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1. EXECUTIVE SUMMARY

1.1 This Full Business Case (FBC) sets out the case for the award of Final Approval to Nottingham Express Transit (NET) Phase Two, which would extend the existing and highly successful NET Line One light rail system into the south and west of the Greater Nottingham conurbation.

1.2 This FBC updates the May 2009 Outline Business Case (OBC). All necessary statutory processes have been completed and the Secretary of State announced his decision to the making of the NET Phase Two Transport and Works Act Order (TWAO) on 30th March 2009.

1.3 NET Line One was successfully procured by Nottingham City Council and Nottinghamshire County Council, The Promoters’, in partnership under the Private Finance Initiative (PFI) and, as part of a fully integrated transport strategy, has delivered substantial strategic transport and economic benefits, and is now used by approximately 10 million passengers per annum, taking some 3 million car journeys each year off congested city roads and significantly improving accessibility for many travellers. This success has been recognised at a national level. NET Phase Two will build on this achievement and expand this high quality, reliable, fully accessible and sustainable transport option such that it will serve some 30% of Greater Nottingham’s population. Accessibility will be greatly improved for local people, with NET Phase Two providing access to nearly 2000 workplaces including 20 of the 30 major employers within Greater Nottingham, helping to tackle congestion and supporting economic growth and regeneration. Notwithstanding current difficult economic conditions, both Promoters at the time recognised the strategic importance of the scheme and have remained committed to its early development.

1.4 Future travel demand will create service pressure on the local transport network, with only limited opportunities to increase the capacity of existing highway and public transport networks. Without the implementation of NET Phase Two, and as saturation of the road network nears, delays will increase until demand is suppressed by further congestion.

1.5 The NET Phase Two proposals have been developed following comprehensive options analysis and stakeholder engagement. NET Phase Two is identified by numerous cross-agency local policies, strategies and plans as vital to the region's economic development and it is likely to be a key regional catalyst to recovery from the current recession. The proposals are technically and economically robust and project costs, revenues and economic benefits have been carefully assessed. When assessed in accordance with DfT appraisal guidance the project has a positive benefit to cost ratio of 2.47:1 which places it in the high value for money category.

1.6 NET Phase Two is strongly supported by large sections of the local business community because it will reduce congestion, allow staff to travel efficiently to employment sites and
support business competitiveness and help create a climate for investment. The fixed nature of tram infrastructure and its positive image helps to boost investor confidence and adds to Nottingham’s appeal as a destination for business to locate. Both NET Line One and NET Phase Two have been used extensively by private developers in publicity material aimed at residential and commercial development and NET Phase Two is close to the three main regeneration zones surrounding the City Centre. Analysis indicates that NET Phase Two will lead to the creation of up to 10,000 additional jobs in Greater Nottingham.

1.7 NET Phase Two will contribute to a reduction in CO\textsuperscript{2} emissions and improved air quality through encouraging increased use of public transport and a corresponding reduction in private car use.

1.8 There has been significant market testing at key stages of project development. The PFI procurement competition attracted major construction companies, transport suppliers and investment bodies. Following a strong competition, which has effectively generated value for money proposals from bidding candidates, a very strong consortium of companies, Tramlink Nottingham (Tramlink), was selected as preferred bidder for NET Phase Two.

1.9 Following a change in administration, Nottinghamshire County Council ceased its role as Promoter of NET Phase Two in December 2009. Subsequently, a Settlement Agreement has been negotiated to provide for the withdrawal of the County Council interests in both NET Line One and Phase Two and to enable the Nottingham City Council to proceed as sole Promoter (the Authority) for the Project, see section 8.4.

1.10 The Authority has responded to the reduction in government funding arising from the Autumn 2010 Comprehensive Spending Review and, in addition to following a rigorous procurement competition focused on securing the best value for money for the public purse, has implemented a series of financial measures to maintain Project affordability, whilst also ensuring the project scope remains unaffected.

1.11 The NET Phase Two financial case has been updated to reflect Tramlink’s proposals and termination negotiations with Arrow. Ongoing dialogue continues with Tramlink, DfT and HM Treasury to best manage financial market conditions. Financial close and contemporaneous termination of the NET Line One concession is anticipated in Autumn 2011 with NET Phase Two Services commencing in late 2014.

1.12 A comprehensive project financial model has been submitted by Tramlink to reflect anticipated funding terms. A value for money analysis has been undertaken and confirmed the PFI approach.
1.13 The proposed Concession Agreement is based on Standardisation of PFI Contract Terms version 4 (SOPC4) amended where appropriate to reflect lessons learnt from the NET Line One contractual arrangements and sector specific procurement experience. The proposed Concession Specification has been developed in line with the same output based format as NET Line One and it is also proposed to utilise a performance regime and payment mechanism very similar to that which has proven effective in operation for NET Line One. A reference design, or ‘illustrative solution’, has been developed which has provided scope clarity and reduced risk for bidders.

1.14 The Promoters have invested, and the Authority continues to invest, financial and staff resources towards successful scheme development and delivery. This includes the provision of significant funding for NET Phase Two, the development of Nottingham Station (The Nottingham Hub) which is currently under construction, and expansion of the Link bus Network in the City. A significant proportion of the Authority’s local funding requirement is planned to be realised from a Workplace Parking Levy (WPL) which reflects the integrated and coherent approach adopted towards transport delivery. Elected Members are regularly updated on project progress and are supportive of the scheme. Key stakeholder support has been secured and public and stakeholder involvement has been maintained throughout the scheme development. An experienced project team has been retained, supported by specialist consultants. A robust project management plan and project timetable is in place and project risks are actively managed. In March 2009, the project was subject to a 4ps Gateway 2 Review which concluded “that, except for external dependencies outside its control (e.g. Government approvals), the project is in an overall strong position to enter the next (procurement) stage”. A Gateway 3 Review is programmed to be undertaken in July 2011 to consider the projects’ state of readiness to invest in the scheme and implement its delivery.

1.15 The FBC has been developed in accordance with the latest guidance from the Office of Government Commerce, Department for Transport, HM Treasury and The Department of Communities and Local Government.
2. **INTRODUCTION**

2.1 On 31st March 2000, Nottingham City Council and Nottinghamshire County Council (the “Promoters”), awarded a PFI concession contract to Arrow Light Rail for the design, construction, financing, maintenance and operation of NET Line One, which consists of a light rail line linking Nottingham City Centre with Hucknall (with a spur to Phoenix Park). NET Line One has been in successful operation since March 2004 and currently carries approximately 10 million passengers per annum, taking some 3 million car journeys each year off congested city roads and significantly improving accessibility for many travellers.

2.2 The intention has always been for NET Line One to be the first line of an integrated network. Following extensive feasibility work, proposals for developing additional lines, to Chilwell via the Queens Medical Centre (QMC) and Beeston and to Clifton via Wilford, have been taken forward. NET Phase Two will enhance connectivity between the key district centres of Beeston and Clifton and the City Centre, also serving large residential areas and other important destinations such as the QMC and the University of Nottingham. In addition, two new strategically located park and ride sites will be provided for easy and direct access from junctions 24 and 25 of the M1.

2.3 Following a change in administration, Nottinghamshire County Council ceased its role as Promoter of NET Phase Two in December 2009. Subsequently, a Settlement Agreement has been negotiated to provide for the withdrawal of the County Council interests in both NET Line One and Phase Two and to enable the Nottingham City Council to proceed as sole Promoter (the Authority) for the Project, see section 8.4.

2.4 NET Phase Two was included in the Department for Transport (DfT) Local Authority Major Scheme Programme in October 2006. An application for a Transport and Works Act Order (TWAO) was made in April 2007 and following the Secretary of State’s decision to make the Order, the NET System Order came into effect in June 2009. An OBC was submitted in May 2009, and Conditional Approval was subsequently awarded in August 2009. This prompted the commencement of the procurement for NET Phase Two in September 2009 with the publication of an OJEU notice. The DfT indicated its continued support for NET Phase Two following the Comprehensive Spending Review in October 2010, subject to a review of affordability. Following this review, The DfT re-approved the Project in March 2011. This Business Case forms the basis of the Authority’s’ application for Final Approval for NET Phase Two in line with the DfT re-approval.
3. SCHEME DESCRIPTION

3.1 NET Phase Two will play a major role in the development of the Nottingham conurbation and will build on the success of NET Line One with two additional light rail lines into the south and west of the Greater Nottingham conurbation. NET Line One and the proposed NET Phase Two extensions are illustrated in figure 1 below.

Figure 1 – NET Line One and NET Phase Two
3.2 NET Phase Two is proposed as a double track tramway utilising low floor vehicles of similar specification to the existing NET Line One which runs from just north of Nottingham Station through Nottingham City Centre to Phoenix Park and Hucknall. Phase Two comprises two extensions serving the south western area of Greater Nottingham – one route to Chilwell via Queens Medical Centre (QMC) and Beeston, and one route to Clifton via Wilford. In summary, these comprise:

- 0.5km (approx) shared section from Nottingham Station to Meadows Way/Queens Walk junction. This includes major new structures connecting to NET Line One and crossing over Nottingham Station, with provision of a new interchange stop with heavy rail services, forming a key part of the proposed Nottingham Station Hub development.

- 9.6km (approx) route to Chilwell. This route has 15 tram stops and serves the Meadows, ng² business park, Lenton, QMC, University of Nottingham, Beeston, Chilwell and a major new 1400 space park and ride site off Toton Lane, close to M1 Junction 25.

- 7.3km (approx) route to Clifton. This route has 12 tram stops and serves the Meadows, Wilford, Compton Acres and Clifton, terminating at a major new 1000 space park and ride site accessed via the A453 and Nottingham Road serving local catchments and traffic from M1 Junction 24.

3.3 Both extensions provide significant lengths of tram route segregated from other traffic – generally either running alongside existing highways or on segregated corridors remote from existing highways. Where the tramway is proposed to run on street with other traffic, flows along these streets are generally relatively low. Operating conditions will therefore enable NET Phase Two to deliver a rapid and reliable transport service.

3.4 Once NET Phase Two is constructed, NET services will be operated across the whole of the extended network. In order to meet projected passenger demand, services will be provided 364 days a year from 6 am to midnight with 8 trams per hour operating across the whole extended network for the majority of the day. To achieve this wider service provision additional NET vehicles will be provided and an enhanced operating regime established, including an expanded depot facility. Infrastructure will be provided to facilitate interchange with local bus and rail services with through ticketing also provided to maximise system and service integration.

3.5 The Chilwell via Beeston route will bring major strategic benefits, including:

- A major enhancement in the quality and capacity of public transport provision in the western part of the conurbation.
Substantial park and ride facility serving junction 25 of the M1 and settlements to the west, including Stapleford, Sandiacre and Derby.

Serving the QMC, which is the main regional hospital, and the University of Nottingham. These are two of the largest generators of trips in the conurbation outside the City Centre.

Serving a large number of existing and proposed employment sites, including Southside, ng2, Lenton, Highfields Science Park and Beeston town centre.

Serving substantial residential areas, in particular the Meadows, Lenton, Beeston and Chilwell.

Serving major education sites such as University of Nottingham and Castle College.

3.6 The Clifton route will also bring major strategic benefits, including:

A major enhancement in the quality and capacity of public transport provision in the south western part of the conurbation.

Substantial park and ride facility serving junction 24 of the M1, which is the main strategic link between Nottingham and the south, and a number of settlements in south Nottinghamshire and north west Leicestershire.

Serving and reinforcing Clifton centre, which is the only identified District Centre in the south west of the conurbation.

Serving employment sites, including Southside and the Nottingham and South Wilford Industrial Estate.

Serving substantial existing and proposed residential areas, including the Meadows, Wilford/Compton Acres and the very large Clifton Estate.

Serving major school sites including Farnborough School and two new secondary schools sites at Wilford.

3.7 Overall NET Phase Two will;

Take a further three million car journeys off Nottingham’s roads.
- Provide access to around 1270 city workplaces, to which about 55,000 employees commute.

- Serve 20 of the 30 largest employers in Greater Nottingham, who will be within 800m of a tramstop.

- Enhance accessibility to nearly 30% of the Greater Nottingham population who will be within 800m of a tramstop.

- Provide congestion relief to the A453, A52 and other local roads.

- Provide tram based park and ride serving all routes into Nottingham from the M1 (Junctions 24 – 26).

- Enhance the bus and rail network, and fully co-ordinate with the new Hub development at Nottingham Station, which is currently under construction.
4. **STRATEGIC CONTEXT AND BUSINESS NEED**

4.1 Nottingham is one of eight core cities, recognised as the most important drivers of the national economy outside London. It is an important centre for banking, professional services, education and retailing, and is one of six places to have received ‘Science City’ status. Jobs have been created through new businesses locating to the city providing opportunities for those living locally. In the year to 1st January 2009, economic output was £25,835 per capita\(^1\); higher than the national average, and Greater Nottingham’s economic output is currently £12.1bn per annum\(^2\). However, significant pockets of deprivation exist within Greater Nottingham, some of which are located in the corridors served by NET.

4.2 In recognition of the national, regional and local policy context and the economic and transport challenges facing Nottingham, six key aims have been established for NET Phase Two as follows:

- To provide a sustainable alternative to the car for many journeys in order to tackle congestion, particularly on the strategic road network, including the A453 and A52.
- To increase public transport capacity to accommodate growth in Greater Nottingham.
- To improve accessibility and reduce social exclusion and realise further the investment in NET Line One.
- To contribute to integrated public transport in Greater Nottingham and improved interchange.
- To support land use policy, regeneration and neighbourhood transformation strategies in the City Centre, the District Centres of Beeston and Clifton, and other important employment and residential areas.
- To extend the use of an environmentally friendly mode of transport.

**Local Transport Plan**

4.3 The Local Transport Plan (LTP) 1 and 2 for Greater Nottingham covering the period from 2000 to 2011 were produced jointly by Nottingham City Council and Nottinghamshire County Council. NET Phase Two is strongly aligned with four of the seven key objectives set out in the second LTP (covering the period 2006 to 2011), tackling congestion, improving accessibility, better air quality and supporting regeneration. NET Phase Two also supports the

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achievement of a further two key objectives (improved road safety and enhancing quality of life).

4.4 The Local Transport Plans for Greater Nottingham (LTP3) have recently been updated separately by the Authority and Nottinghamshire County Council, reflecting the administrative boundary of each Council. They comprise of a short-term Implementation Plan (2011-2014) and a longer-term Local Transport Plan Strategy (2011-2026), which were published in Draft for consultation feedback in early 2011. NET Phase Two is closely aligned with all of the strategic objectives within the now adopted Nottingham City Local Transport Plan: published in full in April 2011:

- Providing a world class sustainable transport system;
- Providing a low carbon and resilient transport system;
- Ensuring good access to services;
- Promoting quality of life and transforming neighbourhoods; and
- Promoting active travel and road safety.

**Local Enterprise Partnership**

4.5 In 2010 the Coalition Government announced the abolition of Regional Development Agencies (RDAs) and the revocation of Regional Spatial Strategies and associated Transport Strategies. Local authorities and the business sector were asked to put forward proposals to form Local Enterprise Partnerships (LEPS), which would be responsible for driving forward economic growth across natural economic areas.

4.6 The Derby, Derbyshire, Nottingham, Nottinghamshire (D2N2) LEP was endorsed by the Government and has established an initial set of priorities, which are to:

- Build on the area's reputation for internationally competitive science, manufacturing, engineering and creative industries, driving better productivity and growth as the area develops a low carbon economy;
- Develop a distinctive cultural, sport and tourism offer to world class standards;
- Share the benefits of economic growth across the cities, towns and rural communities in the area;
- Meet employers' current and future skills demands through our highly rated and ambitious education partners; and
• Secure investment in regeneration and infrastructure projects that stimulate private sector growth.

4.7 NET Phase Two is strongly aligned with the aims of the LEP and will particularly contribute to driving economic growth in the area and securing investment in regeneration projects to stimulate private sector growth. The Government has also recently announced the Allianz Boots Campus in Nottingham as one of the four vanguard areas trialling the new Enterprise Zones announced by the Chancellor of the Exchequer in the 2011 Budget. Located in Beeston, the Enterprise Zone would benefit significantly from the introduction of NET Phase Two.

The Transport Gap

4.8 Nottingham LTP monitoring has shown that public transport usage levels are already exceeding the target levels for the full plan period, and NET Line One has contributed over 13% of total journeys. Although NET Phase Two will not be in place during the period specified for this target, it will contribute an estimated 27% of total trips in 2016, and it is clear that an extended NET network will be necessary to achieve future public transport usage targets.

4.9 As was demonstrated in the OBC, expectations are that growth in travel demand will continue beyond 2011 in response to long-term demographic change and economic growth. There have been some short-term responses to the current global economic circumstances, with evidence of small declines in local demand, both on the private and public transport networks. However, such declines are not expected to be sustained over the medium to longer-term with the trajectory for demand growth expected to remain broadly unaltered for the next 15-20 years. The long-term need for transport network capacity is clear to ensure that a full recovery in the economy is not compromised or throttled back by transport constraints. NET Phase Two will provide an important element of the network provision that supports economic vitality in Greater Nottingham and the wider region.

