

	CATEGORY 'A' **HIGH QUALITY**
	CATEGORY 'B' **MODERATE QUALITY**
	CATEGORY 'C' **LOW QUALITY**
	CATEGORY 'U' **UNSUITABLE FOR RETENTION**

Based on British Standard 5837:2012 Table 1.
Please refer to Appendix 2 of the arboricultural report for more detailed category definitions.

ROOT PROTECTION AREA (RPA)

The Root Protection Area (RPA) is a layout design tool highlighting the underground tree constraints. Along with the tree stem and branches the RPA must be considered prior to and during development.

Written consent must be obtained from Godwins Arboricultural Limited before copying or using the data within this drawing other than for the purpose it was originally supplied.
Do not scale from this drawing.

GODWINS ARBORICULTURAL LIMITED
www.godwins.co.uk Tel: 0800 030 4045 info@godwins.co.uk
Digital World Centre, 1 Lowry Plaza, The Quays, Salford, M50 3UB.

PROJECT TITLE: Medieval Quarter, Manchester		
DRAWING TITLE: TREE CONSTRAINTS PLAN	**SCALE:** 1:500 @ A1	**ISSUE DATE:** 27/06/18
DRAWING NUMBER: TCP.12850	**REVISION:** .01	**DRAWN BY:** RG

Appendix 1. Tree Schedule

Tree No.	Species	Age	Stems at 1.5m	Stem Dia (mm)	Height (Crown Hgt) (m)	FSB (D) (m)	Branch Spread (m) N	E	S	W	Observations	Cond	Life Exp	Tree Work Recommendations	Root Protection Area (RPA) Radius (m)	Area (m^2)	Retention Category
T 1	Acer pseudoplatanus (Sycamore)	Semi-mature	1	350	10(4)	4(W)	4.5	4.5	4.5	4.5	Balanced crown. Limited inspection - situated on adjacent land. Tree RPA located within ground level change & hard surface area.	Good to Fair	40+	No action required.	4.2	55.4	B
G 2	Prunus laurocerasus (Cherry Laurel),Ligustrum ovalifolium (Privet)	Semi-mature	1	150	7(1.5)	1.5(W)	2.5	2.5	2.5	2.5	Situated on adjacent land. Linear boundary group. Tree RPA located within ground level change & hard surface area. Crown overhangs site boundary.	Good to Fair	40+	No action required.	1.8	10.2	C
H 3	Prunus laurocerasus (Cherry Laurel),Sambucus nigra (Elder)	Semi-mature	1	75	2.5(0)	0(W)	0.5	0.5	0.5	0.5	Situated on adjacent land. Linear boundary hedge. Maintained. Tree RPA located within ground level change & hard surface area.	Good to Fair	40+	No action required.	0.9	2.6	C
T 4	Pyrus calleryana (Callery Pear)	Semi-mature	1	100	5.5(2)	2(W)	1.5	1.5	1.5	1.5	Balanced crown. Tree RPA located within hard surface area.	Good to Fair	40+	No action required.	1.2	4.5	C
T 5	Castanea sativa (Sweet Chestnut)	Semi-mature	1	150	6.5(1.5)	1.5(N)	3	3	3	3	Balanced crown.	Good to Fair	40+	No action required.	1.8	10.2	C
T 6	Acer platanoides (Norway Maple)	Mature	1	660	18(7.5)	8(N)	9	9	6.5	4.5	Asymmetrical crown. Occasional pruning wounds. Situated on adjacent land. Tree RPA located within ground level change.	Good to Fair	40+	No action required.	7.9	197.1	A
T 7	Acer platanoides (Norway Maple)	Mature	1	600	18(8)	7(N)	8	4	8	7	Asymmetrical crown. Occasional pruning wounds. Situated on adjacent land. Tree RPA located within ground level change.	Good to Fair	40+	No action required.	7.2	162.9	A
T 8	Prunus sp. (Cherry)	Mature	1	560	8(2.5)	3(N)	6	6	6	6	Balanced crown. Occasional pruning wounds. Tree RPA located within ground level change.	Good to Fair	40+	No action required.	6.7	141.9	B
T 9	Quercus cerris (Turkey Oak)	Semi-mature	1	380	12(5)	5(N)	4.5	5	5.5	5	Balanced crown. Occasional pruning wounds.	Good to Fair	40+	No action required.	4.6	65.3	B
T 10	Quercus robur (Common Oak)	Semi-mature	1	310	9.5(3)	3(N)	6	5.5	3.5	4.5	Asymmetrical crown. Occasional pruning wounds.	Good to Fair	40+	No action required.	3.7	43.5	B

Tree No.	Species	Age	Stems at 1.5m	Stem Dia (mm)	Height (Crown Hgt) (m)	FSB (D) (m)	Branch Spread (m) N	E	S	W	Observations	Cond	Life Exp	Tree Work Recommendations	Root Protection Area (RPA) Radius (m)	Area (m^2)	Retention Category
T 11	Taxodium distichum (Swamp Cypress)	Semi-mature	1	390	11.5(2.5)	2.5(N)	5	5	5	5	Balanced crown. Occasional pruning wounds.	Good to Fair	40+	No action required.	4.7	68.8	B
T 12	Liquidambar styraciflua (Sweet Gum)	Semi-mature	1	240	9(3)	3(N)	3	3	3	3	Balanced crown. Occasional pruning wounds.	Good to Fair	40+	No action required.	2.9	26.1	B
T 13	Liriodendron tulipifera (Tulip Tree)	Semi-mature	1	270	9(3)	3(N)	3	2.5	3	3.5	Balanced crown. Occasional pruning wounds.	Good to Fair	40+	No action required.	3.2	33.0	B
T 14	Castanea sativa (Sweet Chestnut)	Semi-mature	1	330	8(2.5)	2.5(N)	5	4	4.5	4	Asymmetrical crown. Occasional pruning wounds.	Good to Fair	40+	No action required.	4.0	49.3	B
T 15	Prunus sp. (Cherry)	Early-mature	1	400	7(3)	3(N)	2	3.5	4	3	Asymmetrical crown. Multiple pruning wounds. Limited inspection - restricted access. Tree RPA located within ground level change.	Fair	10+	No action required.	4.8	72.4	C
T 16	Fraxinus excelsior (Ash)	Semi-mature	1	350	9(2)	2(N)	4.5	3.5	4.5	5	Asymmetrical crown. Occasional pruning wounds. Limited inspection - restricted access. Tree RPA located within ground level change.	Good to Fair	40+	No action required.	4.2	55.4	B
T 17	Prunus sp. (Cherry)	Early-mature	1	370	7(3)	3(N)	3	3.5	3	4.5	Asymmetrical crown. Occasional pruning wounds. Limited inspection - restricted access. Tree RPA located within ground level change.	Good to Fair	40+	No action required.	4.4	61.9	B
T 18	Pinus nigra 'maritima' (Corsican Pine)	Semi-mature	1	570	10(2)	2(W)	5	4.5	5	5	Balanced crown. Occasional pruning wounds.	Good to Fair	40+	No action required.	6.8	147.0	B
T 19	Aesculus hippocastanum (Horse Chestnut)	Semi-mature	1	400	10(2)	2(W)	6	6	6	5.5	Balanced crown. Exudates noted on stem - possible bacteria canker.	Fair	10+	No action required.	4.8	72.4	C
T 20	Rhus typhina (Stags Horn)	Semi-mature	4	70	5(2.5)	2.5(W)	2	2	2	2	Multi-stemmed from ground level.	Good to Fair	20+	No action required.	1.7	8.9	C

