Development of a new bridge over the River Irwell to form a cycle route and utilities diversion

Planning, Design & Access Statement

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1 Introduction

1 This statement has been prepared to support an application for planning permission to construct a new bridge spanning the River Irwell connecting the City of Salford to the north, and the City of Manchester to the south.

2 The proposed bridge will sit alongside the existing Castlefield Bridge that carries the A6042 inner ring-road, and will form a new cycle route, a PROW and provide for the diversion of utilities.

3 The new bridge is required to facilitate works to remove and reconstruct Princes Bridge, which will form part of the project to build the Ordsall Chord, a new section of railway connecting Manchester Piccadilly and Manchester Victoria stations. This project will be subject to a Transport and Works Act Order (TWAO) to be submitted to the Planning Inspectorate in late Summer 2013.

4 Princes Bridge carries an existing PROW and is part of the national cycle network connecting the two cities, and it also carries strategically important utilities within its core. The new bridge will allow for these services to be permanently diverted and provide an additional permanent cycle route; it will also act as a temporary diversionary route for cycles and pedestrians during the proposed demolition and reconstruction of Princes Bridge.

5 The purpose therefore of this application is to seek planning permission to allow the new bridge to be constructed and allow the utilities to be diverted in advance of the TWAO being granted to authorize works to construct the Ordsall Chord. The application is submitted both to Manchester City Council and Salford City Council as the relevant Local Planning Authorities for this cross-boundary scheme.

6 For the avoidance of doubt, this application does not include any works to Princes Bridge. The TWAO will contain powers for the temporary diversion of the PROW and cycle route and permission to replace Princes Bridge.

7 The application description is as follows:

> **Development of a new utilities bridge and cycleway spanning the River Irwell, situated adjacent to Castlefield Bridge on land in Salford to the North, and Manchester to the South.**

2 Site and Surroundings

1 The site of the proposed new bridge sits in equal parts in the urban edge within the Cities of Salford and Manchester, spanning the River Irwell. To the south the bridge will sit on the banks of the river in the City Centre Ward area of Manchester, and it will land on the northerly river bank within the Ordsall Ward of Salford.

2 To the immediate north of the application site, sits the towpath that flanks the River Irwell along its northern bank, and beyond that is the A6042 inner ring-road which forms part of the National Cycle Network along that section. Beyond is the railway connecting Manchester to Salford Crescent and the route to Liverpool at Ordsall

Lane Junction, elevated on a viaduct structures. Further north beyond the railway viaduct is the Middlewood Locks site which is earmarked for redevelopment.

3 The eastern elevation of the application site is bound by the River Irwell. Approximately 100m further east is the operational Castlefield MSJ&AR railway viaduct, and immediately beyond that in close proximity to one another is Stephenson's Bridge and the adjoining Girder Bridge, then Prince's Bridge. All three of the railway structures are listed. The two central bridges carry the redundant rail network connection into the former Liverpool Road Station, now the Museum of Science and Industry (MOSI).

4 The application site is bound to the south by a large surface level car park accessed from Water Street.

5 Sitting immediately adjacent to the west of the application site is Castlefield Bridge which carries the A6042 over the River Irwell and forms part of the Inner Ring Road. Castlefield Bridge was opened in 2002 and is of modern construction with a dual carriageway, painted cycle lanes, and a wide pavement to each side. The bridge has green painted metal railings to form each parapet.

3 The Proposal

Description

1 The proposal is to construct a new permanent bridge spanning the River Irwell, sitting alongside the existing Castlefield Bridge. The new bridge is primarily required to facilitate the diversion of strategically important utilities from their existing route via Prince's Bridge.

2 The utilities will be entirely concealed within the core of the bridge and buried within the existing highway at either end of the bridge, connecting in to their existing routes.

3 The deck area of the bridge will become a permanent new cycle path connecting to Cycle Route 6. Layout details showing how the route will connect into the existing network are shown on plan ref: 127523-A-EHW-DRG-000001.