4.10 Transport networks within Greater Nottingham are currently operating close to capacity, with traffic flow monitoring highlighting the south west quadrant of Greater Nottingham served by the A52 (W), A453 and A6005 i.e. the corridors most directly served by NET Phase Two as having some of the highest flows of all radial routes in the conurbation: All are in the NET Phase Two Corridor. Congestion in this corridor has manifested itself as delay and journey time unreliability for general traffic; which in turn has negatively impacted on bus service operations through poor reliability and journey times on many routes – this imposes additional costs on businesses and society generally. On the local road network in Nottingham the direct annual economic cost of delay has been estimated at £160m.
4.11 Figure 2 illustrates the total transport supply (excluding NET Phase Two) against the forecast demand up to 2026. With the road network largely saturated and the existing public transport network severely constrained, primarily due to road congestion and very limited city centre road space and bus stop terminal capacity, a divergence between demand and supply, known as the transport gap, emerges around 2011 and widens further over time due to both demographic changes, including increases in the number of households in the city, and the need to maintain and enhance economic growth.

**Figure 2: Nottingham Transport Gap Analysis**

4.12 Opportunities exist for marginal increases in the efficiency of existing highway and public transport networks in the short to medium term. Such further small improvements through the LTP will ‘buy’ some time in attempting to maintain network ‘supply’ against a background of further increases in ‘demand.’ However, without any other significant interventions, as saturation of the road network nears, delays will increase until demand is suppressed by further congestion. It is this suppression that threatens the economic vitality of the conurbation, as individuals or businesses conclude that it is too much effort to travel and do business in Nottingham.

4.13 NET Phase Two will be the single most important measure in bridging the transport gap, because of the considerable increase in public transport quality and capacity it is expected to achieve. Around 30% of demand on NET Phase Two is expected to come from car or from park and ride with over 3 million car journeys per annum expected to be transferred from the urban road network in Nottingham. NET Phase Two will provide at least 50% of the additional...
transport network capacity required over the longer term to around 2030. The speed and reliability advantage held by trams will increase over time as traffic continues to grow and networks become more congested. The continued modernisation of the Nottingham economy will require robust and resilient transport infrastructure which will help attract high levels of inward investment.

**Transport and the Economy**

4.14 The services sector accounts for just under 85% of all jobs in Greater Nottingham, of which over 50% are in knowledge intensive industries, including for example, financial and business support services, and science and technology services. Evidence indicates that these industries continued to grow even during the recent global recession.

4.15 Knowledge based industries require access to a highly educated and highly skilled workforce. Business productivity is also reliant on high quality connections between firms, both within the Greater Nottingham conurbation and the wider area, particularly the Three Cities functional economic area – Nottingham alongside Derby and Leicester. The current transport problems in Greater Nottingham impair connectivity within the conurbation and between the Three Cities, thus impacting on the extent to which these firms can readily access the skilled labour pools.

4.16 Significantly improved public transport provided through NET Phase Two will provide direct connections between large residential areas, the City Centre and key employment areas and training facilities within the conurbation. Through connections to national and regional rail services at Nottingham Rail Station, and two significant park and ride stations in close proximity to the M1, a designated Strategic National Corridor, NET Phase Two will significantly enhance connectivity at a regional and national level. This will support enhanced labour market access and business to business connectivity.

4.17 Specifically NET Phase Two will provide a direct connection between the Science Park, University of Nottingham and the City Centre with the proposed University of Nottingham stop located directly outside the Park. This would help to encourage knowledge transfer and alleviate accessibility problems currently experienced at the University of Nottingham site.

4.18 NET Phase Two will also provide a stop at the Queens Medical Centre, providing fast direct links to and from the Toton Park and Ride site, the City Centre, Nottingham station and substantial residential areas, offering social benefits, by improving access to key regional healthcare facilities. NET Phase Two will also enhance access to this key employment site with around 6000 employees, and create, opportunities for thousands of journeys to work to be undertaken by high quality public transport.
4.19 The ng² business park illustrates the importance of NET Phase Two as an influencer and facilitator of recent economic developments in Nottingham - the design concept for ng2, an 80,000 sq ft edge of city centre Business Park has been centred on the proposed NET Phase Two route through the site. In addition, significant development contributions (Section 106) to the development of NET Phase Two were negotiated, highlighting the importance the developer placed on NET in improving the marketing potential of this development.

4.20 Delivery of NET Phase Two is also vital to secure continued development of other key business sites such as Nottingham Southside by providing improved links between the site and residential areas of Greater Nottingham to allow people better access to the employment, retail and leisure opportunities within this area.

4.21 Overall, the completion of NET Phase Two will result in nearly 30% of the Greater Nottingham population and 1,270 city workplaces, to which approximately 45,000 employees commute, being within 800m of a tram stop. Similarly, research by the County Council has identified over 600 workplaces within 800 metres of the tram stops in the Beeston/ Chilwell area.

4.22 Table 1 illustrates the extent to which NET Phase Two will accommodate existing employment centres within the conurbation.
Table 1 – Major Employers Based in Greater Nottingham

<table>
<thead>
<tr>
<th>Company</th>
<th>Type of Business</th>
<th>Private or Public</th>
<th>Number of Employees</th>
<th>NET Line coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nottingham City Council</td>
<td>Local Auth’ty</td>
<td>Public</td>
<td>27,800</td>
<td>None</td>
</tr>
<tr>
<td>Nottingham University Hospital Trust</td>
<td>Healthcare</td>
<td>Public</td>
<td>13,100</td>
<td>Both/majority</td>
</tr>
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<td>Nottinghamshire Healthcare Trust *</td>
<td>Healthcare</td>
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<td>6,500</td>
<td>None</td>
</tr>
<tr>
<td>The University of Nottingham</td>
<td>Education</td>
<td>Public</td>
<td>6,000</td>
<td>Phase Two</td>
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<td>The Siemens Group of Companies</td>
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<td>Private</td>
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<td>New College Nottingham</td>
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<td>Both</td>
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<td>Nottingham * N’shire Fire &amp; Rescue *</td>
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<td>1,000</td>
<td>Both/majority</td>
</tr>
<tr>
<td>DSGi</td>
<td>Financial</td>
<td>Private</td>
<td>1,000</td>
<td>None</td>
</tr>
<tr>
<td>Imperial Tobacco</td>
<td>Manufacturer</td>
<td>Private</td>
<td>1,000</td>
<td>None</td>
</tr>
<tr>
<td>John Lewis</td>
<td>Retailer</td>
<td>Private</td>
<td>1,000</td>
<td>Line 1</td>
</tr>
<tr>
<td>Rolls Royce (Hucknall)</td>
<td>Aerospace</td>
<td>Private</td>
<td>1,000</td>
<td>None</td>
</tr>
<tr>
<td>Vision Express</td>
<td>Optical</td>
<td>Private</td>
<td>1,000</td>
<td>Both/majority</td>
</tr>
<tr>
<td>Broxtowe Borough Council</td>
<td>Local Auth’ty</td>
<td>Public</td>
<td>900</td>
<td>Phase Two</td>
</tr>
<tr>
<td>Castle College</td>
<td>Education</td>
<td>Public</td>
<td>800</td>
<td>Line 1</td>
</tr>
<tr>
<td>Games Workshop</td>
<td>Manufacturer</td>
<td>Private</td>
<td>700</td>
<td>Line 2</td>
</tr>
<tr>
<td>Rushcliffe Borough Council</td>
<td>Local Auth’ty</td>
<td>Public</td>
<td>700</td>
<td>None</td>
</tr>
<tr>
<td>Land Registry (East and West)</td>
<td>Government</td>
<td>Public</td>
<td>600</td>
<td>None</td>
</tr>
<tr>
<td>BT</td>
<td>Telecomms</td>
<td>Private</td>
<td>600</td>
<td>Line 1/majority</td>
</tr>
<tr>
<td>Inkfish</td>
<td>Financial</td>
<td>Private</td>
<td>600</td>
<td>Line 1</td>
</tr>
<tr>
<td>Virgin Media</td>
<td>Telecomms</td>
<td>Private</td>
<td>600</td>
<td>None</td>
</tr>
</tbody>
</table>

Updated: June 2007. Sources: Individual Companies and Organisations, Local Press.

4.23 In light of the above, NET Phase Two can benefit specific growth industries and help foster an environment in which they can grow, thus supporting and facilitating the on-going rebalancing of the Greater Nottingham and wider East Midlands economy. NET Phase Two will also facilitate and support the delivery, and influence the location of housing within the conurbation, which is again supportive of the realisation of local economic aspirations.

4.24 For these economic aspirations to be realised, firms will need to be supported by enhanced labour market access. This will in part be accommodated through population growth in Greater
Nottingham, in addition to improved connections to surrounding areas. The Local Development Frameworks (LDFs) provide an indication of spatial planning policy as they relate to residential development within Greater Nottingham, with potential future housing locations identified. These are identified in Figure 3. As can be seen, approximately 6,400 of these new residential units are located in the NET Phase Two corridors, with significant further residential development designated along the NET Line One corridor.

Figure 3 - LDF Identified Residential Development Locations

The OBC was completed in 2009 in advance of the Government’s decision to abolish Regional Spatial Strategies (RSS). The demand forecasts and economic case for NET Phase Two set out in the OBC of 2009 and in this FBC are not dependent on any future level of development associated with the Regional Spatial Strategy. Whilst the abolition of Regional Spatial Strategies at a national level may have some implications for levels of demand at a conurbation wide level, these impacts are likely to be more short- to medium-term in nature, with the development market envisaged to respond over time to prevailing market demands.

Key Growth Sectors – Relationships with NET Phase Two
4.26 The specific developments listed above - financial and business support services in the City Centre, and development of the ng² Business Park, MediPark and BioCity outside the Centre, exemplify the extent to which NET Phase Two is already influencing the patterns of economic development in Greater Nottingham. Following confirmation of funding/financing arrangements for NET Phase Two, it is envisaged that this scheme will continue to facilitate sustainable future development in the conurbation.

4.27 NET Phase Two will support economic growth within the economy, and in particular growth in knowledge based industries in the following ways:

- Faster and more reliable journey times on NET Phase Two will enhance labour market access to firms from existing residential areas within the conurbation;
- Additional transport capacity will support continued growth to sustainable future employment locations such as Southside Business District, ng² Business Park, MediPark and BioCity;
- Additional transport capacity will support sustainable housing growth in the conurbation, thus widening the pool of labour available to firms;
- Provision of a direct connection with Nottingham Rail station, and two significant park and ride facilities at the southern and southwestern extremity of NET Phase Two will improve labour market access within the remainder of the Three Cities functional economic area (Derby and Leicester), and beyond; and
- Improved connectivity between firms supports knowledge spill-over type ‘agglomeration benefits’ to be realised. NET Phase Two will improve both intra- and inter-conurbation connectivity to the benefit of the local economy.

4.28 Through significantly improved connectivity and enhanced capacity provided by NET Phase Two, the scheme will support the major regeneration areas around Nottingham Hub and support significant numbers of new jobs, primarily in the knowledge intensive financial and business support services sectors. In addition to supporting economic development in Central Nottingham, NET Phase Two is also supportive of important science and technology growth sectors, and in particular those located in MediPark and BioCity outside the City Centre but alongside the alignment of the scheme.

4.29 Analysis undertaken by the Centre for Economics and Business Research (CEBR) has estimated the likely impact of the scheme in terms of facilitating employment growth in Greater Nottingham. This analysis has indicated that improved accessibility within the conurbation arising from reduced levels of congestion and improved public transport accessibility will lead to the creation of up to 10,000 additional jobs in Greater Nottingham by 2021. Most of these
jobs were estimated to be concentrated in Nottingham itself, largely mirroring the locations of growth in key knowledge based sectors. The CEBR concluded that “few other single projects or interventions would have as large an impact on long term employment growth in Nottingham and surrounding areas.”
5. **NET LINE ONE PERFORMANCE**

**Background**

5.1 NET Line One, connecting Hucknall to Nottingham Station with a branch to Phoenix Park, has been in operation since March 2004. The system is fully accessible, delivers high levels of reliability, and has integrated ticketing and extensive park and ride provision, all of which supports high levels of usage. It has delivered against all its key objectives. The network carries around 10 million passengers per annum taking some 3 million car journeys each year off congested city roads and significantly improving accessibility for many travellers. Around 30% of passengers are estimated as having transferred from their cars or use the extensive park and ride facilities. NET Line One has, therefore, been acknowledged as a success, that clearly supports development in the corridor it serves, both commercial and residential.

5.2 The development and operation of NET Line One has led to the scheme being awarded a number of accolades, including:

- Public Private Finance Awards 2002, Best Transport Project over £20m;
- Municipal Journal Achievement Awards 2005, Public Private Partnership Achievement of the Year;
- Public Private Finance Awards 2006, Best Operational Transport Project;
- 4Ps Excellence in Local Government PPP, Regeneration Award for transforming the physical environment for the benefit of local citizens; and
- UK Bus Awards 2007 and 2010, Light Rail Operator of the Year.

**National Audit Office Report into Light Rail**

5.3 NET Line One opened shortly after the National Audit Office report on Light Rail ‘Improving Public Transport in England Through Light Rail’ was published in 2004. This report reviewed the development and implementation of light rail proposals in the UK and highlighted some areas where improvement could be achieved. These have been addressed with the implementation of NET Line One. In particular;

- Poor integration with other transport modes – NET Line One, however, operates with a network of dual purpose feeder bus services and with integrated fares available between operating companies. NET Line One interchanges with three rail stations and
through fares are available. An all operator ‘travelcard’ type ticket is available for use in Nottingham covering bus, tram and local rail services;

- Poor park and ride provision – in contrast NET Line One has over 3100 park and ride spaces at five sites, significantly more provision than all other systems;
- Segregation from and priority over traffic – with high levels of segregation and close cooperation between the Authority and the highway authority, NET has delivered very high levels of operating reliability; and
- Poor financial performance of some systems, discouraging interest in further light rail development – farebox revenue for NET Line One has exceeded original base case expectations.

5.4 The NET Line One operator acknowledged that it was “encouraged by the National Audit Office report into tram systems, whose main recommendations have already been implemented in developing the first line of the Nottingham Express Transit”. The Authority welcomed the report noting that NET Line One and NET Phase Two proposals were fully consistent with the good practice identified in the report, particularly in respect of the need for a robust commercial structure and the recommended actions required to make tram schemes viable.

Planning and Delivery of NET Line One

5.5 Forecasting and appraisal work, focused around the DfT’s New Approach to Appraisal framework, was undertaken during the 1990s with a view to supporting a decision to award funding and ultimately contract closure for NET Line One in early 2000. Separately a monitoring and evaluation programme was used to understand and provide feedback on both development processes and post-implementation outcomes and impacts of NET Line One.

5.6 The Authority experience of the development of NET Line One identified a number of successes and other areas requiring attention. The PFI contract structure, for example, was seen as a success and protected the public sector from cost overrun, whilst design delays and protracted approvals from the various statutory bodies proved challenging for the Contractor and resulted in some late redesign. This experience has enabled a number of key lessons to be learnt that have informed the approaches adopted for the development and delivery of NET Phase Two. An example of action taken as a result of feedback from NET Line One is the letting of a design development contract to provide a greater level of design understanding than for NET Line One which should reduce the delivery risk and resulting cost premium for NET Phase Two (see section 8.3 below).

5.7 NET Line One has been shown to deliver against the key project and wider objectives by:
• Carrying around 10 million passengers per annum, including approximately 30% of users, or the equivalent of approximately 3 million journeys per annum, that have transferred from car to NET or use NET park and ride. After a dip in patronage between 2008 and 2010 demand has recovered to similar levels to those observed before the recent economic recession;

• Providing a step change in the development of high quality park and ride facilities to maintain and enhance sustainable access for commuters to Nottingham. NET Line One offers over 3100 spaces with overall occupancy rates of around 80%. NET Phase Two will develop the park and ride network to provide a further 2400 spaces and cover more of the key approach routes to Nottingham, with NET Park and Ride sites serving all three accesses from the M1 to the city; Junctions 24 to 26 using the A453, A52 and A610 respectively.

• Providing a very reliable system, with performance against the Concessionaires’ Performance Management System targets of around 99%, high levels of customer satisfaction and an industry reputation of the highest standing;

• Improving accessibility for travellers, including those that face barriers using existing bus and rail services. Around 10% of existing NET users have some mobility difficulties ranging from those with a permanent disability to parents or carers with young children in pushchairs. Significant benefits have been observed for such groups with surveys identifying considerable increases in social interaction and resulting in positive social and quality of life impacts.

• Enhancing local interchange facilities by providing a number of new or restructured bus routes, including feeder bus services from isolated outer areas to the tram network. In addition to physical provision, interchange has been enhanced by providing multi-modal ticketing on the system and through ticketing from the national rail network under the ‘PlusBus’ initiative;

• Expanding public transport network capacity, efficiency and market share, enabling increased sustainable access to Nottingham city centre to support and enhance economic activity. The transport capacity provided by NET Line One has significantly expanded public transport provision, with an increase in the number of peak time journeys approaching the city centre and the share being made by public transport increasing from less than 35% to well over 40%;

• Supporting housing and commercial development in the NET Line One corridor. There is evidence to suggest that the system has contributed to higher levels of development activity observed in some areas of Nottingham. Developers have used NET Line One as a key selling point in marketing their developments and have
suggested that they are attracting higher value tenancies. NET Phase Two is already being used in a similar way to market the prestigious ng² business park, being featured in key sales literature and publicity;

- Acting as a catalyst for development in Nottingham City Centre, with major developments coming on line following the introduction of NET; e.g. closure of a car park and redevelopment as a hotel adjacent to the Trent University tram stop, major redevelopment of the new Lace Market Square at the Lace Market tram stop, including a further hotel development.
- Supporting the wider image of Nottingham as a dynamic ‘continental city’. The widespread use of NET as an image of the City-Region is beneficial in attracting external investors.

