

Temporary Liverpool Cruise Terminal

Transport Assessment

Report



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Job No. NW 90539

Report No. 001

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Status FINAL

Issue No. 002

Date 3 February 2012



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Contents Amendments Record

This document has been issued and amended as follows:

Status/Revision	Revision description	Issue Number	Approved By	Date
DRAFT		001	Phil Sapiro	24/10/2011
FINAL		002	Phil Sapiro	3/2/2012



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1 Introduction

- 1.1 JMP Consultants Limited [JMP] has been commissioned by Royal Haskoning to develop a Transport Assessment [TA] in support of an application for a temporary cruise terminal in Liverpool.
- 1.2 The site, known as the Princes Dock Plot 7¹, is located in Liverpool City Centre adjacent to Princes Parade and is accessed via St Nicholas Place. The site lies within the City of Liverpool and is currently owned by Peel Holdings. The site which is currently disused and formally used as a waiting area for cars boarding the Isle of Man ferry and lies within land which is currently being considered as part of the wider development proposals known as Liverpool Waters.
- 1.3 The Liverpool Waters proposal consists of a 60 hectare site stretching from Bramley Moore Dock in the north to Princes Dock in the south. The scheme will comprise mixed use development consisting primarily of residential and commercial premises. The development will come forwards in a series of phases over a 30 year period; it is envisaged the development will be fully complete by 2041.
- 1.4 The current proposal is for the construction of a temporary cruise terminal. The development will be self contained and include all baggage handling, customs, servicing, storage and berthing facilities required to be the starting and ending port for cruise voyages.
- 1.5 There are currently two accesses to the site, from St Nicholas Place and Princes Parade.
- 1.6 The new temporary cruise terminal for Liverpool is being proposed to attract more international cruise ships to visit Liverpool. The development would allow cruise ships to start and finish cruises in Liverpool, in addition to Liverpool being a calling point on cruises (which can already be accommodated at the existing facility).
- 1.7 The purpose-built terminal will be used by passengers beginning and ending their cruises in Liverpool (turnaround visits); the operation for cruise ships which visit en route (transit visits) will not be affected. The Transport Assessment will consider the operation of the proposed temporary cruise facility on existing infrastructure.
- 1.8 The temporary terminal will serve a range of ship sizes with a typical capacity of 600 passengers and a maximum capacity of 1,200 passengers.
- 1.9 This Transport Assessment follows the guidelines as set out in the DfT document 'Guidance on Transport Assessment' (2007).
- 1.10 Accordingly the document is split into the following sections:
 - Section 2: Policy Context;
 - Section 3: Baseline Conditions;
 - Section 4: Proposed Development and Access Arrangements;
 - Section 5: Cruise Terminal Operation Trip Generation and Distribution;
 - Section 6: Conclusions

¹ Please note that in the Liverpool Waters Masterplan, this site is referred to as Plot 1A within Neighbourhood A (Princes Dock). It is also worth noting that this proposed cruise liner use can be delivered in transport terms without compromising the wider masterplan for Princes Dock in terms of transport generating uses.

2 **Policy Context**

Overview

2.1 This section of the report reviews the current transport planning policy context of the proposed temporary Liverpool cruise terminal development. Relevant national, regional and local policy guidance is identified and summarised and the conformity of the development proposals assessed.

National Policy

- 2.2 Department of Communities and Local Government [CLG] issues both Planning Policy Statements [PPS] and Guidance [PPG] Notes which set out the Government's policies in relation to various aspects of planning. The Planning Policy Notes relevant to this proposal are:
 - PPS1: Delivering Sustainable Development; .
 - PPS3: Housing; and .
 - PPG13: Transport. .

PPS1: Delivering Sustainable Development

- 2.3 PPS1 was published in 2005 as a replacement for PPG Note 1: General Policies and Principles. It sets out the Government's national policies on different aspects of land use planning in England. PPS1 establishes the overarching planning policies on the delivery of sustainable development through the planning system.
- 2.4 Within the objectives set out in PPS1, it is stated that planning should facilitate and promote sustainable and inclusive patterns of urban and rural development by "making suitable land available for development in line with economic, social and environmental objectives to improve people's quality of life" whilst also "ensuring that development supports existing communities and contributes to the creation of safe, sustainable, liveable and mixed communities with good access to jobs and key services for all".
- 2.5 PPS1 states that planning for sustainable development requires a number of vital factors to be adhered to; social cohesion and inclusion, protection and enhancement of the environment, prudent use of natural resources, sustainable economic development and integrating sustainable development in development plans.

PPG13: Transport

- 2.6 PPG13 sets out the national planning policy framework for transport issues. The guidance builds on policies developed within the 1998 Government White Paper, "A New Deal for Transport: Better for Everyone" [DETR] which highlighted the need to deliver an integrated transport policy and sustainable development patterns.
- 2.7 The most recent version of PPG13 was published in March 2001 and updated in January 2011 and contains the core aim of increasing co-ordination between land use planning and transport, at the national, regional and local level. It also emphasises the need to reduce the need to travel, especially by car. Thus, travel by foot, cycle and public transport should be promoted within new developments.
- 2.8 PPG 13 contains a number of key objectives; These are to:

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"...promote more sustainable transport choices for both people and for moving freight;

...promote accessibility to jobs, shopping, leisure facilities and services by public transport, walking and cycling; and

...reduce the need to travel, especially by car." (Paragraph 4)

- 2.9 When preparing documentation plans and considering planning applications, local authorities are also advised to:
 - "...ensure that development comprising jobs, shopping, leisure and services offers a realistic choice of access by public transport, walking and cycling...,
 - ...use parking policies, alongside other planning and transport measures to promote sustainable transport choices and reduce the reliance on the car for work and other journeys." (Paragraph 6)
 - "...seek to make maximum use of the most accessible sites, such as those in town centres and others which are, or will be, close to major transport interchanges." (Paragraph 21)
- 2.10 PPG 13 provides considerable guidance and commentary on the role of maximum parking standards for new development, reflecting the fact that car parking has a major influence on transport mode choice. The guidance strongly indicates that:
 - "Levels of parking at new developments should promote sustainable transport choices;
 - Developers generally should not be required to provide more spaces than they wish;
 - Shared use of public and private parking should be encouraged where peak levels of parking demand do not coincide."
- 2.11 With regard to transport assessments, PPG13 states the importance of demonstrating that the development is accessible by a range of transport modes, including public transport, walking and cycling. The assessment must include reference to; journey times, public transport frequency, quality, safety and access for disabled people.
- 2.12 PPG13 also provides specific guidance in relation to the sustainability of travel to and from the site noting that,
 - 1. "Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly those under 2km."
 - 2. "Cycling also has potential to substitute for short car trips, particularly those under 5km, and to for part of a longer journey by public transport."

Department of Communities and Local Government (2011) - National Planning Policy Framework (Draft for Consultation)

2.13 The document which sets out the Government's requirements for the planning system aims to replace all Planning Policy Guidance notes (PPG) and Planning Policy Statements (PPS) with a single document and. It provides a framework within which local people and their accountable councils can produce their own distinctive local and neighbourhood plans, which reflect the needs and priorities of their communities. Regarding transport the framework sets out that development should be in highly accessible and sustainable locations.

Local Policy

Merseyside Local Transport Plan 2011 - 2015

2.14 The third Local Transport Plan for Merseyside (LTP) provides the statutory framework for the policies and plans that will guide the future provision of transport in Merseyside. The vision for transport on Merseyside is:

"A city region committed to a low carbon future, which has a transport network and mobility culture that positively contributes to a thriving economy and the health and wellbeing of its citizens and where sustainable travel is the option of choice."