4 Access over the new bridge will be the proposed temporary diversion route for both cyclists and pedestrians when Prince's Bridge is removed and replaced to facilitate the development of the Ordsall Chord. Permissions to undertake such works will be sought in a TWAO, and do not form part of this application.

Design Details

5 Although the new bridge is a separate structure, it has been designed to mirror the elevation of Castlefield Bridge, to maintain a clean, elegant and uncluttered appearance. The clearance of the bridge will also meet the envelope required for navigation of the River.

6 In order to avoid the utilitarian and unappealing form of a typical pipe bridge, the proposal is for a new utilities bridge whose structure and aesthetic blends into another form, namely the existing Castlefield Bridge, located to the south of the railway viaducts. Castlefield Bridge is a comparatively recent structure, supporting the inner relief road. The strategy for the diversion bridge is therefore to mimic the form and appearance of the road bridge, whilst retaining separation between the two.

7 The springing points for this proposed structure on either side of the river require a careful design to tie into the existing pavement and the Irwell River Park, via the towing path.

8 The proposal for the diversion bridge is in essence a “straightening” of the existing form, with a similar steel arched beam and concrete lid.

9 The **materials** are also designed to match that of the Castlefield Bridge, again to reduce visual impact and maintain the existing clean lines of the bridge elevation. The arched steel structure and parapet balustrade will be painted to match the **colour scheme** of Castlefield Bridge, as follows:

a) Parapets: crown laurel (BS 12D45) & crown sage (BS 12B17)

b) Internal girders: crown pebble (BS 00A01)

c) Fascia girders: crown laurel, crown pebble & crown sage

10 Primarily driven by the need to carry utilities, the surface of the bridge has been specifically designed to accommodate a compliant **cycle path**, which will be 4m in usable width, with parapets of 1400mm in height.

11 The application is accompanied by a **street lighting assessment**, taking into account the existing street lighting on Castlefield Bridge and surrounding highway. It is believed that the existing lighting will be sufficient to illuminate the new bridge deck without the need for additional lighting.

12 **Bollards** will be installed at each end of the new bridge to prevent unauthorised access by motorised vehicles.

13 New **signage** will be installed as part of the scheme to ensure that the new cycle route is integrated within the cycle network and can be navigated effectively. The signage package caters for two scenarios: 1) permanent layout, and 2) temporary layout during proposed Ordsall Chord construction. The temporary layout will take into account the diversion needed during the removal of Prince’s Bridge.

14 The design for the structure includes **drainage** requirements with a view to connecting in to the existing surface water system. This system then outfalls in to the River Irwell via a petrol interceptor in two locations. Existing drainage details have been abstracted from as-laid information for the Manchester and Salford Inner Relief Route project built in 2002. Exact drainage details will be confirmed at detailed design stage.

Construction

15 **Construction methodology** will focus on ease and speed of construction with minimal disruption to the surrounding infrastructure, and by utilizing materials that ensure a robust future maintenance regime, which can be carried out safely. The piling and construction for both piers and the abutments are to be constructed in-situ. The bridge steelwork and the deck sections are envisaged to be fabricated in local factories and transported to site, thus giving a higher quality finish. These will then be lifted into position. The intention is to use lane closures rather than road closures along Trinity Way, however it is likely that the towing path will need to be closed on a temporary basis to facilitate safe construction.

16 In terms of **Construction sequencing**, the first on-site works will be GI surveys to determine the piling foundations, closely followed by the temporary site compound (envisaged to be within the adjacent car park) in late 2013. The site will be divided into North and South of the river, and it is likely that construction works will be carried out in tandem. Once the bridge abutments are in place, the steel work will be lifted into place in three sections, North, South and Central spans. Following this, the deck will be constructed, with the final activities being the application of the deck surface, masonry cladding to the piers and abutments, and then the realigned path connecting to the towing path from Trinity Way.

Analysis of Options and Justification

17 The key objective of the proposed new bridge is to carry strategically important utilities that are currently accommodated within Prince's Bridge. Prince's Bridge has six known utilities that use the structure to cross the River Irwell including water, gas, electric and telecoms, and in order to facilitate the construction of the Ordsall Chord it is necessary to remove the bridge from its current location.