5.8 Development of NET Phase Two has been informed by both the clear successes of Line One and lessons from the few areas where NET Line One has not met expectations; including very localised noise issues. Fundamental ‘success’ features include the need for high capacity well located park and ride facilities, high levels of service reliability and system accessibility in its widest sense to ensure benefit delivery.

5.9 In giving evidence to the Public Accounts Committee of the House of Commons in response to the National Audit Office Report, David Rowlands, then Permanent Secretary at DfT acknowledged Nottingham “got everything just about right... with proper park and ride provision, vehicles that work, well integrated with the local bus system, and so on.” He went on to suggest that he “cannot see any reason in principle why the Nottingham system should not be expanded.”

5.10 Overwhelmingly, NET Line One has been a success. As a transport system NET Line One has demonstrated high levels of performance and provided a renewed market and policy confidence that well configured light rail systems can meet the challenging expectations set for them both locally and nationally. More importantly from a wider policy perspective, NET Line One has made a significant visible contribution to meeting the transport and economic objectives of Nottingham, providing a step change in transport provision and the support that transport offers to the economy and wider well being of Nottingham.

5.11 The Authority, in response to this success, has a clear appetite to develop the network further and widen the delivery of benefits for both local populations and for the Greater Nottingham conurbation in its important role as regional centre of the East Midlands.
6. **ECONOMIC APPRAISAL AND COST/BENEFIT ANALYSIS**

6.1 The performance of NET Phase Two has been considered in accordance with Department for Transport’s appraisal standards, initially as set out within the Department’s New Approach to Transport Appraisal (NATA). The NATA assessment against all objectives, including the monetised cost benefit analysis, was used to assess whether the proposal will help meet Government objectives and offers value for money. The methodology used is in line with the Treasury guidance Appraisal and Evaluation in Central Government (The Green Book).

6.2 In September 2009, after submission and acceptance of the OBC, a set of updated ‘goals’ were identified by Government for transport appraisal, as set out through Delivering a Sustainable Transport System; the Department’s strategic response to the Eddington and Stern reports on transport and the economy, and the economics of climate change respectively. A full reworking of the NET appraisal case using the updated DfT goals was not undertaken, but would not have been expected to significantly change the wider assessment of performance of NET Phase Two.

6.3 In April 2011 the DfT confirmed the position of the Appraisal Process, largely reverting back to the earlier version of the NATA type approach and objectives. The currently adopted guidance therefore maintains the objectives used in the OBC: environment, safety, economy, accessibility and integration. The assessment reported below is therefore based on the current DfT appraisal guidance, noting this is no longer referred to as NATA.

6.4 The key patronage and economic appraisal impacts of NET Phase Two were set out in the OBC of 2009. As part of the tendering process in 2010/11, the Preferred Bidder for NET Phase Two, Tramlink, developed its own passenger demand forecast in order to drive the assessment of engineering requirements and financial performance. The relativities between the Preferred Bidder’s demand forecasts and the forecasts underpinning the OBC appraisal can be used as a proxy for potential movement in benefit delivery.

6.5 Table 2 compares the headline patronage and revenue forecasts between the OBC and Preferred Bidder’s ‘equity’ forecasts, identifying that whilst there are some differences in the forecasts, in strategic terms expected patronage is similar between the two sources.
Table 2: NET Line One and Phase Two Forecasts – Promoter and Preferred Bidder

<table>
<thead>
<tr>
<th>NET Line One and Phase Two</th>
<th>Integrated System Forecasts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2015/6</td>
</tr>
<tr>
<td></td>
<td>1st full year</td>
</tr>
<tr>
<td>Annual Patronage (millions of passengers)</td>
<td>24.1</td>
</tr>
<tr>
<td>- Promoter Forecasts (OBC 2009)</td>
<td>25.1</td>
</tr>
<tr>
<td>- difference in forecasts</td>
<td>4%</td>
</tr>
<tr>
<td>Annual :Revenues</td>
<td>0%</td>
</tr>
</tbody>
</table>

6.6 Therefore, with a slightly enhanced scheme specification offered by the Preferred Bidder, (and similar levels of service provision and forecast patronage), the current NET Phase Two scheme would be expected to deliver broadly similar levels of benefit, both quantitative and qualitative, to those set out in the OBC. NET Phase Two, following the tendering exercise, is expected to deliver the following performance against the DfT objectives;

- **Environment** – the NET Phase Two extensions will generate environmental impacts from general reductions in traffic flows arising from modal transfer direct to NET or via extensive park and ride provision. This will result in a small but significant reduction in carbon dioxide and other emissions, taking into account those emissions generated by the operation of the system. The scheme will have a number of localised adverse impacts, primarily on some residents adjacent to the NET alignments with respect to noise and visual amenity, but also in relation to biodiversity and townscape character. Opportunities exist for mitigation, with significant works planned and committed in key or sensitive locations;

- **Safety and Security** – the NET Phase Two extensions will be expected to generate safety benefits arising from reduced traffic flows leading to small changes in accident exposure and numbers of accidents. Personal security benefits will be realised due to active and passive security provision and best practice design on the NET vehicles and in accessing the system at NET stops and in the vicinity of the stops;

- **Economy** – the NET Phase Two extensions are expected to generate significant monetised economic benefits, through a combination of public transport, park and ride and road user benefits. NET Phase Two will also improve journey reliability for both public transport users and road users, and by providing a step change in public transport provision and network capacity it will assist in maintaining and enhancing sustainable
economic activity in Greater Nottingham and contribute to regeneration in deprived areas and local district centres. Encouraging more companies to invest in the area through improved accessibility may result in wider economic benefits, such as agglomeration benefits and competition effects. Although these benefits are not included in the monetised appraisal, they will generate significant benefits for Nottingham;

- **Accessibility** – improvements will be facilitated by NET Phase Two through the creation of new links between communities and key destinations. NET Phase Two will serve catchment areas including nearly 2,000 workplaces within Greater Nottingham and will serve key university sites as well as secondary education sites, the region’s main hospital, the QMC, and other commerce, retail and leisure activities in Nottingham City Centre. The expanded network will also offer cross-city movements, improving the range of travel destinations available to some of the deprived areas on NET Line One and serving a number of the key district centres in Greater Nottingham. The expanded transport links will provide residents with greater accessibility to employment and businesses with increased accessibility to potential workforces. The improved physical accessibility to NET Phase Two trams and stops will also deliver quality of life benefits for some user groups, such as the mobility impaired, similar to those observed on NET Line One; and

- **Integration** – NET Phase Two will foster further public transport integration within Nottingham, providing through services onto NET Line One and linking key interchanges for rail, local bus and, through the provision of extensive park and ride facilities, to the road network. By increasing the efficiency of the public transport network, NET Phase Two provides an opportunity to release City Centre bus stop capacity to facilitate improvements in bus frequencies in other corridors or for re-use in support of other policy objectives, such as environmental or economic regeneration. The proposals are strongly integrated with current land use planning and other policies and build on the successful investment in NET Line One.

6.7 In addition to contributions to meeting the national objectives, NET Phase Two supports local objectives, especially with respect to enhancing network capacity and efficiency, congestion relief, (by providing sustainable alternatives to the private car and by reinforcing and expanding the benefits delivered by NET Line One), local accessibility, offering strong support to meeting social inclusion objectives and acting as a catalyst to community regeneration.

6.8 These local transport, economic and wider benefits are essential in maintaining and providing for economic vitality and expansion of the area, especially in relation to growth agendas, such as the need to accommodate employment and housing growth. NET Phase Two will increase the ability of the transport networks to support this strong growth and meet future challenges, by offering a high quality, high capacity, reliable and environmentally friendly public transport
service. Further considerations include an increasing emphasis on environmental priorities, including delivering sustainable transport outcomes to support economic growth.

6.9 The economic performance of NET Phase Two was developed for the OBC through the established DfT Cost Benefit Analysis process underpinning the Economic Efficiency sub-objective. This draws on both scheme costs and benefits to develop a net present value and Benefit to Cost ratio for the proposals.

6.10 The capital costs set out in the OBC used for Conditional Approval for NET Phase Two were subject to scrutiny during the development of the scheme, including through the government’s review of the value for money case for the scheme. They were also evaluated closely during the illustrative design development phase let by the Promoters to improve scope certainty and mitigate cost risk in moving towards tendering.

6.11 The Preferred Bidder’s construction costs for the delivery of NET Phase Two are one of the key drivers of its affordability requirements. Table 3 provides a comparison between the costs underpinning the OBC appraisal and those developed post-tender using the Preferred Bidder capital expenditure costs, plus other costs incurred by the Authority. The table show a broad alignment of costs allowing for increased certainty in the underlying cost estimates and reduced optimism bias premiums; assumed to fall from an 18% premium on the Authority’s costs at OBC to 9% (capital expenditure) /5% (other) on the Preferred Bidder costs reported here.

Table 3 – Capital and Related Costs for OBC 2009 and Post Tender Costs

<table>
<thead>
<tr>
<th>NET Phase Two Costs</th>
<th>OBC 2009. Appraisal Costs</th>
<th>Post Tender Preferred Bidder</th>
</tr>
</thead>
<tbody>
<tr>
<td>(£m cashflow/nominal)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital and Related Costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Construction Costs</td>
<td>401.6</td>
<td>415.8</td>
</tr>
<tr>
<td>- Land</td>
<td>46.4</td>
<td>46.4</td>
</tr>
<tr>
<td>- Client costs</td>
<td>34.5</td>
<td>34.5</td>
</tr>
<tr>
<td>Allocated Optimism Bias Premium</td>
<td>86.8</td>
<td>41.5</td>
</tr>
<tr>
<td>Total Construction Costs</td>
<td>569.3</td>
<td>538.1</td>
</tr>
</tbody>
</table>

Appraisal Value for Money

6.12 The DfT uses appraisal information as one of the key inputs into decisions about whether transport schemes and proposals should go ahead. The impacts identified in the appraisal and the monetised benefit to cost ratios (BCR) are used alongside non-monetised impacts of the
proposals, such as regeneration, environmental and integration effects (both beneficial and adverse), to provide an assessment about whether a proposal will help meet DfT/Government objectives and offers value for money.

6.13 The cost benefit analysis for NET Phase Two reported in the OBC of 2009 was undertaken in accordance with DfT appraisal guidance and was used to provide a measure of the Value for Money of the scheme. Over the 60-year appraisal period, the scheme was estimated to have a present value of benefits of over £1,100 million, and a present value of the appraisal cost stream of just over £400 million. Within the OBC, the benefit to cost ratio was calculated to be 2.47, with an appropriate optimism bias premium at the OBC stage of 18%. Table 4 shows the OBC appraisal using a simplified compression of the standard Transport Economic Efficiency, Public Accounts and Analysis of Monetised Costs and Benefits tables.

Table 4: Summary of Economic Performance at OBC Stage

<table>
<thead>
<tr>
<th>£m PV 2002 prices</th>
<th>Total</th>
<th>Public Transport</th>
<th>Park &amp; Ride</th>
<th>Highway</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Benefits</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Consumer and Businesses</td>
<td>1130</td>
<td>451</td>
<td>197</td>
<td>482</td>
</tr>
<tr>
<td>Monetised Environmental Benefits</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total (=PV Benefits)</td>
<td>1140</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Accounts (=PV Costs)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Local and Central Government</td>
<td>-404</td>
<td>-377</td>
<td>-27</td>
<td></td>
</tr>
<tr>
<td>Net Present Value (NPV)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- with 0% optimism bias</td>
<td>736</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benefit to Cost Ratio (BCR)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- with 0% optimism bias</td>
<td>2.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- with 18% optimism bias</td>
<td>2.47</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6.14 Following the NET Phase Two tendering exercise, the current anticipated benefits are expected to be broadly similar to those reported in the OBC with capital costs a little lower than those used in the OBC when using an appropriate optimism bias premium reflecting the current project status, the monetised benefit to cost ratio for the post-tender scheme is anticipated to remain largely unchanged and significantly in excess of 2.0. With small but generally positive changes in scheme specification and limited changes on non-monetised benefit delivery, the ‘value for money’ allocation for the NET Phase Two, taking in the wider non-monetised scheme benefits, is anticipated to remain in the ‘High Value for Money’ category.

6.15 It should also be noted that the monetised BCR does not include any monetisation of wider (economic) impacts, and although these have not been quantified here they are likely to generate benefits to the Nottingham economy through long-term capacity to drive growth agendas, direct support to a number of regeneration or development areas and a widening of the labour market pool to assist business efficiency and growth.
It is planned to introduce a WPL in Nottingham during 2012 to provide a significant proportion of the local funding required for NET Phase Two. Sensitivity testing of the NET Phase Two demand and benefit forecasts has been undertaken to establish the impact of WPL on the case for the scheme. These tests suggest in broad terms the impact of WPL on NET Phase Two demand is neutral with little real change in forecast demand on the NET system arising from introduction of the levy. As such it is not deemed that WPL will have any material impact on the value for money of NET Phase Two
7. OPTIONS APPRAISAL AGAINST LOWER COST ALTERNATIVES

7.1 The development of the NET Phase Two proposals has been undertaken within a framework that has sought to consider, in some detail, alternative options and technologies. The assessment has included processes similar to those suggested by the Commission for Integrated Transport in their Affordable Mass Transit Guidance in using a staged process to filter down from a wide range of options to a more focused set analysed to a similar level of scrutiny.

7.2 Following early consideration of a wide range of strategy and technology options, the performance of the NET Phase Two proposals was tested against a range of lower cost alternatives. These included:

- Improvements to the local rail network;
- Enhanced bus priority measures; and
- Provision of a high quality bus rapid transit network in the Clifton and Beeston / Chilwell corridors based around provision of a largely dedicated alignment similar to the NET Phase Two proposals.

7.3 The assessment of NET Phase Two and the high quality bus rapid transit alternatives included appraisals of each option. Assessments were also made of the key practicality and acceptability issues constraining the delivery of alternative options. This analysis was extensively scrutinised during detailed dialogue with the DfT in advance of the earlier funding approvals and through the Transport and Works Act Order public inquiry.

7.4 The alternative approaches have been identified as providing a level of economic benefits broadly commensurate with their scheme cost, but at a much lower level than the NET Phase Two proposals. The formal economic appraisal of the high quality bus rapid transit alternative identified lower costs, but a present value of economic benefits of half the NET Phase Two proposals. This resulted in a much lower benefit to cost ratio which would place the alternative in the medium value for money category; NET Phase Two is in a high value for money category.

7.5 The alternatives are also unable to meet national, regional, or local objectives as effectively as NET Phase Two. There are also wider practicality and development issues that question the deliverability of the core high quality bus rapid transit network alternative, thereby confirming the strengths of the NET Phase Two proposals compared to these alternatives. In particular:
• *Rail.* - only very limited opportunities exist for the rail network to contribute to improved public transport in Greater Nottingham. Although East Midlands Parkway station opened in January 2009 this does not directly address the travel needs of the communities of south west Nottingham, nor will it offer a level of service appropriate to replace the extensive NET Phase Two park and ride facilities for journeys into Nottingham itself. Other proposed or long-term network enhancement will not be able to significantly change the minor role of rail in meeting travel demand in Greater Nottingham.

• *Enhanced bus priority.* - the Greater Nottingham bus strategy identifies where additional bus priorities could be valuable in areas of congestion along the main radial corridors into Nottingham, however those identified in the NET Phase Two corridors remain some of the most challenging to implement. Although it would be possible to implement some of these measures, the relatively low costs and modest benefits will be orders of magnitude less than those of NET Phase Two, and any improvements are considered to be complementary to the NET Phase Two proposals.

• *High quality bus rapid transit network.* - the high quality bus rapid transit appraisal included examining some of the newer bus-based technologies and seeking to maximise use of the proposed NET Phase Two alignments. In practice however it would not be possible to run the alternative along the same alignment as NET in the constrained city centre, nor would it be possible to operate the same level of signal priority along the two routes as a higher number of buses would need to operate to match the capacity of NET Phase Two. Although it would be possible to avoid some of the costs and other impacts of the NET Phase Two proposals by routing the bus system onto the local road network in some difficult locations, generally such areas are the most essential parts of the proposals where significant journey time and reliability benefits can be realised, and such a move would significantly compromise the benefits of an alternative bus based scheme.

• There is also a shortage of road space and bus stop capacity in the central area for additional bus services. City Centre capacity is one of the key problems identified within Nottingham with active management of bus stop capacity being handled through a Statutory Quality Partnership Scheme introduced in 2010. Furthermore NET Phase Two expands capacity, but requires no increase in facilities in the City Centre as the NET Line One infrastructure and stops are already in place through the city centre. In contrast, a new high quality bus rapid
transit system will require additional terminal space in central Nottingham, compromising operations of an already very congested network further. This will reduce reliability of the bus alternative, impinging on the public realm and the ability to maintain or expand current levels of service in corridors not served by NET due to lack of road space and bus stop capacity in the City Centre.

7.6 NET Phase Two will enhance network productivity and efficiency, building on the success of NET Line One with through running services. By providing a fully integrated system and creating a wide range of new journey opportunities, social inclusion objectives will be supported by improved accessibility, particularly to employment, educational and health facilities. A new major bus-based transport system operating in the corridors will be unable to deliver these physical and wider accessibility benefits, with reduced connectivity, poorer reliability and reduced ability to guarantee level or step free access to services for all users throughout the system.