- 2.15 In order to support the city region and achieve the vision the LTP has six key goals:
 - Help create the right conditions for sustainable economic growth by supporting the priorities of the Liverpool City Region, Local Enterprise Partnerships and Local Strategic Partnerships.
 - Provide and promote a clean, low emission transport system which is resilient to changes to climate and oil availability.
 - Ensure the transport system promotes and enables improved health, wellbeing and road safety.
 - Ensure equality of travel opportunity for all, through a system that allows people to connect easily with employment, education, healthcare, other essential services and opportunities.
 - Ensure the transport network supports the economic success of the city region by the efficient movement of people and goods.

Maintain our assets to a high standard.

Ensuring a Choice of Travel – Supplementary Planning Document

2.16 The Supplementary Planning Document (SPD) has been developed to provide developers with guidance on access and transport requirements for new development across Merseyside. The document which was prepared in partnership by Merseytravel and the five Merseyside Local Authorities contains the key objective of;

'Enable the provision of a balanced transport infrastructure which provides access to employment, leisure, retail and other facilities for the city's residents and visitors; and

Provide a framework for future investment in the City's strategic road and rail network where new development would create additional demand'.

The document contains guidance on;

- ü Minimum Accessibility Standard Assessment (MASA)
- ü Parking Standards
- ü Transport Assessments
- ü Travel Plans
- ü Air Quality

Conclusion

2.17 There are numerous relevant national policy documents and guidance relating to transport and in particular sustainable transport. This transport assessment has been prepared in consideration of the documents outlined.

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3 Baseline Conditions

Site Location

3.1 The site, known as Plot 7, is located within Liverpool City Centre. The site is bordered to the east by the A5052 and A5036 and the River Mersey to the west. The site lies within the administrative boundary of Liverpool City Council. The location of the site is shown in Appendix A as Figure 3.1.

Existing Land Use

3.2 The site which is currently disused is owned by Peel Holdings and has most recently been used as waiting area for cars waiting to board the Isle of Man Ferry.

Overview of Surrounding Area

Strategic Highway Network

3.3 The site lies to the west of New Quay and Georges Dock Gates, which form part of the Liverpool Inner Ring Road. Major radial routes connect to the Inner Ring Road at various points making the site accessible from a wide range of destinations and the national motorway network without the need to pass through the heart of the City centre or use unsuitable highway links.

Local Road Network & Site Access Points

3.4 The St Nicholas Place / New Quay / George's Dock Gates junction in the vicinity of the Liver Building is the southernmost access junction to the site. St Nicholas Place becomes Princes Parade in the vicinity of the Isle of Man ferry terminal (note that Princes Parade is not part of the adopted highway network). Princes Parade then continues northwards parallel to the Mersey with the cruise liner berth to the west for some 200m. The carriageway then bears eastwards; Princes Parade joins William Jessop Way which forms a roundabout junction with Bath Street providing access to this part of the development site to/from the north.

Local Parking Controls

- 3.5 The area in and around the proposed development is governed by a Controlled Parking Zone. Parking places in the Controlled Parking Zones are marked out as boxes with broken parallel white lines.
- 3.6 Signs are in view at every entry point into the Zones and display the hours when parking control is in force (8am to 6pm everyday). All on-street parking within the zone is reserved for permit holders, or operates as short stay Pay and Display parking.

Walking / Cycling Routes and Facilities

- 3.7 Pedestrian provision within the Princes Dock is of a high standard. The area was recently regenerated and the infrastructure is relatively new and of a high quality.
- 3.8 Pedestrian provision on St Nicholas Place is good with formal crossing points and dropped kerbs provided where necessary. A controlled crossing of good design is located adjacent to Chapel Street enabling pedestrians to access the southern end of Princes Dock from the city centre. The crossing at this location experiences high volumes of pedestrian movements throughout the day.

- 3.9 PPG13 states that for distances under two kilometres walking offers the greatest potential to replace the use of the car,
- 3.10 "Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly those under 2km." (Paragraph 75 PPG 13).
- 3.11 There is clearly considerable variation in what may be regarded as an acceptable walking distance. The IHT Guidelines for Providing Journeys on Foot (IHT 2000) provides more comprehensive advice. For example the suggested acceptable walking distances for town centres is given as a range, from a desirable 200m to a preferred maximum of 1,200m.
- 3.12 In terms of commuting journeys by foot, the desirable distance is 500m, the acceptable distance is 1,000m and the preferred maximum is 2,000m. However, the distance that people are prepared to walk depends upon many factors. There are obvious physical factors such as age, health and disabilities, and there are factors concerning the quality of the route and the environment.
- 3.13 Figure 3.2 in Appendix B shows the 500m, 1km and 2km walking isochrones for the site. From this it can be seen that there are a number of key destinations within reasonable walking distance of the site (including the whole of the City centre).
- 3.14 The junctions around the site all benefit from wide pedestrian footways, dedicated signalised pedestrian crossing facilities and tactile paving. As such, this should make walking to the site an attractive proposition for employees based at the Terminal.
- 3.15 Merseyside has excellent provision for the integration of bicycle journeys with public transport. Bicycles are carried without charge at all times on the Merseyrail and City Line Networks and on Mersey Ferries. Bicycle parking has been installed at many of the stations and ferry terminals.
- 3.16 Figure 3.2 also shows the 2.5km and 5km cycling isochrones for the site. From this it can be seen that a number of key local destinations are within cycling distance of the site. Although not relevant to passengers using the terminal cycling may provide a realistic travel option for employees working at the terminal.

Public Transport

Existing Bus Services

- 3.17 The bus services that service the site's locality are considered in this section, looking at the destinations served and the condition of the existing infrastructure.
- 3.18 PPG13 states that developments should be located at or near public transport networks and as such the development site benefits from being located immediately opposite the bus stop for the C2 Liverpool City Circular service.
- 3.19 The C2 Merseytravel subsidised service links Princes Parade and Paisley Street with Moorfields railway station, Lime Street railway station, Queen Square bus station, James Street railway station and the Mersey Ferries. The service operates in each direction every 20 minutes every day of the week.
- 3.20 The C1 (clockwise) / C3 (anticlockwise) Merseytravel subsidised service links New Quay and King Edward Street on a circular route spanning from Chisenhale Street in the north, Crown Street in the east, and Parliament Street in the south and serving Queen Square bus station, Lime Street

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railway station, Royal Liverpool hospital, James Street railway station, and the Mersey Ferries. The service runs every 30 minutes in each direction every day of the week.

- 3.21 The recommended walking distance from a development to a bus stop by IHT in their 'Guidelines for Planning for Public Transport in Development' is 400m. The walking distances from the development site to the local bus services are therefore well within the recommended distance.
- 3.22 Other bus stops located within the vicinity of the proposed development include Mann Island, Water Street, James Street, and The Strand all of which are located within 600m of the site. Routes serving large areas of Liverpool and other localities call at one or more of these stops.
- 3.23 Table 3.1 below details the destinations served by bus routes identified.

Table 3.1 Bus Destinations and Frequency

Service Number	Origin	Destination	Frequency per hour
C2	Canada Boulevard (Mersey Ferries)	City Centre (circular)	3

Rail Travel

National Rail Network

- 3.24 Liverpool Lime Street Station is the mainline railway station for Liverpool; it is the final terminal for the majority of regional arrivals to the city. The station is located in the heart of Liverpool City Centre opposite St Georges Hall. Lime Street Station is the main national and regional train station. A plan showing the station's location in relation to the development site is shown in Figure 3.3
- 3.25 Although Lime Street is located somewhat further away than the 800m recommended distance, local rail stations where interchange is possible to Lime Street are located in closer proximity than this (as discussed later in this section). Existing bus services already connect to the Princes Dock / King Edward area with the Lime Street area.
- 3.26 Trains from Liverpool Lime Street call at multiple regional and national destinations. The majority of national train stations can be accessed either directly or indirectly from Liverpool. The following list shows the key destinations accessible directly from Liverpool Lime Street (although by no means exhaustive);
- 3.27 Birmingham New St, Blackpool North, Crewe, Leeds, London Euston, Manchester Airport, Manchester Mainline Stations, Norwich, Nottingham, Preston, Scarborough, Sheffield, Warrington, Wigan, and York. The majority of any cruise passengers travelling by train to access the terminal can be expected to make use of Lime Street Station
- 3.28 Two taxi ranks operate from Liverpool Lime Street station. The taxi ranks are located within the station near Skelhorne Street, and on Lord Nelson Street. Cruise passengers are likely to transfer between station and cruise terminal by taxi.

