Lancashire
Enterprise Partnership

LEP - Transport for Lancashire Committee

Friday, 5th June, 2015 in Cabinet Room 'D' - The Henry Bolingbroke Room, County Hall, Preston, at 10.00 am

Agenda

1. **Welcome and Apologies for Absence**

2. **Declarations of Interest**

3. **Minutes of the meeting held on 13th April 2015** (Pages 1 - 4)

4. **Matters Arising**

5. **East Lancashire Strategic Cycle Network Scheme Funding Approval Application** (Pages 5 - 12)

6. **Lancashire Strategic Transport Prospectus** (Pages 13 - 38)

7. **East Lancashire Rail Connectivity Study Conditional Output Statement** (Pages 39 - 90)

8. **Any Other Business**

9. **Date of Next Meeting**
   TBC – September 2015.

Transport for Lancashire Committee

Minutes of the Meeting held on Monday, 13 April, 2015, at 2.00pm at the Former County Mess – The John of Gaunt Room, County Hall, Preston.

Present

County Councillor Jennifer Mein (Chair)

Councillor Maureen Bateson

Councillor John Jones

Graham Cowley

Observers

Richard Perry (Department for Transport)

Mike Sinnott (Highways Agency)

In Attendance

Brian Bailey

Alan Cavill

Sharon Montgomerie

Dave Colbert

Mike Kirby

Simeon Butterworth (Jacobs)

Peter Hibbert (Jacobs)

Craig Higgins (Jacobs)

Nasar Malik (Atkins)

1. **Welcome and Apologies for Absence**

   The Chair, County Councillor Jennifer Mein welcomed all to the meeting, in particular guest presenters from Jacobs and Atkins.

   Apologies for absence were received from Tom Carberry from Network Rail.

2. **Minutes of the meeting held on 3 February 2015**

   Resolved: That the minutes of the last meeting held on 3 February 2015 be approved and signed by the Chair.

3. **Matters Arising**

   None

4. **Declarations of Interest**

It was noted that Councillors Mein and Bateson and Graham Cowley declared an interest in the presentations being made by Atkins and Jacobs on account of their membership of the Lancashire Enterprise Partnership (LEP).

5. **Blackburn to Manchester Rail Corridor Improvement Scheme Full Approval Application** (pages 5-8)

A presentation was made by officers from Jacobs, with copies of the consultants' report on the scheme being made available with the full agenda prior to the meeting. It was noted that the scheme would deliver high value for money and meets the LEP's accountability framework. It was also noted that the Environmental Impact Assessment had yet to be conducted.
To ensure the benefits of the scheme are maximised, it is critical that Blackburn with Darwen Borough Council (BwDBC), Lancashire County Council (LCC) and the Lancashire Enterprise Partnership (LEP) should continue to lobby for the scheme to be delivered at the earliest opportunity and before 2017.

Any overspends on the scheme would be met by BwDBC. The letter from the s151 officer would be updated to reflect this.

Resolved:

The Committee endorsed Jacobs' recommendation that the Blackburn to Manchester Rail Corridor Improvement Scheme should be granted Full Approval status, thus enabling the scheme to draw down Growth Deal funds and proceed to implementation.

6. **Blackpool Bridges Major Maintenance Scheme Funding Approval Application** (Pages 9-18)

A presentation was made by officers from Jacobs, with copies of the consultants' report on the scheme being made available with the full agenda prior to the meeting.

Resolved:

The Committee endorsed Jacobs' recommendation that the Blackpool Bridges Maintenance Scheme should be granted Full Approval, subject to the conditions listed in the report.

The Chair thanked the officers from Jacobs for their reports and presentations to the Committee.

7. Centenary Way Viaduct Burnley Major Maintenance Scheme

This review represents Atkins' independent scrutiny of the SOBC for the A682 Centenary Way Viaduct Refurbishment scheme. The scheme, which is being promoted by Lancashire County Council, is seeking Full Approval from the LEP and funding via the Local Growth Deal.

The submission demonstrates that the project has been developed to the expected standard in most areas. Revisions to the business case submitted for review on 9th March 2015 were requested by Atkins. The updated SOBC submitted for review on 26th March 2015 has substantially met these requirements.

Resolved:

The Committee endorsed Atkins' recommendation that Full Approval for the scheme be granted.

8. East Lancashire Strategic Cycle Network Scheme Funding Approval Application (Pages 39 - 58)

A presentation was made by an officer from Atkins, with copies of the report on the scheme being made available with the full agenda prior to the meeting.

This review represents Atkins' independent scrutiny of the Strategic Outline Business Case (SOBC) for the East Lancashire Strategic Cycleway Network scheme. The scheme, which is being promoted by Lancashire County Council, is seeking Full Approval from the Lancashire Local Enterprise Partnership (LEP) and funding via the Local Growth Deal.

The submission demonstrates that the project has been developed to the expected standard in most areas, and overall it Atkins recommendation that it is given full approval subject to meeting criteria set out in section 2.7 of the report. However Members concluded that there was insufficient information contained in the report for them to support that recommendation at this stage, and requested a revised submission be brought to the next meeting.

Resolved:

1. The Committee requested that a revised submission be brought to the next TfL meeting.

2. The Chair thanked Mr Malik for his reports and presentations to the Committee

9. Lancashire Strategic Transport Prospectus & Transport for the North Update (Pages 59 - 60)

Dave Colbert provided an update regarding the prospectus. It was suggested that when ready, the document should be launched formally.

Resolved:

The Committee noted the update.

10. Any Other Business

None.

11. Date of Next Meeting

To note that the next meeting will be held on Friday 5th June 2015 at 10.00am in the Former County Mess - The John of Gaunt Room, County Hall, Preston.

INDEPENDENT REVIEW

ATKINS

Project Title:	East Lancashire Strategic Cycleway Network	**Scheme Promoter:**	Lancashire County Council
Document Reviewed:	Strategic Outline Business Case	**Permission Sought:**	Full Approval
Date of Submission:	March 2015 & 27 May 2015	**Date of Review:**	28/05/2015
LEP Accountability Framework:	In line with LEP's Accountability Framework, a proportionate approach to the development of the Transport Business Case has been applied. Given the scheme is seeking a Local Growth Fund (LGF) contribution of less than £5m an Outline/Full Business Case will not be required, instead the scheme only requires a Strategic Outline Business Case to seek Full Approval.		
Scheme Description:	The East Lancashire Strategic Cycleway Network project proposes the creation of 4 new key cycling routes across East Lancashire. The routes are: 1. The Valley of Stone (Rossendale) 2. The National Cycle Route 6 (Rossendale and Hyndburn), 3. The Weavers Wheel (Blackburn with Darwen); and 4. The Huncoat Greenway (Hyndburn).		

SUMMARY SHEET

Overall Score:	**2**	**1**	**Requirements fully met** - No issues of note with the submission, project to progress as scheduled.
Overall Comments:	This review represents Atkins' independent scrutiny of the Strategic Outline Business Case (SOBC) for the East Lancashire Strategic Cycleway Network scheme. It does not represent a detailed validation of technical analyses. The scheme, which is being promoted by Lancashire County Council, is seeking Full Approval from the Lancashire Local Enterprise Partnership (LEP) and funding via the Local Growth Deal. Atkins is satisfied that the Strategic Outline Business Case submitted in March 2015 along with supplementary documentation submitted on 27 May 2015 demonstrates that the project has been developed to the expected standard with all requirements substantially met, and therefore recommend that the scheme be granted Full Approval. The Economic Case demonstrates that the combined package will provide high value for money with a benefit to cost ratio of 2.79 and also generate a potential £55k GVA uplift per annum. The following actions will need to be addressed in a timely manner to ensure the scheme is delivered to programme over the next 4-years, as each has the potential to impact on the scope and deliverability of the scheme: • progress all planning permissions and any compulsory purchase orders; • complete the detailed scheme design and costs estimates for all scheme sections; and • carry out a quantified assessment of each risk element. Both Lancashire County Council and Blackburn with Darwen Borough Council have a successful track record of delivering similar projects. The total funding cover for the scheme is £5.85m, with a majority (56%) local contribution from Lancashire County Council and Blackburn with Darwen Borough Council with the remaining £2.6m to be funded by the Lancashire Growth Deal. From a Growth Deal perspective such a high level of local contribution represents good value for money. Assurance is provided via the scheme promoters' Section 151 officers of their ability to fund the local contribution and any subsequent cost increases. 'Plan B' on-highway solution contingencies are in place to overcome any delivery risks, and if necessary limit any significant unforeseen overspend.	**2**	**Requirements substantially met** - Minor issues exist with the submission. Project to progress and issues to be resolved.
		3	**Requirements partially met** - Medium issues exist with the submission. Project to progress and issues to be resolved urgently.
		4	**Requirements not met** - Critical issues exist with the submission. Project to be suspended whilst issues are resolved.