Tree No.	Species	Age	Stems at 1.5m	Stem Dia (mm)	Height (Crown Hgt) (m)	FSB (D) (m)	Branch Spread (m) N	E	S	W	Observations	Cond	Life Exp	Tree Work Recommendations	Root Protection Area (RPA) Radius (m)	Area (m^2)	Retention Category
T 21	Sequoiadendron giganteum (Wellingtonia)	Young	1	75	2.5(0)	0(N)	1	1	1	1	Balanced crown.	Good to Fair	40+	No action required.	0.9	2.6	C
T 22	Fraxinus excelsior (Ash)	Early-mature	1	350	10(5)	5(W)	4.5	4.5	5	4.5	Asymmetrical crown. Limited inspection - restricted access. Tree RPA located within ground level change.	Good to Fair	40+	No action required.	4.2	55.4	B
T 23	Prunus sp. (Cherry)	Mature	1	660	11(5)	5(W)	6.5	6	6	6.5	Balanced crown. Occasional pruning wounds. Tree RPA located within ground level change. Decay fungus at base. Unsuitable for retention.	Fair to Poor	<10	Removal recommended, but under third party ownership.	7.9	197.1	U
T 24	Prunus sp. (Cherry)	Semi-mature	1	400	7(3.5)	3.5(W)	3	3.5	4	3.5	Occasional pruning wounds. Stem - bark wound. Tree RPA located within ground level change. Stem has crack/split. Unsuitable for retention.	Fair to Poor	<10	Removal recommended, but under third party ownership.	4.8	72.4	U
T 25	Malus sylvestris (Crab Apple)	Young	1	50	3(1.5)	1.5(N)	1	1	1	1	Balanced crown. Limited inspection - restricted access.	Good to Fair	40+	No action required.	0.6	1.1	C
T 26	Betula pendula Youngii (Silver Birch)	Semi-mature	1	260	11(2.5)	2.5(N)	3.5	3	2.5	3.5	Asymmetrical crown. Tree RPA located within hard surface area.	Good to Fair	40+	No action required.	3.1	30.6	B
T 27	Betula pendula Youngii (Silver Birch)	Semi-mature	1	240	10(3.5)	3.5(W)	3	2	2	3.5	Asymmetrical crown. Tree RPA located within hard surface area.	Good to Fair	40+	No action required.	2.9	26.1	B
T 28	Betula pendula Youngii (Silver Birch)	Semi-mature	1	240	10(2)	2(W)	2	2	3	3	Asymmetrical crown. Tree RPA located within hard surface area.	Good to Fair	40+	No action required.	2.9	26.1	B
T 29	Betula pendula Youngii (Silver Birch)	Semi-mature	1	260	11(3)	3(W)	3	3	3.5	3	Asymmetrical crown. Tree RPA located within hard surface area.	Good to Fair	40+	No action required.	3.1	30.6	B

Appendix 2. Explanatory Notes

A2.1. Tree statistics and measurements

Survey record	Description
Tree No.	Unique tree reference number. (T) = Individual tree, (G) = Group of trees or woodland that form cohesive arboricultural features, (H) = Hedgerows and substantial internal or boundary hedges.
Species	Species listed by scientific name, with (common name).
Age	Life stage – Young, Semi-mature, Early-mature, Mature, Over-mature and Veteran.
Stem Count	Number of stems recorded at 1.5m above ground level.
Stem Diameter	Stem diameter recorded in millimetres at 1.5 meters above ground. Where the tree is multiple stemmed, each stem has been recorded.
Height (Crown Height)	Height of the tree in metres – to the closest 0.5m. Average canopy height in brackets, e.g. 10(3).
First Significant Branch	Existing height above ground level of first significant branch and direction of growth, e.g. 3(N)
Branch Spread	Branch spread, taken as a minimum at the four cardinal points – North, East, South and West.
Observations	General observations, particularly of structural and/or physiological condition (e.g. the presence of any decay, physical defect or historic pruning).
Cond	Condition of the tree recorded as Good, Good to Fair, Fair, Fair to Poor, Poor or Dead.
Life Exp	Life Expectancy - classed as less than 10 years, 10 plus years, 20 plus years, or more than 40 years.
Tree Work Recommendations	Recommended tree works – including those made to enable the proposed development.
RPA Radius	Radius of the root protection area, when plotted as a circle centred on the base of the stem.
RPA Area	Total area of RPA in metres squared, e.g. 100m^2.
Retention Category	See below – A2.2.

A2.2. Tree retention categories

Retention category and definition	Criteria
U (marked in red on the Tree Constraints Plan) = trees for removal.	Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.
A (marked green on the Tree Constraints Plan) = Trees of high quality	Trees of high quality with an estimated remaining life expectancy of at least 40 years.
B (marked in blue on the Tree Constraints Plan) = Trees of moderate quality	Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.
C (marked in grey on the Tree Constraints Plan) = Trees of low quality	Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.

Appendix 3. Report Limitations & General Guidelines

A3.1 Where the inspection of trees was limited (*see Appendix 1*), the 'Tree statistics and measurements' (*Appendix 2.1*) are estimated, and observations, condition and life expectancy are based on an inspection from the available vantage point.

A3.2 It is recommended that qualified and experienced companies are sought when appointing tree work contractors and they should be approved under the Arboricultural Association Approved Contractors scheme. It is essential that all appointed tree work contractors have adequate Public Liability, Products Liability and Employers Liability Insurance. All tree works must conform to the current BS 3998 *"Recommendations for Tree Work"*.

A3.3 Godwin's Arboricultural Ltd will not accept liability for works undertaken by third party companies. All necessary checks must be made by the appointed tree work contractor prior to undertaking any works to ensure that no statutory tree protection measures or relevant laws are contravened.

A3.4 The validity, accuracy and findings of this report are directly related to the accuracy of the information made available prior to and during the inspection process. No checking of independent third-party data will be undertaken. Godwin's Arboricultural Ltd will not be responsible for the recommendations within this report where essential data are not made available, or are inaccurate.

A3.5 The assessment and works recommendations relate to conditions found at the time of our inspection. Any significant alteration to the site post our site inspection but pre-submission for planning that may affect the trees present or have a bearing on the planning implications (including level changes, hydrological changes, storms, extreme climatic events or site works) will necessitate a re-assessment of the trees and the site.

A3.6 This report has been carried out in order to inform the planning process, and not to assess the potential hazards and risks posed by trees. Where clear and obvious hazards have been observed to accessible trees, these have been addressed in the works recommendations. Where inspections were limited by restrictions such as stem ivy, understory vegetation, limited access, epicormic growth or being located on adjacent land, any form of tree condition assessment was restricted. A full assessment of the levels of risk posed by trees can only be informed by considering site use together with assessing any hazards present within a tree.