Local Rail Network

3.29 The local Merseyrail network provides services to local destinations in Liverpool, Wirral, Cheshire, Sefton, West Lancashire and locations to the east and south east. The Merseyrail network consists of three lines: Northern, City and Wirral. A plan of the Merseyrail network is provided as Figure 5.2. Interchange to Liverpool Lime Street for access to wider regional and national destinations is possible from the Merseyrail Network.

- 3.30 Merseyrail Stations in closest proximity to the site are located as follows:
 - Moorfields (Northern Line & Wirral Line) 0.65km •
 - James Street (Wirral Line) 0.5km •
- 3.31 From these local stations direct access is possible to the Northern and Wirral Lines. The City Line can be accessed with one change of train

Service Summary

3.32 In summary the existing rail network in the vicinity of the site provides good connectivity to the wider Liverpool City Region and northwest area - for both cruise passengers and terminal employees.

Ferry Network

3.33 Liverpool has both international and local ferry services providing connectivity from Liverpool to Birkenhead/Seacombe and to Ireland. The local ferry service is particularly underused and has potential to serve the proposed development in providing a link between the Liverpool and Wirral

Local Ferry Services

- 3.34 There is a local ferry crossing the River Mersey between Pier Head on the Liverpool side and Seacombe and Woodside on the Wirral. Direct services are provided every 20 minutes during the weekday morning and 30 minutes during the weekday evening peak operating periods. Off-peak weekday River Explorer services run every hour from Pier Head. Weekend services are reduced to two direct services in the morning and 1 in the evening with the remainder of the day dedicated to the River Explorer tourist trips.
- 3.35 The average journey time from the Pier Head to Seacombe is 10 minutes on the direct services and a further 10minutes to Woodside on the extended direct services. An additional 10 minutes is required to return to Pier Head from Woodside. For the River Explorer services the journey time between the Pier Head and Seacombe is increased to 30 minutes, onto Woodside from Seacombe is 10 minutes and back to Pier Head from Woodside is a further 10 minutes. The total journey time for the River Explorer trips is 50 minutes.
- 3.36 All boats are wheelchair and pram accessible at boarding points, in the interior and in the toilet facilities. Ramps are used for passenger boarding and unloading at each pier and an electric buggy is available for customers who find the ramps too steep.

Airport Access

- 3.37 John Lennon Airport is located approximately 15km from the development site. The airport is well served by public transport to the city centre with frequent non-stop bus services and also by the Merseyrail network via interchange at Liverpool South Parkway.
- 3.38 For wider international travel Manchester Airport is located some 60km from the development site. Public transport access to this facility is available by train from Liverpool Lime Street and by coach from Liverpool's Norton Street Coach Station.

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Highway Network

Study Area

- 3.39 As part of this assessment, the following junctions have been considered:
 - Georges Dock Gate / St Nicholas Place
 - Bath Street / William Jessop Way
- 3.40 These junctions are located where the Princes Dock highway network (St Nicholas Place and Princes Parade) join the main road network. Consideration of these junctions will enable the traffic impact of the development at the local road network to be determined.

Accident Data

- 3.41 JMP requested injury accident data in the vicinity of the development site from Liverpool City Council as part of the preparation of the Transport Assessment for the Liverpool Waters proposed development which is relevant for the Cruise Terminal. The key links to be analysed for the Cruise Terminal site area includes: William Jessop Roundabout, New Quay, St Nicholas Place, George's Dock Gates and Water Street.
- 3.42 Data was provided for the three year period between 9th December 2006 and 8th December 2009 and also between 13th April 2007 and 12th April 2010. The information is summarised by area in the paragraphs below:
- 3.43 Where appropriate JMP has identified cluster sites and provided a breakdown of causative factors.

Accident Clusters:

3.44 Comment on the nature and cause of accidents at key cluster sites are provided below.

William Jessop Roundabout:

3.45 Four accidents in three years, all slight in nature. The majority of accidents at this location are attributed to driver error and / or wet weather conditions.

New Quay/ St Nicholas Place/ Chapel Street/ Queensway Tunnel Exit:

- 3.46 Eleven accidents in three years, nine slight, two serious. Half of the accidents are shunting accidents.
- 3.47 Both serious accidents involved a motorcycle and were due to human error.

George's Dock Gates/ Water Street:

3.48 Six accidents in three years, all slight. The majority of accidents were due to driver error at this very busy signal junction. Two shunting accidents.

Conclusions

3.49 Although a threshold of four accidents has been used for cluster assessment, it would be wrong to regard four accidents in three years at a junction as a poor accident record. The number of accidents recorded at these junctions is broadly in line with results found elsewhere.

MASA Assessment

- 3.50 The Minimum Accessibility Standard Assessment has been completed to ensure minimum accessibility standards will be met. Where necessary the assessment can then be used by the local council to seek modifications to the planning application and make recommendations to the local planning authority. The following factors are considered when assessing the accessibility of the development:
 - Location
 - Development Size
 - Walking
 - Cycling
 - Public Transport
 - Vehicle Access
- 3.51 The completed MASA forms are included as Figure 3.4 Appendix D.
- 3.52 As can be seen from the completed MASA forms the development meets the minimum accessibility requirements.

4 **Proposed Development and Access Arrangements**

Development Content

- 4.1 As stated previously the site is proposed for the development of a temporary Liverpool Cruise Terminal. It will work in conjunction with the existing cruise ship berth and other facilities on the landing stage/jetty adjacent to Princes Parade. The terminal facility will thus be separated from the other operational parts of the process by St Nicholas Place Princes Parade. Various security / customs/ border agency requirements mean that there will need to be a security cordon around the whole of the operational area which will mean that the general public both on foot and in vehicles will not be permitted to pass through the area between Plot 7 and the gangways to the landing stage during the embarkation and disembarkation time periods a 10 to 12 hour period each time a cruise ship is berthed. Indeed, it is possible that there will need to be some form of security check for any vehicles entering the sections of Princes Parade and St Nicolas Place which remain open.
- 4.2 During embarkation and disembarkation, the public will be excluded from the highway area of St Nicholas Place and Princes Parade which abuts Plot 7. The planning application allows for the the provision of an alternative vehicular corridor along the northern and eastern boundary of Plot 7 for use only during cruise liner operational times, with the security perimeter for the terminal placed inside (south and west of) this temporary road alignment. An alternative pedestrian route already exists adjacent to, but outside of, the Plot 7 north and east boundary. It may not be possible to construct the alternative roadway at the outset, so our analysis, in a later section of the report, considers both the road closed with and without the alternative route option.

Cruise Terminal

4.3 As has previously been discussed this facility will provide Liverpool with the new passenger cruise ship facility to attract more international cruise ships to visit Liverpool. It will serve a range of ship sizes with a typical capacity of 500 passengers and a maximum capacity of 1,200 passengers.

Access Arrangements

Pedestrian Accessibility

- 4.4 Walking may provide a realistic form of transport for some of the staff working at the Cruise Terminal. It is unlikely that any passengers, unless they are living within close proximity of the site would choose to walk owing to the amount of baggage usually associated with a Cruise holiday.
- 4.5 As previously mentioned St Nicholas Place provides pedestrians with a good walking environment with formal crossing points and dropped kerbs. A controlled crossing of good design is located adjacent to Chapel Street enabling pedestrians to access the southern end of Princes Dock from the city centre.
- 4.6 An alternative pedestrian route already exists to connect St Nicholas Place with Princes Parade to the north east boundary of the site that would not be impacted upon by any temporary restrictions in place at the terminal.