Case	Status	Atkins Comments
Strategic Case	**2**	The strategic case presented is robust, providing a clear requirement for the scheme with strong opportunities to be gained from delivery, with strong links to both national and local policy. Health-related benefits are the biggest driver of the VfM assessment, with poor levels of health identified in East Lancashire compared to county and national average. A clear case for the scheme is presented at the local level directly linking the ability of the scheme to address the localised issues of health and obesity, the benefits of a cycle scheme over other solutions, and what the results could look like for East Lancashire following implementation. Planning permissions and any compulsory purchase orders should be sought where required at the earliest opportunity, as this may impact on the scope of the scheme, but recognising that the scheme is to be delivered over a 4-year programme.
Economic Case	**1**	The Economic Case demonstrates that the combined package will provide high value for money with a benefit to cost ratio of 2.79 and also generate a potential £55k GVA uplift per annum. A 30-year appraisal period is deemed appropriate for new off-highway infrastructure. Using local derived data, several sensitivity tests have been undertaken on the future levels of growth from the scheme, namely 15%, 30% and 60% (60% and 120% for Weaver's Wheel). Under each scenario the combined package remains high VfM. Noting that some scheme elements have progressed to detailed design an optimism bias uplift of 44% may be considered conservative. The accountability framework requires that "scheme promoters must ensure that the Senior Responsible Owner signs off each AST as true and accurate." A declaration letter from the Senior Responsible Owner (Mike Kirby) confirms this to be the case.
Financial Case	**2**	The total funding cover for the scheme is £5.85m, with a majority (56%) local contribution from Lancashire County Council and Blackburn with Darwen Borough Council with the remaining £2.6m to be funded by the Lancashire Growth Deal. From a Growth Deal perspective such a high level of local contribution represents good value for money. Assurance is provided via the scheme promoters' Section 151 officers of their ability to fund the local contribution and any subsequent cost increases. Since submission of the business case in March 2015 a further cost review/ value engineering exercise has been undertaken, and the programme reprofiled with an allowance for inflation of 2.5% per annum. Although no independent cost verification has been undertaken costs for the scheme will be based on the Framework schedule of rates which have been market tested for value for money. Both Lancashire County Council and Blackburn with Darwen Borough Council have a successful track record of delivering similar projects. Evidence has been provided to support the use of a 15% risk allowance to cover uncertainties regarding construction and land acquisition costs. 'Plan B' on-highway solution contingencies are in place to overcome any delivery risks, and if necessary limit any significant unforeseen overspend.

Commercial Case	**2**	Both Lancashire County Council and Blackburn with Darwen Borough Council have a track record of delivering similar projects. The procurement strategy is based on existing framework contracts and will in the main be delivered by LCC's in-house operational services and BwDBC's Highways Asset Management Integrated Service (HAMIS). The SOBC identifies that the costs for both will be based on the Framework schedule of rates which have been market tested for value for money. Works in areas remote from the adopted highway may be procured via a competitive tendering process. A detailed risk register and management plan is available for each section of the cycleway which identifies risk, their likely impact, potential mitigation and risk ownership. The Project Board should ensure that a quantified risk assessment is completed as a priority. A 4-year delivery programme enables lower risk sections of the scheme to be delivered early while further scheme development/ land acquisition takes place on other sections. Responsibilities with regard to risk are well defined both through the risk register and governance structure. Overall, there is a good case that the scheme is commercially viable.
Management Case	**1**	The submission gives a good account of its governance and assurance requirements. The roles and responsibilities set out are clear, and the project programme is well defined. A detailed monitoring and evaluation plan has been developed to accurately report the success of the scheme. Whilst the plan is comprehensive there does not appear to be any prioritisation of benefits in terms of the most significant impact.

Sign-Off

Reviewer's Signature:		**Date:**	**28/05/2015**

INDEPENDENT REVIEW

ATKINS

Project Title:	East Lancashire Strategic Cycleway Network		
Permission Sought:	Full Approval	**Date of Review:**	28/05/2015

STRATEGIC CASE

Overall Score	**2**	**1**	**Requirements fully met** - No issues of note with the submission.
Atkins Comments:	The strategic case presented is robust, providing a clear requirement for the scheme with strong opportunities to be gained from delivery, with strong links to both national and local policy. Health-related benefits are the biggest driver of the VfM assessment, with poor levels of health identified in East Lancashire compared to county and national average. A clear case for the scheme is presented at the local level directly linking the ability of the scheme to address the localised issues of health and obesity, the benefits of a cycle scheme over other solutions, and what the results could look like for East Lancashire following implementation. Planning permissions and any compulsory purchase orders should be sought where required at the earliest opportunity, as this may impact on the scope of the scheme, but recognising that the scheme is to be delivered over a 4-year programme. Further consideration and detail to what constitutes scheme success would benefit the case and allow for simple assessment post-implementation.	**2**	**Requirements substantially met** - Minor issues exist with the submission.
		3	**Requirements partially met** - Medium issues exist with the submission.
		4	**Requirements not met** - Critical issues exist with the submission.

Item	Status	Comments
1.1 Strategic Context	Requirements Fully Met	The document provides a comprehensive assessment of the planned scheme and the links into wider programmes including the Connecting East Lancashire Programme and connectivity to the National Cycle Network. There is comprehensive reference to how the scheme aligns with national policy including the DfT Cycling Delivery Plan; *"Healthy Lives, Healthy People"* (tackling obesity) and localised policy including the Lancashire Strategic Economic Plan, Lancashire Local Transport Plan, Blackburn with Darwen Local Transport Plan and the East Lancashire Highways and Transport Masterplan. The document clearly presents how the scheme will provide opportunities for accessing employment and education, improve the health of local residents and contribute to the visitor economy.
1.2 Challenge or Opportunity to be addressed	Requirements Fully Met	The scheme logic map shows how the outcomes that the scheme will deliver relate to the core problems. Logic mapping is an essential part of the evaluation process. It provides a systematic and visual representation linking the key components of an intervention in order to produce a causal pathway. The document discusses the opportunities for the scheme, presenting evidence of poor life expectancy, low physical activity, and low levels of walking and cycling commuting, and how the scheme will address these issues. The challenges have also been considered including safety risk, perception and outlay costs for cycling and ways to mitigate these have been considered. Health-related benefits are the biggest driver of the VfM assessment, with poor levels of health identified in East Lancashire compared to county and national average. A clear case for the scheme is presented at the local level directly linking the ability of the scheme to address the localised issues of health and obesity, the benefits of a cycle scheme over other solutions, and what the results could look like for East Lancashire following implementation.
1.3 Strategic Objectives	Requirements Substantially Met	The document presents a number of objectives that are relevant to the scheme. In some cases the objectives presented are not in a measurable manner e.g. *"create a significant increase in cycle use in East Lancashire."* It is not clear of the level of expected increase and by when, therefore the success of this objective is hard to measure. However, reference to an increase of 10% per annum is presented in *"Achieving success"*. Other objectives such as reducing air quality in the AQMA could be quantified. Overall the objectives would be bolstered if written in a SMART manner.
1.4 Achieving Success	Requirements Substantially Met	Not all of the objectives have been listed with a clear indication of what would quantify a success for the scheme, notably those relating to levels of health and air quality improvements.
1.5 Delivery Constraints	Requirements Substantially Met	A risk register for the scheme is provided. Obtaining planning approval for some sections of the route has been identified as a key risk. Failure to secure the necessary planning approvals could impact of the scope of the scheme. 'Plan B' on-highway solution contingencies are in place to overcome any delivery risks.
1.6 Stakeholders	Requirements Substantially Met	The scheme promoters have demonstrated strong support for the scheme from a range of different stakeholder groups. There is a clear understanding of who the stakeholders are, and there is a comprehensive Communications Strategy and Action Plan. Whilst the action plan sets out that between January and June 2015 there will be a need to re-engage with key audiences, no evidence is presented on the status of this communication at the time of writing (May 2015). There has been close engagement with local art and community groups showing a positive wider community element to the scheme delivery.
1.7 Strategic Assessment of Alternative Options	Requirements Partially Met	Three options and a 'Do Nothing' scheme have been presented, however, Option 2 is a partial implementation of Option 4, and Option 3 is implementing Option 4 over a longer period of time. Whilst there is analysis presented of the numbers of employment and housing sites, leisure centres and schools within the catchment of the proposed Option 4 (preferred option), the Options do not clearly explain how the chosen locations of schemes were decided. A case for a fully integrated cycle network linking the whole of Lancashire could seemingly have been considered here. An exercise was undertaken in November 2014 regarding potential route options for individual sections, to provide an alternative if it was proving difficult to implement the preferred route within the scheduled timescales of the programme. The majority of the 'Plan B' routes would represent an 'on-highway' solution and implementing all of them would start to impact upon the quality of the overall network to be delivered.