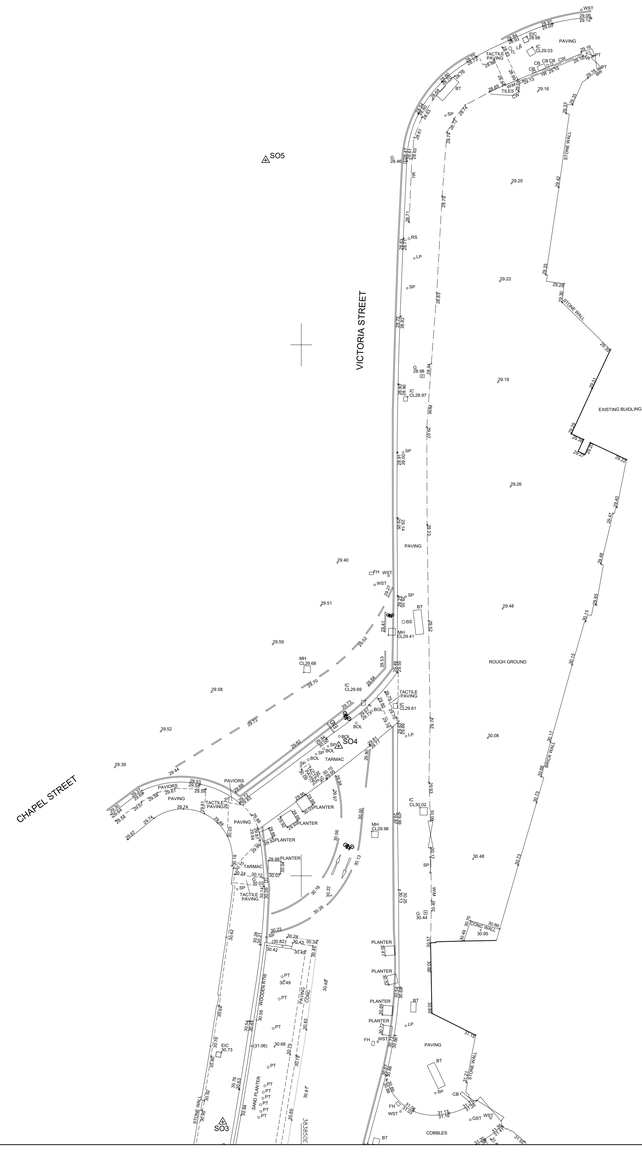
A3.7 Trees are dynamic structures that continue to develop and decline; in addition, changes in site use are likely to occur during and as a result from the proposed development. On this basis, regular tree risk assessments are advised.

A3.8 Godwin's Arboricultural Ltd plans are to scale whenever possible but care should be taken when measuring from a plan without first checking the original data.

Godwins Arboricultural Limited © 2018
Tree Surveys and **Tree Reports**

info@godwins.co.uk | www.godwins.co.uk

6.3 Topo Survey



© Survey Operations Limited 2018
Reproduction in whole or in part by any means is prohibited without the prior permission of Survey Operations Limited.

N

Note:
The survey is plotted on a plane local Grid. Orientation to National Grid.
All levels relate to Ordnance Datum, achieved using the
OS National GPS Network.
Survey Control Markers established for Mapping purposes only and should not be used for Construction without the written approval of Survey Operations Ltd.

Levels in parenthesis indicate top of walls

SURVEY STATIONS			
Name	Easting	Northing	Height
SO1	383825.85	398719.27	33.14
SO2	383828.87	398773.22	32.11
SO3	383842.60	398826.83	30.89
SO4	383844.62	398877.41	29.72
SO5	383846.65	398917.38	28.72

STANDARD REFERENCE & ABBREVIATIONS

(AN)....Assumed Route
AV.....Air Valve
BAR.....Barrier
BEA.....Bollards
BS.....Bus Stop
BT Box....British Telecom Box
BT.....British Telecom It
BRTW....Brick Retaining Wall
BW.....Brick Wall
C/B.....Close Boarded
C/I.....Corrugated Iron
C/P.....Chestnut Paling
CB.....Control Box
CBW.....Concrete Block Wall
CCTV....Closed Circuit TV
CD.....Cable Duct
CEL.....Cellar Light
CHA.....Chain Link
CHY.....Chimney
CL.....Cover Level
CM.....Cable Marker
COL.....Column
CONC....Concrete
CP.....Catch Pit
CRTW....Concrete Retaining Wall
CTV.....Cable Television
CUL.....Culvert
CW.....Concrete Block Wall
DC.....Drainage Channel
DPC.....Damp Proof Course
DR.....Drain
DSW.....Dry Stone Wall
ECP.....Electricity Cable Pit
EIC.....Electricity Inspection Cover
EJ.....Expansion Joint
EJB.....Electricity Junction Box
EL SUB STN..Electricity Sub Station
EL.....Eleve Level
ELB.....Electricity Box
EP.....Electricity Pole
ER.....Earth Rod
ETL.....Electricity Transmission Line
FB.....Flower Bed
FH.....Fire Hydrant
FL.....Floor Level
FP.....Flagpole
G.M.*....Girth (of tree)
G.....Gulley
GAB.....Gabion
GIP.....Gas Inlet Pipe
GMR.....Gas Marker
GSF.....Gas Stop Tap (Domestic)
GSV.....Gas Stop Valve (Mains)
HSE.....Housing
HT.....Height
HV.....High Voltage
I.R.....Iron Railing
IC.....Inspection Cover
IL.....Invert Level
IP.....Inlet Pipe
KO.....Kerb Outlet
LB.....Letter Box
LP.....Lamp Post
MB.....Multi-Girth
MH.....Manhole
MKR.....Marker
MP.....Mooring Point
NP.....Street Name Plate
O/H.....Overhead
O/P.....Open Paving
OE.....Overhead Electric Wire
OF.....Outfall Pipe
OSBM....Ordnance Survey Bench Mark
OT.....Overhead Telecom Wire
P/C.....Post & Chain
P/R.....Post & Rail
P/W.....Post & Wire
PAV.....Paving
PB.....Pillar Box
PC.....Pedestrian Crossing
PP.....Petrol Pump
PT.....Post or Pillar
RE.....Rodding Eye
RS.....Road Sign
RTW.....Retaining Wall
RWP.....Rain Water Pipe
SAP.....Sapling
SL.....Sump Level
SoL.....Soffit Level
SP.....Sign Post
SPL.....Springing Level
SRTW....Stone Retaining Wall
SV.....Stop Valve (unspecified)
SVP.....Soil Vent Pipe
SW.....Stone Wall
TAC.....Tactile Paving
TB.....Traffic Bollard
TBM.....Temporary Bench Mark
TCB.....Telephone Call Box
TCB.....Traffic Light Control Box
TK.....Timber Manhole
TMC.....Tarmac
TP.....Telecommunications Pole
TPIT....Trial Pit
TS.....Trash Screen
U/C.....Under Construction
U/G.....Underground
UTL.....Unable to Lift (BM,IC etc)
UTS.....Unable to Survey
VDP.....Vehicle Detector Pad
VP.....Vent Pipe
W/M.....Wire Mesh
WL.....Water Level
WM.....Water Meter
WO.....Wash Out
WP.....Waste Pipe
WST.....Water Stop Tap (domestic)
WSV.....Water Stop Valve (mains)