Cycling Provision

4.7 As part of the development adequate cycle parking (for employees) will be provided in line with the approach adopted in Liverpool City Council Cycle Parking Standards (which do not specifically provide information for cruise liner terminals) as set out in the Supplementary Planning Document –

Ensuring a Choice of Travel. Given the overall security considerations which apply to cruise liner terminals specific additional consideration which might normally be the case to provide 'secure' cycle parking for employees should not be necessary here.

- 4.8 It is extremely unlikely that any passengers will arrive by bicycle to the cruise terminal and as such measures to promote cycling will be aimed at staff working at the terminal.
- 4.9 As mentioned previously Merseyside has excellent provision for the integration of bicycle journeys with public transport. Bicycles are carried without charge at all times on the Merseyrail and City Line Networks and on Mersey Ferries. Bicycle parking has been installed at many of the stations and ferry terminals.

Coach

- 4.10 Two types of coaches will be used to bring passengers to the cruise terminal. Those of organised tour operators who have arranged transport to the Cruise for their passengers and those from a park and ride site which will be used by those arriving by private car.
- 4.11 Ten coach parking bays will be available outside the terminal and coaches will bring passengers directly to the terminal.
- 4.12 The park and ride facility will enable passengers to leave their cars for the duration of the cruise and transfer to the cruise terminal by coach. The coaches will collect passengers and their luggage from the park and ride site and take them directly to the cruise liner terminal embarkation hall.

Taxi Drop Off

4.13 Taxis will be permitted to enter the taxi only drop off zone to provide direct access for passengers to the cruise terminal. A dedicated taxi lane will enable taxis to enter the site from St Nicholas Place and drop their passengers at the terminal and loop round to exit the site back onto St Nicholas Place.

Car Drop Off

4.14 It is likely that a number of cruise passengers will be dropped off by friends or relatives. A drop off area will be made available for such purposes. The drop of area will be accessed from St Nicholas Place.

Parking Provision

Cars

- 4.15 Passengers wishing to travel to join the cruise car will be able to park their vehicles at a park and ride site.
- 4.16 The park and ride site will include a proportion of parking spaces for reserved for blue badge holders (up to 6%).

Staff Disabled Parking

4.17 It is envisaged that 50 members of staff will be employed to work at the cruise terminal when it is operational. As such, some parking for disabled members of staff is to be made available on site which will be in line with current local and national car parking standards.

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Table 4.1 Proposed level of Parking

Parking	Usage	Number of Spaces
Car	Disabled members of staff	3
Bicycle	Members of staff	5
Motorcycle	Members of staff	2

Bicycle and Motorcycle

- 4.18 As part of the development proposals cycle parking is to be provided within the site for use by staff. Table 4.1 sets out the proposed parking levels that will be available within the site. These parking spaces will be located in appropriate locations within the confines of the site.
- 4.19 In addition to the provision of car and bicycle parking there is a requirement to provide motorcycle parking area. Table 4.1 provides a summary of the minimum motor cycle parking bays to be provided.

5 Cruise Terminal Operation - Trip Generation

Introduction

Cruise Liner Terminal

- 5.1 The development includes a proposal to provide a cruise liner terminal which would allow cruise ships to start and finish cruises in Liverpool, in addition to Liverpool being a calling point on cruises (which can already be accommodated at the existing facility). No quantified information on the trip generation of similar facilities in existence is publicly available at the time of this study. We have therefore assessed the potential impacts from first principles, based on information and guidance specified by our client. It is important to note that the facility will have a minimal impact on peak hour traffic flows.
- 5.2 Our assessment assumes that cruise operations will take a similar format in Liverpool as they currently do elsewhere in the country. There are a number of elements of operation which could contribute to the generation of trips on shore:
 - The arrival of passengers at the terminal prior to starting their cruise
 - The departure of passengers from the terminal at the end of their cruise
 - Movements of the ship's crew prior to the start and after the end of cruises
 - Trips made by land-based employees associated with the processing of passengers and baggage onto and off the ships, and the management of food and other stocks to be taken onto the ship, and waste, laundry, and other materials to be taken off the ship
 - Goods vehicles bringing food and other materials to the ship (including water and fuel), or removing waste, laundry and other materials from the ship.
- 5.3 It is anticipated that a cruise ship would berth at around 6am and depart at about 5pm. Passenger processing would take place between about 7.30am and 3.30pm, with other processing (baggage and ship servicing) taking place from 6.30am onwards.
- 5.4 From preliminary discussions there would be of the order of a maximum of 50 employees present at any one time. Clearly (from the above) only a minority will be working a typical 'commuter' day, and on most days only a skeleton (security) staff will be present.

Controlled Environment (Passport / Immigration Land Control)

5.5 Due to the nature of a cruise terminal it will be necessary to restrict access within the site during operational periods. During hours of operation only vehicles associated with the drop off and collection of passengers i.e. coaches and taxis and servicing vehicles will be permitted to enter the site.

Trip Generation - Cruise Terminal Trips

5.6 In terms of calculating the trips associated with a cruise terminal the TRAVL database does not have any sites of which trip rates can be derived. Based on the current knowledge of the size of vessel that is likely to use the proposed facility, and combined with JMP's previous experience of

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the potential trip generations of such marine developments, associated trips have been estimated on a first principals based approach.

5.7 In addition to JMP's previous experience further detailed discussion with Royal Haskoning regarding the operation of the terminal has recently taken place.

Turnaround Cruises

- 5.8 The typical pattern of operation is for a ship to arrive early morning at the end of a cruise, and to depart late afternoon on the same day at the start of the next cruise. Main disembarkation from the Ships will take place between 0730 and 1030 for a 1200 passenger ship, and embarkation (passengers arriving at the terminal) between at 1100 and 1500 again for a 1200 passenger ship. Although the ships arrive early, passengers often have breakfast on board, and there is a time-consuming processing to be undertaken before disembarkation commences (and subsequent baggage reclaim/customs/border agency processes). The majority of passengers, who are travelling by car, coach, or rail, or taxi, may thus depart well after the end of the morning peak period.
- 5.9 The removal of materials from the ships starts soon after they dock thus the vehicles associated with that activity (and the personnel overseeing this) will have arrived well before the morning peak period and the vehicles (which will be few in number in any event) will departed over an elongated period.
- 5.10 Passengers must be on board well before the departure time at the start of a cruise typically two hours before departure, so passengers arriving at the terminal at the start of a cruise are generally spread across the early afternoon period, with any vehicles which have brought them being clear of the area prior to the start of the evening peak period
- 5.11 The majority of cruises are sold as packages which often include coach travel from a series of pickup points, or rail travel, or with specific provision for car parking for those who prefer to drive to the port of departure. A very small number of passengers may arrive by air, and a proportion of passengers will choose to be dropped off by friends/family.
- 5.12 Based on their experience of the UK cruise market and the size of ship which can be accommodated (maximum 1200 passengers), Royal Haskoning has advised the following split of passenger travel mode
 - 50% by organised coach
 - 40% by private car (making use of a park and ride facility and shuttle coach)
 - 5% arriving at the terminal by taxi (the largest element of which are likely to have arrived by train at Lime Street station, with smaller numbers from Liverpool airport or from home)
 - 5% being dropped off by private cars driven by friends/family.
- 5.13 On the basis of the previously discussed assumptions, a trip profile during the morning and afternoon has been constructed for a cruise ship of 1,200 passengers.
- 5.14 Royal Haskoning's assessment of the capacity of the various elements of the embarking and disembarking process indicates that passengers will be able to be processed at a rate of about 400 per hour that is, fairly evenly during the disembarkation period, with potentially some slight peaking during the embarkation period noting that coach operators will have been given

appropriately staggered times for collecting disembarking passengers and delivering embarking passengers.