18 From initial discussions held with the majority of the Statutory Undertakers it became clear that Prince's Bridge was a strategic crossing that connected together the utility networks of Manchester and Salford, and as such any severing of this link would cause major disruptions through loss of supply. Therefore abandoning the assets was not an option. The need to divert the utilities along an alternative route became apparent; the challenge being to find an acceptable location for this route and an engineering solution to provide a path across the river.

19 One of the first proposals to be considered was the option to provide a structure that has a similar purpose as the current bridge, whose use is for pedestrians, cyclists and utilities. The location chosen was to the north of Prince's Bridge in order to maintain a similar route. The disadvantage of this option from a stakeholder viewpoint was the structure's aesthetic appearance due to the provision of a service bay. There was also a potential risk associated with the location due to future development uncertainties in the area.

20 Given these reasons, further analysis was undertaken of all the options available to divert the utilities within the proximity of the Ordsall Chord, and fourteen were given consideration involving various routes, locations and engineering solutions. Each option has been carefully evaluated with preference being to de-couple the utilities from the existing Prince's Bridge. Therefore the selected option for the utility diversions is as follows:

1) Diversion route: south of Prince's Bridge and the proposed Ordsall Chord alignment giving the advantage of being detached from the construction site.
2) Location to cross the River Irwell with three options:
    i) Adjacent to Castlefield Bridge so as not to impact on this structure and subject to wayleave agreements.
    ii) South of the Castlefield MSJ & AR Viaduct, running parallel with this structure between Water Street and River Irwell.
    iii) South of the Castlefield MSJ & AR Viaduct, passing through arches to the north and on to Water Street.
3) Engineering solution to cross the River Irwell with two options:
    i) Over the river via a bespoke design pipe bridge.
    ii) Under the river using guided auger boring technique.

At the beginning of 2013, a joint utility meeting took place with each of the Statutory Undertakers and three options were discussed in detail; the preference being for a bespoke utilities bridge adjacent to Castlefield Bridge. The main reason this was chosen over a tunnel under the river was future access for repair and maintenance was seen as less of a risk to the health and safety of their operatives.

Plans and Supporting Documents

21 The following list of plans and documents are submitted with the planning application:

64907-1 Location Plan

127523-A-EAR-DRG-PBL-10001 rev P03	**Existing plans and elevations***
127523-A-EAR-DRG-PBL-10002 rev P04	**Proposed plans and elevations***
127523-A-EHW-DRG-000001	**Ordsall Chord Utilities Bridge Highways Layout Preliminary Design**
127523-A-EHW-DRG-000002	**Ordsall Chord Utilities Bridge Swept Path Analysis**

Flood Risk Assessment Technical Note

Biodiversity Survey Technical Note

Street Lighting Assessment

Schedule of Notices

* note: visuals included within the plans are for information only and not for approval.

4 Access

Vehicular Access

1 There will be no vehicular access to the new bridge, as it is designed solely for cycle use. Pedestrians will also be able to use the route, and will be encouraged to do so as a temporary measure during future proposed works to facilitate the construction of the Ordsall Chord.

Inclusive Access

2 The new route will be step-free and connected into the existing cycle network, with appropriate signage. Pedestrians will still be able to use the pavement alongside Castlefield Bridge, or alternatively use the new bridge. The existing connection to the towing path to the northern bank of the River will be realigned to achieve a compliant gradient.

Traffic Impact

3 The construction activities and diversion of the utilities will have a temporary impact on the local road network, but these will be managed effectively in conjunction with the local highways authorities. Once the construction activities are complete, the new bridge will have no impact on traffic, and may provide a benefit in separating cyclists away from motorized vehicles.

4 Minor modifications and new signage within the existing highway will be made to ensure that the new cycle route connects effectively with the existing cycle network.

Public Rights of Way

5 The towing path to the Northern bank of the River and pathway connecting from the towing path to Trinity Way are part of the PROW network. During the works, it is likely that the towing path and the connecting pathway will need to be temporarily stopped up to facilitate safe construction. Once complete, there will be no change to the towing path, however a Diversion Order may be required to formalize the minor alteration to the connecting path.