INDEPENDENT REVIEW

ATKINS

Project Title:	East Lancashire Strategic Cycleway Network		
Permission Sought:	Full Approval	**Date of Review:**	28/05/2015

ECONOMIC CASE

Overall Score	**1**		1	**Requirements fully met** - No issues of note with the submission.
Atkins Comments:	The Economic Case demonstrates that the combined package will provide high value for money with a benefit to cost ratio of 2.79 and also generate a potential £55k GVA uplift per annum. A 30-year appraisal period is deemed appropriate for new off-highway infrastructure. Using local derived data, several sensitivity tests have been undertaken on the future levels of growth from the scheme, namely 15%, 30% and 60% (60% and 120% for Weaver's Wheel). Under each scenario the combined package remains high VfM. Noting that some scheme elements have progressed to detailed design an optimism bias uplift of 44% may be considered conservative. The accountability framework requires that *"scheme promoters must ensure that the Senior Responsible Owner signs off each AST as true and accurate."* A declaration letter from the Senior Responsible Owner (Mike Kirby) confirms this to be the case.		2	**Requirements substantially met** - Minor issues exist with the submission.
			3	**Requirements partially met** - Medium issues exist with the submission.
			4	**Requirements not met** - Critical issues exist with the submission.

Item	Status	Comments
2.1 Value for Money	Requirements Substantially Met	The approach to assessment is based on WebTAG Unit A5-1 'Active Mode Appraisal' which is considered appropriate along with an additional Gross Value Added calculation which is not included in the BCR. The appraisal of the East Lancashire Strategic Cycle Network consists of four scheme elements, which are considered together as a combined package and separately. Whilst the combined package is shown to provide high VfM (BCR of 2.79), Huncoat Greenway on its own is shown to provide only a low VfM (BCR of 1.4).
2.2 Economic Assumptions	Requirements Fully Met	Economic assumptions reflect WebTAG guidance for the majority of elements. Price base year and discount rates have all been accurately applied. With reference to WebTAG Unit A5-1, a 30-year appraisal period is deemed appropriate for new off-highway infrastructure. Noting that some scheme elements have progressed to detailed design an optimism bias uplift of 44% may be considered overly robust.
2.3 Sensitivity and Risk Profile	Requirements Fully Met	WebTAG advises that the appraisal of cycling schemes can be highly sensitive to the forecasts and assumptions used and that to produce as robust an analysis as possible, sensitivity tests are undertaken on the core assumptions made. Using local derived data, several sensitivity tests have been undertaken on the future levels of growth for the preferred scheme, namely 15%, 30% and 60% (60% and 120% for Weaver's Wheel). A 0% decay rate is assumed in all cases, which does not seem unreasonable for new off-highway infrastructure. Under each scenario the combined package remains high VfM.
2.4 Value for Money Statement	Requirements Fully Met	Based on the listed economic assumptions, the scheme provides high VfM. There are additional GVA benefits of circa £55k per annum that have not been included in the benefit cost ratio (as per guidance) that show additional wider benefits from the scheme. The analysis has been proportionate based on the type and value of scheme. There are wider additional benefits such as regeneration impacts, and reduced severance that have not been quantified yet bolster the case for the scheme to be delivered.
2.5 Appraisal Summary Table	Requirements Fully Met	The AST is completed as required. The accountability framework requires that *"scheme promoters must ensure that the Senior Responsible Owner signs off each AST as true and accurate."* A declaration letter from the Senior Responsible Owner (Mike Kirby) confirms this to be the case.

INDEPENDENT REVIEW

ATKINS

Project Title:	East Lancashire Strategic Cycleway Network		
Permission Sought:	Full Approval	**Date of Review:**	28/05/2015

FINANCIAL CASE

Overall Score	**2**		**1**	**Requirements fully met** - No issues of note with the submission.
Atkins Comments:	The total funding cover for the scheme is £5.85m, with a majority (56%) local contribution from Lancashire County Council and Blackburn with Darwen Borough Council with the remaining £2.6m to be funded by the Lancashire Growth Deal. From a Growth Deal perspective such a high level of local contribution represents good value for money. Assurance is provided via the scheme promoters' Section 151 officers of their ability to fund the local contribution and any subsequent cost increases. Since submission of the business case in March 2015 a further cost review/ value engineering exercise has been undertaken, and the programme reprofiled with an allowance for inflation of 2.5% per annum. Although no independent cost verification has been undertaken costs for the scheme will be based on the Framework schedule of rates which have been market tested for value for money. Both Lancashire County Council and Blackburn with Darwen Borough Council have a successful track record of delivering similar projects. Evidence has been provided to support the use of a 15% risk allowance to cover uncertainties regarding construction and land acquisition costs. 'Plan B' on-highway solution contingencies are in place to overcome any delivery risks, and if necessary limit any significant unforeseen overspend.		**2**	**Requirements substantially met** - Minor issues exist with the submission.
			3	**Requirements partially met** - Medium issues exist with the submission.
			4	**Requirements not met** - Critical issues exist with the submission.

Item	Status	Comments
3.1 Affordability Assessment	Requirements Fully Met	The total funding cover for the scheme is £5.85m, with £2.6m to be funded by the Lancashire Growth Deal and the remaining £3.25m (56%) local contribution from Lancashire County Council and Blackburn with Darwen Borough Council. £3m funding will be provided by Lancashire County Council this was approved by the Cabinet Member for Highways and Transport in December 2014. £0.25m will be provided by Blackburn with Darwen Council as part of their Local Transport Plan allocation. From a Growth Deal perspective such a high level of local contribution represents good value for money. The accountability framework requires that *"the scheme promoter's Section 151 officer must underwrite the promoter's ability to fund the local contribution and any subsequent cost increases"* . Letters confirming such have been received from both Blackburn with Darwen Borough Council and Lancashire County Council.
3.2 Financial Costs	Requirements Fully Met	Since submission of the business case in March 2015 a further cost review/ value engineering exercise has been undertaken, and the programme reprofiled with an allowance for inflation of 2.5% per annum.
3.3 Financial Cost Allocation	Requirements Fully Met	No comments.
3.4 Financial Risk	Requirements Substantially Met	A risk register has been provided and three key financial risks have been identified: • Significant variation in works cost versus current cost estimates as detailed design work has yet to be completed • Increase in costs of land agreements/acquisition as some private landowners have yet to be approached • Extraordinary material/fuel price increases A detailed risk register and management plan is available for each section of the cycleway which identifies risk, their likely impact, potential mitigation and risk ownership. Although no independent cost verification has been undertaken costs for the scheme will be based on the Framework schedule of rates which have been market tested for value for money. Both Lancashire County Council and Blackburn with Darwen Borough Council have a successful track record of delivering similar projects, including Padiham Greenway, Preston Guild Wheel and the River Lune Millennium Park in Lancaster. Since submission of the business case in March 2015 a further cost review/ value engineering exercise has been undertaken, and the programme reprofiled with an allowance for inflation of 2.5% per annum. No funding shortfall is anticipated. Assurance is provided via the scheme promoters' Section 151 officers of their ability to fund the local contribution and any subsequent cost increases.
3.5 Financial Risk Management	Requirements Substantially Met	In the absence of a quantified risk assessment and detailed costs estimate for some sections of the scheme, a 15% risk allowance is assumed to cover uncertainties regarding construction and land acquisition costs. This is deemed appropriate on the basis that for schemes such as Padiham Greenway and Preston Guild Wheel the Council applied a 10% risk allowance and this has been validated by the outturn spend of similar schemes. The Council has developed a 4-year delivery programme that will enable lower risk sections of the scheme to be delivered early while further scheme development/ land acquisition takes place on other sections. 'Plan B' on-highway solution contingencies are in place to overcome any delivery risks. This exercise has demonstrated that there are additional cost savings of up to circa £1.29m that can be generated to cover any uncertainty in the risk, and still deliver a workable East Lancashire Strategic Cycleway Network and medium VfM with a BCR of 1.8 (rising to high VfM under higher growth assumptions).
3.6 Financial Accountability	Requirements Fully Met	Lancashire County Council will be responsible for the financial management of the project. A project board has been established to oversee the project and ensure diligent financial management is put in place.