1
2

Sheet Layout

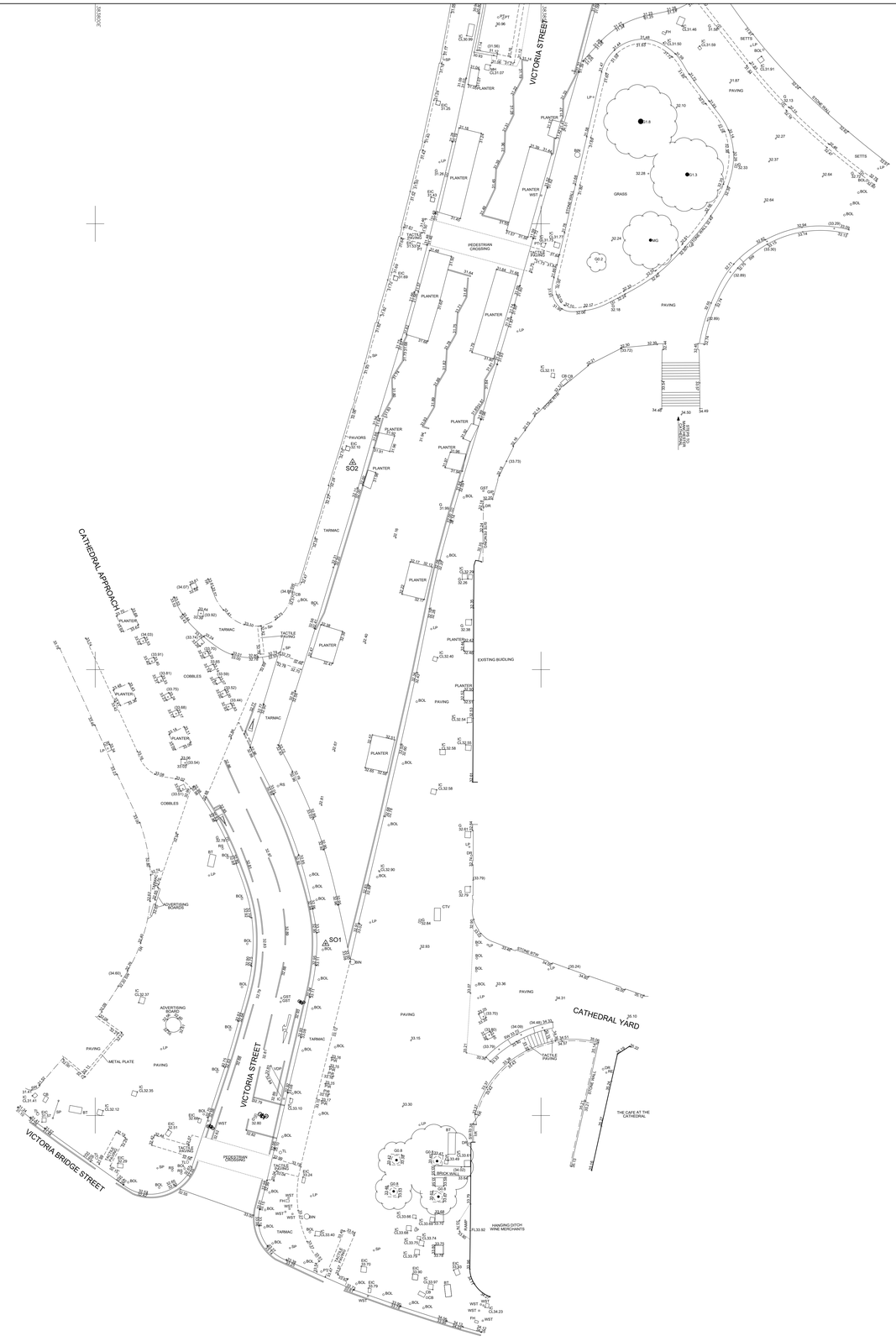
SurveY OPERATIONS
Smith Street, Skelmersdale, Lancs. WN8 8LN
Tel: 01695 725662 Fax: 01695 51816
Email: mail@survops.co.uk – www.survops.co.uk

Client
Galliford Try Infrastructure Limited

Drawing Title
Topographical Survey of Land at:
Victoria Street Cheethams
Manchester
Sheet 1 of 2

Scale(s)	1:200	Surveyor	GPE
Date	Jun 18	Drawn	DIF
Job Number	18B009	Checked	TP

Sheet Size & Drg Number & Revision
A0 18B009/001



© Survey Operations Limited 2018
Reproduction in whole or in part by any means is prohibited without the prior permission of Survey Operations Limited.

N

Note:
The survey is plotted on a plane local Grid. Orientation to National Grid.
All levels relate to Ordnance Datum, achieved using the
OS National GPS Network.
Survey Control Markers established for Mapping purposes only and should not be used for Construction without the written approval of Survey Operations Ltd.

Levels in parenthesis indicate top of walls

SURVEY STATIONS			
Name	Easting	Northing	Height
SO1	383825.85	398719.27	33.14
SO2	383828.87	398773.22	32.11
SO3	383642.60	398826.83	30.89
SO4	383844.65	398917.38	28.72
SO5	383844.65	398917.38	28.72

STANDARD REFERENCE & ABBREVIATIONS

(AN)..... Assumed Node	IL..... Invert Level
AB..... Air Brick	IP..... Inlet Pipe
AV..... Air Valve	KO..... Kerb Outlet
B/W..... Barbed Wire	LB..... Letter Box
BAR..... Barrier	LP..... Lamp Post
BB..... Bellcote Beacon	MO..... Multi-Girth
BH..... Borehole	MH..... Manhole
BL..... Bed Level	MKR..... Marker
BOL..... Bollard	MP..... Mooring Point
BS..... Bus Stop	NP..... Street Name Plate
BT Box..... British Telecom Box	O/H..... Overhead
BT..... British Telecom It	O/P..... Open Paving
BRTW..... Brick Retaining Wall	OE..... Overhead Electric Wire
BW..... Brick Wall	OP..... Outfall Pipe
C/B..... Close Boarded	OSBM..... Ordnance Survey Bench Mark
C/I..... Corrugated Iron	OT..... Overhead Telecom Wire
C/P..... Chestnut Paling	P/C..... Post & Chain
CB..... Control Box	P/R..... Post & Rail
CBW..... Concrete Block Wall	P/W..... Post & Wire
CCTV..... Closed Circuit TV	PAV..... Paving
CD..... Cable Duct	PB..... Pillar Box
CEL..... Cellar Light	PC..... Pedestrian Crossing
CHL..... Chain Link	PP..... Petrol Pump
CHY..... Chimney	PT..... Post or Pillar
CL..... Cover Level	RE..... Rodding Eye
CM..... Cable Marker	RS..... Road Sign
COL..... Column	RTW..... Retaining Wall
CONC..... Concrete	RWP..... Rain Water Pipe
CP..... Cattle Pit	SAP..... Sapling
CRTW..... Concrete Retaining Wall	SL..... Sump Level
CTV..... Cable Television	SoL..... Soffit Level
CUL..... Culvert	SP..... Sign Post
CW..... Concrete Block Wall	SPL..... Springing Level
DC..... Drainage Channel	SRTW..... Stone Retaining Wall
DPC..... Damp Proof Course	SV..... Stop Valve (ampanelflat)
DR..... Drain	SVP..... Soil Vent Pipe
DSW..... Dry Stone Wall	SW..... Stone Wall
ECP..... Electricity Cable Pit	TAC..... Tactile Paving
EIC..... Electricity Inspection Cover	TB..... Traffic Bollard
EJ..... Expansion Joint	TBM..... Temporary Bench Mark
EJB..... Electricity Junction Box	TCB..... Telephone Cell Box
EL SUB STN..Electricity Sub Station	TFR..... Taken From Records
EL..... Eaves Level	TIE..... Anchor Point (Masts/Poles)
ELB..... Electricity Box	TL..... Traffic Light
EP..... Electricity Pole	TLB..... Traffic Light Control Box
ER..... Earth Rod	TM..... Ticket Machine
ETL..... Electricity Transmission Line	TWC..... Tarmac
FB..... Flower Bed	TP..... Telecommunications Pole
FH..... Fire Hydrant	TRIT..... Trial Pit
FL..... Floor Level	TS..... Trash Screen
FP..... Flagpole	U/C..... Under Construction
G*.*..... Girth (at free)	U/G..... Underground
G..... Gulley	UTL..... Unable to Lift (BM,IE etc)
GAB..... Gabion	UTS..... Unable to Survey
GIP..... Gas Inlet Pipe	VDP..... Vehicle Detector Pad
GMR..... Gas Marker	VP..... Vent Pipe
GOT..... Gas Stop Tap (Domestic)	W/M..... Wire Mesh
GSV..... Gas Stop Valve (Mains)	WL..... Water Level
HSE..... Housing	WM..... Water Meter
HT..... Height	WO..... Wash Out
HV..... High Voltage	WP..... Waste Pipe
I/R..... Iron Railing	WST..... Water Stop Tap (Domestic)
IC..... Inspection Cover	WSV..... Water Stop Valve (Mains)