6 Construction activities are also likely to require temporary traffic management and lane closures to Trinity Way; these will be managed in consultation with the relevant highways authorities.

5 Environmental Considerations

EIA

1 The proposed construction of the diversion bridge and associated cycle route amendments do not fall under either the Schedule 1 or 2 criteria for EIA development as set out in the Town and Country Planning (Environmental Impact Assessment) Regulations 2011, nor would the characteristics of the development be such that it would be considered EIA development under Schedule 3. However,

as it is only required in order to enable an EIA development, it must be considered within the EIA for the 'parent' development.

2 The Ordsall Chord ES includes a chapter on Utilities which briefly sets out the conclusions of the assessment in relation to each discipline (refer to Appendix A of this Report). The utilities bridge is a relatively small development, with a narrow potential for significant effects. This is reflected in the length of the chapter, which only identifies where the diversion bridge will result in any significant effects that would be additional to those reported on in the technical chapters of the ES.

Flood Risk Assessment

3 A Flood Risk Assessment (FRA) to predict the likely impacts upon flood risk that may result from rail infrastructure works related to the Ordsall Chord development, including the construction of the diversion bridge. The FRA demonstrates that the proposed Utilities Bridge has been designed in accordance with LLFA and the EA guidance to assure that the bridge does not have an impact on existing river flow, flood risk or navigation. Further consultation will be undertaken with the EA to determine the need for further study and/or hydraulic modelling to confirm the location of the abatements with respect to the Flood Zone 3 and ensure no significant impact to flood risk.

Biodiversity

4 An ecology survey has been undertaken to assess the impacts of the Ordsall Chord on nature conservation. The surveys and assessments include consideration of the proposed diversion bridge which is subject to this application. A combination of desk study, site and protected species surveys and assessments have been undertaken in relation to nature conservation. These have identified that the construction of the Utilities Bridge will not impact upon any sites, species or habitats of nature conservation interest.

6 Planning Policy Appriasal

National Planning Policy Framework (2012)

1 The NPPF supports and promotes sustainable development, based on 12 core planning principles, including to proactively drive and support sustainable economic development to deliver infrastructure, to seek high quality design, take into account the different roles and character of different areas, support the transition to a low carbon future, contribute to conserving and enhancing the natural environment and reducing pollution. It continues to include the effective use of previously developed land, to conserve heritage assets, actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling, and to support local strategies to improve health and social well-being.

2 Chapter 1 sets out the policy aims to build a strong, competitive economy, stating that the planning system should operate to encourage sustainable growth. The overall case for developing the Ordsall Chord is to provide the infrastructure to allow for growth of the railway to support and encourage economic development in the North, particularly in the areas of Salford and Manchester. Maintaining a

critically important route for utilities and a connection for cyclists (and pedestrians during construction of the Chord itself) will support these aims.

3 Promoting sustainable transport is set out in Chapter 4. The plan states that Local authorities should work with neighbouring authorities and transport providers to develop strategies for the provision of viable infrastructure necessary to support sustainable development. In doing so, plans and decisions should exploit opportunities for the use of sustainable transport modes for the movement of goods or people, with developments located and designed to give priority to pedestrian and cycle movements, have access to high quality public transport facilities, and to create a safe and secure layout which minimises conflicts between traffic and cyclists or pedestrians.

4 Chapter 4 also states that local authorities should identify and protect where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice.

5 Chapter 8 seeks to promote healthy communities. Paragraph 75 states that planning policies should protect and enhance public rights of way and access. Local authorities should seek opportunities to provide better facilities for users, for example by adding links to existing rights of way networks including National Trails.

6 In terms of infrastructure provision, paragraph 162 states that local planning authorities should work with other authorities and providers to assess the quality and capacity of infrastructure for transport and….utilities…and its ability to meet forecast demand, and to take into account the needs for strategic infrastructure including nationally significant infrastructure within their areas.