INDEPENDENT REVIEW

ATKINS

Project Title:	East Lancashire Strategic Cycleway Network		
Permission Sought:	Full Approval	**Date of Review:**	28/05/2015

COMMERCIAL CASE

Overall Score	**2**	**1**	**Requirements fully met** - No issues of note with the submission.
Atkins Comments:	Both Lancashire County Council and Blackburn with Darwen Borough Council have a track record of delivering similar projects. The procurement strategy is based on existing framework contracts and will in the main be delivered by LCC's in-house operational services and BwDBC's Highways Asset Management Integrated Service (HAMIS). The SOBC identifies that the costs for both will be based on the Framework schedule of rates which have been market tested for value for money. Works in areas remote from the adopted highway may be procured via a competitive tendering process. A detailed risk register and management plan is available for each section of the cycleway which identifies risk, their likely impact, potential mitigation and risk ownership. The Project Board should ensure that a quantified risk assessment is completed as a priority. A 4-year delivery programme enables lower risk sections of the scheme to be delivered early while further scheme development/ land acquisition takes place on other sections. Responsibilities with regard to risk are well defined both through the risk register and governance structure. Overall, there is a good case that the scheme is commercially viable.	**2**	**Requirements substantially met** - Minor issues exist with the submission.
		3	**Requirements partially met** - Medium issues exist with the submission.
		4	**Requirements not met** - Critical issues exist with the submission.

Item	Status	Comments
4.1 Commercial Viability	Requirements Fully Met	There is a clear case presented for the viability of this scheme, and reference is made to existing practical experience encountered on other projects by both Lancashire County Council and Blackburn with Darwen Borough Council.
4.2 Procurement Strategy	Requirements Substantially Met	The procurement strategy is based on existing framework contracts and will largely be delivered by LCC's in-house operational services and BwDBC's Highways Asset Management Integrated Service (HAMIS). The SOBC identifies that the costs for both will be based on the Framework schedule of rates which have been market tested for value for money. Some form of evidence to this effect should be provided. Works in areas remote from the adopted highway may be procured via a competitive tendering process in accordance with the authorities procurement rules and adhering to the OJEU thresholds published by the European Commission. Any works procured by this method will follow a pre-qualification and competitive tendering process.
4.3 Identification of Risk	Requirements Substantially Met	The main commercial risks for the scheme will remain with the promoting authorities. A detailed risk register and management plan is available for each section of the cycleway which identifies risk, their likely impact, potential mitigation and risk ownership. The Project Board should ensure that a quantified risk assessment is completed as a priority. A 4-year delivery programme enables lower risk sections of the scheme to be delivered early while further scheme development/ land acquisition takes place on other sections.
4.4 Risk Allocation	Requirements Substantially Met	Subject to a full QRA, risks will be allocated to either Lancashire County Council or Blackburn with Darwen Borough Council depending on location. Responsibilities with regard to risk are well defined both through the risk register and governance structure, where: • The Project Board has overall responsibility risk associated with the delivery of the scheme and will meet on a quarterly basis. • The Project Executive is responsible for managing and overseeing the Risk Management Strategy and where appropriate agreeing and undertaking actions to mitigate key risks. • The Project Manager is responsible for maintaining and updating the Risk Register and undertaking actions to mitigate the risks that do not require escalation to the Project Executive.
4.5 Contract Management	Requirements Fully Met	The works will largely be undertaken in house and/or using known delivery partners (that have been in strategic partnership since 2001). Additional work will be appointed through NEC 'Option A' tender.

INDEPENDENT REVIEW

ATKINS

Project Title:	East Lancashire Strategic Cycleway Network		
Permission Sought:	Full Approval	**Date of Review:**	28/05/2015

MANAGEMENT CASE

Overall Score	1	1	**Requirements fully met** - No issues of note with the submission.
Atkins Comments:	The submission gives a good account of its governance and assurance requirements. The roles and responsibilities set out are clear, and the project programme is well defined. A detailed monitoring and evaluation plan has been developed to accurately report the success of the scheme. Whilst the plan is comprehensive there does not appear to be any prioritisation of benefits in terms of the most significant impact.	2	**Requirements substantially met** - Minor issues exist with the submission.
		3	**Requirements partially met** - Medium issues exist with the submission.
		4	**Requirements not met** - Critical issues exist with the submission.

Item	Status	Comments
5.1 Governance	Requirements Fully Met	The governance and assurance arrangements for the project are well defined with the management of the project is split up into three tiers consisting of the Growth Deal Programme Management, the Project Board and the Project Delivery Team. The structure is based on established and operating governance arrangements for schemes currently being delivered by LCC.
5.2 Go/No-Go and Decision Milestones	Requirements Fully Met	The key go/ no-go decision milestone is related to this independent scrutiny, and the submission for full approval for funding.
5.3 Project Programme	Requirements Substantially Met	A detailed project programme developed in Microsoft Project has been provided which highlights the interdependencies and all aspects of project delivery including approvals and scheme construction. Since submission of the business case in March 2015 a further cost review/ value engineering exercise has been undertaken, and the programme reprofiled. Only a short two week period for each of the four elements has been identified for finalising land and legal agreements.
5.4 Assurance and Approvals Plan	Requirements Fully Met	The document references the alignment with the Lancashire Enterprise Partnership's Assurance Framework, and this independent review of the business case forms a part of the assurance process.
5.5 Communications and Stakeholder Management	Requirements Fully Met	The scheme promoters have demonstrated strong support for the scheme from a range of different stakeholder groups. There is a clear understanding of who the stakeholders are, and there is a comprehensive Communications Strategy and Action Plan. Whilst the action plan sets out that between January and June 2015 there will be a need to re-engage with key audiences, no evidence is presented on the status of this communication at the time of writing (May 2015).
5.6 Programme/ Project Reporting	Requirements Substantially Met	Clear programme and project reporting processes are in place for the scheme. The Project Managers will report to the Project Board at quarterly meetings. During these meetings, key risks, programme management and the financial position of the project will be discussed. The Project Executive will be supported by the Project Manager at these meetings as appropriate. Any corrective actions or decisions will be agreed by the Project Board and cascaded to the Project Team via the Project Manager. No reports or documentation of project board meetings are evident.
5.7 Risk Management Strategy	Requirements Fully Met	A risk register allocating responsibility of risks has been provided. The risks relating to the delivery of the Lancashire Enterprise Partnership's investment programme will be managed according to the overall monitoring responsibilities set out in the Assurance Framework.
5.8 Monitoring and Evaluation	Requirements Substantially Met	The monitoring and evaluation plan is appropriate and proportionate to the package of works/ level of investment and links to the logic mapping which form an essential part of the evaluation process. Whilst the plan is comprehensive there does not appear to be any prioritisation of benefits in terms of the most significant impact. Indicative costs for monitoring and evaluation are provided which will be allocated from the Integrated Transport Block funding.
5.9 Project Management	Requirements Fully Met	The project will be managed in PRINCE 2.

Lancashire
Enterprise Partnership

Transport for Lancashire Committee

5th June 2015

Lancashire Strategic Transport Prospectus

Report Author: Dave Colbert, Specialist Advisor Transportation, Lancashire County Council

Executive Summary

This report updates the Committee with regard to progress with the Lancashire Strategic Transport Prospectus and recent developments concerning Transport for the North and the publication on 20th March 2015 of a report on the Northern Transport Strategy entitled 'The Northern Powerhouse: One Agenda, One Economy, One North'. The revised prospectus takes account of comments made on the initial draft by Transport for Lancashire Members and the Department for Transport, the implications of the interim Northern Transport Strategy report published in March 2015 and feedback received from representatives of the Transport for the North Partnership Board.

Recommendations

The Committee is invited to:

1) Note the contents of this report; and

2) Agree the attached Strategic Transport Prospectus and recommend that it be submitted to the Lancashire Enterprise Partnership Board for final approval.

1. Background

1.1 At their meeting held on 1st December 2014, Members requested a Strategic Transport Prospectus for Lancashire be prepared, in similar vein to that published in July 2014 by the five city regions in the North[1]. Members considered an initial draft at their meeting on 3rd February 2015, which they agreed subject to a number of minor modifications and recommended it be submitted to the Lancashire Enterprise Partnership Board for approval. The LEP Board subsequently approved in principle the approach adopted in preparing the Strategic Transport Prospectus and the priorities set out therein and authorised Transport for Lancashire to receive and sign-off a final draft at its next meeting on 13th April 2015.