1
2

Sheet Layout

SurveY OPERATIONS
Smith Street, Skelmersdale, Lancs. WN8 8LN
Tel: 01695 725662 Fax: 01695 51816
Email: mail@survops.co.uk – www.survops.co.uk

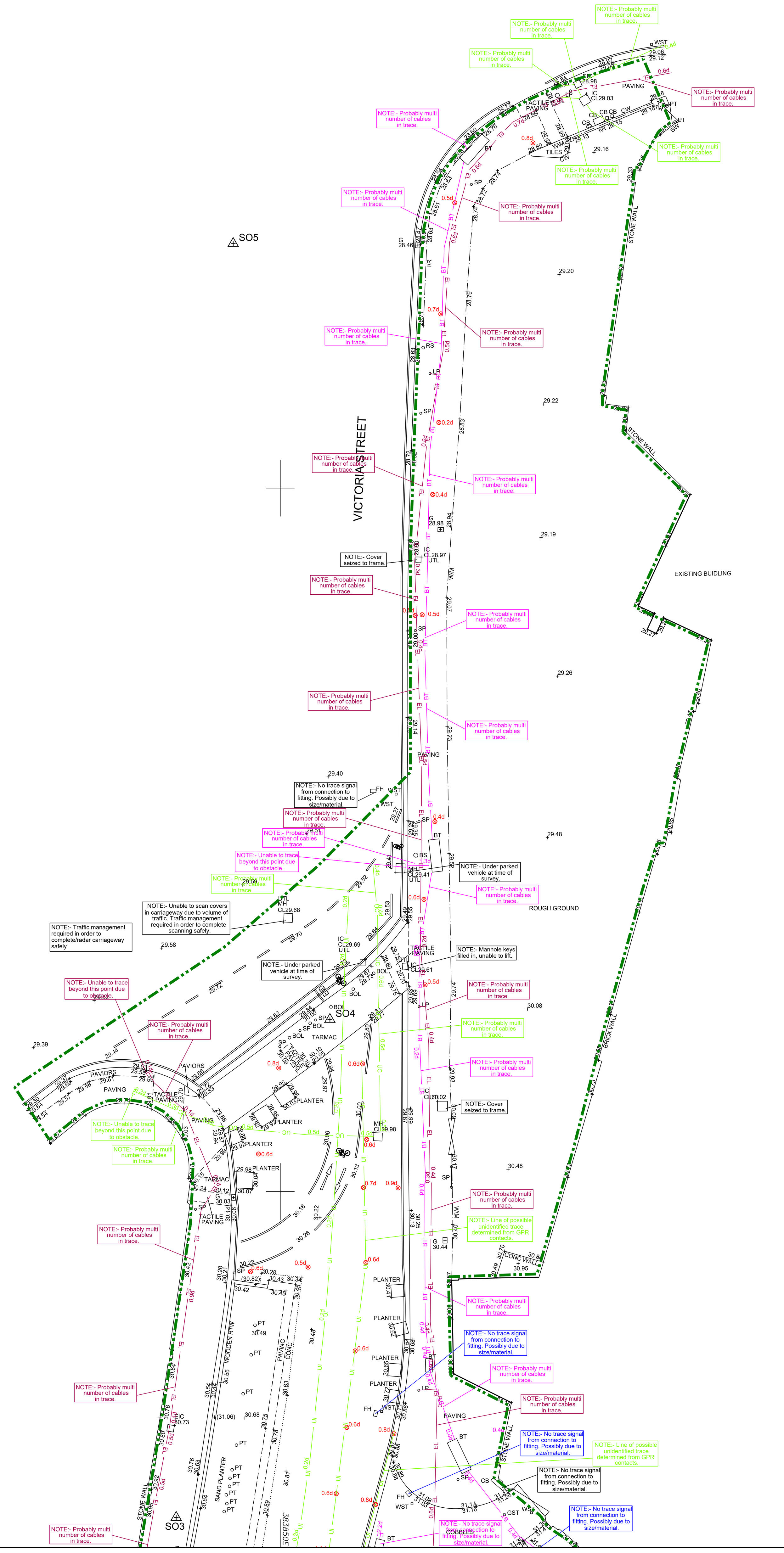
Client
Galliford Try Infrastructure Limited

Drawing Title
Topographical Survey of Land at:
Victoria Street Cheethams
Manchester
Sheet 2 of 2

Scale(s)	1:200	Surveyor	GPE
Date	Jun 18	Drawn	DIF
Job Number	18B009	Checked	TP

Sheet Size & Drg Number & Revision
A0 18B009/002

6.4 Ground Penetrating Radar Survey



SW	STORM WATER SEWERS
FW	FOUL WATER SEWERS
WM	WATER MAIN
GM	GAS MAIN
EL	ELECTRIC CABLES
DUCT	CABLE DUCTING
BT	BT (UNDERGROUND)
CCTV	CABLE TV
CCTV	CLOSED CIRCUIT TV
UI	UNIDENTIFIED FEATURE
UP	UNIDENTIFIED PIPE
UC	UNIDENTIFIED CABLE
UNPR	UNPROVEN FEATURE
SW	END OF TRACE
FW	LATERAL CONNECTIONS
	EXTENT OF SURVEY BY SURVEY OPERATIONS LTD.
	EXTENT OF SURVEY BY SURVEY OPERATIONS LTD.()
0.0d	BURIED FEATURE FOUND USING RADAR
FW / SW	CONNECTIVITY BETWEEN CHAMBERS FROM CCTV REPORT
	BURIED FEATURE FOUND USING RADAR

UNIDENTIFIED - A buried feature or utility that has been located, but we are unable to state what it is.
UNPROVEN - The assumed location of a reported feature or utility, usually taken from records, but not found during the utility trace (due to various conditions).
CAUTION - Electric pot ended cables, even when they are live, are unable to be detected or traced.

UNDERGROUND UTILITIES SERVICES DISCLAIMER

We have endeavoured to locate existing services using records provided by Statutory Authorities as a guide. Some apparatus were untraceable and details have therefore been taken from Utility Record Drawings, which may be of poor quality. Consequently we cannot guarantee accuracy of information taken from such records.

Where indicated, no allowance has been made for sub-surface entry into manholes, other chambers or confined spaces below ground level. Therefore any details relating to depths, sizes etc, are taken from the surface and as such will be approximate.