7 Finally the NPPF encourages cross boundary cooperation, especially where the proposal relates to a strategic priority (paragraphs 178-181).

Manchester's LDF Core Strategy DPD (adopted 11 July 2012)

8 The Core Strategy forms the development plan document under which planning decisions are made. Of particular relevance to this proposal is Objective 1 (Spatial Principles), Objective 2 (Economy and City Centre), Objective 5 (Transport), and Objective 6 (Environment).

9 Policy SP1 states that development in all parts of the city should make a positive contribution to neighbourhoods of choice, including: creating well designed places that enhance or create character, making a positive contribution to the health, safety and wellbeing of residents, considering the needs of all members of the community, and that protect and enhance the built and natural environment. It continues that, development should minimize emissions, ensure efficient use of natural resources, and reuse previously developed land wherever possible. It should improve access to jobs, services and education and open space by being located to reduce the need to travel and provide good access to sustainable transport provision.

10 Policy EC1 supports employment and economic growth in Manchester. Priorities include improving access to jobs for all via public transport, walking and cycling.

11 Policy CC5 supports transport proposals that improve pedestrian safety, improve air quality and increase the scope for accessible public realm improvements. This is further supported by paragraphs 8.40 – 8.44.

12 Objective 5 (Transport) seeks to improve the physical connectivity of the City, through sustainable transport networks, to enhance its functioning and competitiveness and provide access to jobs, education, services, retail, leisure and recreation. Paragraph 11.4 acknowledges that the network of train services requires additional capacity and reliability improvements.

13 Policy T 1 Sustainable Transport

> *To deliver a sustainable, high quality, integrated transport system to encourage modal shift away from car travel to public transport, cycling and walking, to support the needs of residents and businesses and to prepare for carbon free modes of transport, the Council will support proposals that: -*
>
> *Improve choice by developing alternatives to the car.*
> *Promote regeneration and economic vitality by relieving traffic congestion and improving access to jobs and services, particularly for those most in need and for those without a car.*
> *Improve access to transport services and facilities in order to enable disabled people and people with mobility impairments to participate fully in public life.*
> *Improve pedestrian routes and the pedestrian environment.*
> *Improve and develop further Manchester's cycle network (for example the Manchester Cycleway and the Trans Pennine Trail).*
> *Contribute to improvements to the extent and reliability of the public transport network through safe and attractive waiting and interchange facilities, better priority, improved services and information provision.*
> *Improve and develop appropriate road, rail and water freight transport routes and associated intermodal freight transport facilities in order to assist in the sustainable and efficient movement of goods.*
> *Facilitate modes of transport that reduce carbon emissions e.g by incorporating charging points for electric vehicles, subject to their appropriate design and location.*
> *Would reduce the negative impacts of road traffic, for example, congestion, air pollution and road accident casualties.*
> *Take account of the needs of road users according to a broad hierarchy consisting of, in order of priority:*
>
> 1. *pedestrians and disabled people*
> 2. *cyclists, public transport,*
> 3. *commercial access,*
> 4. *general off peak traffic,*
> 5. *general peak time traffic.*

14 Policy T3 states that the Council will support proposals including improvements to the heavy rail infrastructure. This is further supported by paragraph 11.18 which acknowledges that improvements to heavy rail through the city is vital for increasing capacity of sustainable transport in the city.

15 Objective 6 sets out the overarching principles for the environment, seeking to protect and enhance both the natural and built environment of the city, and ensure

the sustainable use of natural resources. The policies contained within Objective 6 have guided the option selection, design and implementation of the proposal.

Salford Unitary Development Plan (2006) saved policies

16 The adopted planning guidance for Salford is contained within the UDP (Saved Policies Version). Of relevance to this application is Chapter 4 (Strategic Policies), 6 (Design), 11 (Accessibility) and 12 (Environmental Protection & Improvement).

17 Policy ST5 states that transport networks will be maintained and improved through a combination of the following measures:

a) the protection and expansion of the network of pedestrian and cycle routes,

b) the expansion and improvement of the public transport system and the enhancement of support facilities,

f) the protection and enhancement of rail and water-based infrastructure to support the movement of freight and passengers.