[1] One North – A Proposition for an interconnected North, (Greater Manchester, Merseyside, South Yorkshire, West Yorkshire and Tyne & Wear) July 2014

1.2 At that meeting Transport for Lancashire received an update on progress with development of the Lancashire Strategic Transport Prospectus, in particular, the implications of the interim report 'The Northern Powerhouse: One Agenda, One Economy, One North – A Report on the Northern Transport Strategy' published by HM Government on 20th March 2015. In view of the later than anticipated publication of this report, it was not possible to present an updated prospectus as planned.

1.3 The prospectus has now been substantially revised to take account of the comments made on the initial draft by Transport for Lancashire Members and the Department for Transport at the meeting on 3rd February 2015, the implications of the interim Northern Transport Strategy report and feedback on the initial draft received from representatives of the Transport for the North Partnership Board.

1.4 The revised prospectus is attached as Appendix A. In particular:

- The economic narrative is much sharper and 'North' focused;
- National strategic priorities of genuine northern significance are clearly identified and separate from local strategic priorities; these comprise the West Coast Main Line / High Speed 2 / Preston station, the M6 and the Preston to Manchester rail corridor / M61; and
- Local strategic priorities are now set out in terms of connecting Lancashire to city region networks and supporting economic growth, development and regeneration.

There is also a commitment to undertake further work to understand and quantify the GVA / productivity implications of enhanced transport connectivity, which we are advised is critical to the Northern Transport Strategy. This will be completed in time to contribute to the update of the strategy due to be available in spring 2016 to inform national decision making for the next five year rail and road control periods covering the financial years 2019/20 to 2023/24.

Appendix A

Lancashire: Integral to the Northern Powerhouse

The Lancashire Strategic Transport Prospectus:

Lancashire as part of an Interconnected North

Foreword

Chair of Transport for Lancashire/ Chair of Lancashire Enterprise Partnership

Executive Summary

The Purpose of this Prospectus

Lancashire is a key economic sub region within the North West and the wider North of England. It has a fundamental offer to make and role to play within the developing Northern Powerhouse. Lancashire's leading national and regional position in relation to Aerospace, Advanced Engineering and Manufacturing, Energy and Higher Education Institution excellence make it a pivotal part of the long term sustainability of the North's economy, as does its internationally recognised visitor offer.

As elsewhere within the Northern Powerhouse, connectivity is fundamental to maximising this growth potential. Those transformational and supporting transport interventions that underpin strategic economic growth in Lancashire and the wider North need to be prioritised and delivered as part of an integrated approach.

The purpose of this strategic transport prospectus is:

- To articulate Lancashire's key economic growth priorities and in particular, those that play a critical role within the Northern Powerhouse;
- To demonstrate the rationale for developing a transport system to support Lancashire's economic growth and that of the Northern Powerhouse;
- To present the transformational transport priorities for Lancashire; and
- To set out the mechanisms and timescales for delivery.

An Interconnected North

In June 2014, the Chancellor of the Exchequer set out his vision for a 'Northern Powerhouse', a collection of northern cities sufficiently close to each other that, when combined economically would be able to challenge the World and in so doing, contribute to rebalancing the UK's economy[1]. The Chancellor considers transport to be key to achieving this vision, together with science and innovation, culture and the environment and governance. However, in his view, the transport network in the North is simply not fit for purpose and certainly not good enough to enable cities to pool their strengths. The Chancellor therefore identified the need for an ambitious plan to make the cities and towns across the North much better connected to create the equivalent of travelling around a single global city.

In March 2015, HM Government and Transport for the North published a report on the Northern Transport Strategy, "The Northern Powerhouse: One Agenda, One Economy, One North." The report sets out how transport is fundamental to achieving the shared vision of transforming growth in the North of England, rebalancing the country's economy and establishing the North as a global economic powerhouse. This will require the development of a world class transport system to better link up the individual cities and towns across the North to allow them to function as a single economy and hence be stronger than the sum of their parts.

The Northern Transport Strategy builds on the analysis and conclusions of HS2 Ltd[2], the One North Proposition for an Interconnected North[3] and the Transport for the North Partnership Board, all of which reaffirm the strategic case for the Phase 2 extension of HS2 to both Manchester and Leeds. It seeks to address not just the issue of capacity in the North but the greater problem of connectivity. The proposition is therefore to integrate HS2 into a wider strategic transport network across the North to fundamentally transform connectivity and in so doing, spread the economic benefits of HS2 as widely as possible. The final Northern Transport Strategy will set out plans for rail, highways, freight and logistics, integrated and smart travel, airports and local connectivity that together will provide an interconnected North.

The key purpose of this Strategic Transport Prospectus is to demonstrate how the centres of excellence, growth priorities and strategic sectors within Lancashire are fundamental to the success of the Northern Powerhouse and to set out their strategic connectivity requirements across the North and beyond.

[1] Speech delivered by the Rt Hon George Osborne MP at the Museum of Science and Industry in Manchester, 23rd June 2014

[2] HS2 Plus, A report by Sir David Higgins, Chair of HS2, March 2014

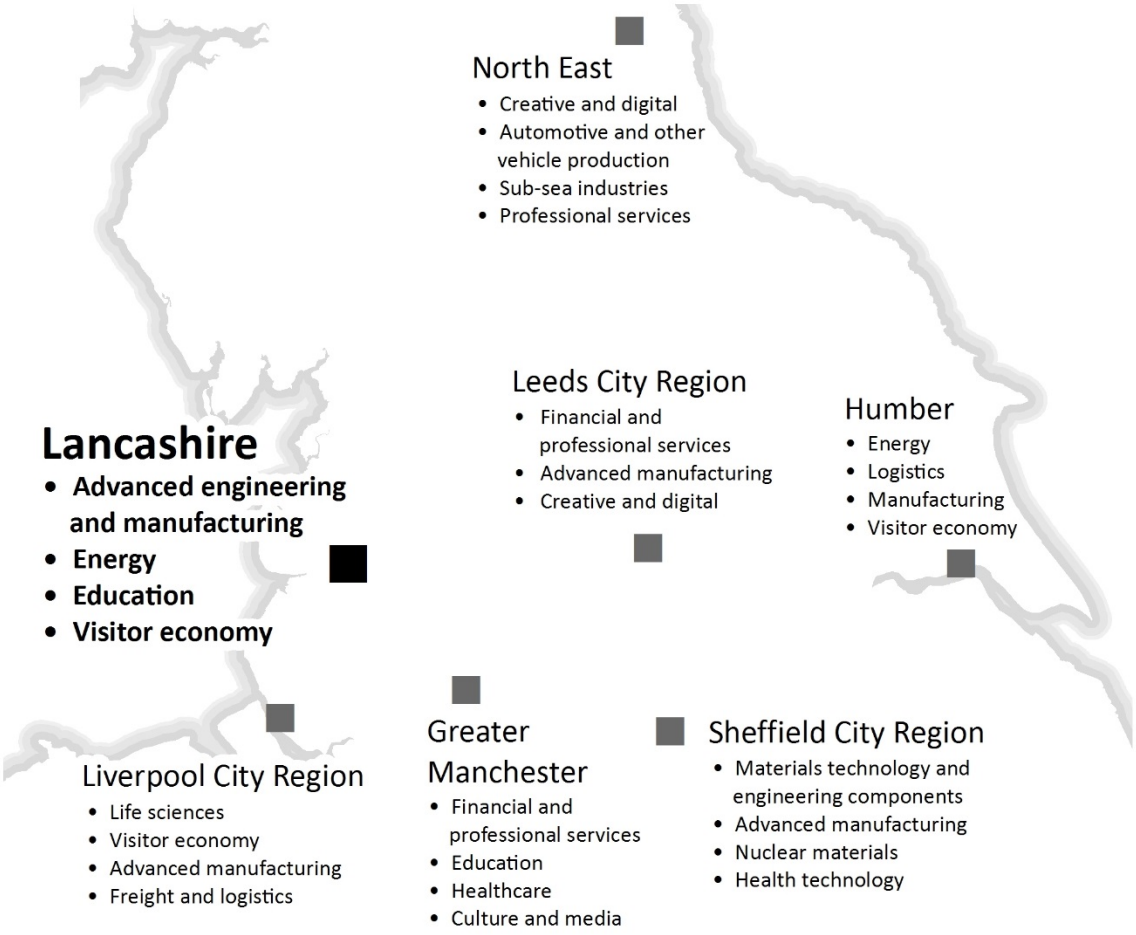
[3] One North – A Proposition for an Interconnected North, (Greater Manchester, Merseyside, South Yorkshire, West Yorkshire and Tyne & Wear) July 2014

The Northern Powerhouse

Rebalancing the economy by transforming growth across the North of England and establishing a Northern Powerhouse is a core part of the Government's economic strategy, and an agreed priority with Leaders across the North. Northern city regions, cities and sub regions have set out in their Strategic Economic Plans how they will develop their strengths in the key growth sectors of the future.

