



Planning Act 2008

The Network Rail (Ordsall Chord) Order

Section 42 Consultation Pack

Appendix B Initial Environmental Information

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1 INTRODUCTION

This document provides initial environmental information for a proposed new section of railway, the Ordsall Chord, which is an important project in its own right, with a self-standing business case. In a wider context it is also the first part of a programme of schemes to up-grade the rail network in the North of England known collectively as the Northern Hub.

It also provides baseline information for the Environmental Impact Assessment (EIA) that will be completed for the development application to the Infrastructure Planning Commission (IPC).

The Ordsall Chord would be located on the edge of Manchester city centre, crossing both the River Irwell (that forms the boundary between Manchester and Salford) and the Manchester Inner Ring Road (IRR). It would also be situated close to the Museum of Science and Industry (MOSI) and its associated historical railway buildings and to Castlefield (the former Roman centre of Manchester). An aerial photograph of the general area of the works is included as Figure 1.

Figure 1 Aerial Photograph of the Site of Proposed Works



Existing railway lines within the site are shown on Figure 2. The Ordsall Chord Bridge (a bridge across the Irwell for pedestrians and cyclists) and replacement with a new footbridge.

The construction of Ordsall Chord would allow trains arriving at Manchester from the east to reach Manchester Airport by allowing trains to travel directly between

Manchester Victoria and Manchester Piccadilly (freeing capacity at this station), via Manchester Oxford Road. would link the Bolton line and the Chat Moss line, as shown on Figure 3; the railway would run on a combination of new and existing bridges and viaducts. This would require construction of new bridges across the River Irwell and IRR, that would connect into listed bridges and viaducts associated with the former Liverpool Road Station. The development could also include the demolition of the existing Princes

2 METHODOLOGY

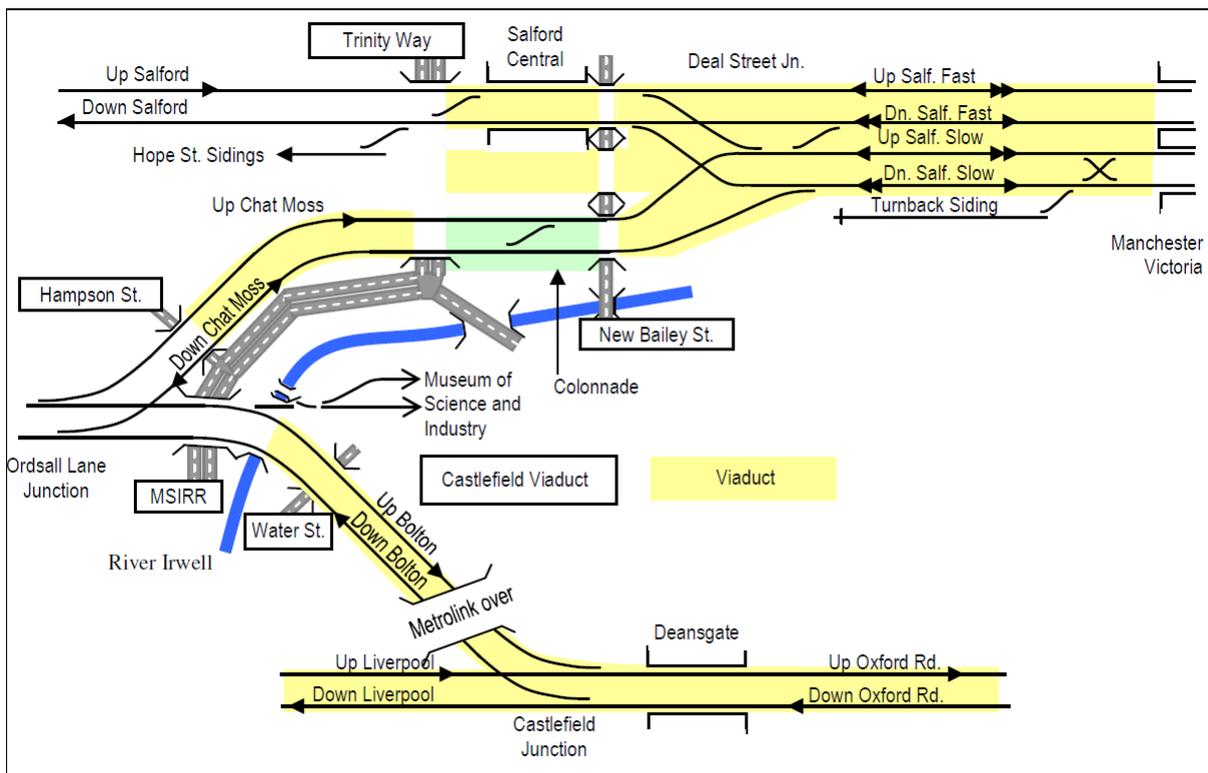
The report is based on a desk based study completed using information from a Landmark Envirocheck Report, internet based data from the Multi Agency Geographical Information for the Countryside and DEFRA (Air Quality Management Areas and noise maps), the Middlewood Locks Environmental Statement (ES) and relevant local planning documents from both Manchester City Council (MCC) and Salford City Council (SCC). Figure 4 page 11 defines the study area.