We have endeavoured to supply you with the most accurate data possible by using methods and equipment that are at the forefront of our industry. We have taken great care in the detection of pipework and buried features, but as with all methods of detecting underground or buried utilities the information provided is based on results obtained from electromagnetic techniques, and as such may be liable to distortion or errors beyond the reasonable control of the operator or his instruments.

It is the responsibility of the user under Health & Safety (HSG47) Guidelines to satisfy himself of the suspected location of any services prior to excavation of the services shown.

NOTE 1

This utility survey has been undertaken using:
A: Radiodetection RD4000 + RD4000 TIO
B: Mala Geoscience Ground Probing Radar

NOTE 2

Power carrying features shown on this drawing are shown as an individual service line. This does not necessarily represent the number of cables actually present and it is possible that there could be multi numbers of cables including HV, LV and communications transmission cables following the same trace line. These could be at different depths, the trace signal from the deeper cables being masked by signal emitted from the shallower service above. Cable runs could also be present running parallel to the single line shown.

© Survey Operations Limited 2018
Reproduction in whole or in part by any means is prohibited without the prior permission of Survey Operations Limited.

N

Note:
The survey is plotted on a plane local Grid. Orientation to National Grid.
All levels relate to Ordnance Datum, achieved using the OS National GPS Network.
Survey Control Markers established for Mapping purposes only and should not be used for Construction without the written approval of Survey Operations Ltd.
Levels in parenthesis indicate top of walls
Utility survey added to topographical survey job number 18B009.
All drainage information must be verified with local authority records before use.

SURVEY STATIONS

Name	Easting	Northing	Height
SO1	383825.85	398719.27	33.14
SO2	383828.87	398773.22	32.11
SO3	383842.60	398826.83	30.89
SO4	383853.52	398862.22	29.92
SO5	383846.65	398917.38	28.72

STANDARD REFERENCE & ABBREVIATIONS

(AR)........Assumed Route	IL..........Invert Level
AB..........Air Brick	IP..........Inlet Pipe
AV..........Air Valve	KO..........Kerb Outlet
B/W.........Barbed Wire	LB..........Letter Box
BAR.........Barrier	LP..........Lamp Post
BB..........Belisha Beacon	MG..........Multi-Girth
BH..........Borehole	MH..........Manhole
BL..........Bed Level	MKR.........Marker
BOL.........Bollard	MP..........Mooring Point
BS..........Bus Stop	NP..........Street Name Plate
BT Box......British Telecom Box	O/H.........Overhead
BT..........British Telecom IC	O/P.........Open Paling
BRTW........Brick Retaining Wall	OE..........Overhead Electric Wire
BW..........Brick Wall	OP..........Outfall Pipe
C/B.........Close Boarded	OSBM........Ordnance Survey Bench Mark
C/I.........Corrugated Iron	OT..........Overhead Telecom Wire
C/P.........Chestnut Paling	P/C.........Post & Chain
CB..........Control Box	P/R.........Post & Rail
CBW.........Concrete Block Wall	P/W.........Post & Wire
CCTV........Closed Circuit TV	PAV.........Paving
CD..........Cable Duct	PB..........Pillar Box
CEL.........Cellar Light	PC..........Pedestrian Crossing
CH/L........Chain Link	PP..........Petrol Pump
CHY.........Chimney	PT..........Post or Pillar
CL..........Cover Level	RE..........Rodding Eye
CM..........Cable Marker	RS..........Road Sign
COL.........Column	RTW.........Retaining Wall
CONC........Concrete	RWP.........Rain Water Pipe
CP..........Catch Pit	SAP.........Sapling
CRTW........Concrete Retaining Wall	SL..........Sump Level
CTV.........Cable Television	SoL.........Soffit Level
CUL.........Culvert	SP..........Sign Post
CW..........Concrete Block Wall	SPL.........Springing Level
DC..........Drainage Channel	SRTW........Stone Retaining Wall
DPC.........Damp Proof Course	SV..........Stop Valve (unspecified)
DR..........Drain	SVP.........Soil Vent Pipe
DSW.........Dry Stone Wall	SW..........Stone Wall
ECP.........Electricity Cable Pit	TAC.........Tactile Paving
EIC.........Electricity Inspection Cover	TB..........Traffic Bollard
EJ..........Expansion Joint	TBM.........Temporary Bench Mark
EJB.........Electricity Junction Box	TCB.........Telephone Call Box
EL SUB STN..Electricity Sub Station	TFR.........Taken From Records
EL..........Eaves Level	TIE.........Anchor Point (Masts/Poles)
ELB.........Electricity Box	TL..........Traffic Light
EP..........Electricity Pole	TLB.........Traffic Light Control Box
ER..........Earth Rod	TM..........Ticket Machine
ETL.........Electricity Transmission Line	TMC.........Tarmac
FB..........Flower Bed	TP..........Telecommunications Pole
FH..........Fire Hydrant	TPIT........Trial Pit
FL..........Floor Level	TS..........Trash Screen
FP..........Flagpole	U/C.........Under Construction
G*.*........Girth (of tree)	U/G.........Underground
G...........Gulley	UTL.........Unable to Lift (MH,IC etc)
GAB.........Gabion	UTS.........Unable to Survey
GIP.........Gas Inlet Pipe	VDP.........Vehicle Detector Pad
GMKR........Gas Marker	VP..........Vent Pipe
GST.........Gas Stop Tap (Domestic)	W/M.........Wire Mesh
GSV.........Gas Stop Valve (Mains)	WL..........Water Level
HSE.........Housing	WM..........Water Meter
Ht..........Height	WO..........Wash Out
HV..........High Voltage	WP..........Waste Pipe
I/R.........Iron Railing	WST.........Water Stop Tap (domestic)
IC..........Inspection Cover	WSV.........Water Stop Valve (mains)