- 5.15 Although the passenger processing operation may follow a fairly even profile, it would not necessarily follow that there would be an even use of each travel mode spread throughout the periods so, for the purpose of our assessment we have assumed that the peak arrival or departure rate for each mode of travel would focus 50% of passengers into one hour. Though this would not be the same hour for each mode, in order to present a worst case scenario we have assume that the peak activity for each mode occurs in the same hour.
- 5.16 These assumptions translate into the numbers presented in Table 5.1.

Peak Travel	TOTAL Passengers	TOTAL Vehicle movements	2 Way Vehicle Movements (Assumed Busiest Hour)
Organised Coach (assume 50 passengers per coach)	600	12 x 2	12
Private car to Park and Ride Site (2 passengers per vehicle)	500	250	125
Coach transfer from Park and Ride (assume 50 passengers per coach)	500	10 x 2	10
Independents – Taxi (2 passengers per vehicle)	50	25 x 2	25
Independents – Drop Off (2 passengers per vehicle)	50	25 x 2	25
Totals	1200	144 at terminal; 270 at P&R	72 at terminal; 135 at P&R

Table 5.1 Turnaround – Cruise Ship Trip Generation over Busiest Hour

- 5.17 Trips to the park and ride site have been included in the above table for information.
- 5.18 The table above sets out that based on assumptions made there would be up to 36 vehicle trips generated in and 36 vehicle trips generated out of the site during the busiest one hour period, during the disembarkation and embarkation periods.

Servicing

- 5.19 Servicing of the ship takes place primarily between 7am and 10am, though with some activities happening before or after these periods. Again the process is highly managed with servicing requirements identified well in advance and suppliers notified of an appropriate visiting time.
- 5.20 Servicing requirements during Turnaround visits are relatively low. Royal Haskoning has advised us that typically a 1200 passenger ship would require up to 5 articulated lorries and up to 8 'Transit' type vans. Again, we would not expect all these vehicles to be present at any one time, and the majority would arrive prior to the morning peak commuter hour, and depart over an elongated period.

Job No

Crew

- 5.21 The ratio of crew to passengers is around 1:3 and therefore there will be about 400 crew on a ship with 1200 passengers. Crew on board ship are on a turn of duty which lasts a number of months and therefore the level of change over at anyone port is very low. Indeed, it is not anticipated that cruise operators will use Liverpool as a formal base where crews would be discharged.
- 5.22 Time in port is also a very busy time and the majority of crew are required on board for the duration of the visit. It is possible that some of the ship's crew will have shore leave. Depending on the nature of their duties, some may disembark soon after the ship berths (before the morning peak), or with/after the passengers (post morning peak). Some will return before passenger boarding (early afternoon), and of course, all will be back on board some time before the ship departs, About 5% of crew may leave the boat during its stay in Liverpool. Those going on leave will be taken to an airport (very few of the crew will be British) while those with land leave will travel independently (primarily on foot to visit the city centre). The numbers involved will be inconsequential.
- 5.23 Shore-based employees associated with the transfer of materials or baggage onto and off the ships or cleaning duties taking place landside or on board are likely to work a shift pattern - though some may well finish work during the evening peak period, and there may be a small number of general administrative staff who work a normal working day.

17

Operational Assessments 6

Introduction

- 6.1 This section will consider the operational impacts of the proposed development
- 6.2 Some vehicle movements associated with the cruise terminal are contained within the terminal. Such movements include that of baggage between terminal and ship and passengers (having arrived at the terminal) between booking in area and ship. These movements take place in the enclosed site area and as such do not affect the highway network. Pedestrians being dropped off by friends or family will need to cross Princes Parade and St Nicholas Place but as the area will be restricted these movements will not have any effect on any publicly accessible area.
- 6.3 Here we consider the impact of the development on the local highway network; these impacts are made up of staff travelling to and from work and passengers travelling to the terminal. In addition servicing vehicles supplying and removing supplies.
- 6.4 The site layout for the Liverpool Cruise Terminal facility is being designed to accommodate the operation described above.
- 6.5 Using a one way circular route accessed from St Nicholas Place there will be a passenger arrival / departure pick up / drop off area outside the terminal building which accommodates coaches and taxis. Designated coach parking is also provided for up to ten coaches. This coach parking will be combined with a porter pick up / drop off of luggage facility.
- 6.6 This circular route for passenger arrival / departure pick up / drop off area will accessed from St Nicholas Place.
- 6.7 On terminal operation days the C2 bus service would not route down Princes Parade and St Nicholas Place (prior to the alternative roadway being provided). In that scenario, passengers from the area wishing to catch the service will be directed to bus stops on Canada Boulevard and Bath Street. Information will be displayed on the bus stops affected to inform passengers of their nearest bus shelter.
- 6.8 Servicing and refuse storage will be provided in designated areas away from the main areas of pedestrian circulation.
- 6.9 Details of the numbers of vehicles being generated have been explained previously. It is important to now consider where these vehicles will be routed and the impact that any additional vehicles generated by the terminal will have on the local highway network.

Staff

6.10 Approximately 50 staff will be employed to work at the terminal. With the exception of three disabled parking bays no parking on site is to be made available to staff. Due to the operational hours of the terminal as set out previously staff are unlikely to be travelling to the terminal during peak hours. Those who do travel by car will be expected to park in public car parks in the local area.

Job No

001

Passengers

- 6.11 In consideration of passenger movements it is noted that only partially will there be any overlap between the disembarkation period and morning commuter peak hours. Embarkation coaches and other vehicles will arrive at and depart from the terminal during off peak hours.
- 6.12 A dedicated park and sail facility is to be provided for use by passengers wishing to travel to the local area by car and travel to the terminal building by a dedicated coach. During the busiest hour of embarkation and disembarkation it is estimated that five coaches will arrive at the terminal and five coaches will depart from the terminal.
- 6.13 It is envisaged that two coach parking bays at the terminal will be reserved for use by coaches operating as part of the park and sail facility. This will provide adequate capacity to accommodate the number of passengers travelling by this mode.
- 6.14 Passengers who have booked their transfers as part of their cruise packages will also arrive at the terminal by coach. With six arrivals and departures (coach vehicles) likely during the busiest operational hour sufficient parking bays are available to accommodate these coaches. Again passengers embarking the cruise from dedicated coach transfer will arrive at the terminal during off peak commute hours.
- 6.15 Plot 11 at Princes Dock will remain available to accommodate any coaches responding to uneven arrival or departure patterns from cruise ships that may require a stacking system to become operational. Also of note is that sections of Canada Boulevard are already reserved for cruise liner coach parking.
- 6.16 Passengers being dropped off by friends or family within the terminal will be directed to a dedicated drop off area and transfer to the terminal entrance by foot. Some changes to the kerbs on St Nicholas Place will be made to enable wheelchairs, buggies, and luggage to be wheeled from the car drop off area into the terminal building. A pedestrian gate will be installed to channel passengers from the drop off area into the terminal.
- 6.17 Passengers for the Isle of Man ferry will continue to access the ferry in the existing fashion. Directional signs will be erected to direct these passengers directly to the ferry.
- 6.18 This drop off zone will be located in the current car marshalling area for the Isle of Man ferry. It is likely that 13 drop offs and pickups will be made during the busiest operational hours. The family and friends drop off area has capacity to accommodate at least 20 vehicles and therefore is sufficient to meet the demands of drop off by this means without causing any queuing onto the public highway. Cars will approach this area via St Nicholas Place and exit directly to Canada Boulevard.
- 6.19 Passengers being dropped off by taxi within the terminal will be directed to a dedicated drop off area via an access loop. It is likely that 13 taxi drop offs and pickups will be made during the busiest operational hours. The taxi drop off and pick up area has capacity to accommodate approximately 20 taxis and therefore be sufficient to meet the demands for travel by taxi, without causing any queuing onto the public highway.
- 6.20 All taxis and coaches will approach and leave the site by St Nicholas Place.
- 6.21 Variable message or temporary signing will be required within the local area to indicate that the road is / will be closed and to provide details of the length of the road closure and provide advice

on alternative access routes. It would be useful is signs were able to provide advance notice of road closures to provide notice to route users.