7.7 In granting NET Phase Two Programme Entry and Conditional Approvals, and after detailed scrutiny of the economic and wider appraisals, DfT identified NET Phase Two as the best value for money when compared with other alternatives. There have been no subsequent changes in the local transport network, funding or other circumstances to suggest that this conclusion should be changed.
8. PROCUREMENT STRATEGY

8.1 Initial Options Appraisal

8.1.1 Prior to launching the procurement of NET Phase Two, Nottingham City Council (the Authority) undertook a comprehensive procurement strategy options analysis. A summary options appraisal analysing potential contract structures, as submitted to DfT with the OBC in May 2009, is set out at Appendix 1. In summary, the contractual structures considered by the Authority in respect of the procurement and implementation of NET Phase Two were:

- Option 1 - Design, Build, Finance, Operate and Maintain (DBFO) - Under this option (which was successfully employed for NET Line One), one contractor would be appointed as the single point of accountability for all aspects of the project.

- Option 2 - Design, Build, Operate and Maintain (DBOM) - This structure, which was used by Centro for the original Midland Metro concession, is the same as Option 1 (DBFO), but without any external private sector project finance.

- Option 3 - Design, Build, Finance and Maintain plus Operate (DBFM+O) - Under this structure, which has been used by TfL for extensions to the Docklands Light Railway, the DBFM contractor is responsible for providing and maintaining the infrastructure on the basis of PFI availability payments and a separate operating concession agreement is awarded.

- Option 4 - Design and Build plus Operate and Maintain (DB+OM) - Under this option, used by GMPTE for Manchester Metrolink Phase 3A, an operating and maintenance concession and separate turnkey design and build contract would be awarded.

8.1.2 Following detailed analysis of each of these options, the Authority reached the following conclusions:

8.1.2.1 Option 2 (DBOM) does not, in this instance, offer any advantages when compared with Option 1 (DBFO). However, this structure does have significant disadvantages (e.g. in terms of not incentivising whole life costing and the achievement of passenger focused outputs through a PFI performance regime and payment mechanism) and was therefore dismissed;
8.1.2.2 Option 3 (DBFM+O) was dismissed because it is impractical in the context of NET Phase Two, given the interface problems that would arise from the division of operations on the one hand and design, construction and maintenance on the other, as specified in section 4 of Appendix 1 (Procurement Strategy);

8.1.2.3 Option 4 (DB+OM) was dismissed because this structure does not deliver optimal whole life costing or transfer significant long term risk to the private sector. It also does not achieve a clear and full transfer of integration risk between the build contract and the operation and maintenance concession. Furthermore, because the operator would not receive ongoing unitary charge payments in respect of which performance deductions may be made, the operator will be less incentivised to achieve passenger focused outputs.

8.1.3 Accordingly, as detailed in the OBC, the Authority's preferred procurement route which was adopted for the project was Option 1 (DBFO), for the following key reasons:

- Full transfer of system integration risk - the concessionaire will be required to deal with any system integration problems (e.g. inability of the operating sub-contractor to meet timetable requirements due to design failure), for which the Authority will be entitled to reduce the unitary charge. The experience of construction and commissioning of NET Line One was that there were significant system integration matters e.g. the rail/wheel interface, which had to be resolved before NET Line One could be brought into operation. As a result of the PFI DBFO structure employed for NET Line One, the promoters were held harmless from the effects of this risk. The Authority does not have and does not seek the capacity to absorb the interface risks inherent in other procurement methods.

- Whole life costing optimisation - the concessionaire will be incentivised to ensure that the system is designed to optimise whole life cost over the life of the project and to satisfy handback requirements.

- Incentivises achievement of passenger focused outputs - the performance regime and payment mechanism will provide greater incentive than under any other procurement option to achieve passenger focused outputs (e.g. service frequency and ride quality) because failure to achieve performance standards will result in the concessionaire suffering deductions from the unitary charge.

- Network flexibility - future extensions will be included within the scope of the procurement, using a BSF style approach which was developed with leading counsel, Kenneth Parker QC and Michael Bowsher QC. This will enable future
extensions to be implemented without terminating the concession for NET Phase Two. Further information is provided in section 9.3.13 below.

- Market appetite - this approach follows the positive market feedback received on the use of a DBFO structure, with a similar payment structure to NET Line One.

- Street running - grouping of operations and maintenance in a street running environment reflects the preferred approach of the market.

- Revenue risk - the concessionaire will have overall control in respect of design, construction, maintenance, life cycle replacement and operation allowing the concessionaire to have greater influence on patronage revenue and take farebox revenue risk. The NET Line One concession agreement transferred full revenue risk to the concessionaire. The Authority, unlike TfL and some of the other Passenger Transport Authorities, does not have the budgetary flexibility to prudently retain substantial revenue risk and therefore its preference was for there to be no revenue risk share on NET Phase Two either. This approach was accepted by both bidders.

- Value for money - the Authority undertook both qualitative and quantitative Value For Money assessments in accordance with HM Treasury guidance. In summary, the results of the analysis shows a value for money benefit from using a PFI approach.

8.1.4 Since the time at which the Authority selected DBFO as its preferred procurement route there have been no significant developments in the market or the scope of the project to suggest that an alternative procurement strategy should be re-considered. As such, the Authority has determined that the DBFO option remains the most appropriate and preferred option for the project.

8.2 Market Testing

8.2.1 Development of the preferred procurement approach was informed by a series of market testing exercises, the first of which was undertaken in 2003 following publication of a Prior Information Notice in OJEU. Thirteen organisations participated and a summary of the responses is set out at Appendix 2. The exercise demonstrated considerable interest in the project and widespread market support for the use of procurement Option 1 (DBFO).

8.2.2 In 2006, prior to submitting the skeleton OBC to DfT, the Authority conducted a soft market testing exercise amongst a range of funders active in the UK PFI and light rail
markets. This exercise sought their initial views on matters such as revenue risk sharing. A positive response was received and the results of this exercise are summarised in Appendix 3.

8.2.3 In order to ensure that the Authority's preferred approach continued to reflect current market sentiment, the Authority conducted a further market testing exercise, following publication of a Prior Information Notice in OJEU, in the first quarter of 2008. Nineteen organisations responded to the questionnaire and the responses indicated a good level of market interest in the project and general support for Option 1 (DBFO). A summary of the responses is set out at Appendix 4.

8.2.4 As a result of comments made in the 2003 market test regarding the availability of vehicles compatible with NET Line One, the 2008 market test explored the possibility of separating the vehicle procurement from the DBFO concession in order to ensure that the number of viable bidders for the concession would not be unduly restricted. However, significant interest in the scheme was shown by vehicle suppliers with a suitable product range and the majority of respondents expressed a preference for a single procurement process. In particular, respondents identified a number of substantial system integration and programme issues arising from a separate vehicle procurement. They expressed the view that allowing consortium members to work together in the bid phase enables key elements and risks to be discussed and agreed between consortium members pre-bid submission to maximise value for money to the Authority. This would not be as easily achieved if the vehicles were procured separately. Accordingly, the possibility of conducting a separate vehicle procurement was dismissed.

8.3 Design Development

8.3.1 As previously described in the OBC, a measure which the Authority undertook prior to launching the procurement process in order to mitigate the risk of delays in the programme and cost overruns as a result of uncertainties in the project was to appoint a Design Services Consultant to further develop the project design produced for the Transport and Works Act Order (TWAO) submission. Prior to appointing the Design Services Consultant, the Authority undertook a market testing exercise in order to help inform the scope of services and the structure of the Design Services Contract. Following the market testing exercise, the Authority launched a competitive procurement under the restricted procedure in December 2006 which concluded with the award of the Design Services Contract to Mott MacDonald Limited.
8.3.2 The design development was undertaken by Mott MacDonald in parallel with the TWAO process and provided clarity on both the scope of work to be priced by concessionaire bidders and the extent of risk to be taken by them. This approach was well received by the bidders.

8.3.3 The design was also developed to enable key third party consents to be advanced and in some circumstances obtained, including planning approvals, thereby allowing concessionaire bidders to price with greater cost and programme certainty and less risk consideration than would alternatively be the case.

8.3.4 By undertaking the design development in parallel with the TWAO process, it is estimated that the overall programme for the procurement and implementation of the scheme was reduced by several months.

8.4 **Role of Nottinghamshire County Council**

8.4.1 Initially, the Authority and Nottinghamshire County Council (County Council) jointly developed the proposals in respect of NET Phase Two and worked together to co-promote the project in the same manner as for NET Line One and references to the Authority in preceding paragraphs, for many of the activities, include the County Council. However, prior to commencement of the procurement process and following a change in political administration, the County Council subsequently withdrew from the project, leaving the Authority as the sole promoter. The Authority has committed to delivering the project alone and securing the necessary local funding contribution, which will primarily come from the introduction of the WPL.

8.4.2 The TWAO made in respect of the project was drafted in such a way as to enable either the Authority or the County Council to promote the project on its own and therefore the powers granted under that order were not adversely affected by the County Council's decision to withdraw from the project.

8.4.3 The Authority has negotiated a Settlement Agreement with the County Council, detailing the process for the withdrawal of the County Council from both NET Phase Two and (with effect from financial close) NET Line One. This agreement includes confirmation by the County Council that the Authority may act on its behalf in agreeing the compensation amount payable to the existing concessionaire on termination of the NET Line One concession agreement and also deals with the transfer by the County Council of all of its relevant rights and obligations under the existing project documents.
8.5 **Procurement Process**

8.5.1 The procurement process adopted by the Authority for NET Phase Two is fully in accordance with the procurement strategy submitted to DfT with the OBC and gives effect to the preferred procurement option identified therein.

8.5.2 As a DBFO concession under which significant revenue risk will be borne by the concessionaire, the proposed contract is most properly classified under the Public Contracts Regulations 2006 (Procurement Regulations) as a public works concession. As such, the procurement is exempt from the provisions of new regulation 1370/2007 in respect of public passenger transport by rail and road and, subject to the requirement to advertise in OJEU, the Authority was free to choose any form of procedure for the procurement process provided it is fair and transparent. In view of the high cost associated with bidding for light rail PFI concessions and feedback from the market following the Leeds Supertram and South Hampshire Rapid Transit procurements which indicated that a full competitive dialogue procurement for a PFI light rail concession would receive less interest from the market than a negotiated procurement, the Authority elected to follow a procedure based on the negotiated procedure.

8.5.3 The 2008 market testing exercise demonstrated strong support from the market for the use of thenegotiated procedure because of the advantages in terms of timescales, costs and flexibility. An opinion from leading Counsel, Michael Bowsher QC, confirming the above analysis is set out at Appendix 5.

8.5.4 The procurement process implemented by the Authority comprised the key stages outlined below. At all key stages during the procurement process (including the development of the procurement documentation, the evaluation of tenders and the process of de-briefing the unsuccessful bidder), the Authority has taken due regard of the requirements of procurement law and the principles of fairness, transparency and non discrimination under the EU treaty.

8.5.4.1 **OJEU and Prequalification**

(a) On 24 September 2009, the Authority dispatched a contract notice in the Official Journal of the European Union (reference 2009/S 185-266306) (OJEU Notice) inviting expressions of interest in relation to the project. A copy of the OJEU Notice is provided at Appendix 6. Following publication of the OJEU Notice, the Authority issued a pre-qualification questionnaire (PQQ) to those entities that
expressed an interest in the project. A copy of the PQQ is provided at Appendix 7. Responses were received from two consortia as follows:

- Tramlink Nottingham - principally comprising Vinci, Alstom, Keolis and Wellglade Limited (Trent Barton); and

- Arrow Connect - principally comprising VolkerRail (who were subsequently replaced by FCC as lead construction contractor), Bombardier, Transdev and Nottingham City Transport.

(b) The evaluation criteria used in assessing bidders' responses to the PQQ is in accordance with the requirements of the Procurement Regulations and is set out fully at paragraph 2.4 (Evaluation Criteria) of the PQQ. In summary, the high level evaluation criteria and weightings were as follows:

- Pass/fail criteria relating to the solvency and professional reputation of the bidder;
- Financial - 20%;
- Technical/Professional Ability - 77.5%; and
- Health and Safety issues - 2.5%.

(c) Following evaluation of PQQ responses in accordance with the above criteria, it was determined that both bidders had passed the pass/fail criteria and therefore they were both shortlisted to proceed to the next stage in the procurement process.

8.5.4.2 Invitation to Negotiate Stage

(a) The invitation to negotiate (ITN) was issued to both bidders in November 2009. A copy of the main body of the ITN is provided at Appendix 8. The appendices to the ITN are available if required.

(b) Prior to tenders being submitted by bidders, both bidders had the opportunity to meet with the Authority and its legal, technical and financial advisors on a number of occasions and to raise clarification queries in order to help them develop tender proposals. Responses to the ITN were received from both bidders on 20 May 2010 and a number of further discussions were subsequently held with bidders in order to clarify the responses.
Bidders' responses to the ITN were evaluated in accordance with the evaluation methodology and criteria set out in paragraph 16 (Evaluation Procedure and Criteria) of the ITN. In determining the evaluation methodology, the Authority's principal objectives were:

(i) to ensure compliance with procurement law and the Authority's standing orders relating to procurement;

(ii) to uphold the values of transparency, fairness and non discrimination enshrined in the EU treaty;

(iii) to produce an effective evaluation methodology, which properly identifies those aspects of the bids which are of greatest importance to the Authority, thereby ensuring that the submission that best fits the Authority's requirements and provides the most economically advantageous offer is successful; and

(iv) to ensure that the Authority complies with its duties to obtain value for money.

The evaluation criteria was therefore carefully crafted by the Authority post submission of the OBC to ensure these objectives were met and that the highest scoring tender was that which provides the most economically advantageous offer and best value for money. Affordability is clearly a key driver in any public sector project and the Authority structured the criteria in a manner which incentivised bidders to ensure their prices were below the Authority's affordability target, without compromising on the quality of the solution.

In summary, the criteria were as follows:

- Legal - maximum possible score of 10 points;
- Technical - maximum possible score of 80 points;
- Qualitative Financial Review - maximum possible score of 10 points.

In addition to the scoring regime set out above, in order to ensure that bidders recognised affordability to be a critical issue for the Authority the net present value of the unitary charge proposed by bidders (i.e. their price) was evaluated as against the Authority's benchmark figure of £570m as follows:
• 0.5 of a point was added to the score for each £1m by which the proposed unitary charge was less than 570, subject to a cap of a maximum of 20 additional points;

• 1 point was deducted from the score for each £1m by which the proposed unitary charge exceeded 570;

• An additional 1 point was deducted from the score for each £1m by which the proposed unitary charge exceeded 600; and

• An additional 8 points was deducted from the score for each £1m by which the proposed unitary charge exceeded 636.

(g) During the evaluation process, the Authority held regular meetings with the team responsible for the evaluation to ensure that the team fully complied with the evaluation methodology and applied the disclosed evaluation criteria.

(h) Following evaluation of ITN responses in accordance with these criteria, scores were awarded to the various tenders submitted by the bidders as follows:

<table>
<thead>
<tr>
<th>Bid Description</th>
<th>Score</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrow Connect Base Bid</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>Arrow Connect Variant A</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Arrow Connect Variant B</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Arrow Connect Variant C</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Arrow Connect Variant D</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>Tramlink Nottingham Base Bid</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Tramlink Nottingham Variant A 1a</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Tramlink Nottingham Variant A 1b</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Tramlink Nottingham Variant A 1c</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Tramlink Nottingham Variant A 1d</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Tramlink Nottingham Variant B</td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>
In summary, both bidders scored relatively comparably in the legal and financial sections of the evaluation, although as a general rule Tramlink marginally outperformed Arrow Connect. The greater disparity between the bidders came in the technical section of the evaluation, where Tramlink consistently scored more highly than Arrow Connect. The headline reason for this was that Tramlink had more fully taken account of specific project issues, constraints and risks and therefore (based on the application of the evaluation criteria) had submitted more developed management, technical, implementation and operational proposals.

8.5.4.3 Preferred Bidder Stage

(a) On the basis of the evaluation results set out above, the Authority selected Tramlink as its preferred bidder in March 2011. Throughout the procurement process, the Authority had reserved its position as to whether a BAFO stage would be held prior to selection of preferred bidder. However, the responses received to the ITN were so well developed and competitive that, following the negotiation process, there were relatively few significant legal, technical or commercial issues outstanding with either bidder. As such, rather than putting bidders to the expense of a full BAFO process which would have been unnecessary, the Authority instead issued a final clarification requesting bidders to formally respond on specified issues and also giving the bidders the opportunity to refine their ITN responses in a manner which they considered would be attractive to the Authority. This led to both bidders offering significant cost reductions and the Authority was therefore confident that it had obtained the best value for money solution achievable through the procurement process.

(b) At the time of selection of preferred bidder, the terms of the concession agreement and ancillary project documents to which the Authority is party were already substantially agreed. Since then, the Authority has worked closely with Tramlink Nottingham to resolve any outstanding legal issues and is confident that the terms of the documents will be settled shortly and certainly in advance of the programmed financial close date.

(c) Any material changes to the terms of Tramlink Nottingham's offer prior to financial close will be scrutinised by the Authority to ensure that the offer still represents best value for money and to ensure that such changes would not (if
known prior to selection of preferred bidder) have affected the outcome of the evaluation process.