18 Policy ST13 seeks to protect natural environmental assets such as the River Irwell. A biodiversity study accompanies this application and appraises the impact as being neutral.

19 Design policy DES1 sets out that development should respond to its physical context, and DES2 contains principles for circulation and movement within developments.

20 Policy DES6 is relevant to waterside development, where all new development adjoining the River Irwell will be required to facilitate pedestrian access to, along, and where appropriate across the waterway. In addition, development will be required to protect or improve wildlife habitats, conserve and compliment any historic features, maintain/enhance waterside safety and not affect the maintenance or integrity of the waterway or flood defenses.

21 Policy A2 Cyclists, Pedestrians and the Disabled, states that:

Development proposals, road improvement schemes and traffic management measures will be required to make adequate provision for safe and convenient access by the disabled, other people with limited or impaired mobility, pedestrians and cyclists. The needs of these groups will also be catered for by:

i. promoting specific highway improvement and traffic management measures that increase safety for and afford greater priority to the disabled, other people with limited or impaired mobility, pedestrians and cyclists; and
ii. identifying, protecting and improving networks of key disabled, pedestrian and cycling routes.

Development that would result in the diversion or extinguishment of an existing public right of way will only be permitted where:

a. it can be demonstrated that adequate levels of access for the disabled, pedestrians and cyclists will be maintained to, around, and where appropriate, through the site; and
b. in the case of a public right of way that forms part of the city's Countryside Access Network, the proposal fully accords with Policy R 5 'Countryside Access Network' of this UDP.

22 Policy A4 promotes improvements to the City's rail infrastructure and services, through: v) measures that would improve the safety, speed and capacity of the rail network or relieve congestion upon it, whilst maintaining local services.

23 The following Environmental Protection and Improvement policies are relevant to the application: EN9 (Wildlife corridors), EN20 (River Irwell flood control), and EN23 (Environmental improvement corridors).

7 Consultation

1 The stakeholders listed below have been consulted over the proposed new bridge; together with formal public consultation undertaken as part of the Development Consent Order application to be made for the Ordsall Chord.

a) Cycle groups:

Greater Manchester Cycle Campaign

Love Your Bike.org

Salford Cycle Forum

Sustrans

b) Statutory Undertakers:

Electricity North West

National Grid

Openreach BT

United Utilities

Virgin Media

Vodaphone (formerly Cable & Wireless)

c) Peel Ports

d) Highways (MCC & SCC)

e) Bridge Engineers (MCC & SCC)

f) Local Planning Authorities (MCC & SCC)

g) English Heritage

Discussion

2 Network Rail consulted on its draft Application for the Ordsall Chord under the Planning Act 2008 from 3 May to 9 June 2013. Proposals for the diversion bridge were included in the consultation material, with feedback relating to the new cycle route limited to just two responses. MCC suggested that people are more likely to walk and cycle where routes are obvious, open, well signed and well lit, and in a green and pleasant environment, whilst SCC's comments related to the need to ensure design quality.

3 With regards to the diversion bridge itself, a number of formal meetings and informal consultation has taken place with representatives from both Councils and cycle groups, to ensure that the proposed changes to the cycle network are suitable and fit for purpose, both as a short term diversion (during construction of the Ordsall Chord) and longer term as a permanent addition to the cycle network. The following formal meetings were recorded:

a) 2 May 2013 (Cycle route: MCC and SCC)

b) 9 May 2013 (Cycle route: SCC, Salford Cycle Forum, a local cyclist and a local Councilor)

c) 22 May 2013 (Cycle route: MCC, Love Your Bike, Greater Manchester Cycle Campaign and Sustrans)

d) 21 June 2013 (Signage strategy: Sustrans)

e) 9 August 2013 (Cycle route and signage strategy: SCC)

4 The design of the diversion bridge has included consultation with all Statutory Undertakers affected by the removal of Prince's Bridge to ensure that their individual requirements are incorporated. The bridge design provides a number of ducts with carious diameters for the utilities to insert their asset through, which is achieved remotely from the structure. This means that if there is a need to repair and maintain any of the utilities on the bridge in the future then there will be no requirement to access the structure. All affected Statutory Undertakers have included provision for future demands.