1
2

Sheet Layout

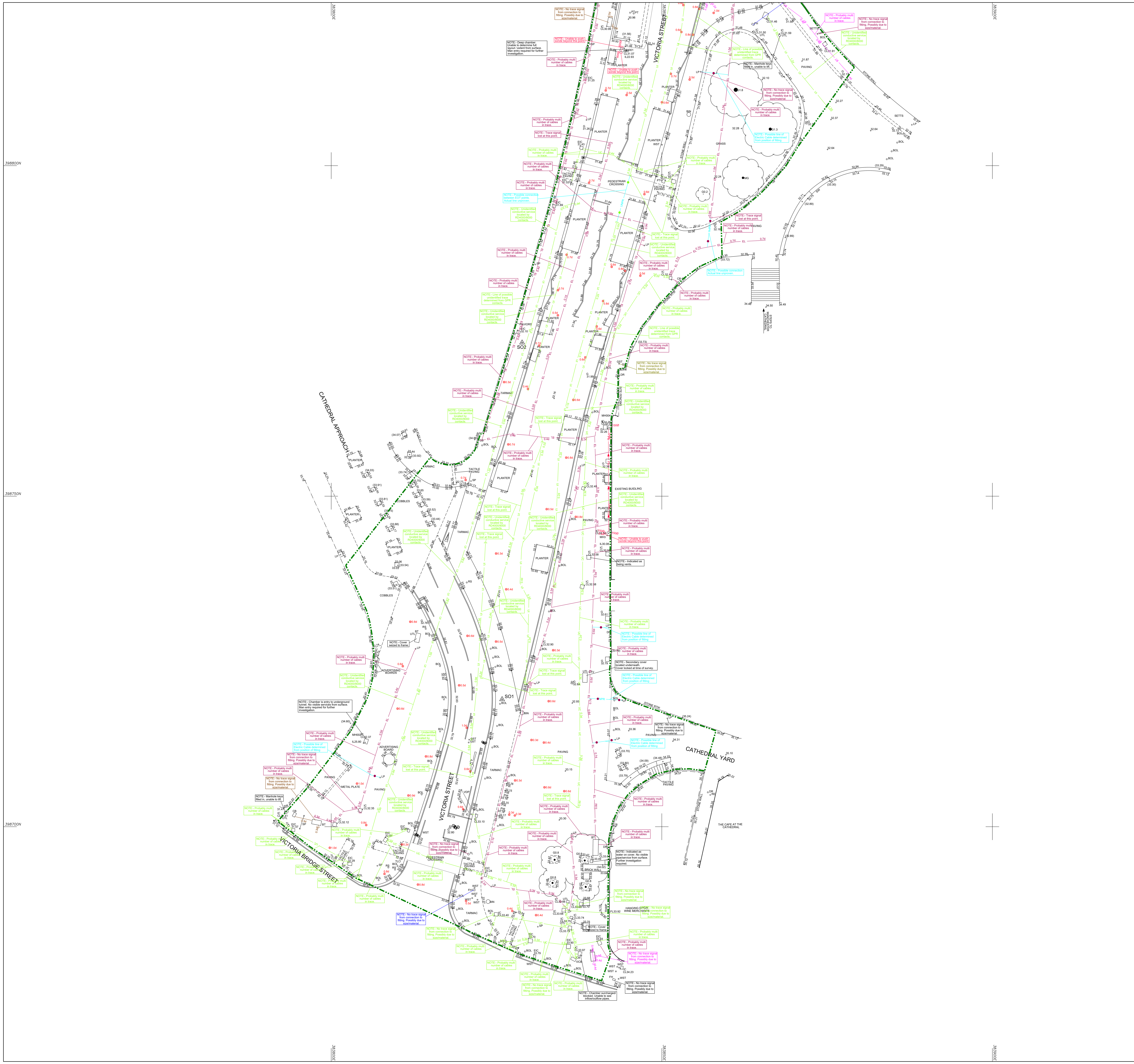
Survey Operations
Smith Street, Skelmersdale, Lancs. WN8 8LN
Tel: 01695 725662 Fax: 01695 51816
Email: mail@survops.co.uk — www.survops.co.uk

Client
Galliford Try Infrastructure Limited

Drawing Title
Utility Survey of Land at:
Victoria Street Cheethams
Manchester
Sheet 1 of 2

Scale(s)	1:200	Surveyor	PE
Date	Jun 18	Drawn	MP/IT
Job Number	18F064	Checked	PE/IT

Sheet Size & Drg Number & Revision
A0 18F064/001



SW — STORM WATER SEWERS
FW — FOUL WATER SEWERS
WM — WATER MAIN
GM — GAS MAIN
EL — ELECTRIC CABLES
DUCT — CABLE DUCTING
BT — BT (UNDERGROUND)
CCTV — CABLE TV
CCTV — CLOSED CIRCUIT TV
UI — UNIDENTIFIED FEATURE
UP — UNIDENTIFIED PIPE
UC — UNIDENTIFIED CABLE
UNPR — UNPROVEN FEATURE
SW — END OF TRACE
FW — LATERAL CONNECTIONS
EXTENT OF SURVEY BY SURVEY OPERATIONS LTD.
EXTENT OF SURVEY BY SURVEY OPERATIONS LTD.()
⊗0.0d — BURIED FEATURE FOUND USING RADAR
FW / SW — CONNECTIVITY BETWEEN CHAMBERS FROM CCTV REPORT
BURIED FEATURE FOUND USING RADAR

UNIDENTIFIED - A buried feature or utility that has been located, but we are unable to state what it is.
UNPROVEN - The assumed location of a reported feature or utility, usually taken from records, but not found during the utility trace (due to various conditions).
CAUTION - Electric pot ended cables, even when they are live, are unable to be detected or traced.

UNDERGROUND UTILITIES SERVICES DISCLAIMER

We have endeavoured to locate existing services using records provided by Statutory Authorities as a guide. Some apparatus were untraceable and details have therefore been taken from Utility Record Drawings, which may be of poor quality. Consequently we cannot guarantee accuracy of information taken from such records.

Where indicated, no allowance has been made for sub-surface entry into manholes, other chambers or confined spaces below ground level. Therefore any details relating to depths, sizes etc, are taken from the surface and as such will be approximate.

We have endeavoured to supply you with the most accurate data possible by using methods and equipment that are at the forefront of our industry. We have taken great care in the detection of pipework and buried features, but as with all methods of detecting underground or buried utilities the information provided is based on results obtained from electromagnetic techniques, and as such may be liable to distortion or errors beyond the reasonable control of the operator or his instruments.

It is the responsibility of the user under Health & Safety (HSG47) Guidelines to satisfy himself of the suspected location of any services prior to excavation of the services shown.

NOTE 1

This utility survey has been undertaken using:
A: Radiodetection RD4000 + RD4000 TIO
B: Mala Geoscience Ground Probing Radar

NOTE 2

Power carrying features shown on this drawing are shown as an individual service line. This does not necessarily represent the number of cables actually present and it is possible that there could be multi numbers of cables including HV, LV and communications transmission cables following the same trace line. These could be at different depths, the trace signal from the deeper cables being masked by signal emitted from the shallower service above. Cable runs could also be present running parallel to the single line shown.

© Survey Operations Limited 2018
Reproduction in whole or in part by any means is prohibited without the prior permission of Survey Operations Limited.

N

Note:
The survey is plotted on a plane local Grid. Orientation to National Grid.
All levels relate to Ordnance Datum, achieved using the OS National GPS Network.
Survey Control Markers established for Mapping purposes only and should not be used for Construction without the written approval of Survey Operations Ltd.
Levels in parenthesis indicate top of walls
Utility survey added to topographical survey job number 18B009.
All drainage information must be verified with local authority records before use.

SURVEY STATIONS			
Name	Easting	Northing	Height
SO1	383825.85	398719.27	33.14
SO2	383828.87	398773.22	32.11
SO3	383842.60	398826.83	30.89
SO4	383853.52	398862.22	29.92
SO5	383846.65	398917.38	28.72