Servicing Vehicles

6.22 Servicing vehicles will access the terminal via Canada Boulevard and the main vehicle ramp down to the jetty without coming into conflict with any passengers or passenger carrying vehicles. A maximum of 13 vehicles in total is expected to service the ship. Any vehicles arriving before hours dedicated to servicing the ship will be able to wait on the northern section of Canada Boulevard without interfering with passengers or any traffic.

Summary

- 6.23 During the busiest hour it is expected that no more than 11 coaches, 13 taxis and 13 private cars will approach the terminal via St Nicholas Place thus 37 vehicles during the busiest hour. Similarly there will be 11 coaches and 13 taxis departing from the terminal via St Nicholas Place . The departing cars will use Canada Boulevard as the exit from the drop off zone (currently the marshalling area).
- 6.24 A total of 61 vehicles will be generated on St Nicholas Place during the busiest hour. However, as it is proposed to close St Nicholas Place / Princes Parade during operational hours then (prior to the implementation of the alternative route) any existing traffic on St Nicholas Place will be removed. During the morning peak hour the existing flow on St Nicholas Place is 159 westbound and 129 eastbound and during the evening peak 87 westbound and 179 eastbound, and as such, (in the absence of an alternative route) the operation of the cruise terminal will bring about a reduction in traffic on St Nicholas Place.
- 6.25 After the completion of an alternative route around the edge of the site for non cruise traffic the change in flow on St Nicholas Place will be minimal.
- 6.26 The change in flow on Canada Boulevard is also minimal.

Changes to traffic flows

- 6.27 Once an alternative route around the site is in place, the change in peak hour traffic flows on the highway network will be minimal. In this section we consider the impacts elsewhere prior to the completion of the alternative route. In this scenario, it is assumed that when St Nicholas Place is closed, traffic currently accessing Princes Parade via St Nicholas Place will be diverted onto Bath Street. Changes to flows on Bath Street and William Jessop Way due to the closure of St Nicholas Place and Princes Parade as part of the terminal operation have been examined and are presented below in Figure 6.1.
- 6.28 Traffic count information exists for traffic flows on St Nicholas Place and also for the roundabout junction at Bath Street / William Jessop Way. In order to consider a worse case situation although traffic associated with the Crown Plaza hotel will remain on St Nicholas Place for the purpose of this assessment it has been assumed that all traffic using St Nicholas Place transfers to the William Jessop Way route into the Princes Dock area.
- 6.29 Figures 6.1 in Appendix E highlights the current traffic flows at the roundabout junction and predicted peak hour flows in 2016 for the St Nicholas Place diverted and closed scenarios. Traffic growth factors used to estimate 2016 traffic flows in each peak hour were calculated using the National Transport Forecast (NTM) factors adjusted using the relevant local TEMPRO factors. The factor used is 1.056.

Job No

NW 90539

6.30 ARCADY has been used to assess the performance of the junction and results are displayed below in Table 6.1. The table highlights results during the busiest 15 minute period. The closure of St Nicholas Place / Princes Parade (without alternative route) is only expected to take place a maximum of 20 occasions per year during May to September. The closure may not affect the pm peak period. The analysis in the table represents a week day, however it is worth noting that a majority of closures are likely to take place during a weekend day when traffic flows are likely to be much lower. In any event the analysis demonstrates that the junction will continue to operate adequately in all scenarios.

		2008	Base			2016	Base			Base wit lace rou		
Junction	A	M	F	PM	A	M	F	PM	A	M	P	M
Arm	RFC	Queue	RFC	Queue								
Bath Street	0.55	1	0.56	1	0.59	1	0.59	1	0.73	3	0.65	2
William Jessop	0.08	0	0.31	0	0.08	0	0.33	1	0.21	0	0.50	1
Waterloo Road	0.66	2	0.39	1	0.70	2	0.41	1	0.75	3	0.45	1

Table 6.1: ARCADY Results Summary

Conclusion

6.31 The analysis demonstrates that the temporary Liverpool Cruise Liner Terminal can operate without material adverse impact on the operation of the highway network, both in advance of and after completion of an alternative roadway around the north and east edge of Plot 7.

Job No	Report No	lssue no	Report Name	Ρ
NW 90539	001	002	Temporary Liverpool Cruise Terminal	

7 Conclusions and Recommendations

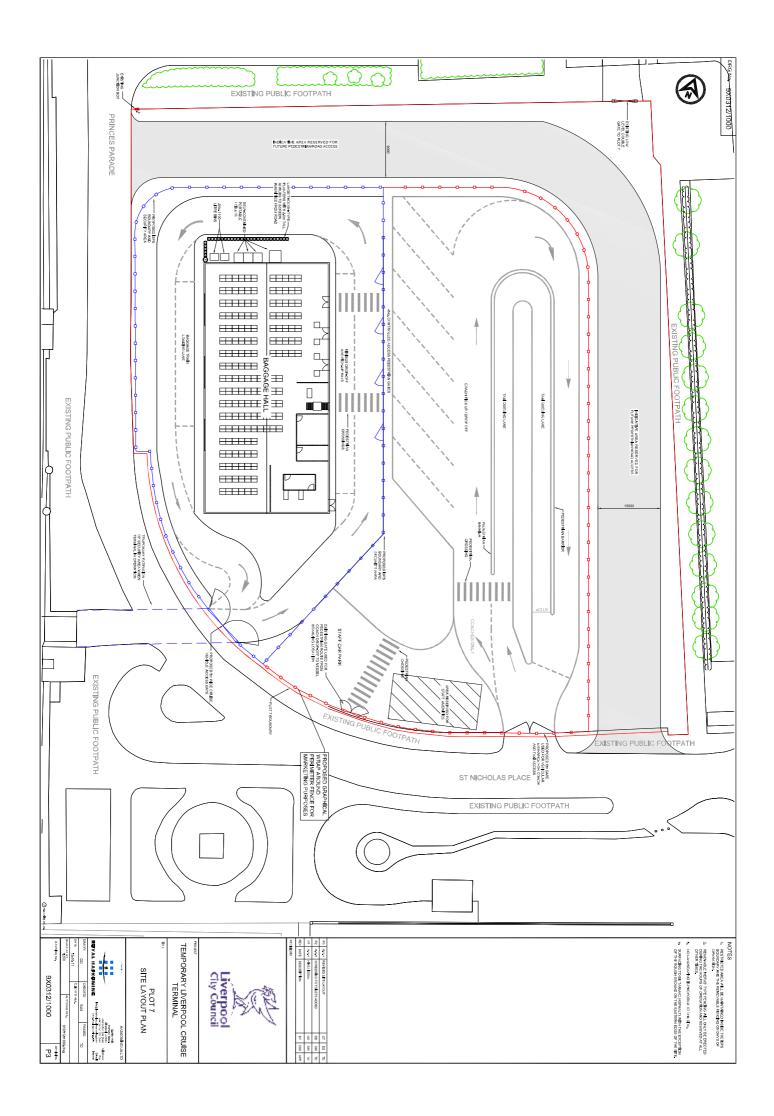
- 7.1 Based on the findings of this assessment it can be concluded that:
 - The site is situated in a highly sustainable city centre location. The development is well linked to the existing pedestrian and public transport network. The development site is located within the IHT recommended walking distance for both bus and rail services. The central location of the development means it is accessible by high frequency public transport services.
 - JMP has provided details on the servicing of the development and access arrangements.
 - JMP has provided a trip generation assessment of the development. The level of vehicular trip generation of the development will not lead to operational issues on the road network.
 - A MASA assessment has been carried out. The development passes all accessibility assessment categories.
 - The closure of St Nicholas Place / Princes Parade which would occur on a maximum of 20 days per year. This closure would have minimal impact with other existing routes able to absorb displaced traffic and provide access to surrounding premises (both with and without an alternative route around the site).
 - On terminal operational days the C2 service will continue to operate. Prior to completion of an alternative route around the site, the service can be diverted along Bath Street enabling passengers to board the service at either Canada Boulevard or Bath Street.