(d) Following selection of Tramlink Nottingham as preferred bidder, in accordance with the Public Contracts Regulations 2006 the Authority held a full debriefing session with Arrow Connect.

8.6 Termination of NET Line One Concession Agreement

8.6.1 The existing NET Line One concession agreement entitles either party to terminate the agreement in the event that the Authority’s tender any network extension and provides for the Authority to pay compensation to the existing concessionaire (Arrow Light Rail Limited) on termination. In accordance with the terms of this agreement, a termination notice was provided to Arrow in March 2011. Based on the provisions of the NET Line One concession agreement, the Authority is in the process of finalising with Arrow the terms of an agreement to more fully document the process of system handover and the amount of compensation payable on termination. The current calculation of the termination payment is described in Appendix 9. The Authority is working with Arrow and its advisors to ensure that this termination arrangement is structured in a manner which optimises value for money.

8.6.2 In accordance with the terms of clause 51 of the NET Line One concession agreement, a survey has been performed on NET Line One to ascertain whether any remedial works are required to be undertaken by Arrow to ensure compliance with the NET Line One concession agreement prior to the termination date. In the event that Arrow fails to undertake such works in the required timescales, the costs associated with such works will be deducted from the equity element of the amount of compensation payable to Arrow and Tramlink will undertake such works as part of the new NET Phase Two concession agreement.

8.6.3 In parallel with the discussions between Arrow and the Authority, Arrow and Tramlink are working together in order to facilitate the effective transfer of responsibility for NET Line One to Tramlink. As part of this process, it is envisaged that Tramlink will enter into a form of direct contract with Bombardier Transportation UK to deal with ongoing maintenance and/or provision of spare parts in respect of the existing NET Line One trams.

8.7 Employee Issues
8.7.1 It is envisaged that some of Arrow's subcontractors’ staff will transfer to Tramlink or its subcontractors under TUPE on termination of the NET Line One concession agreement. No staff will transfer from the Authority or from Nottinghamshire County Council. During the procurement process, the Authority made available certain information relating to the relevant employees and Tramlink is now in direct discussions with Arrow to obtain updated information (where relevant). Tramlink and Arrow have between them agreed a methodology to regulate the transfer process and ensure as far as possible that appropriate consultation arrangements are in place in line with good practice guidance.

8.7.2 The NET Phase Two concession agreement includes standard PFI TUPE drafting so that transferring employees’ terms and conditions will continue to be honoured.

8.7.3 Under the terms of the NET Phase Two concession agreement, the Authority will indemnify Tramlink in the unlikely event of an unanticipated TUPE transfer or pre-existing employment claim. The Authority considers this to be the most appropriate allocation of this risk as, with its detailed knowledge of Arrow's staffing arrangements, it is best placed to identify the potential staff to which TUPE will apply and by virtue of the "Assignability Agreement" made between the Authority and the NET Line One operating sub-contractor, the Authority has direct recourse against the operating sub-contractor in relation to the discharge of pre-existing employment claims.

8.7.4 The NET Phase Two concessionaire will be required to ensure that at all times there are sufficient staff to perform its obligations to the standard required by the NET Phase Two concession agreement and that all such staff are trained and supervised to ensure proper performance of the concession agreement and compliance with health and safety procedures. The NET Phase Two concessionaire will also be obliged to ensure that appropriate personnel policies and procedures are put in place and maintained and that this obligation is passed to the subcontractors.

8.7.5 The concessionaire will also be obliged not to unlawfully discriminate against any person, whether directly or indirectly on such grounds as race, ethnic or national origin, disability, or sexual orientation, religion or belief, age, fixed term or part time status, trade union or non trade union status etc and must ensure that this obligation is passed down to all subcontractors.
9. FORM OF CONTRACT AND KEY RISKS

9.1 Approach to Form of Contract and Derogations

9.1.1 Unlike other PFI sectors, such as housing and health, there is no standard form contract for light rail PFI projects. However, throughout the development of the Project and during the procurement process, the Authority's Project team has been supported by a representative of Infrastructure UK (IUK) (formerly Partnerships UK (PUK)), who has participated in the regular legal and commercial meetings held by the Authority in order to ensure that the approach developed by the Authority is consistent with the latest guidance and best practice.

9.1.2 Following discussions with IUK’s predecessor PUK, DfT and potential bidders, the Authority determined that the most appropriate form of contract for NET Phase Two was to base the contractual terms on HM Treasury's Standardisation of PFI Contract Terms version 4 (SoPC4), amended where appropriate to deal with lessons learnt from the NET Line One concession and other light rail procurements. The proposed contractual arrangements received a positive response in the 2008 market testing, the results of which are summarised in Appendix 4 (Results of 2008 Market Testing Exercise). This was noted in the OBC and this approach has been implemented by the Authority.

9.1.3 As part of their ITN responses, bidders were required to provide a comprehensive mark up of the draft Concession Agreement (together with an explanatory commentary) for negotiation with the Authority. As expected in a negotiated procedure, both bidders did seek to amend the terms of the agreement to some degree but overall the general approach taken by the Authority as regards the form of contract and the proposed risk allocation was well received by the bidders. The Authority is therefore confident that this approach remains the most appropriate in this instance.

9.1.4 Where a bidder proposed amendments to the draft Concession Agreement which the Authority considered reasonable in the context of the Project or which otherwise provided the best value for money solution, these amendments were accepted by the Authority. By the time at which Tramlink was appointed as preferred bidder, the majority of the contractual terms had already been agreed by the Authority with Tramlink during the negotiation process. Consequently there are no substantive issues outstanding on the Concession Agreement. There currently remain a handful of minor issues which the Authority is in the process of closing out with Tramlink and it is anticipated that these will be resolved by the end of July 2011. The current draft of the Concession Agreement is set out at Appendix 10.
As noted in section 9.1.2, the draft Concession Agreement is based on SoPC 4 and remains substantially compliant with SoPC4 subject to sector or Project specific derogations which, in the vast majority of cases, have already been approved by IUK or PUK. Derogations from SoPC4 required drafting have been approved in a two stage process.

Firstly, the derogations from SoPC4 that were included by the Authority in the version of the Concession Agreement issued to bidders with the ITN were approved by PUK prior to issue of the ITN documents. These derogations are set out in the table at part 1 to Appendix 11 (Agreed Derogations). During the procurement process, bidders were required to minimise any further derogations from the required drafting of SoPC4.

Secondly, Tramlink did propose some additional derogations in its response to the ITN and most of these were agreed with IUK during January 2011, in advance of appointment of Tramlink as preferred bidder. These additional derogations are included in the table set out in part 2 to Appendix 11 (Agreed Derogations). At the same time, all derogations from SoPC4 in respect of the funders' direct agreement were approved by IUK and these are set out in the table in part 3 of Appendix 11 (Agreed Derogations).

In finalising the limited number of outstanding issues in relation to the Concession Agreement with Tramlink, there are a few further points for which derogations approval is required. Predominantly, these points relate to Tramlink bespoke solution for the Project (such as the use of mezzanine debt and terminology used in their finance documents) and a limited number of areas which required further development to deal with sector specific issues (such as the calculation of patronage revenues and of fare box revenue). The Authority's legal advisors (DLA Piper) expect to have completed negotiations with Tramlink by the end of July 2011. The limited number of remaining derogations will be submitted to IUK at the beginning of August. A table including the outstanding derogations as they exist at the date of submission of this final business case is set out in Appendix 12 (Outstanding Derogations).

To facilitate development of best practice, the contract documentation and procurement experiences will be shared at no cost with other local authorities, Local Partnerships and central Government.

Key Contractual Issues

Term and Scope
9.2.1.1 The term of the Concession Agreement is approximately 22.5 years. The Authority has determined this to be the optimum concession period, having regard to the design life and lifecycle requirements of the Project assets together with the financial structuring of the Project. As noted in 8.5.2, the EU Regulation on transport by road and by rail (Regulation 1370/2007) does not apply to works concessions and therefore the requirement to limit the duration of operating contracts in accordance with that Regulation does not apply to the Project. As the Concession Agreement contains bespoke provisions dealing with the procurement of future network extensions (see below for further detail) together with standard provisions allowing for voluntary termination, the Authority did not consider there to be any benefit in including fixed break clauses.

9.2.1.2 The Concession Agreement clearly defines the Authority's requirements in respect of the Project, the respective roles and responsibilities of the Authority and the Concessionaire and the applicable standards. In summary, the Concessionaire will be required to take over operation and maintenance of NET Line One from the day after financial close and to design, finance, construct, test and commission the NET Phase Two works. Once the NET Phase Two works are complete, the Concessionaire will be required to operate and maintain the entire extended network.

9.2.1.3 The Concession Agreement incorporates a number of contractually binding Concessionaire's Proposals (based upon the technical section of Tramlink Nottingham's ITN response), which detail how the Concessionaire will meet its contractual obligations and ensure compliance with the Concession Specification.

9.2.2 Payment and Incentivising Performance

9.2.2.1 In order to incentivise performance, in line with usual PFI practice the monthly unitary payment to be made to the Concessionaire will be adjusted in accordance with the payment mechanism in the event that the Concessionaire fails to achieve specified levels of performance. The performance measures focus on a number of key performance indicators relating to service reliability and punctuality, operating the timetabled service, infrastructure cleaning and maintenance, availability of passenger facilities and customer service and noise. Performance is also incentivised though the transfer to the Concessionaire of farebox risk (see section 9.3.5 below) as a poorly performing service is likely to lead to a reduction in farebox revenue. Further details in respect of the payment mechanism and the outputs required of the Concessionaire are set out in section 13.

9.2.2.2 In addition to payment of the unitary charge, as part of cost saving measures implemented subsequent to the government's Comprehensive Spending Review, the
Authority has determined that substantial savings (with no adverse impact on value for money) will be achieved if the Authority were to make capital contributions to the Project during and at the end of the construction period. Further detail is provided in section 10. The Concession Agreement has therefore been updated in accordance with HM Treasury guidance to include appropriate provisions dealing with payment by the Authority upon completion of defined milestones.

9.2.2.3 The Concessioneer bears the risk of having appropriately priced for the provision of the works and services in accordance with the contractual requirements and of having correctly forecast patronage levels.

9.2.3 Remedies

9.2.3.1 In addition to making deductions from the unitary charge, the Authority has the standard PFI remedies in the event of non-performance, including survey/inspection rights, the right to increase monitoring of performance in certain circumstances, emergency step in rights and, ultimately, the right to terminate the Concession Agreement for Concessioneer default. In addition, the Authority will have the benefit of various other "security" measures including:

9.2.3.2 collateral warranties from the Operating and Maintenance Sub-Contractor and the Design and Construction Sub-Contractor;

9.2.3.3 parent company guarantees in respect of the Operating and Maintenance Sub-Contractor and the Design and Construction Sub-Contractor; and

9.2.3.4 a performance bond which may be called upon in the event that the Concessioneer fails to rectify snagging matters within a specified period after practical completion.

9.2.4 Changes post financial close

9.2.4.1 The Concession Agreement contains relatively standard provisions to deal with any changes that occur post financial close, including changes in law, so as to ensure that the Concessioneer is left in no better: no worse position as a result. In addition, to enable the Authority to procure further extensions to the network at a later date without necessarily having to terminate the Concession Agreement, a detailed mechanism has been included to allow for the design, construction, financing, operation and maintenance of future extensions to be brought within the scope of the Concession Agreement (further detail is provided at section 9.3.13).
9.2.4.2 Furthermore, at the point of issue of the ITN, the Authority was able to identify potential future changes and options concerning provision of a new tramstop at Broadmarsh shopping centre, alternative options in respect of the interface with the Nottingham Station development, "The Hub" and alternative options relating to the Masterplan for Beeston Town Centre. As there is a very real possibility that the Authority may wish to pursue these changes/options post financial close, bidders were required to confirm pricing implications as part of their ITN responses. The change provisions in the Concession Agreement incorporate the agreed pricing, so that the Authority has certainty as to the cost implications of implementing these changes/options.

9.2.5 Miscellaneous

9.2.5.1 The Concession Agreement contains standard intellectual property provisions and provisions to deal with the efficient resolution of disputes.

9.2.5.2 An analysis of the personnel implications and TUPE position is contained at section 8.7.

9.2.5.3 In accordance with standard PFI principles, the Concession Agreement contains the usual provisions requiring the Concessionaire to transfer Project assets to the Authority on termination or expiry.

9.3 Risk Apportionment

9.3.1 In line with most PFI contract structures, no indemnity or guarantees will be given by the Authority to the senior funders in respect of any liabilities of the Concessionaire. Instead, the Authority will enter into a standard PFI funders’ direct agreement under which the senior funders will be given step-in rights in the event of Concessionaire default.

9.3.2 The Concession Agreement seeks to allocate risk to the party which is best able to manage that risk. In relation to all key Project risks, the Authority has made an informed decision as to whether it would optimise value for money for that risk to be retained by the Authority or for it to be transferred to the Concessionaire. The Authority has endeavoured throughout the procurement process to reduce the likelihood of bidders including an unreasonable risk premium in their pricing (for example, through the procurement of the illustrative design and provision of detailed information relating to NET Line One).
9.3.3 The allocation of key Project risks between the Authority and the Concessionaire (as contemplated by the current draft of the Concession Agreement) is summarised in the draft contractual risk matrix provided at Appendix 13. This shows in track changes the amendments made to the equivalent risk matrix which was produced at the time of submission of the OBC, reflecting how the contractual terms have been developed with Tramlink Nottingham during the procurement process. In addition, a brief summary of the approach taken by the Authority to key Project specific contract risks (i.e. those not ordinarily covered by SoPC4) as set out in the current draft of the Concession Agreement is set out below.

9.3.4 **Handover of Existing System**

9.3.4.1 As detailed in the OBC, the new Concessionaire will take over responsibility for the NET Line One assets without any warranties as to condition from the Authority. In accordance with the terms of clause 51 of the NET Line One concession agreement, a survey has been performed on NET Line One to ascertain whether any remedial works are required to be undertaken and the Authority and Arrow are working co-operatively together to ensure that at the point of handover the condition of the NET Line One assets is acceptable.

9.3.4.2 During the negotiation process, the Authority accepted that it was best placed to manage the risk of claims relating to the design, construction, operation and maintenance of NET Line One caused by incidents prior to the date on which the new Concessionaire takes over responsibility for NET Line One for the following reasons:

(a) the Authority has a better historical knowledge of NET Line One and is therefore better able to take a view as to the likelihood of such claims arising - if this risk were to be transferred to the new Concessionaire, it could have resulted in significant risk pricing; and

(b) the Authority has the benefit of "Assignability Agreements" which (subject to relatively standard limitations commonly seen in sub-contractor collateral warranties), give it direct recourse against Arrow's sub-contractors for breach of their sub-contracts.

9.3.4.3 As noted in the OBC, the Concessionaire will also have the benefit of the following:
(a) where possible, existing warranties capable of being assigned by Arrow in respect of the supply of system components will be assigned to the Concessionaire;

(b) save to the extent that the Authority needs to retain rights under the "Assignability Agreements" for the purposes referred to in section 9.3.4.2 or to enforce certain TUPE related provisions against Arrow's operating and maintenance sub-contractor, the Authority will assign to the Concessionaire the benefit of the collateral warranties contained in those agreements so that the new Concessionaire is able to enforce them directly against Arrow's design and build sub-contractor and operating and maintenance sub-contractor;

(c) the Authority warrants under the Concession Agreement that it has not waived any breaches by Arrow of the existing NET Line One concession agreement between the date of the NET Line One termination survey referred to in section 9.3.4.1 and the date on which the new Concessionaire commences operation where to do so would have a material adverse effect on the Concessionaire's ability to bring a claim under the "Assignability Agreements"; and

(d) during the bid process, bidders had access to extensive information in the data room and the opportunity to inspect and survey the existing NET Line One system.

9.3.4.4 At the time of submission of the OBC, it was envisaged that where possible, the Authority would procure direct deeds of warranty in favour of the Concessionaire from relevant consultants responsible for delivering certain key technical surveys and reports. It has subsequently been agreed that the Concessionaire will have the benefit of a warranty from Mott MacDonald in respect of the services performed by it under the Design Services Contract and no further warranties are now contemplated in this regard.

9.3.4.5 In the OBC, it was anticipated that there could be a fixed period following financial close in order to ensure an orderly transition of staff and NET Line One operations to the new Concessionaire. The Authority considered that during this period, it may have been possible for the existing concessionaire to continue to operate NET Line One with formal handover of responsibility for operating and maintaining NET Line One occurring at the end of this period. However, the Authority was
conscious that this approach could give rise to a number of interface issues between the existing concessionaire and the new Concessionaire and that these could lead to disruption of passenger carrying service and delay to the performance of the NET Phase Two works.

9.3.4.6 Given these potential interface concerns, the Authority made it clear in the ITN that bidders were to assume that they would take over responsibility for operating and maintaining NET Line One with effect from the day after financial close, so that handover from Arrow to the new Concessionaire effectively occurs as of financial close. This was readily accepted by the bidders, primarily for the following reasons:

(a) they were given the opportunity to familiarise themselves with the NET Line One system during the procurement process;

(b) many of the staff currently employed by Arrow or its sub-contractors in the operation and maintenance of NET Line One will transfer by operation of TUPE to the new Concessionaire or its sub-contractors and therefore the existing skill set will be retained by the new Concessionaire; and

(c) in the case of Tramlink it is in the process of agreeing with Bombardier the arrangements for ongoing supply of spare parts and/or maintenance in respect of the existing NET Line One trams.