It is fundamental to the Northern Powerhouse that these sectors reach their full potential. This means targeting innovation, skills and supply chain solutions to maintain and grow investment. It means matching skills to the business growth areas of the future, providing new models of business support and economic regeneration and better connecting people to jobs, education and training and to other opportunities. Local Enterprise Partnerships (LEPs) bring together the public and private sectors to do this, using Strategic Economic Plans to drive growth, development and connectivity. Growth and devolution deals across the North have allocated funding for transport, skills and economic renewal and seek to facilitate proper planning for the future.

Growth Sectors identified in Strategic Economic Plans



Source: Transport for the North

Growth Deals have allocated funding for economic growth and development across the North, with significant private sector investment planned and underway:

Government Northern Powerhouse investments:

£235 million
Sir Henry Royce Institute for advanced materials research, based in Manchester, with centres in Leeds, Liverpool and Sheffield

£113 million
Cognitive Computing Research Centre in Warrington

£78 million
The Factory Manchester, a new theatre and exhibition space

£20 million
Innovation Hub for Ageing Science in Newcastle

New National College for Onshore Oil and Gas in Blackpool, with centres at Chester, Redcar and Cleveland

Doubling the number of northern cities to benefit from the Government's superfast broadband programme

Private Sector investments planned and underway:

Humber
£310 million wind turbine technology from Siemens and Associated British Ports
£450 million Logistics and Marine Energy Park from Able UK
£350 million bio fuel refineries from Vivergo Fuels

Liverpool City Region
£350 million Liverpool2 deep-sea container port from Peel Ports
£920 million City Centre retail from Grosvenor Group

Greater Manchester
£800 million Airport City Enterprise Zone
£1 billion East Manchester housing programme from Abu Dhabi United Group

Lancashire
Advanced Engineering and Manufacturing Enterprise Zone
£100 million Lancaster University Health Innovation Park
£50 million UCLan Engineering Innovation Centre, Preston

North East
£150 million in Newcastle's marine and offshore sector
£82 million train construction facility from Hitachi

Leeds City Region
£150 million Victoria Gate Leeds city centre
£260 million Broadway Bradford city centre

Sheffield City Region
£400 million Peak Resort, Sheffield city centre
£400 million intermodal freight interchange in Doncaster from Veridon

Source: HM Treasury, Transport for the North and publically available sources.

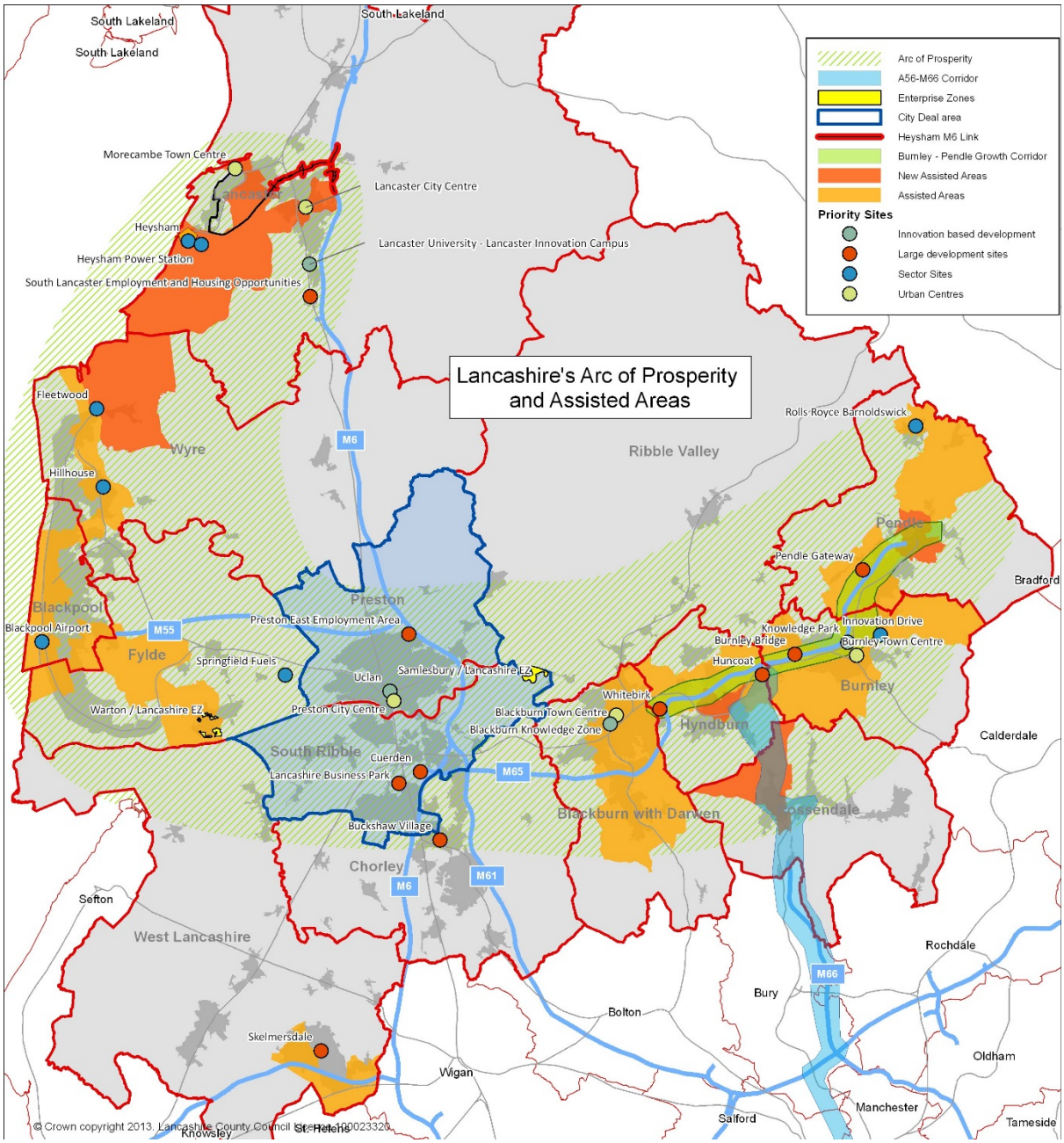
The Lancashire Strategic Economic Plan: A Growth Deal for the 'Arc of Prosperity'

The overarching purpose of Lancashire's Strategic Economic Plan[4] and Growth Deal is to re-establish Lancashire as an economic powerhouse and a national centre of excellence in advanced manufacturing by maximising its clear competitive strengths and capabilities in the aerospace, automotive, energy and Higher Education research related sectors. This will be achieved by focusing on an 'Arc of Prosperity' that extends across Lancashire and incorporates key sector priorities of national and international significance, key strategic sites, key clusters of high value activity and internationally recognised centres of excellence in research and innovation. The 'Arc' also incorporates key assets and other sectors including quality of life and housing growth offers, a significant tourism and visitor economy, health, digital and food manufacturing. Supporting this sector and asset development programme is a strategic approach to skills development and business support.

As such Lancashire's economic strengths and growth priorities are a key part of, and critical to, the building of the Northern Powerhouse. The Northern Transport Strategy must reflect this in order to deliver an inclusive and sustainable Northern Powerhouse. For Lancashire to maximise its economic potential, it will need to fully exploit its key innovation assets, growth sectors, skills, and transport infrastructure assets. Lancashire is a county of contrasts with a rich quality of life that distinguishes it from neighbouring city regions and makes it an attractive place in which to live, work and invest, with access to a highly skilled workforce, strongly performing schools, colleges and higher education establishments, strategic transport networks and effective broadband connectivity.

[4] Lancashire Strategic Economic Plan: A Growth Deal for the Arc of Prosperity, Lancashire Enterprise Partnership, March 2014

Lancashire's 'Arc of Prosperity'



Lancashire's Contribution to the Northern Powerhouse

Valued at over £25 billion, Lancashire has one of the largest economies in the North of England and the second largest in North West England. It is home to over 40,000 businesses employing in excess of 670,000 people, and has a population of 1.4 million. Independent economic analysis[5] has highlighted the presence of business and industrial clusters in growth sectors across and within key locations in Lancashire. These sectors have the potential to deliver a scale of growth that will have a transformative impact on the local economy and contribute significantly to the northern and national economy.