Initial consultations have been undertaken with English Heritage, the Environment Agency, Natural England, Manchester City Council (MCC), Salford City Council (SCC), the Greater Manchester Archaeological Unit (GMAU) and the Greater Manchester Ecology Unit (GMEU), South Lancashire Bat Group and Greater Manchester Bird Group. Records and baseline information has been provided by a number of these organisations. GAMU provided additional reference materials for the Liverpool Road Station complex and historic Manchester.

3 THE SITE AND SURROUNDING LAND USE

In the area of the proposed new railway the Chat Moss, Bolton and Salford railway lines all run at a raised level, on underbridges and viaducts of varying age and construction. In addition to these lines, there are sidings leading into MOSI from the Bolton line (part of the original Liverpool-Manchester line), and the Chat Moss and Salford lines run through Salford Central Station.

Figure 2 Existing Railway Lines



Existing Layout Diagram

There are four bridge crossings of the River Irwell, which carry the Bolton Line, the MOSI siding connections, and Hampson Street on the Princes Bridge. Princes Bridge is used by pedestrians and cyclists and provides a connection between Manchester and Salford.

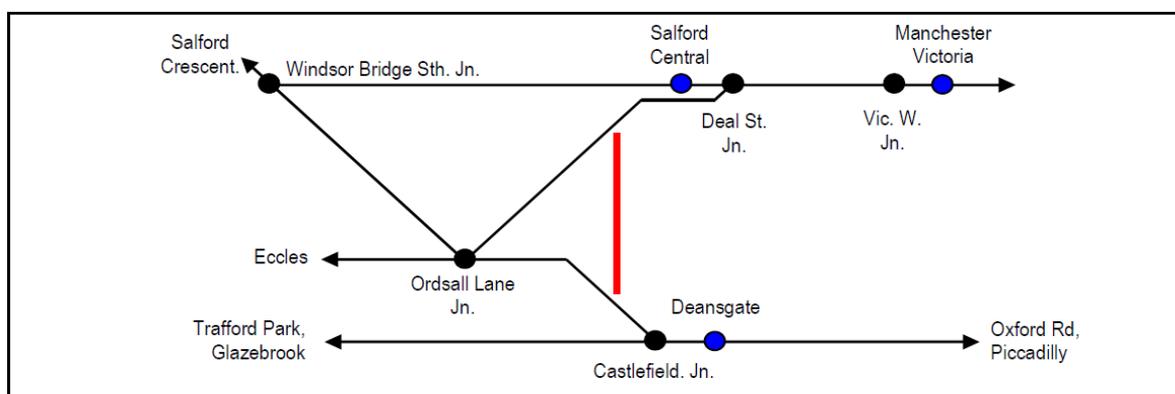
Streets in the local area (in addition to the IRR) include Liverpool Road, Water Street, East Ordsall Lane and New Bailey Street. Other land uses in the area of the proposed development include the (currently disused) Manchester, Bolton and Bury Canal, derelict plots of land, several surface car parks, a number of residential flats and former Liverpool Road Station buildings that form part of MOSI. In addition there are a number of commercial operations, some of which are located in arches beneath the viaducts, the Granada Studios and the Castlefield Arena.