9.3.5 Revenue Risk and Highway Interface

9.3.5.1 In accordance with the Authority's preferred approach at OBC stage, Tramlink has agreed to the transfer to it of all farebox revenue risk. Accordingly, there will be no support from the Authority for low revenues but the Authority will share in revenue in excess of forecast.

9.3.5.2 In order to enable the Concessionaire to manage this risk, as noted in the OBC the Authority has accepted that it will not impose any controls on fares except to require participation in local joint ticketing and concessionary fares schemes.

9.3.5.3 Furthermore, as identified in the OBC, the Concessionaire will be entitled to protection through the compensation event regime where certain highway changes (outside the Concessionaire's control) occur.

9.3.6 Design and Consents
9.3.6.1 As noted in the Procurement Strategy section of this final business case, design development was undertaken by Mott MacDonald in parallel with the TWAO process in order provide clarity on both the scope of work to be priced by bidders and the extent of risk to be taken by them. Mott MacDonald Limited will provide a collateral warranty direct to the Concessionaire in respect of these design services.

9.3.6.2 The design was also developed to enable key third party consents to be advanced and in some circumstances obtained, including planning approvals, thereby allowing the bidders to price with greater cost and programme certainty and less risk consideration than is typical. Ultimately, under the terms of the Concession Agreement the Concessionaire retains responsibility for obtaining any necessary consents which have not already been obtained by the Authority.

9.3.7 Third Party Interfaces

9.3.7.1 The Authority has conducted a detailed review of all the NET Line One third party agreements and undertakings, together with all third party agreements entered into and undertakings given during the NET Phase Two TWAO process in order to identify all obligations imposed by them. The Authority's team then analysed whether it would be appropriate and cost-effective to transfer responsibility for performance of these obligations to the Concessionaire or whether they should be retained by the Authority. Schedule 29 of the draft Concession Agreement sets out which obligations are to be transferred and which are to be retained by the Authority.

9.3.7.2 Where these obligations have been retained by the Authority, necessary actions and mitigation measures will be identified and a risk owner given responsibility for ensuring the proper performance of the obligation and mitigation of associated risks.

9.3.8 Utilities diversion

9.3.8.1 As identified in the OBC, throughout the development of the Project the Authority has given extensive consideration to the advantages and disadvantages of undertaking advance diversionary works, including the risk of such advance works proving to be more extensive than is actually necessary and the potential for dilution of risk transfer to the Concessionaire if diversionary works undertaken prove to have been inadequate.

9.3.8.2 Bearing in mind these two factors, together with the scope for risk pricing that uncertainty as to the location, nature and condition of existing utilities can cause, the Authority concluded that the best approach was to work towards C4 or just before C5 stage with
statutory undertakers as far as possible prior to financial close. This approach provided
the bidders with as much certainty as possible in respect of location, nature and condition
of utilities and hence reduce risk pricing whilst leaving discretion as to the precise scope
of diversionary/protective works required to the Concessionaire, so as not to dilute risk
transfer.

9.3.8.3 During negotiations with Tramlink, the Authority accepted that limited and specific
diversionary works at Station Street would be required to be procured by the Authority in
advance of financial close to ensure that such works do not delay the NET Phase Two
works programme. The estimated cost of such works is approximately £150,000. Subject
to NET Phase Two reaching financial close, these costs will be reimbursed by the
Concessionaire.

9.3.9 Third Party Claims for Noise Nuisance, Injurious Affection etc.

9.3.9.1 As envisaged at OBC stage, the agreed risk allocation follows the successful NET Line
One approach in respect of third party claims, which in summary is as follows:

(a) The Authority bears the risk in respect of quantum of land acquisition costs
(although the Concessionaire is obliged to take reasonable steps to minimise
these costs and bears the cost risk if additional land over and above that which
the Concessionaire has notified to the Authority is required for the purposes of
the Project).

(b) The Concessionaire is responsible for ensuring noise and other emissions are in
accordance with the requirements of the Concession Specification including the
NET Phase Two Noise and Vibration Policy which is annexed to the
Concession Specification.

(c) The Concessionaire is responsible for other compensation claims but only to
the extent that they are caused by a failure to comply with the Concession
Agreement.

9.3.10 Contamination

9.3.10.1 The Authority must pay the Concessionaire for the clean up and remediation of
Environmental Contamination which is not caused by the act or omission of the
Concessionaire (including any failure of the Concessionaire to remediate any
contamination of which the Concessionaire was aware or ought reasonably to have been
aware).
9.3.10.2 The Authority is comfortable retaining this risk as detailed contamination surveys have been undertaken by Mott MacDonald as part of the Design Services Contract and therefore the risk of having to remediate "unknown" contamination is considered relatively low.

9.3.11 Breach of Statutory Duty

9.3.11.1 During the negotiation process, Tramlink proposed that the Concessionaire's uninsured liability for claims relating to breach of statutory duty be capped at £250,000 per annum. This type of approach is relatively standard in PFI projects.

9.3.11.2 The Authority accepted this position as the cap expressly does not apply to breaches of statutory duty relating to a failure to comply with the Railways and other Guided Transport Systems (Safety) Regulations 2006, the TWAO and/or the Greater Nottingham Light Rapid Transit Act together with any other breach of statutory duty arising from performance or non performance by the Concessionaire of the Project Operations. The Authority is comfortable that these carve outs from the cap adequately cover its main concerns in relation to statutory duty.

9.3.12 Nottinghamshire County Council

9.3.12.1 As noted in section 8.4, the Authority has negotiated an agreement setting out the terms on which the County Council is to withdraw from NET Phase Two and (subject to Financial Close) NET Line One.

9.3.12.2 The general principle is that where the agreement contains provisions directly relating to performance by the Concessionaire of its obligations under the Concession Agreement, these obligations will be transferred to the Concessionaire. The Concessionaire will enter into a deed of covenant with the County Council under which it will be directly obliged to perform these obligations and the County Council's remedies for breach will therefore be against the Concessionaire and not against the Authority. Tramlink has confirmed that it accepts this approach and the obligations which are to be assumed by it under the deed of covenant.

9.3.12.3 An exception to the above principle is in relation to two indemnities which are contained within the agreement between the Authority and the County Council. The County Council requires the Authority to remain primarily liable to it in respect of these indemnities and therefore they cannot be transferred to the Concessionaire under the deed of covenant referred to above. The Concession Agreement contains provisions
backing these indemnities down to the Concessionaire so that if a claim is brought by the County Council against the Authority, the Authority can bring an equivalent claim against the Concessionaire.

9.3.12.4 Under the Concession Agreement, the Authority indemnifies the Concessionaire where the County Council requires the Concessionaire to undertake reinstatement works as a result of cessation of the Works following termination of the Concession Agreement for Authority Default, Force Majeure or voluntary termination by the Authority. Given that the Authority is able to manage the voluntary termination or Authority Default termination scenarios and in view of the fact that termination for Force Majeure is unlikely, the Authority considers this approach offers better value for money than asking the Concessionaire to price this risk.

9.3.13 Network Extensions

9.3.13.1 As detailed in the OBC, future extensions are included within the scope of the NET Phase Two procurement, using an approach which draws on some of the principles of BSF and which was developed with leading Counsel, Michael Bowsher QC. This should enable future extensions to be implemented without terminating the concession for NET Phase Two.

9.3.13.2 A copy of Counsel’s original opinion, confirming that this approach complies with procurement and state aid law is attached at Appendix 14. During the procurement process, Tramlink marked up the relevant provisions of the draft concession agreement as the funders were concerned that the original drafting could potentially entitle the Authority to unilaterally force the Concessionaire to undertake construction, financing, operation and maintenance of a network extension. The Authority sought a further opinion from Michael Bowsher QC to confirm that these amendments did not affect his earlier original opinion and that the mechanism could still be utilised by the Authority to procure network extensions at the relevant time without the need to launch a fresh procurement process. This second opinion is set out at Appendix 15.

9.3.13.3 In summary, the mechanism works as follows:

(a) the NET Phase Two OJEU Notice and tender documentation encompass potential network extensions, specifying their location in so far as was contemplated at that time;
the Concession Agreement includes a very detailed procedure whereby, based on the updated financial model developed by the Concessionaire for its lenders, the terms for the construction, financing, operation and maintenance of the extended system will be settled using the following principles (subject to the approval of the dedicated Extensions Project Board and a majority of the Concessionaire's Extensions Project Board members):

(i) where possible, sub-contract packages will be openly tendered in accordance with an agreed procurement plan developed by the Concessionaire in accordance with the requirements of the Concession Agreement;

(ii) operating and maintenance costs will be calculated on the basis of pricing information provided in response to the ITN which will be set out in Schedule 21 of the Concession Agreement;

(iii) other costs and revenue changes will be subject to benchmarking;

(iv) existing lenders will be offered the opportunity to fund the extension;

(v) if the existing lenders do not offer competitive terms, the Concessionaire will seek terms for a refinancing;

(vi) additional equity will be subscribed by the shareholders at the original Base Case Equity IRR unless key assumptions change, in which case there will be an adjustment to cater for this without changing the economic balance of the contract.

9.3.13.4 In the event that the Authority is not satisfied with the terms settled for the extension under the above mechanism, the Authority will retain the right to implement a similar termination mechanism for network extensions to that employed for NET Line One. This will enable the Authority to terminate the Concession Agreement if it wishes to do so, paying the same level of compensation as is payable under SOPC 4 for a voluntary termination, with two differences:

(a) instead of allowing the bidders to choose which of the three methods of calculating equity compensation they prefer from those specified in paragraph 21.3.6 of SOPC 4, the Concession Agreement specifies that such compensation
will be calculated on the basis of market value of share capital and junior debt; and

(b) as under the NET Line One Concession Agreement, the Concessionaire will be prohibited from undertaking a refinancing without the Authority's consent in any period during which a network extension is under development. Again, this will give more certainty to the Authority as to the level of compensation payable.
10. **FINANCING PLAN AND AFFORDABILITY**

10.1 Following the Comprehensive Spending Review in autumn 2010, and in response to the Authority being able to secure significant cost reductions, Government confirmed in March 2011 a revised funding envelope for the project to that set out at Programme Entry approval in late 2006 and Conditional Approval in late 2009.

10.2 This has resulted in a change in the timing of and significant reduction to the amount of Central Government grant that the Authority will receive in respect of the project. At Conditional Approval the Authority received approval for PFI Credits of £530.7m; this was on the basis that Central Government would finance 75% of the Quantified Cost Estimate with the balance of 25% to be funded by the Authority.

10.3 The revised revenue support is equivalent to a PFI Credit of £433.5m (i.e. an 18% reduction on £530.7m) when calculated on the same basis as Conditional Approval. This equates to a revenue support grant of £35.4m per annum from 2013/14 which was previously £41.6m per annum from 2011/12.

10.4 The Authority has implemented a series of measures to counteract the reduced Central Government funding and to ensure that the project remains affordable.

10.5 Prior to selection of the Preferred Bidder, cost reductions were secured under the tension of the competitive procurement process (without any corresponding scope changes), significantly reducing the funding gap created.

10.6 In addition, the Authority has reviewed the WPL financial model and identified an additional £1.5m per annum that can be allocated to the NET budget. This additional allocation has been found from efficiencies in operation and enforcement and by reducing contingency.

10.7 A further part of the Authority’s cost reduction measures includes providing a capital contribution to the project of £100m (representing 24% of the capital works value) of which £24.8m will be injected during the construction period and will be linked to service enhancement milestones on NET Line One. The remaining £75.2m will be injected at Practical Completion of NET Phase Two. The capital contribution is being met using a prudential loan. See Appendix 16 for further details.

10.8 Furthermore the European Investment Bank (EIB) has been brought into the project in order to access cheaper funding. The Council hosted the EIB in February 2011 to assist it in completing an initial project appraisal. Formal approval to support the project was
secured in May 2011 and the EIB is now fully engaged with Tramlink as part of its funding group.

10.9 As a result, Central Government will now finance 65% of the Quantified Cost Estimate with the balance of 35% and any additional cost increases to be funded by the Council.

10.10 A comprehensive financial model has been submitted by Tramlink which includes detailed cost and patronage forecasts (see Appendix 17). This financial model has been used as the basis to measure the affordability of NET Phase Two and has superseded the one developed by the Council to inform the initial Programme Entry approval and the Conditional Approval. It is not expected that the Tramlink financial model will alter significantly during the Preferred Bidder negotiation and through to financial close.

10.11 Throughout the procurement process it has been clear that there is sufficient market appetite from funders to fund NET Phase Two. Tramlink’s three funders (Credit Agricole, BBVA and Royal Bank of Scotland) have taken 100% of the debt and have undertaken significant levels of due diligence on all key drivers of Tramlink’s cost and patronage forecasts when setting their term sheet. A high level summary of Tramlink’s term sheet is included in Appendix 18 (Key Funding Assumptions).

10.12 The financial model is supplemented by two further key models developed by the Authority:

- a termination model, which estimates the costs of terminating the concession for NET Line One; and

- a public sector affordability model showing the various funds available for the project, and a consolidated cashflow for the Authority (see Appendix 19).

10.13 The termination model results in a greater cost of termination to that at Conditional Approval due to tax gross up implications and the level of reliefs available to offset the liability. Details of the termination amount calculation methodology can be found in Appendix 9.

10.14 The termination costs are to be met using a prudential loan. The cost of servicing this loan is lower than the support grant received for NET Line One. The entire excess grant from NET Line One is set off against the cost of the unitary charge for Phase Two before any cost is allocated between local and DfT sources.
10.15 As at Programme Entry and Conditional Approval, it should be noted that as the operating costs are covered by farebox revenues, no indexation of the unitary payment has been included.

10.16 35% of the overall project cost will now be met from local sources. The majority of the funding requirement of the Authority will be met through a WPL. The timetable for the development of the WPL has been coordinated with the NET Phase Two development programme. The Nottingham WPL Order was made on 15 May 2008 and approved by the Secretary of State for Transport in July 2009. The WPL is to be introduced in October 2011 and charging will begin in April 2012. Up to 88% of WPL income is now used to support NET Phase Two as opposed to nearly 62% at Conditional Approval. Approximately £1.1m per annum WPL revenue has been committed to meet funding obligations for the Authority’s contribution towards the redevelopment of Nottingham Station. Any remaining 'balancing’ revenue has been allocated to bus service support, particularly maintaining and expanding the award winning Link bus network.

10.17 The Authority also has a range of other funding sources for the project, including reserves and an ongoing annual revenue contribution.

10.18 The Authority’s external auditors have recently, during a general progress update, raised some concerns regarding the full termination payment being treated as capital for accounting purposes without the need for a capitalisation direction. As a result, and in order to maintain programme whilst the matter is considered further, the Authority has sought such a direction from the Department for Communities and Local Government. The Authority and its financial advisers have assessed the size of capitalisation direction required and also considered alternative approaches that could eliminate or mitigate the magnitude of the potential elements of the termination payment and may not, in the current view of the Authority’s auditors, be treated as capital.

10.19 Alternative approaches being actively explored are to further investigate the technical accounting treatment of the NET Line One termination payment to determine whether the Authority external auditors concerns are material. Also the Authority is considering changing the method of asset transfer from a compensation payment to a share purchase of the NET Line One SPV which would be treated as capital.

10.20 Regardless of the approach ultimately adopted (including using a capitalisation direction), the Authority will not seek additional revenue support from Central Government as this is considered purely an accounting issue.
10.21 Cashflow modelling work demonstrates that the revised income and expenditure profiles can be managed within the resources already approved by the Authority, based upon current forecast income being generated by the WPL. The Authority confirms that it is reasonable for bearing any further increases in costs which may occur on this Project.
11. **VALUE FOR MONEY**

11.1 **Value for Money Analysis – Qualitative**

11.1.1 NET Line One is widely recognised as an example of best practice in public transport delivery.

11.1.2 A key element in the successful delivery of NET Line One has been the selected procurement route. The transfer of virtually all delivery risk to the concessionaire, from the public sector perspective, resulted in an efficient and cost effective system, with all interface issues being managed by the private sector Concessionaire.

11.1.3 Having delivered NET Line One successfully, the Authority believe that the NET Line One procurement route and associated risk allocation is an appropriate basis for the procurement of NET Phase Two.

11.1.4 A full description of the procurement options considered by the Authority is included in Appendix 1 (Procurement Strategy) and summarised in Chapter 8 above. The qualitative assessment conducted by the Authority in accordance with Treasury guidance is set out in full at section 5 of Appendix 1. In summary, the analysis strongly indicates suitability of PFI for the project. The key reasons for selecting a design, build, finance, operate procurement route are summarised in section 8.1.3 above.

11.2 **Value for Money Analysis - Quantitative**

11.2.1 A Stage 2 quantitative analysis of the value for money of the project using the Treasury’s standard model has been undertaken (see Appendix 20). A full description of the assumptions made is shown in Appendix 21. The assessment is fully consistent with the general programme assumptions, with information sourced from the NET Phase Two financial model.