STANDARD REFERENCE & ABBREVIATIONS

(AR)........Assumed Route	IL..........Invert Level
AB..........Air Brick	IP..........Inlet Pipe
AV..........Air Valve	KO..........Kerb Outlet
B/W.........Barbed Wire	LB..........Letter Box
BAR.........Barrier	LP..........Lamp Post
BB..........Belisha Beacon	MG..........Multi-Girth
BH..........Borehole	MH..........Manhole
BL..........Bed Level	MKR.........Marker
BOL.........Bollard	MP..........Mooring Point
BS..........Bus Stop	NP..........Street Name Plate
BT Box......British Telecom Box	O/H.........Overhead
BT..........British Telecom IC	O/P.........Open Paling
BRTW........Brick Retaining Wall	OE..........Overhead Electric Wire
BW..........Brick Wall	OP..........Outfall Pipe
C/B.........Close Boarded	OSBM........Ordnance Survey Bench Mark
C/I.........Corrugated Iron	OT..........Overhead Telecom Wire
C/P.........Chestnut Paling	P/C.........Post & Chain
CB..........Control Box	P/R.........Post & Rail
CBW.........Concrete Block Wall	P/W.........Post & Wire
CCTV........Closed Circuit TV	PAV.........Paving
CD..........Cable Duct	PB..........Pillar Box
CEL.........Cellar Light	PC..........Pedestrian Crossing
CH/L........Chain Link	PP..........Petrol Pump
CHY.........Chimney	PT..........Post or Pillar
CL..........Cover Level	RE..........Rodding Eye
CM..........Cable Marker	RS..........Road Sign
COL.........Column	RTW.........Retaining Wall
CONC........Concrete	RWP.........Rain Water Pipe
CP..........Catch Pit	SAP.........Sapling
CRTW........Concrete Retaining Wall	SL..........Sump Level
CTV.........Cable Television	SoL.........Soffit Level
CUL.........Culvert	SP..........Sign Post
CW..........Concrete Block Wall	SPL.........Springing Level
DC..........Drainage Channel	SRTW........Stone Retaining Wall
DPC.........Damp Proof Course	SV..........Stop Valve (unspecified)
DR..........Drain	SVP.........Soil Vent Pipe
DSW.........Dry Stone Wall	SW..........Stone Wall
ECP.........Electricity Cable Pit	TAC.........Tactile Paving
EIC.........Electricity Inspection Cover	TB..........Traffic Bollard
EJ..........Expansion Joint	TBM.........Temporary Bench Mark
EJB.........Electricity Junction Box	TCB.........Telephone Call Box
EL SUB STN..Electricity Sub Station	TFR.........Taken From Records
EL..........Eaves Level	TIE.........Anchor Point (Masts/Poles)
ELB.........Electricity Box	TL..........Traffic Light
EP..........Electricity Pole	TLB.........Traffic Light Control Box
ER..........Earth Rod	TM..........Ticket Machine
ETL.........Electricity Transmission Line	TMC.........Tarmac
FB..........Flower Bed	TP..........Telecommunications Pole
FH..........Fire Hydrant	TPIT........Trial Pit
FL..........Floor Level	TS..........Trash Screen
FP..........Flagpole	U/C.........Under Construction
G*.*........Girth (of tree)	U/G.........Underground
G...........Gulley	UTL.........Unable to Lift (MH,IC etc)
GAB.........Gabion	UTS.........Unable to Survey
GIP.........Gas Inlet Pipe	VDP.........Vehicle Detector Pad
GMKR........Gas Marker	VP..........Vent Pipe
GST.........Gas Stop Tap (Domestic)	W/M.........Wire Mesh
GSV.........Gas Stop Valve (Mains)	WL..........Water Level
HSE.........Housing	WM..........Water Meter
Ht..........Height	WO..........Wash Out
HV..........High Voltage	WP..........Waste Pipe
I/R.........Iron Railing	WST.........Water Stop Tap (domestic)
IC..........Inspection Cover	WSV.........Water Stop Valve (mains)

1
2

Sheet Layout

Survey OPERATIONS
Smith Street, Skelmersdale, Lancs. WN8 8LN
Tel: 01695 725662 Fax: 01695 51816
Email: mail@survops.co.uk — www.survops.co.uk

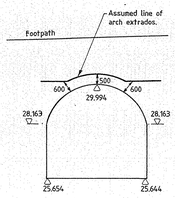
Client
Galliford Try Infrastructure Limited

Drawing Title
Utility Survey of Land at:
Victoria Street Cheethams
Manchester
Sheet 2 of 2

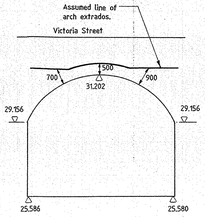
Scale(s)	1:200	Surveyor	PE
Date	Jun 18	Drawn	MP/IT
Job Number	18F064	Checked	PE/IT

Sheet Size & Drg Number & Revision
A0 18F064/002

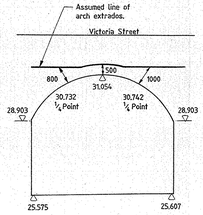
6.5 Crypts Structural Survey



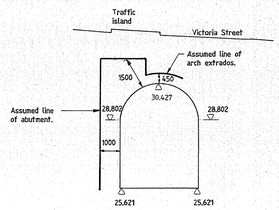
SECTION THOUGH
ARCH 12



SECTION THROUGH
ARCH 3A



SECTION THROUGH
ARCH 1A



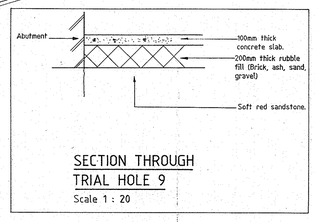
SECTION THROUGH
ARCH A

200E

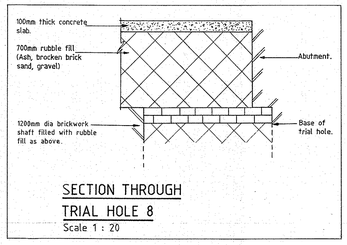
150E

100E

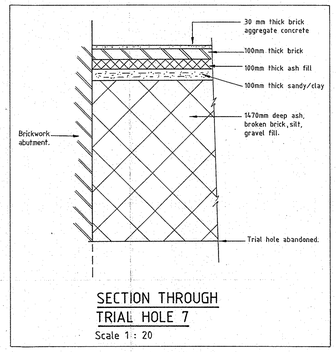




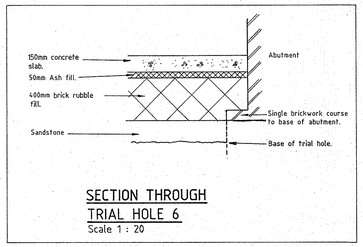
SECTION THROUGH
TRIAL HOLE 9
Scale 1 : 20



SECTION THROUGH
TRIAL HOLE 8
Scale 1 : 20



SECTION THROUGH
TRIAL HOLE 7
Scale 1 : 20



SECTION THROUGH
TRIAL HOLE 6
Scale 1 : 20

550N

500N

450N

400N

REV	AMENDMENT	DWN	CHKD	APPR.	DATE

CLIENT
MANCHESTER CITY COUNCIL

PROJECT
VICTORIA STREET ARCHES

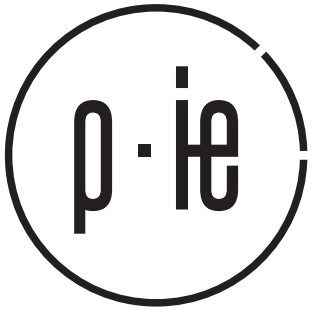
TITLE
LOCATIONS OF TRIAL HOLES AND CORES IN THE UNDERGROUND ARCHES

BULLEN
AND PARTNERS
CONSULTING
ENGINEERS

11/12 Eldon Place, Bradford, BD1 3AZ
Tel. 0274 370410 Fax. 0274 73444

DRAWN BY	CHECKED BY	APPR. BY	DATE
MG/AJ	WM		FEB.'94
SCALE	DRAWING NO.		REV
1 : 200	94B010/19		

000 643



MANCHESTER

2 Back Grafton Street
Altrincham,
WA14 1DY

+44 (0)161 928 9281

LONDON

Waterside, 44-48 Wharf Road
London,
N1 7UX

+44 (0)207 253 5678

LIVERPOOL

No. 8 Princes Parade, Princes Dock
Liverpool,
L3 1DL

+44 (0)151 363 1230