Several conservation areas (both in Manchester and Salford) are located across or near to the site and there are also a large number of listed buildings in this area of the city.

The River Irwell corridor is used for recreation, including fishing, cycling, walking and rowing. Whilst the area is not a nationally or locally designated ecological site, the river is acknowledged as a wildlife corridor in current local planning policy. Vegetation across the site is limited and of relatively little ecological value.

The Salford Central, Greengate Exchange and Middlewood Locks development proposals all extend across parts of the Site and may be developed during the same timeframe as the Ordsall Chord. The Water Street development is located adjacent to the Site and is also likely to come forward in the next few years.

Figure 3 The Ordsall Chord



4 ENVIRONMENTAL ISSUES

A summary of the environmental impacts for the proposed Ordsall Chord development is included below.

Townscape and Visual Amenity

There are no national townscape / landscape designations in the area of proposed works. The corridors of the River Irwell and the IRR and their associated bridges and viaducts dominate the local townscape. In addition to these linear features there is a surrounding network of streets, with buildings that vary significantly in scale, density, style and use, and open spaces, including areas of surface parking and plots awaiting redevelopment. The character of Liverpool Road is of generally low architectural value with the notable exception of the MOSI buildings and railway viaducts, which add interest. To the north of the river, the IRR is a largely featureless transport corridor that creates a barrier for pedestrians and cyclists, though diverts a significant volume of traffic away from and around the city centre.

People who may experience views of the new railway (and associated construction works) include city residents, occupants of local hotels and offices, tourists, users of the existing rail network, drivers on the local road network (particularly those using

the IRR) and leisure users of the River Irwell. The closest residential properties are the three storey flats at the junction of Liverpool Road and Water Street. More distant views of the site are also likely to be available from a number of apartment blocks e.g. those located off East Ordsall Lane and on the northern bank of the Irwell.

The construction period is approximately two years; during that period any demolition and construction works would take place and during that period there would be potential for significant negative, albeit temporary, impacts to local townscape character. There would also be potential for indirect impacts on the setting of the Irwell River corridor, the western end of Liverpool Road and the associated MOSI complex. Key views from heritage features such as the Castlefield Conservation Area, and a number of local visual receptors could be affected.

Once complete the Ordsall Chord would introduce a new structure to the site and increase the level of railway activity in the local area. The local townscape character is considered unlikely to change significantly given the bridges already present and ongoing rail operations. There is the potential to improve the local townscape and key views if a high quality design is progressed.

Built Heritage

The Castlefield Conservation Area extends across the proposed area of development and there are a number of listed buildings within the site and local area. These include the Stephenson designed bridge across the River Irwell, which is Grade I listed, the former Liverpool Road railway station and station masters house which are also Grade I listed and the Grade II* listed southern railway viaduct and colonnade at Salford Central Station. Over 450 buildings of listed status or buildings and monuments of local interest have been recorded on or within 250m of the study area. There are no Scheduled Monuments (SM) within the site itself, but the SM 'Remains of Eastern Wall of the Roman Fort' are located approximately 300m from the site.

The Ordsall Chord may require alterations to the Grade I and Grade II listed bridges across the River Irwell, which would be a direct negative impact. Significant justification for works to the listed bridges would be needed. Further consultation with English Heritage and a full assessment of the architectural and historical significance of the structures in the area of proposed development is recommended. Significant built heritage impacts, during both construction and operation of the Ordsall Chord, may also result from impacts on the Castlefield Conservation Area and other conservation areas in proximity to the site – including the Flat Iron and St. John's Conservation Areas; and impacts to the Liverpool Road Station Group and a number of other listed buildings and identified local features of historical importance.