11.2.2 In summary, the result of the analysis shows value for money benefit from using a PFI approach.

11.2.3 The results are improved compared with those at Conditional Approval stage, reflecting Tramlink patronage forecasts.
12. ACCOUNTING TREATMENT

12.1 The UK public sector moved to IFRS accounting standards in 2008-09; under IFRS there are three important standards for the recording of PFI and other leases:

- IFRIC 12 provides an interpretation of how to apply IFRS standards to service concession transactions for the private sector. This standard is interpreted in Chapter 6 of the FReM under the heading “Accounting for PPP arrangements including PFI under IFRS”. However, the standard is not applied when determining the budgetary treatment of a project.

- IFRIC 4 provides an interpretation for identifying when a transaction may contain a lease.

- IAS 17 covers the classification of leases between operating and finance leases, as well as details of the correct accounting policies to apply in each case.

12.2 An assessment has been performed by the Authority for NET Phase Two, the results of which are attached in Appendix 22. This concludes that NET Phase Two meets the definition of a finance lease under IFRIC 4 and will thus be on-balance sheet for the Authority.

12.3 The risks that are envisaged to be transferred under NET Phase Two are broadly in line with those transferred on NET Line One. In the switchover to IFRS accounting standards, NET Line One was assessed to fall under IFRIC 4 and this treatment was accepted by the Authority statutory auditor.

12.4 IFRIC 4 is broadly in line with National Accounts standards and as such the budgeting will follow the accounting treatment.

12.5 As IFRIC 12 does not apply, no separate ESA95 assessment for budgeting purposes is required in order to comply with National Accounts standards.
13. OUTPUT AND PERFORMANCE

13.1 Concession Specification

13.1.1 The NET Phase Two Concession Specification has been developed in consideration of the experience gained in delivering NET Line One, using an output-led approach providing a clear definition of the objectives and the outputs needed. As part of this process, a set of high-level outputs have been identified covering the main attributes that NET Phase Two needs to satisfy in order to deliver the scheme objectives. The Concession Specification can be found in Schedule 3 (Appendix 23), of the agreement and has been the subject of nominal change since issued to the Candidates at the ITN stage. There has been no reduction in the overall scope of the project.

13.1.2 NET Line One was the first light rail PFI scheme in the UK, whereby the public sector’s funding contribution is made based on the operational performance of the system, and not as a contribution to the capital cost. The performance and payment regime, which forms part of the Concession Specification, will be similar to that used for NET Line One which has been proven to operate successfully. The current draft of the performance and payment regime can be found in Schedule 4 (Appendix 24) (Performance Mechanism), of the agreement. The preferred bidder has not made any material amendments to the Performance Measures contained in the mechanism. The proposal for the extended network, incorporating NET Phase Two is for a monthly unitary payment to be made to the Concessionaire, which is adjusted for performance, based on 24 measures relating to operating the timetabled service, infrastructure cleaning and maintenance, availability of passenger facilities and customer service and noise. 84.5% of the unitary payment will be based on measures relating to service reliability and punctuality. For each of the performance measures, the Concessionaire would be required to meet a target performance; if this target is not met, the Authority will be permitted to reduce the amount of the unitary payment for that measure. Following the introduction of a Capital Contribution, the payment mechanism has been reviewed, and the Authority is satisfied that the commercial incentives remain sufficient to appropriately incentives performance.

13.1.3 Under the performance and payment regime the Concessionaire will produce a monthly report (provided by the operating subcontractor) justifying the performance claim. In order to verify the claim, the Authority will receive supporting records and where necessary also have access to more detailed operation and maintenance records and data. Experience from NET Line One has been that available records are clear and
comprehensive and the Concessionaire’s operator has been consistent in providing further substantiation when requested.

13.1.4 The Authority are committed to driving forward an agenda for improvement in construction through the procurement and specification of the system in line with the Egan Report, “Rethinking Construction”. The Authority’s’ PFI procurement approach and the Concession Specification help support the key drivers for change identified as part of this agenda.

13.1.5 The Concession Specification also promotes sustainable development in line with the recommendations of the Office of Government Commerce (OGC) guidance note “Green Public Private Partnerships” throughout the design, construction, operation and maintenance phases of the Project, in particular by:

- focusing on the outputs required rather than the means of delivery so as to promote technical innovation, cost and resource savings, and improve service quality - including environmental performance;
- being sufficiently broad to allow value to be added by the Concessionaire, but not so broad as to allow bidders to feel exposed to risks, including environmental risk;
- building in flexibility to reflect change and change of use over the 22 years of the contract – avoiding wastage of time, money and resource in the long term;
- taking account of the aims, objectives and relevant targets for improving environmental performance - the scheme objectives and specification requirements in themselves aim to contribute to a wider sustainable local transport network; take account of legal requirements to safeguard the environment and the feedback from the market testing.

13.1.6 The NET Phase Two Concession Specification requires the regulations arising from the Disability Discrimination Act 1995 to be fully satisfied, and this is in line with the scheme’s objective to improve accessibility and reduce social exclusion. At an initial meeting with the DfT’s mobility inclusion unit in June 2008, positive and constructive feedback was given regarding NET Line One, and the proposed approach to accessibility on NET Phase Two.

13.1.7 The NET Phase Two Concession Specification includes a Design Guide at Annex A, much of which has been prepared by a landscape and urban design specialist. The Design
Guide which has been endorsed by the local planning authorities, and sets out the Authority Design Quality Objectives for Network identity, convenience and ease of use, accessibility, interchange, safety and security, passenger comfort, integration and sustainability. Against these objectives a series of quality requirements have been established convey the design of the tramway and trams, and use of the NET brand; which in turn are benchmarked against best practice and features on NET Line One, other tramways and other guidance.

13.1.8 The Design Guide provided NET Phase Two bidders with a clear framework against which to deliver their tender proposals without constraining innovation. By allowing the bidders to concentrate their efforts on seeking ways to add value against the design quality objectives, the Design Guide has proved successful in obtaining good quality design proposals from the Candidates that support the Authority vision, scope and minimum threshold of design required, focusing on the system infrastructure and adjacent public realm. The framework for this was set during the TWAO process and has been developed further during the design development prior to procurement.

13.1.9 The Design Guide promotes consistency with the existing NET Line One system, particularly in respect of the template used for tramstop design and for integration into the built environment. The Design Guide has been developed from a similar NET Line One design guide, which was endorsed by the Royal Fine Arts Commission. Input from CABE was subsequently obtained in respect of key NET Phase Two elements, such as the elevated structure over Nottingham Railway Station.

13.2 Design Development

13.2.1 A reference design, or ‘illustrative design solution’, which is compliant with the Concession Specification was developed to enable financial analysis and costings to be established and to provide guidance for bidders to minimise the scope and programme risk. Areas of scope uncertainty were targeted and the design advanced to a level where cost, programme and quality are well defined. In some areas, such as the elevated structure over Nottingham Railway Station where long lead times for Network Rail work possessions are necessary or in areas where complex third party approvals are required, the reference design was developed further, in some cases to a detailed design level. This further design was made available to NET Phase Two bidders together with a collateral warranty from the Design Services Contract (but not directly from the Authority). The bidders were free to utilise this design information or develop alternative designs that meet the Concession Specification. This approach maintained the opportunity for the
bidders to bring innovation and efficiency to the Project, whilst minimising uncertainty during tendering, hence encouraging a value for money approach to be achieved. Tramlink extensively used the illustrative design solution in developing its proposals.

13.3 Concessionaires Proposal

13.3.1 As part of the tender process, the Candidates were required to submit proposals against 44 Technical Submission Requirements (TSRs) conveying the general management, implementation operations, maintenance and technical aspects of the project. In accordance with the ITN, these TSRs were evaluated as part of the tender evaluation process. The Authority is in the process of capturing the preferred bidders submission (and subsequent tender qualifications) as the Concessionaire’s proposals for including Schedule 20 of the Concession Agreement.

13.4 Design Quality

13.4.1 The Authority are committed to embedding design quality into delivery of NET Phase Two. Design quality is considered by OGC to be a combination of:

• functionality (how useful the system is in achieving its purpose);

• impact (how well the facility creates a sense of place); and

• build quality and performance of the completed facility in use.

13.4.2 The Authority’s output-led approach supports this view and these factors are all reflected in the scheme objectives, the Concession Specification, the Design Guide, the illustrative design solution and the Concessionaire’s proposals outlined above that, have been developed to combine these three cornerstones of design quality.

13.4.3 The Concession Specification (including the Design Guide) defines the required minimum functionality of the system in terms of the base service and minimum facilities required to make the scheme attractive to potential end-users and contribute to the scheme objectives. Key functional considerations include ease of use, convenience, interchange and accessibility, and provision of service information and customer care.

13.4.4 In line with the OGC’s guidance, the scheme has been developed and specified to create as far as practical a sense of place and identity, and have a positive effect on local community and the environment. The promotion of urban and social integration is reflected in the scheme’s objectives, and the effect on the environment and local
community was assessed through the environmental statement and TWAO processes. NET Line One created a coherent style and brand for the network providing a sense of its own identity that is widely accepted and recognised by the public, users, and operating staff; and this has been retained within the concession specification and in particular in the Design Guide. The form and material requirements and the internal passenger environments have also been considered and captured in the Design Guide.

13.4.5 The Authority also recognises that design quality is reflected in the build quality and performance of the completed facility in use. The ability of the system to perform is a function of the choice and integration of technology, and build quality, and how it is operated and maintained. A key driver for this is the NET Phase Two performance and payment regime, which provides a full-life incentive to focus on design and build quality, and ease of maintenance.

13.4.6 A number of tools have been pioneered within the construction industry to evaluate design quality such as Design Quality Indicators, but these are primarily focused on the design quality of buildings and are difficult to translate to the provision of a street-running transport system. Nonetheless, the Authority has sought other ways such as the Design Guide to engage with the scheme’s extensive and diverse range of stakeholders, and to benchmark design quality expectations.

13.4.7 NET Line One is considered an overall success in terms of all three cornerstones of design quality, including its functionality, performance and the positive impact it has made to Greater Nottingham. NET Line One already gathers feedback from existing and potential users through customer comments and complaints and an annual customer satisfaction and awareness survey. This feedback has already influenced improvements on NET Line One, and has been fed back into the NET Phase Two Concession Specification along with other lessons learnt. NET Phase Two has built on this benchmark with expectations further refined through:

- the environmental impact assessment and TWAO process and subsequent scrutiny by the public inquiry;
- development of the Design Guide
- preparation of an illustrative solution and further localised design development.
- continued engagement with stakeholders including the local planning and highway authorities.
13.4.8 CABE recognised that PFI procurement can bring with it both benefits and challenges in respect of achieving quality in design. The long-term nature of the PFI Concession incentivises a design that is easy to maintain and manage, is built using materials and techniques that will stand the test of time, and offers good value throughout life. PFI also brings together all disciplines into a single delivery organisation, which (compared to more traditional forms of procurement) brings better organisational and technological integration. These principles are reinforced within the Concession Specification, in particular through the performance and payment regime.

13.4.9 CABE, however, also identified a disadvantage of the PFI procurement method associated with the increased complexity during the tendering, with often complex design quality issues needing to be resolved in a short space of time. On NET Phase Two, this is mitigated by the existence of a proven benchmark in the form of NET Line One captured in the Design Guide and the development of further advanced design solutions in complex areas and the obtaining of developed technical proposals from the Candidates prior to Financial Close. These allow the bidders to concentrate their efforts on seeking ways to add value through, for example, innovation and selection of methods, technologies and suppliers, and elimination of waste.

13.4.10 Assessment of bidders' compliance with the Concession Specification and their commitment to design quality was prominent in the evaluation criteria used to assess NET Phase Two bids. The Authority continues to ensure that design quality is not diluted prior to financial close, and is reflected in both the contracted design proposals, and the proposed organisational and procedural arrangements.

13.4.11 The successful delivery of an appropriate scheme based on designs which meet the requirements of the Concession Specification, including the performance and payment regime, the Design Guide and other associated quality thresholds will be closely monitored by the Authority during the implementation stage.
14. PROJECT MANAGEMENT ARRANGEMENTS

14.1 The Authority established a core project management team (the PM Team) at an early stage in the development of the project. This included officers having previous pivotal involvement in the successful procurement and delivery of NET Line One. The NET PM Team has remained largely intact during the development of NET Phase Two and with the acquired knowledge base is well placed to take the project forward. The NET PM team is supplemented by a specialist project management consultancy resource which also supported the project team through the procurement and delivery of NET Line One.

14.2 A full team of advisors with comprehensive experience of PFI and light rail is in place. Partnerships UK were also contracted to provide specialist support and a healthy relationship was held with the 4Ps. The project structure, particularly the integrated project team, enables considerable opportunity for creative joint thinking and knowledge transfer to the public sector.

14.3 The lead advisors are:

- Turner and Townsend – project management
- PricewaterhouseCoopers – financial
- DLA Piper – legal
- Bircham Dyson Bell – parliamentary agents
- MVA – transport economics
- Mott MacDonald – technical, environmental and cost advice
- Bruton Knowles – land
- Heath Lambert - insurance

14.4 It is intended that the core project team and certain specialist advisors will be retained to manage the implementation of NET Phase Two, generally in accordance with the successful arrangements established for NET Line One.

14.5 The Project Management Plan (PMP) (see Appendix 25) sets out the key project management structures and procedures and provides the framework for efficient working arrangements within the project, including with elected Members of the Authority, who are fully engaged throughout the development of the project. Details on the governance arrangements for the project, including reporting arrangements to the NET Project Board and strategic decision making executives within the Authority, and delegation of authority to allow effective management of the Project, are set out in chapter 3 of the PMP. The
remit of the lead Officers on the Project, the Director, NET and the NET Phase Two Project Director, are provided in Chapter 3 and Appendix A of the PMP.

14.6 The PMP includes the overall governance and management arrangements for the project at all stages, including implementation. However, it is recognised that the extension of an existing system introduces a number of complexities both contractually and practically, particularly in relation to the transition period following financial close, staged commissioning of the expanded system and controlled hand-back of highway related infrastructure. More detailed arrangements are being developed and incorporated into the PMP as part of an Implementation Management Sub-plan.

14.7 The Implementation Management Sub-plan captures the specific arrangements during implementation in respect to:

- Organisation interfaces and communication with the Concessionaire
- Continued management of risk and opportunity
- Ongoing stakeholder management, including communications during construction
- Interfaces with land and property management
- Compliance monitoring against the concession agreement, concession specification and design guide
- Implementation monitoring including the interfaces with the independent certifier
- Progress monitoring against the implementation programme
- Use of audit to proactively investigate and facilitate resolution of issues which have the potential to frustrate the successful delivery of the project.
- Change controls in accordance with the change process and review procedure section of the Concession Agreement
- Assurance of systems and arrangements put into place by the Concessionaire to monitor the performance of the full network
- A project evaluation programme to monitor the realisation of scheme benefits against the scheme objectives through to the early operational phase.
14.8 Monitoring of the performance of the new Concessionaire, post contract award, will generally be in line with the existing NET Line One arrangements (which have been externally audited) although the current resources will be strengthened to reflect the nature of the expanded system. Resources for this monitoring have been included in the PM Team. This resource will also play a key role in the project evaluation programme which is to be developed in accordance with the Benefits Management Strategy set out in the PMP.

14.9 The project was subject to a Gateway 0 Review in September 2005 a Gateway 1 Review in June 2008 and a Gateway 2 Review in March 2009. On each occasion the feedback from the review team has been positive, with the project considered to be in good health and at the Gateway 2 review the project received a Delivery Confidence Assessment of Amber/Green. Action plans were drawn up to address recommendations made as part of the reviews. Gateway 3 Review (Investment Decision) is scheduled for the beginning of July 2011.
15. **RISK AND OPPORTUNITY MANAGEMENT**

15.1 A comprehensive risk and opportunity management procedure is in place to prevent or mitigate risks to the project and to maximise opportunities for project improvement. The process includes the evaluation and monitoring of issues, (i.e. risks that have materialised). The management process ensures project risks and issues are effectively identified and prioritised, thus allowing informed decisions about key project threats and opportunities to be made, and ensuring continuous efficiencies in programme and project delivery. The overall approach, which recognises and highlights best practice guidance in undertaking risk management, is set out in the Risk and Opportunities Management and Issues Resolution strategies included in the PMP.

15.2 Through a number of facilitated risk workshops a comprehensive risk issue register has been developed (see Appendix 26 – Project Risk Register) which is updated on a continual basis. All risks identified on the register are identified as strategic-level, project-level or workstream-level according to the current level of management ownership required to mitigate and take action. Each risk is assessed in terms of impact and likelihood and a response plan is detailed which takes account of the proximity of the risk event occurring and recognises that the responsibility for the mitigation may change over the course of the project. This allows clear demonstration on the register of those risks which, as a result of the contracting arrangements to be entered into, the Authority intend to transfer to the concessionaire and those which are likely to be retained.

15.3 The Authority has delegated the responsibility for identifying and managing engineering, operational and maintenance risks affecting the scope of the scheme, scheme cost or time to implement the scheme to the Design Service Consultant (DSC). The DSC’s arrangements for managing these ‘technical’ risks are consistent with the strategy set out in the PMP. Such risk will in the main transfer to the Concessionaire at Financial Close. Any retained risks will be incorporated in the Authority’s Project Risk Register.

15.4 A full Quantified Risk Assessment has been undertaken based on the Project Risk Register and the ‘technical’ risk register developed by the DSC, with the outputs being fed into the scheme costings as necessary.