Recommendations

7.2 In light of the information provided, JMP concludes that there are no traffic or transportation grounds on which to refuse the proposed development application.

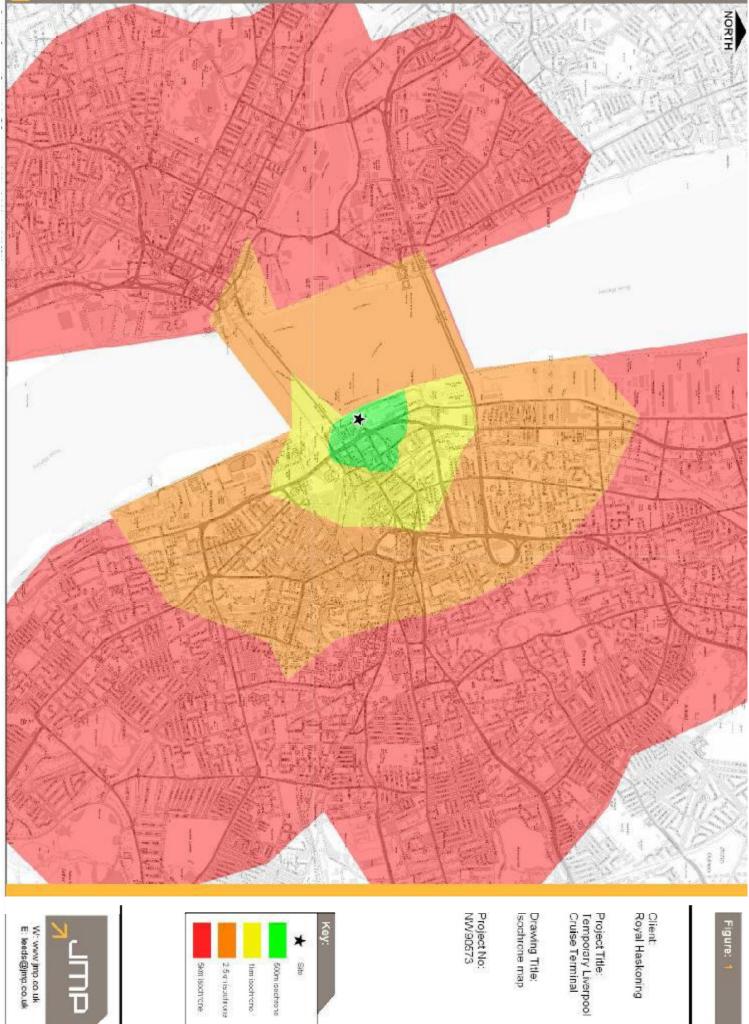
Appendix A

Site Location and Layout



Appendix B

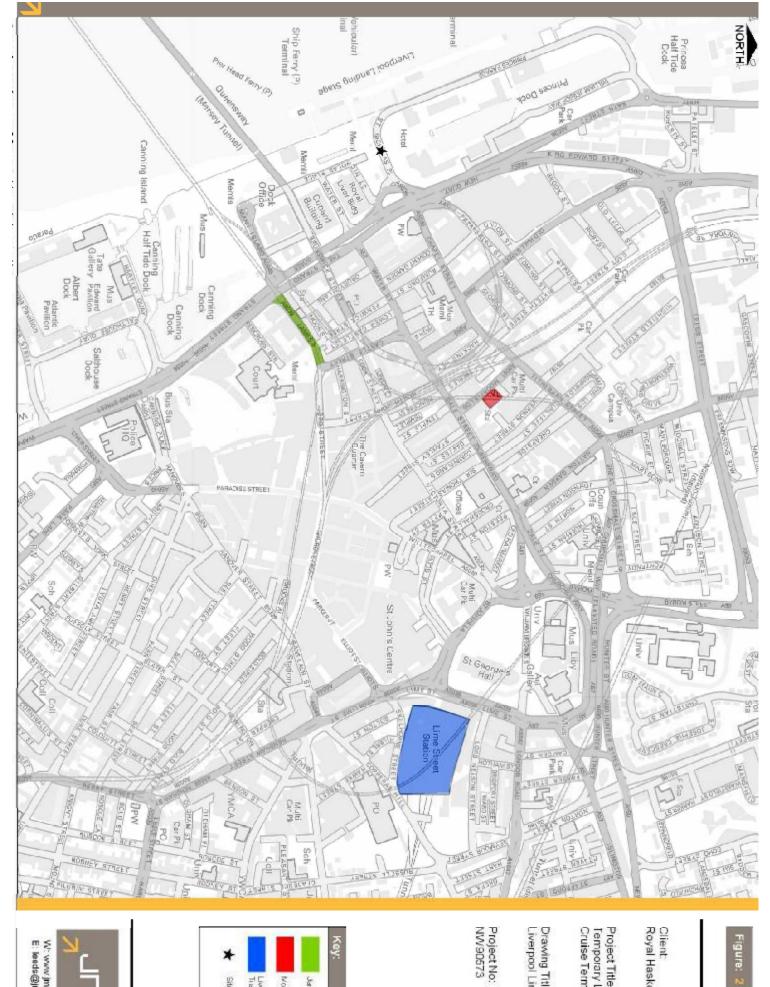
Isochrone Map





Appendix C

Liverpool Train Stations





W: www.jmp.co.uk E: leeds@jmp.co.uk

Client Royal Haskoning

Project Title: Temporary Liverpool Cruise Terminal

Drawing Title; Liverpool Lime Street Map

Figure:

Appendix D

MASA

Job No	
NW90539	

Minimum Scores

3.11 The minimum standard scores which are detailed have been developed through open and transparent testing by partner authorities and stakeholders on Merseyside. The scores have been tried and tested by transport and development professionals on real life developments.

Table 3.1: Minimum Levels of Accessibility: Minimum Scores for	'Medium'	'Large' and 'Major'
Developments		

Development Type	Location (see key below)	Development Size	Minimum score for walking	Minimum score for cycling	Minimum score for public transport	Minimum score for vehicle access
A1 Retail D2 Assembly	Urban Centre	Major & Large	2	5	5	3
& Leisure		Medium	2	3	3	2
	Other Urban	Major & Large	4	5	6	2
		Medium	4	3	4	1
A3 Restaurants	Urban Centre	All	1	4	4	3
& Cafes A4 Drinking Establishments A5 Hot Food Takeaway	Other Urban	All	4	5	4	1
A2 Financial and	Urban Centre	Major & Large	2	5	5	3
Professional Services		Medium	2	4	5	2
	Other Urban	Major & Large	4	5	6	1 or 3 ^{;2)}
		Medium	4	4	4	1
B1 Business (including	Urban Centre	Major & Large	2	5	5	3
educational sites)		Medium	2	4	5	2
	Other Urban	Major & Large	4	5	6	1 or 3 ²⁹
		Medium	4	4	4	1
B2 Industrial Uses	Urban Centre	Major & Large	n/a	n/a	n/a	n/a
		Medium	2	4	4	1
	Other Urban	Major & Large	2	3	5	1 or 3 ²
		Medium	2	2	4	1
B8 Storage and	Urban Centre	Major & Large	n/a	n/a	n/a	n/a
distribution		Medium	2	4	4	1

	(see key below)	Size	Minimum score for walking	Minimum score for cycling	Minimum score for public transport	Minimum score for vehicle access
	Other Urban	Major & Large	2	3	5	1 or 3 ⁽²⁾
		Medium	2	2	4	1
C1 Hotels	Urban Centre	Major & Large	2	5	5	3
		Medium	2	3	5	3
	Other Urban	Major & Large	4	5	5	1
		Medium	4	3	4	1
C3 Dwelling Houses	Urban Centre	Major & Large	4	4	5	3
(For flats with no		Medium	2	3	5	3
'internal circulation',	Other Urban	Major & Large	4	5	5	1
issues, i.e. no car park, reduce walking and cycling target by 1.)		Medium	4	3	5	1
C2 and D1 Residential	Urban Centre	All	2	5	5	3
and non-residential institutions (medical centres, museums and galleries, public halls and meeting places)	Other Urban	All	4	5	6	1
Notes:						_