5 Bridge engineers and highways officers from both Councils have been consulted through the design process, with the Approval in Principle drawings reviewed by MCC on 29 July 2013. It is anticipated that the new bridge, once complete, will be managed by MCC alongside the existing Castlefield bridge.

6 The two local planning authorities (SCC and MCC) have been included in consultation during the development of options for the Ordsall Chord and the diversion bridge. A separate pre-application meeting for the diversion bridge was held on 16 May 2013 with both LPAs in attendance.

7 English Heritage's view has been sought on the proposed new bridge, and they have indicated that it is unlikely that the development will have any significant impact on heritage assets or their setting given the distance of the proposal from the cluster of listed railway structures in Castlefield.

8 Conclusion

1 Development of the design philosophy for the new bridge provides a proposal that incorporates both the necessary utilities and offers the benefit of a new cycle and walking route separated from motorised traffic.

2 An analysis of the options for the diversion of utilities demonstrates that a holistic approach has been taken to the selection process, with the preferred option not only providing an essential route for services, but also enhancing movement and connectivity for pedestrians and cyclists.

3 In terms of planning policy, there is significant support for sustainable transport infrastructure, both in a local and national context. Whilst this application is not seeking approval for the wider development of the Ordsall Chord, it is an important element required to facilitate the scheme, and meets policy aspirations for improved connectivity for pedestrians and cyclists when considered in isolation.

4 As advanced works taking place before a decision is made on the Ordsall Chord TWA Order application, it is acknowledged that the development of the bridge and associated cycle route amendments are being undertaken at risk. However, should the Order be granted, there will be significant advantages to the overall construction programme. If the Order fails or the Ordsall Chord project isn't progressed for any reason, then the new bridge will have a lasting benefit in providing a new separate route for cyclists and pedestrians improving connectivity within the urban core of Salford and Manchester, and there will be no detrimental impact on local amenity or future development prospects within the surrounding areas.

Appendix A

16 DIVERSION OF UTILITIES

16.1 Introduction

16.1.1 This chapter collates the findings of the assessment of impacts arising from the diversion of utilities required as an ancillary activity to the wider Ordsall Chord development. The diversion of utilities will be undertaken by statutory undertakers and is provided for in the TWA Order for the Ordsall Chord. However, it is anticipated that the Statutory Undertakers will seek to carry out works in advance of the Order being made. In which case, it will be necessary for consent to be sought from the Local Planning Authority. The assessment has been undertaken as part of the technical disciplines in each of the preceding chapters, but is presented in this standalone chapter to aid the consideration of any subsequent application and potential associated environmental impacts.

16.1.2 This chapter should be read in conjunction with the preceding chapters, as they provide information on the study area and the assessment methodology. The details of the diversion are contained in the Ordsall Chord Utility Diversion Management Report, which is currently being prepared. The report will be provided in Appendix 16.1 of the final submission.

16.1.3 The Project Description chapter outlines the diversion of utilities proposed, and has been included as part of the assessment in the preceding chapters. This chapter therefore outlines only those effects that would result in respect of the diversion of utilities alone, as all other effects have been discussed in relation to those arising from the development of the Ordsall Chord in the preceding chapters.

16.2 Baseline

16.2.1 At present, Prince's Bridge carries six known utilities across the River Irwell; including 24" water and 18" gas mains. There are thirteen utilities in the vicinity of the Water Street/ Liverpool Road junction to Potato Wharf. There is also a large diameter brick sewer near Middlewood (L&MR) viaduct.

16.2.2 There is a requirement to divert and protect these utilities due to the removal of Prince's Bridge, the abutment widening at the Water Street/ Liverpool Road junction and the tying in of the Ordsall Chord to the Middlewood (L&MR) Viaduct.

16.3 Assessment of Potential Impacts and Significance of Effects

16.3.1 To guarantee that services are not disrupted unnecessarily, the utility diversions will be completed prior to any construction activities.