15.5 Risks and issues are reviewed during fortnightly NET Project Management Team meetings, with key risks also reviewed fortnightly at Legal and Commercial Working Group meetings. The two-monthly reports to the NET Project Board include a summary of the key risks and reports on the progress of mitigating actions being taken in respect of them.
15.6 Full details of the process for the day to day management of risks and issues, including risk identification, assessment, management response and reporting, are set out in the PMP supporting Risk, Issue and Opportunity Management procedure included in Appendix 26a.
16. **PROJECT PROGRAMME**

16.1 The current project programme is set out in Appendix 27 (NET Phase Two Master Programme). This sets out the key ‘preferred bidder stage’ activities through to financial close, including the termination of NET Line One, the negotiation and development of commercial terms with the Preferred Bidder and the necessary transitional arrangements for the efficient handover of the operation of NET Line One to the new concessionaire.

16.2 The programme reflects the delay to the appointment of the Preferred Bidder caused by the requirement to review and revise the financial arrangements for the project following the Comprehensive Spending Review in October 2010. However, the overall programme impact has been contained, with the target financial close date slipping only one month (to September 2011) when measured against the key milestones included in the OBC.

16.3 Key milestones are as follows:

- TWAO Order confirmed: June 2009
- DfT Conditional Approval: July 2009
- Issue OJEU Notice: September 2009
- Issue ITN: November 2009
- Tender Returns: May 2010
- Appointed Preferred Bidder: February 2011
- Financial Close: September 2011
- System Opens: September 2014

16.4 A scheme implementation programme was developed as part of the work undertaken by the DSC which identified the key project delivery risks and opportunities such as procurement of utility diversions, and long lead-in procurement activities and works on or adjacent to the railway. The programme was also used to co-ordinate the construction of NET Phase Two with interfacing projects such as the Nottingham Station Hub scheme. The programme was provided to the Candidates during the procurement process and Candidates submitted their Implementation Programme as part of their tenders and these were evaluated by the Authority. The detailed programmes received from both Candidates confirmed that the design, construction and system commissioning could be completed in the 3 year period identified in the DSC’s implementation programme. A copy of the DSC summary programme showing key construction and commissioning activities (albeit based on August 2011 financial close and August 2014 system opening dates) is included in Appendix 28 – NET Two Summary Implementation Programme.
17. COMMITMENT OF SPONSORS AND STAKEHOLDERS

17.1 Sponsors

17.1.1 The NET Phase Two proposals have had full and strong endorsement by elected Members of the Authority who have been actively involved in the decision making process throughout the scheme development. Emerging project issues and strategic direction are considered at a two-monthly NET Project Board which involves the Chief Executive, lead Members (including the appropriate Portfolio Holder), Corporate Directors and the Chair of the NET Partnership. Key project decisions, including approval of project management arrangements, choice of route corridors, detailed route alignments, scope of the Transport and Works Act Order application, local funding arrangements, and the procurement strategy, have been taken as appropriate by the City Council Executive Board and the full City Council. Strategic input and advice is also provided by the NET Partnership, which generally meets quarterly and membership consists of elected Members and officers from the Authority, Nottinghamshire County Council, the four District Councils within the Greater Nottingham area (Ashfield, Broxtowe, Gedling and Rushcliffe) and private sector representatives from Nottingham Development Enterprise. Interest in the project is also such that there is regular informal contact with other Promoter elected Members on a wide variety of project issues.

17.1.2 The Project is being championed by the Corporate Director for Development at Nottingham City Council, who has been given the authority by the Council to develop and promote the Project. The Corporate Director is a member of the Project Board and reporting lines ensure regular contact with the NET Project Team.

17.1.3 The Authority has demonstrated its commitment to NET Phase Two by allocating substantial resources to the development phase. Total expenditure on scheme development to date has been approximately £38 million (June 2011) with the Authority contributing approximately £16 million to date. This includes advanced purchase of land. A £720,000 Section 106 contribution towards public transport improvements from a major development has been received and The Authority has allocated this funding to the project ahead of other competing public transport initiatives. Further Section 106 contributions have also been received from Broxtowe Borough Council. Funding contributions totalling £6 million have also been received through the development phase from the local development agency (EMDA) and the Greater Nottingham Partnership, one of EMDA’s sub regional partnerships, and the European Regional Development
Fund, with all these organisations recognising the contribution NET Phase Two will make to achieving their objectives and targets. The Regional Funding Allocation also made a contribution of £5.5 million to NET Phase Two development costs. Nottinghamshire County Council contributed £6 million prior to their withdrawal from the scheme.

17.1.4 Approximately 35% of the overall project cost is expected to be met from a local contribution. Part of this contribution is already being provided by the Authority, as indicated above, to meet development costs. Authority is being sought from the City Council’s Executive Board on July 27th 2011 to enter into the NET Phase Two contract, subject to final terms being agreed and receipt of Full Approval from DfT. The terms of the Government contribution to the project were included within the DfT letter dated 24th March 2011 (Appendix 29), and these were accepted by the City Council following Member consultation.

17.2 Stakeholders

17.2.1 Extensive consultation has taken place on the NET Phase Two proposals. This is documented in the Statement on Consultation and Communication (see Appendix 30). The statement highlights the level and type of consultation and communication undertaken to date and sets out the strategy for future consultation and communication, including during the construction phase.

17.2.2 The public and business community perception of NET Phase Two has been fully tested. An independent research report (NOP) in 2002 tested public perception through a demographically balanced sample of 1,000 people along the route of each line. Headline results included:

- Three quarters of people asked believed that public transport needs to be improved; and
- Three people to every one approved of the Clifton route and two to every one approved of the Chilwell via Beeston route.

17.2.3 At a meeting in 2006 involving Members of the Nottingham Business Community organised as part of the Core Cities Agenda, transport was identified as the second highest priority needed to be tackled to improve business in Nottingham. 74% of respondents stated that NET Phase Two was one of three top priorities for action. There is therefore
strong support and a positive perception from both the public and the business community.

17.2.4 More recently, the Nottingham Local Transport Plan 2011 – 2026 Consultation Report summarised responses received during the formal consultation for LTP3. The report states that ‘there was strong support for NET Phase Two…and the need for integration between modes was stressed.’

17.2.5 Consultation with stakeholders and project sponsors alike has formed an integral part of the scheme development process. Early engagement has ensured stakeholder views have been fully considered as NET Phase Two has developed, particularly any issues raised prior to the formal statutory consultation stage associated with the submission of the TWAO application to the Secretary of State. Regular and well timed contact with stakeholders, and the general public, has influenced the design proposals for NET Phase Two, as modifications have been made which have included alignment changes, investigation of alternative route options and inclusion of tram stops as well as modifications to tram stop locations.

17.2.6 The TWAO stage, especially the period leading up to submitting the TWAO application and the public inquiry was heavily focused on communication and negotiation with stakeholders at all levels. As a consequence public awareness of the project was high and a large number of stakeholders engaged in the TWAO process with a significant number confirming their formal support for the proposals by writing to the Secretary of State for Transport and also appearing at the public inquiry. Those who wrote in support of NET Phase Two included the Derbyshire and Nottinghamshire Chamber of Commerce, the East Midlands Development Agency, the East Midlands Regional Assembly, University of Nottingham, Nottingham Trent University, Castle College and Bio City.

17.2.6 During the TWAO stage a number of agreements were negotiated with stakeholders, which in some cases resulted in the withdrawal of objections. The agreements set out the commitments, undertakings and consultation to be undertaken with the stakeholder in question at the relevant stage in the project development and implementation.

17.2.7 Stakeholder engagement will be an ongoing and important part of the delivery of the project, particularly as construction work could start on some parts of the routes shortly after the contract is let. With this in mind, the Authority has recently engaged with affected residents, businesses and organisations in order to ensure they are fully aware of the progress of the project and can plan accordingly to ensure such matters as land take and potential disruption arising from future construction activity, are effectively managed.
It is intended to communicate regularly before and during the construction period in a number of ways; by post, newsletters, emails, using social media and online. It is planned to set up local liaison groups along the new routes to help disseminate design and construction information and to keep the public and stakeholders informed. Discussions regarding communications and marketing are on-going with Tramlink to ensure that processes to keep the public and stakeholders informed are well embedded before construction starts.

17.2.8 The Stakeholder Management Plan (SMP) (Appendix 31) sets out the overall approach to be adopted to ensure and manage effective stakeholder input as the project moves forward.

17.2.8 The stakeholder and management approaches, activity and materials adhere to Guidance for Local Authorities, the Government’s Code of Practice for consultation and the Audit Commission’s Code for Publicity ensuring that best practice and due legal processes have been followed. The Gateway 2 review team ‘found evidence of continuing strong stakeholder commitment across the board for the project…The Project team are to be congratulated on their excellent stakeholder management which has contributed to maintenance of this support through difficult times and is an example of best practice in this area’.

17.2.9 The Communications and Marketing Plan (CP) (Appendix 32) provides the strategic basis for communications management on NET Phase Two and sets out the approaches and activities which will be appropriately targeted to the audiences identified in the SMP. The CP identifies the key messages that need to be communicated to audiences at a number of different levels, the ownership and responsibilities for delivery within the Authority’s organisations and the reporting procedures.
18. STATUTORY PROCESSES

18.1 NET Phase Two is authorised by the Nottingham Express Transit (NET) System Order 2009, which came into force on 9th June 2009. A public inquiry was held between 6th November and 21st December 2007, with a short reopening on 9th and 10th October 2008 to consider one additional matter. The Secretary of State also announced his intention to make the Nottingham Express Transit System (Amendment) Order on 6th June 2011 so as to authorise the compulsory acquisition of an area of open space land in Chilwell owned by Nottinghamshire County Council. Compulsory purchase powers were required following the County Councils’ withdrawal from NET Phase Two.

18.2 The NET System Order is accompanied by a direction under s.90 (2A) of the Town and Country Planning Act 1990 deeming planning permission to be granted for the authorised works. This permission is subject to the discharge of conditions through the local planning authorities (and imposed by the DfT). Three Listed Building Consents and six Conservation Area Consents were granted by the Government Office for the East Midlands on 30th March 2009 and these are also subject to conditions to be discharged locally. Two Exchange Land Certificates in respect of open space were granted by the Government Office for London, also on 30th March 2009, with a further Exchange Land Certificate granted by DCLG on 6th June 2011 in relation to the open space land in Chilwell.

18.3 The NET System Order will empower the Authority to acquire compulsorily all land necessary for NET Phase Two, and will also give them various ancillary powers that substitute for existing statutory regimes (e.g. traffic regulation orders). With the exception of the conditions attached to the planning direction and other consents, and some protective provisions giving particular parties (e.g. Environment Agency and Statutory Undertakers) approval of works affecting their interests, the TWA process effectively serves as a one stop shop. There are no statutory processes required in respect of allotments and school playing fields for NET Phase Two.

18.4 One of the main objectives of the Design Services Contract was to develop the design sufficiently for the planning direction, highway approvals, and other consents to be advanced and sometimes obtained prior to concession award. The planning conditions have largely been discharged in two areas on NET Phase Two (including the QMC) and also for changes to the depot on NET Line One, and the approach to discharging a number of the conditions has been agreed with the relevant consent body, thereby
removing the risk of conflicting positions. These developments have helped reduce the level of uncertainty in some difficult design areas, increased confidence in the consent process, and enabled less risk consideration in the bidders’ responses. Extensive discussions have been held with the key consent bodies, including the Planning Authorities at Nottingham City and Broxtowe and Rushcliffe Borough Councils, the Highway Authorities (including the Highways Agency), Network Rail, British Waterways Board and the Environment Agency. Consent protocols have been developed with each of the key consent bodies. The protocols set out an agreed process, including how information is presented, timescales for each stage of the consent procedure, and identifying designated staff, which will considerably assist the decision making process and minimise cost and programme risk.

18.5 A land acquisition strategy has been developed for NET Phase Two. It is anticipated that third party land will be acquired through the compulsory purchase process, unless a legal agreement or protective provision within the NET System Order 2009 requires land to be acquired by agreement. In most cases, third party land will initially be possessed using powers within the NET System Order 2009, and a General Vesting Declaration (GVD) will be served on landowners and occupiers when the precise land requirement is known. Affected landowners have been informed about the proposals over many years, but as the construction phase gets nearer, landowners will be informed about the precise timing and extent of land take. Where the land impact is significant, such as where a business or household has to relocate, the landowner will be put in touch at an early stage with the Authority’s property consultants, who can assist in resolving issues that may arise, including identifying alternative premises. Tramlink have confirmed approval of the land acquisition strategy proposed.
19. EVALUATION AND POST IMPLEMENTATION REVIEW

19.1 A locally funded monitoring programme has been established for NET Line One. The evaluation of the wider system, including NET Phase Two, will develop this further, including providing performance indicators for both the NET system itself and an input to the wider requirement for monitoring of local service provision.

19.2 In 2008 the DfT’s New Local Performance Framework came into operation refining the scope and extent of monitoring expected of local authorities in measuring performance. Further changes to central government monitoring requirements have taken place with greater local responsibility for performance monitoring. Implementation of NET Phase Two is programmed to take place in 2014 by which time further refinements may have been made to monitoring requirements. However, it is most likely that the key overarching monitoring data will remain as an appropriate focus for the NET scheme evaluation, supplemented as required by bespoke data collection and analysis.

Current Line One Evaluation

19.2.1 The current monitoring for NET Line One has focused on key supply and demand issues, examining system usage and wider transport network considerations. Regular monitoring has also considered system reliability and customer satisfaction. Bespoke monitoring covering specific issues has included reviews of both development and residential property impacts, showing differential impacts between the NET Line One corridor and the rest of Nottingham, and transport benefits enjoyed by mobility impaired users of NET, indicating real impacts on quality of life for a range of users of the system.

19.2.2 The NET Line One monitoring programme has provided a wealth of information to demonstrate the performance of the NET system, including data used to understand and then drive further improvements in system provision. In addition to feedback provided to the operator, outputs from the NET Line One evaluation have been used to inform the specification for NET Phase Two with dissemination of key development lessons to other scheme promoters and the wider industry via a number of reporting channels.

19.3 NET Phase Two/Integrated System Evaluation

19.3.1 The impact evaluation for NET Phase Two and the integrated network will be based on a range of performance indicators which are focused on outputs, outcomes and impacts linked to the aims of NET Phase Two. The proposed performance indicators are included in the Benefits Realisation Strategy and Plan which is provided in Appendix 33.
19.3.2 The performance indicators developed to address the aims of NET Phase Two are wide ranging, but with an emphasis on the core deliverables of the expanded NET system; transport network capacity, efficiency, accessibility and usage, together with key impacts arising from the delivery of NET, including social and distributional impacts and economic development issues. Indicators include both quantitative measures, such as system usage, modal shift and congestion estimates, together with qualitative indicators, including for example, individual attitudes to service provision and commercial views on the influence of the NET system on business location decisions. Consideration of the analyses underpinning the central and local monitoring requirements will provide an understanding of the wider linkages between NET and the Local Transport Plan transport strategy, of which NET itself is a primary component.

19.3.3 The evaluation will also include process evaluation elements that consider the effectiveness of delivery of the project, including scheme development issues. Experience to date with NET Phase Two suggests an emphasis on key planning and approvals processes, such as the TWAO submission, public inquiry processes and procurement issues. Work on these elements has already commenced. Also to be covered will be monitoring and feedback during the construction phase, including programme, budget, planning and regulatory compliance issues.

19.3.4 The evaluation data requirements will build on the concession performance and payment mechanisms, from monitoring associated with central and local monitoring requirements and elements of the current NET Line One evaluation programme.

19.3.5 It is likely that additional bespoke monitoring exercises will also be required to consider specific outputs, outcomes and impacts of the integrated NET system. This monitoring may require primary quantitative and qualitative research and could address issues such as the extent of cross-city travel, potential benefits associated with urban realm changes in the district centres and the contribution of NET to reducing transport and wider social barriers to residents of the outer estates of Chilwell and Clifton.

19.4 **Evaluation Framework**

19.4.1 An Evaluation Framework will be developed from an outline specification developed following Conditional Approval to set out the scope and management of the integrated NET system evaluation. This will outline reporting and communications issues, performance indicators, key success criteria and information requirements for both process and impact evaluations. The evaluation will draw on the DfT’s guidance on evaluating major local authority transport schemes and will be linked to the Benefits
Realisation Strategy prepared to identify the ‘ownership’ of benefits and responsibilities for benefit delivery and monitoring.

19.4.2 The specification will also consider the interrelationships between the NET evaluation and similar exercises being programmed for other key policy, infrastructure and operational investments expected to be delivered in Nottingham over the coming years. These include the proposed Workplace Parking Levy and the Nottingham Hub proposals.

19.4.3 Reporting of the evaluation will encompass local and national government, industry bodies and other scheme promoters, local populations and representative groups. Appropriate dissemination routes will be used to maximise the value of the evaluation by ensuring best practice is made available to others and any pitfalls in development or implementation can be understood and mitigated in the future.
20. **FBC CRITERIA**

20.1 This FBC has been developed in accordance with the latest guidance from the Office of Government Commerce (OGC) and the Department for Transport, which is in line with the recommendations of HM Treasury’s Green Book for the development of a formal business case. It follows the current guidance to be aligned with the Treasury’s recommended “five case model” approach. This FBC has been structured to provide the details necessary to convey the balance of benefits and costs against the delivery of the Authority’s objectives. It confirms the strategic case and demonstrates the value for money case. It sets out clearly both the commercial and financial case for supporting the FBC and provides the details behind the management case for achieving the delivery of the project.