(2) In locations outside of the main centres, if reduced parking standards can not be applied with on-street parking controls (score 3), then the maximum parking level may be sought (score 1)

Minimum Accessibility Standard Assessment

Minimum Accessibility Standard Assessment

Proposal: Cruise Liner Terminal, Liverpool

		Access Diagram	1		
developm (This can	gram been submitted wh ent and how this links to be included within the D has not been submitted	o the surrounding roa Design and Access St	ds, footpaths and sig atement, see Section	ht lines?	Ye
Access or	Foot			Points	Sc
Safety	Is there safe pedestrian pedestrians passing the sides of the road)? If no y access.	site (2m minimum wid	th footpath on both		Ye
Location	Housing Development:		Yes	2	
	within 500m of a district Accessibility Map 1 in A Other development: Is to local housing (i.e. within houses per hectare (see Appendix F)	ppendix F) he density of existing 800m) more than 50	No	0	
Internal	Does 'circulation' and ad	And a second s	Yes	1	
Layout	reflect direct, safe and e routes for all; with priorit when they have to cross	y given to pedestrians	No	0	1
External Layout	Are there barriers betwee facilities or housing white access? (see Merseysic	ch restrict pedestrian le Code of Practice on	There are barriers	-2	
	heavy traffic;		There are no barriers	1	
Other	The development links to Accessibility Map 1). If r				Yes
			1	Total (B)	
Summary	Box A: Minimum Standard (from Table 3.1)	2	Comments or action any shortfall	n needed	to c
	Box B: Actual Score	4			

S

Minimum Accessibility Standard Assessment

Location	communal cycle parking parking standards and c Housing Development:	vst address cycle Yes	2	2	
	within 1 mile of a district Accessibility Map 1) <u>Other Development</u> : Is t housing (e.g. within 1 m houses per hectare (see Appendix F)	No	0		
Internal	Does 'circulation' and access inside the site reflect direct and safe cycle routes; with priority given to cyclists where they meet motor vehicles?		Yes	1	1
layout			No	0	
External Access				1	1
	The development is not within 400m of an existing or proposed cycle				
Other	route (see Accessibility Map 1 in Appendix F)				
Jther		hower facilities and	Yes	1	1
		No	0		
Other	Development includes s lockers for cyclists	hower facilities and	100	0	1
			INO	Total (B)	5

22

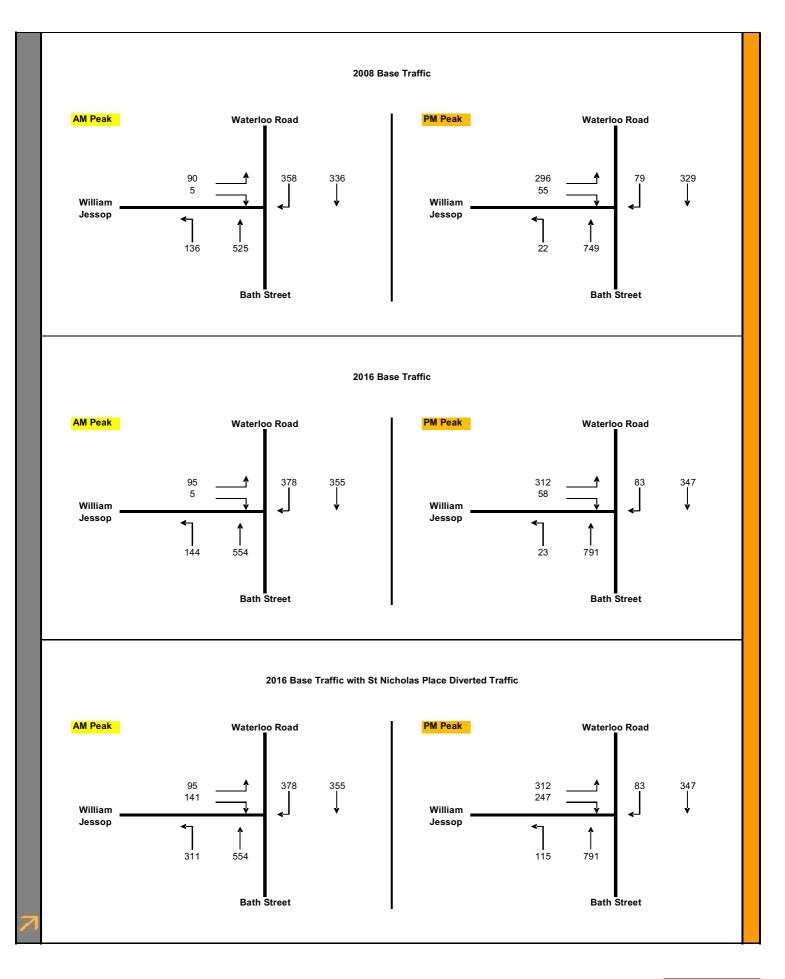
	Box B: Actual Score 5			
Access by	Public Transport		Points	Score
Location	Is the site within a 200m safe and convenient	Yes	2	
and access to public	walking distance of a bus stop, and/or within 400m of a rail station? (See Accessibility Map 2 in Appendix F).	No	0	2
transport	Are there barriers on direct and safe pedestrian	There are barriers	0	
	 routes to bus stops or rail stations i.e. A lack of dropped kerbs; Pavements less than 2m wide; A lack of formal crossings where there is heavy traffic; or Bus access kerbs. 	There are no barriers	1	1
Frequency	High (four or more bus services or trains an hour)			2
	Medium (two or three bus services or trains an hour)			
	Low (less than two bus services or trains an hour)			1
Other	The proposal contributes to bus priority measures serving the site			N/A (1)
	The proposal contributes to bus stops, bus interchange or bus or rail stations in the vicinity and/or provides bus stops or bus interchange in the site			N/A
	The proposal contributes to an existing or new bus service			N/A (1)
				8

Summary	Box A: Minimum Standard (from Table 3.1)	5	Comments or action needed to corr any shortfall		
	Box B: Total Score	8			
Vehicle Ac	ccess and Parking		1	Points	Score
Vehicle access and circulation	Is there safe access to and from the road? If no, you must address safety issues.				Yes / No
	Can the site be adequately serviced? If no, you must address service issues.				Yes No
	Is the safety and convenience of other users (pedestrians, cyclists and public transport) affected by the proposal? If yes, you must address safety issues.				Yes No
	Has access for the emergency services been provided? If no, you must provide emergency service provision,				Yes No
	For development which generates significant freight movements, is the site easily accessed from the road or rail freight route networks (i.e. minimising the impact of traffic on local roads and neighbourhoods) (see Accessibility Map 3 in Appendix F)? If no, please provide an explanation.				Yesy No
	The off-street parking provided is more than advised in Section 4 for that development type. If yes, parking provision must be reassessed.				

8	The off-street parking provided is as advised in Section 4 for that development type			1	Yes / No
	The off-street parking pro in Section 4 for that dev with another development	2	Yes No		
	For development in con		Yes / No		
	Is it a car free development?			1	Yes No
	 Supports the control or removal of on-street parking spaces (in provision of disabled spaces), or contributes to other identifie measures in the local parking strategy (including car clubs) 				Yes No
				Total (B):	3
Summary	Box A: Minimum Standard (From Table 3.1)	3	Comments or action any shortfall. If con- appropriate for the parking (see section been provided, plea	ditions are reduced le (4), but this	evel of is has not

Appendix E

Traffic Flow Diagrams



2008 and 2016 Traffic Turning Movements

Figure 6.1