Archaeology

Given the proximity of the Castlefield Conservation area and the Liverpool Road Station complex, there are a number of known archaeological sites in the vicinity of the proposed area of works. There is therefore considered to be high potential for archaeological remains to be present, though earlier deposits are likely to have been

disturbed or damaged to some degree by previous development including the construction of the existing bridges and the IRR.

Any potential negative impacts would occur during the demolition and the construction phase. There is potential for disturbance of in-situ deposits (below ground and within the river) during construction of the new bridges. Further study, starting with a detailed desk-based assessment (DBA), will be required to determine the potential significance of such impacts and the mitigation to be implemented. The scope of this assessment and any subsequent further investigation would be agreed with the GMAU.

Traffic and Transport

Given the existing volumes of traffic on the local road network, construction traffic associated with the development is considered unlikely to result in a significant increase to overall traffic volumes (with the possible exception of East Ordsall Lane and Hampson Street).

During the construction works a number of temporary traffic management measures and road closures may be required to allow construction of the new railway structures, specifically at Water Street and the IRR (Trinity Way). Road closures at night and timing of works outside of peak seasonal periods could be used to minimise potential disruption but some impacts to users of the local road network, including pedestrians and cyclists, are anticipated.

Construction of the Ordsall Chord is also likely to result in some disruption to train services, with the possibility of replacement bus services being required during track possessions. However, once the chord was operational the improved rail capacity and service times would be likely to result in long term benefits.

The proposed development would require the temporary loss of some existing car parks, which would be used as construction compounds and lay down areas. Other car parks in the city are considered to have suitable capacity for the likely increase in demand, though suitable signage and advance notification of the works would be needed to minimize the effects of these changes.

Air Quality

The proposed section of new railway is located within Air Quality Management Areas (AQMA) in both Manchester and Salford. The AQMAs have been set because of the high volumes of local road traffic and associated exhaust emissions. Local residents and places where members of the public would regularly be present e.g. people using the River Irwell and visitors to the Castlefield Arena or MOSI may be affected by changes to air quality resulting from the development.

The demolition and the construction works may generate dust and fumes, from specific activities such as unloading of materials and from plant and equipment. However, providing the works follow best practice to manage dust generation no significant impacts are predicted. The appointed contractor will be required to prepare and implement an environmental management plan.

Once Ordsall Chord was operational there would be an increase in the number of trains on the local rail network; the majority of which would be electric and therefore without local air quality impact. However, there may also be a small increase in the number of diesel freight trains using the local rail network. Whilst rail traffic accounts for only a small proportion of emissions in the Manchester area, given the location of the Site in the AQMAs, even a relatively small increase in diesel emissions could result in air quality impacts. This would require further consideration as part of the EIA.

The Ordsall Chord could result in a reduction of journeys by private vehicle due to greater use of the train network. This would require further assessment once Network Rail has calculated the potential changes to local and regional train services and travel patterns.

Noise and Vibration

Noise maps for the local area (obtained from DEFRA) show that the traffic from the local road and rail networks is significant and results in high background noise levels. The closest residential receptors to the Site are the three storey properties at the junction of Liverpool Road and Water Street, but a number of additional apartment blocks are located in the vicinity of the Site. Other potential noise sensitive receptors include occupants of local hotels and offices, recreational users of the Irwell corridor, visitors to the Castlefield Arena and MOSI and the Granada television studios.

Should it be required the demolition of the Princes Bridge would be likely to result in some short term temporary noise impacts on local receptors. During construction, noise would be generated from the main construction activities in the area of the River Irwell and IRR; from the track works required across the site and wider area; and from construction vehicle movements on the local road network. There would also potentially be changes to road traffic noise levels on the local network due to re-routing during temporary street closures or traffic management measures. All have the potential to impact local noise-sensitive receptors. Night-time and weekend working is also likely to be required which could result in more noticeable levels of construction noise than generated during daytime hours.

Operational train movements on the Ordsall Chord would generate noise, including engine noise (if diesel trains use the chord) and a range of sounds from the train wheel – track interface. Whilst design measures could be included to minimise track noise there would be an increase in the overall number of train movements in the area. Further detailed assessment would be required to determine whether operational railway noise would have any impact on local receptors.