16.3.2 Determining the optimum diversion route has been the subject of discussions between utility operators and Network Rail, and has been informed by the results of the environmental surveys undertaken as part of this EIA. At present, the preferred option, and that which is being progressed and considered in the EIA is located adjacent to Castlefield Bridge so as not to impact on this structure (subject to wayleave agreements).

16.3.3 The assessment of impacts has been collated in Table 16.1 below.

Table 16.1: Assessment of Potential Impacts

Discipline	Assessment of Potential Impact
Ecology and Nature Conservation	The mitigation measures proposed for the construction of the Ordsall Chord will apply to the diversion of utilities. As a result, no significant adverse effects on ecology and nature conservation are anticipated; subject to the results of 2013 Bat and Badger surveys.
Archaeology and Cultural Heritage	The diversion route proposed has the potential to directly affect one heritage asset (Hanley Dye Works; Site 119) during the construction phase. The effect on this asset has been assessed as moderate and will be adverse and permanent.
Townscape and Visual Amenity	The mitigation measures proposed for the construction of the Ordsall Chord will apply to the diversion of utilities. As a result, no significant additional adverse effects on townscape and visual amenity are anticipated.
Air Quality	The mitigation measures proposed for the construction of the Ordsall Chord will apply to the diversion of utilities. As a result, no significant additional adverse effects on air quality are anticipated.
Noise and Vibration	The construction activities required for the diversion of utilities will not result in significant increases in noise and vibration levels. Therefore, no significant effects are anticipated.
Water Environment	The potential for adverse impacts on the water environment will be avoided through appropriate design, in accordance with the requirements of the EA and Peel Ports Authority.
Geology, Soils and Land Contamination	The diversion of utilities has the potential to result in major significant effects. These include the potential for ground gas to accumulate in confined spaces and for mobilisation of contaminants into the groundwater and subsequently migration to the River Irwell through the disturbance of soil. Ground gas monitoring data available to date and descriptions of made ground indicate that gas concentrations are generally low. Mitigation measures will ensure that contaminants are not migrated to the River Irwell. Therefore, no significant

Table 16.1: Assessment of Potential Impacts

Discipline	Assessment of Potential Impact
	effects are anticipated.
Resource Use & Waste	The construction activities required for the diversion of utilities will not result in significant amounts of waste arisings. Therefore, no significant effects are anticipated.
Traffic and Transport	The construction activities required for the diversion of utilities will be factored into the traffic management measures required for the Ordsall Chord. No significant effects are anticipated on the surrounding transport network. This assumes that the diversions are undertaken as advance works ahead of the main construction programme.
Socio-economics	The diversion of utilities will not result in significant effects. The activity is limited in extent, scale, duration and the skills required to divert the utilities are readily available.

16.4 Mitigation Measures

16.4.1 This section sets out the mitigation that will be implemented to reduce the potential impacts that were identified during the assessment. The mitigation strategy follows the guidelines set out in DMRB, Volume 11, Section 3, 5.11. Impacts are only anticipated on cultural heritage features.

Construction Impacts

16.4.2 The potential impacts during construction consist of direct permanent impacts and of temporary impacts as a result of visual impacts on standing structures during the construction works. Each of these different types of impact requires a different approach to mitigation.

Archaeological Watching Brief

16.4.3 Preservation by record in advance of ground works will mitigate any direct physical impacts on heritage assets of archaeological interest. This will mitigate impacts resulting in permanent damage or destruction.

16.4.4 Preservation by record during an Archaeological Watching Brief will mitigate any impacts on heritage assets that survive as sub-surface remains. Such as the foundation levels of buildings that have been previously demolished. The diversion of utilities is predicted to result in direct effects on Site 119 only.

Operational Impacts

16.4.5 No impacts are anticipated during operation.

16.5 Residual Effects

16.5.1 Following the implementation of the mitigation measures proposed for the construction period, it is considered that all impacts will be neutral i.e. no residual effects.

16.5.2 There are no residual effects for the operational phase of the works.

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