Aerospace

Lancashire is central to a regional cluster of aerospace capability recognised as the fourth largest in the world. One of three key clusters of aerospace capability in the UK, it is the only one in the North of England, contributing £850 million to the national economy. As a result, Lancashire makes a significant contribution to the whole supply chain of this industry. The county hosts the single largest concentration of aerospace production in the UK, employing over 20,000 people. Major employers include BAE Systems, Rolls Royce and Safran-Aircelle. These internationally renowned companies have attracted, and support, strong supply chains in design, testing, manufacturing and repair and maintenance. Lancashire's Enterprise Zone focuses on these sector strengths to provide world class development opportunities. BAE Systems' Lancashire sites are contributing in the region of £6 billion in value to the F35 programme, which is the UK's single largest trade contract.

Automotive

The automotive sector has an important base in Lancashire, with a workforce of over 3,500. Key companies include PACCAR (Leyland Trucks), Piolax, Sanko-Gosei, Erlson, Futaba-Tenneco and TRW Automotive. The supply chain is significant, with the majority of business activity focussed on the supply of high value parts to the UK and European Original Equipment Manufacturers (OEMs), a key Lancashire capability that the UK as a whole is seeking to grow. Exploiting a legacy of testing facilities, Lancashire hosts a significant cluster of innovative design and development companies, including Torotrak, Clean Air Power and Scorpion Automotive.

Energy

Over 37,000 people in Lancashire work in the power generation sector. The sector enjoys strong support from Lancaster University and the University of Central Lancashire, both of whom are internationally recognised centres of excellence in energy and environmental studies. National companies operating in the sector include Springfield Fuels, EDF, AMECPLC, SITA, Assystem and Westinghouse-Toshiba. Westinghouse facilities in Lancashire have nuclear reactor and fuel processing contracted programmes valued in the hundreds of millions of pounds.

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[5] *Strategic Commercial Development Advice,* Colliers, 2014. This advises that defining what a cluster constitutes is not an exact science but there are indictors which can give an idea as to whether a cluster is present; these include the geography of where companies are based and their proximity to one another, the number of companies based in a certain geographic area and the size and levels of employment of companies.

The two nuclear power stations at Heysham represent one of the largest concentrations of power generation in the UK. Decommissioning is anticipated to commence at Heysham 1 in 2019, with Heysham 2 following soon after. The close proximity of Lancashire to a number of Nuclear Decommissioning Authority sites makes it an ideal central location from which to serve the industry. Also, the Springfields Fuels site has the capability and capacity to manufacture fuel for all designs of worldwide nuclear reactors.

The specific strengths of Lancashire's nuclear sector, if properly combined with key assets and opportunities in Cumbria, Manchester, Cheshire and Sheffield, creates the prospect of establishing a coherent industrial and skills strategy for the nuclear sector across the North of England. Given these cross boundary issues and in line with the emerging national nuclear strategy; the Lancashire Enterprise Partnership is seeking the development of such an approach under the overarching direction of the Nuclear Advanced Manufacturing Research Centre (NAMRC), which is based in Sheffield.

The Port of Heysham, owned and operated by Peel Ports, which in addition to its Ro-Ro ferry operations is an important UK offshore supply base providing logistics support to one of the largest offshore gas fields in UK waters. The Port is well placed to exploit the market opportunities presented by significant offshore wind operations and maintenance facilities. Peel is exploring new commercial investment opportunities following completion of the Heysham to M6 Link Road.

Lancashire has potentially one of the largest reserves of shale gas in Europe, and although the extent and viability of this reserve is still being examined, significant planning issues remain unresolved. However, the Lancashire Enterprise Partnership is mindful that, subject to regulatory confirmations, the shale gas sector may begin to play an important economic role. Locating an 'elite' institution in Lancashire for shale gas will be important in establishing the sector both locally and nationally.

Higher Education Institutions

Lancashire hosts a significant concentration of Higher Education Institution excellence, including one of the largest concentrations of university assets in the North comprising Lancaster University, the University of Central Lancashire (UCLan) based in Preston and Edge Hill University in Ormskirk. Lancaster is also home to the largest campus of the University of Cumbria.

Lancaster University is a world renowned institution, consistently ranking amongst the top ten UK universities for research and teaching, and is ranked first for physics research. The university has over 11,000 students and its international profile supports the establishment of industrial links with key international markets. UCLan is the 5th largest university in the country in terms of its undergraduate in-take and was the first modern UK University to be ranked in the prestigious QS world rankings. Both are developing new high-technology facilities of national significance: a £100m health innovation park at Lancaster University and a £50m engineering innovation centre at UCLan in Preston.

Delivering Growth through Transport Investment

The Strategic Economic Plan identifies transport connectivity as fundamental to delivering economic growth and potential across Lancashire. However, despite sustained growth in the last decade particularly in identifiable economic 'hotspots' such as the cities of Preston and Lancaster, Lancashire's average performance still consistently lags behind that of the UK and neighbouring city regions. For example, between 2007 and 2011 Lancashire's economy grew by 4.4% compared to 6.5% nationally and 4.9% regionally, meaning Lancashire's GVA per capita was 77% of the UK average. Today the economic performance of Lancashire is more than 20% below the national average in terms of GVA per resident.[6]

Lancashire has benefitted in recent years from key transport and infrastructure investment of national significance such as the West Coast Main Line Route Modernisation programme completed in December 2008. However, apart from the completion of the Heysham to M6 Link Road due to open in summer 2016 and the Pennine Reach public transport scheme in East Lancashire currently being implemented, there has been little investment in critical local strategic infrastructure to improve connectivity and support economic growth, development and regeneration. It is estimated that failure to deliver the transport infrastructure needed to support sustained business success accounts for one quarter of Lancashire's current economic performance gap with the rest of the UK[7].

To address this key barrier to growth, Lancashire has developed a suite of five Highways and Transport Masterplans covering the entire county. These masterplans have provided the opportunity to align strategic transport investment across all modes with economic development and spatial planning priorities including housing. This approach helped secure the Preston, South Ribble and Lancashire City Deal, agreed with the Government in September 2013, and shaped Lancashire's Strategic Economic Plan and subsequent Growth Deal.

Central Lancashire, with Lancashire's principal city Preston at its heart, is a transport hub of national significance, providing most of the county's connections to the West Coast Main Line, the M6 and, in the future, to HS2. The Preston, South Ribble and Lancashire City Deal builds on the strong economic performance of the area over the last ten years and will see Central Lancashire transformed, creating 20,000 net new private sector jobs and delivering over 17,000 new homes, underpinned by significant investment in new and improved transport infrastructure. Whilst Lancashire's growth sectors will account for many of these jobs, in particular, at the Enterprise Zone sites at Samlesbury and Warton, Preston's business and financial sector will also expand, with the University of Central Lancashire reconfiguring to place itself at the heart of the city. It will be vital to business, whether based in Central Lancashire or further afield, that accessing Lancashire is straightforward and not compromised by problems on the rail and strategic road networks elsewhere across the North.

[6] Economic Forecasts for Lancashire, Oxford Economics, 2013
[7] Lancashire Strategic Economic Plan: A Growth Deal for the 'Arc of Prosperity', Lancashire Enterprise Partnership, March 2014

Lancaster is home to one of the country's top teaching and research institutes, Lancaster University being in the top 1% of global universities. The emphasis on research makes Lancaster a key hub for innovation, and with major expansion proposed at and around the University connectivity for business and academia is of particular importance. The district is also home to the major port of Heysham, a key facility for Irish Sea Ro-Ro traffic between the UK mainland and Ireland and the Isle of Man. Completion of the £130m Heysham to M6 Link Road in the summer of 2016 will significantly improve the port's access to the M6, but for the port to reach its full potential, the Strategic Road Network across the North must be effective.

East Lancashire, centred on Blackburn and Burnley, has a growing portfolio of higher value industries with aerospace, advanced manufacturing, advanced flexible materials, digital and creative industries all featuring strongly in the area's economy, making it key to both the success of the Lancashire Enterprise Zone and to the Arc of Prosperity. With easy access to high quality rural areas including the Forest of Bowland Area of Outstanding Natural Beauty, East Lancashire also has the potential to become a sought after place of residence for commuters. However, the quality of many local rail services and infrastructure leaves much to be desired, hence there is a significant identified requirement for greatly enhanced rail connectivity, with higher speeds, greater frequency and better rolling stock quality to enable East Lancashire to link into and support both Lancashire's growth and that of neighbouring city regions such as Manchester and Leeds. East Lancashire's motorway gateways are also pivotal in supporting our ambitions, again both for Lancashire as a whole and for its role in the wider economy of the North.