Ground Conditions and Contamination

The city centre location and ‘brownfield’ nature of the site means there is potential for contamination sources to be present on and in the area of the proposed new railway. Historical Ordnance Survey maps show a number of potential historical sources of contamination in the local area, including railway goods yards, a gas works, ironworks, numerous engineering works, a scrap yard and rubber works. The geology underlying the site and local area is understood to comprise sands and gravel deposits associated with the River Irwell over Sandstone bedrock, which is

designated as a primary aquifer. A Phase 1 assessment of potential contamination, considering all sources, pathways and receptors, will be completed as part of the EIA, and any ground investigation and remediation undertaken as necessary to make sure the site is suitable for use.

During the demolition and the construction works there is potential for removal of contaminated materials, reducing contamination sources on-Site, a positive impact. There is also the potential to mobilise contamination, or introduce potential pollutants to the site and local receptors. Implementation of an Environmental Management Plan (EMP) for the works should avoid any significant impact.

Once operational, the development would result in minimal impact providing suitable protective measures are included for any landscaping and existing Network Rail procedures for ballast and train maintenance are followed.

Drainage and Flood Risk

The River Irwell drains into the Manchester Ship Canal (the canalised lower section of the River Irwell). According to the Environment Agency (EA) floodzone maps parts of the site adjacent to the Irwell are located in Floodzone 2 i.e. are at medium risk of flooding. This is confirmed by the floodzone map in the Level 1 Strategic Flood Risk Assessment prepared by the local authorities. A section of the IRR, in the vicinity of the junction with Hampson Street i.e. the area of proposed construction works, has been identified as being susceptible to overland flooding during an extreme rainfall event. A site specific Flood Risk Assessment (FRA) will be completed for the development in accordance with national planning policy requirements. The FRA will also consider the proposed bridge deck levels and pier construction; the EA has set a minimum soffit level for the new bridges, which includes an allowance for climate change.

There is a potential for a temporary increase in local flood risk during the demolition and construction works, due to the works required within the river to remove the Princes Bridge and construct the new bridges. The development would result in small changes to local drainage patterns and surface water run-off rates during both construction and operation. As there would be no significant permanent increase in the area of hardstanding across the Site, impacts on surface water run-off and associated flood risk are not anticipated to be significant.

The development provides the opportunity to review trackside drainage and local surface water drainage systems within the Site; attenuation measures or sustainable drainage systems could be introduced to help locally reduce flood risk.

Ecology

There are no statutory ecological designated sites on or in the vicinity of the site, though local planning policy acknowledges the River Irwell to be a local wildlife corridor and the Irwell River Park programme of investment is intended to protect and enhance the corridor. The Environment Agency has noted that the lower Irwell supports a mixed coarse and brown trout fishery and is an important ecological network and corridor for wildlife. Vegetation across the Site is generally limited, but several of the structures within the site and local area are likely to provide nesting

and foraging habitat for birds and roosting sites for bats. Records provided by the GMEU show a bat roost (Daubentons) to be present in the area of the proposed new bridges. A full Phase 1 Habitat Survey and further protected species surveys (as appropriate) will be completed as part of the EIA and mitigation measures developed accordingly.

The development of the Ordsall Chord may result in a number of ecological impacts. There is the potential for loss of habitat, through disturbance to habitats or species during demolition and construction works, temporary and permanent changes to the river habitat, including shading, and potential damage or disturbance to bat roosts and disturbance of nesting birds. There is also the potential for positive impacts through a high quality landscape design for the appropriate areas of land within the site, which encourages biodiversity.

Conclusion

This study has considered and identified potential environmental constraints for the development in relation to the following:

- Townscape and visual amenity
- Built heritage and archaeology
- Transport
- Air quality and noise
- Ground conditions and contamination
- Flood risk, and
- Ecology

At this early stage of project development and allowing for measures that will reduce or avoid the impacts, built heritage, traffic and noise are considered to be the most likely to cause impact. This will be confirmed as part of the EIA the findings of which will be reported in the Environmental Statement as part of the application.

Figure 4 – The study Area.