The Fylde Coast is one of the more affluent areas in Lancashire, containing towns and rural areas popular with commuters, with the advanced engineering and manufacturing sector providing highly paid jobs that underpin local economies. With the nationally significant resort of Blackpool central to the area and a visitor economy that is revitalising supported by recent investment, leisure and tourism are important components of the Lancashire economy. In March 2015, Lancashire's Enterprise Zone extended to include Blackpool Airport.

Despite its fundamentally rural nature, **West Lancashire** is home to a number of international and nationally recognised companies and Edge Hill University. Located between the major growth areas of Manchester, Liverpool and Central Lancashire, the area provides the perfect location for logistics and distribution companies, with Skelmersdale particularly well-placed to take advantage of the opportunities presented by the development of the Liverpool SuperPort concept, a key priority for the Liverpool City Region Economic Plan. The Atlantic Gateway initiative, a collection of assets including transport infrastructure that represents an opportunity for growth, lies just to the south.

The masterplans have identified the strategic and local transport priorities to improve connectivity and support economic growth, development and regeneration. Our national and local strategic priorities are set out in the following sections of this prospectus. Further work is being undertaken to identify the Gross Value Added (GVA) uplift addressing these priorities will deliver. It will also highlight the potential for Lancashire's GVA gap to widen further without such investment.

The Northern Transport Strategy: Lancashire's National Strategic Priorities

The following national strategic priorities are integral to the long term transport strategy for the North and will ensure that Lancashire, as one of the North's most significant sub-national economies, continues to prosper and support the vision and objectives of the Northern Powerhouse.

HS2 and the West Coast Main Line

Preston lies approximately mid-way between Glasgow and London on the West Coast Main Line, and also has regular direct services to Manchester, Manchester Airport, Birmingham, Edinburgh, Leeds and Liverpool, as well as providing connections into these services from Blackpool, Blackburn and East Lancashire, Lancaster and the Lake District. The railway station is therefore a critical asset for the city and for Lancashire and also serves as a gateway for communities further afield, particularly for connectivity to the West Coast Main Line. With over 4.5 million passenger users annually and a further 1.3 million interchanges, Preston is the busiest station in the North West outwith Manchester and Liverpool city centres and one of the busiest in the North.

As a key economic centre in its own right and identified by Government as such, it is vital that Preston has direct and frequent access to HS2 and any potential HS3 in fit for purpose surroundings. However, the station fabric has seen little investment in recent years resulting in a poor passenger experience and preventing the station from contributing towards the wider commercial development of the city centre. The station needs transforming into a modern, 21st Century facility from which, to which and through which passengers can pass in comfortable surroundings, one that will encourage greater rail use and fully maximise the inherent advantages of Preston's location on the rail network. Such a transformation will also help to enhance the station's presence within the city centre and its relationship to existing and proposed business district development.

The significance of Preston Station as a driver of economic growth is recognised by stakeholders both within and outside Lancashire. As such, the station's development is of fundamental importance to the economic growth aspirations across Lancashire, and in so doing, particularly once HS2 becomes operational, will reinforce Preston's role as the North West's major rail hub north of Manchester. Establishing an HS2 Growth Strategy as recommended by the HS2 Growth Taskforce[8] for Preston will be an important element to achieving this. In addition, Network Rail has requested the City and County Councils prepare a long term vision for the station to inform its strategic review of West Coast Main Line capacity north of Crewe. The County Council has recently commissioned Mott Macdonald to prepare an outline masterplan for Preston station.

From a Lancashire perspective, whilst the recommendation from Sir David Higgins[9] to accelerate delivery of an HS2 Hub at Crewe in 2027 rather than 2033 as originally

[8] High Speed 2: Get Ready, A report to the Government by the HS2 Growth Taskforce, March 2014
[9] Rebalancing Britain; From HS2 towards a national transport strategy, October 2014

planned is welcomed, it is essential that a connection from HS2 to the West Coast Main Line further north is retained. The recommendation to review this connection in light of concerns raised through consultation is noted, as is Sir David's assertion that such a link will be necessary sooner rather than later as part of the wider consideration of how to improve services to Scotland. Lancashire also wishes to see this link considered in conjunction with the proposed wider examination of east-west connectivity across the North including HS3, the proposed new Trans-Pennine rail connection linking Manchester with Leeds and Sheffield.

The M6 Motorway

The M6 is an integral part of the UK's main north-south transport spine between London, the West Midlands and Scotland, which also includes the West Coast Main Line. From a Lancashire perspective, it is particularly important for the movement of freight, for example, to and from the Port of Heysham, and for logistics and distribution companies located in Central Lancashire and Skelmersdale. South of Preston, deterioration in the operational effectiveness of the route is resulting in increased average journey times and a worsening of journey time reliability. This is likely to have a damaging effect on freight operations, many of which function on the basis of 'Just in Time' delivery. Lancashire therefore welcomes the commitment in the Road Investment Strategy[10] to upgrade much of the M6 south of Junction 26 (the M58 west of Wigan) to Smart Motorway by 2019/20.

Even with full delivery of the schemes set out in the Central Lancashire Highways and Transport Masterplan, evidence suggests that the M6 Preston Bypass will be under pressure by 2026, particularly during peak periods between Junctions 30 and 32 with the M61 and M55 respectively. This length of the M6 already has four lanes in each direction, so at some stage the potential to introduce 'Smart Motorway' technology will need assessing. Possible scheme elements could include access controls at junctions and variable speed limits. For consistency, Lancashire therefore wishes to see the 'smart spine' linking the North West and London referred to in the Road Investment Strategy ultimately extend as far north as Junction 32.

The Preston to Manchester Rail Corridor and M61 Motorway

The rail corridor linking Preston with Manchester city centre and Manchester Airport is not only of strategic importance to much of Lancashire but also to Cumbria and Scotland. Stations in central Manchester provide connections for onward travel to and from a range of other key destinations across the North, including Leeds[11] and Sheffield. The transport strategy for the North therefore needs to reflect this. In addition, recent economic and employment growth in Lancashire has been strongest in this corridor, with parts of Central Lancashire in particular seeing strong employment growth. It is also the corridor with the greatest opportunity to grow the business travel market in Lancashire and in tandem to help reduce congestion on the parallel M61.

[10] Road Investment Strategy, Department for Transport, December 2014

[11] It is currently almost as quick to travel from Preston to Leeds by changing trains in Manchester as it is to use the direct service via Burnley and Bradford.

The Northern Hub, due for completion in 2018, will address capacity and network constraints on the rail network in and around Manchester and, when considered alongside completion of electrification between Manchester / Liverpool and Preston / Blackpool North by December 2016, will deliver a significant improvement in terms of connectivity and capacity in the key corridors linking parts of Lancashire with Manchester and Liverpool city centres and Manchester Airport.

Modern electric trains have already been introduced on Trans-Pennine Express services between Scotland and Manchester Airport, which currently travel via Wigan North Western. However, although there are on average four trains per hour between Preston and Manchester (three serving Piccadilly and one Victoria) throughout the working day there is significant overcrowding, particularly on services linking Scotland / Cumbria / Blackpool North with Manchester Piccadilly and Manchester Airport. In January 2015, the Government announced more diesel powered carriages for selected services in the corridor, but these are of a much lower quality than the rolling stock currently operating Trans-Pennine Express services between Blackpool North and Manchester Airport.

Travel times for the journey between Preston and Central Manchester currently range from 40 minutes by the fastest trains to 56 minutes by the slowest; electrification will see the line speed raised up to 100 mph in places and the quickest journey times reduced to nearer 30 minutes as a consequence. However, it will be essential to ensure that the advantages electrification will deliver in terms of improved quality of service are not eroded through failure to provide sufficient capacity both in terms of length of train and service frequency.

The M61 links the M6 at Preston with the M60 Manchester Outer Ring Road and the Trans-Pennine M62. Although existing traffic flows are generally within the capacity of the road, the M61 Corridor is heavily used by commuters, and significant congestion with long queues of standing traffic occurs during the morning peak period on the southbound approach to the M60 at Junction 15 as traffic attempts to access Manchester City Centre via the A580 and other destinations via the M60.

Lancashire therefore has a strategic interest in the operational effectiveness of the M60 as this provides access to and from Manchester Airport via the M56 and Yorkshire and eastern England via the M62. Consequently, the Manchester North West Quadrant Study announced in the Department for Transport's Road Investment Strategy is of particular interest to Lancashire.

Lancashire's Local Strategic Priorities (1): Connecting Lancashire to City Region Networks

The Northern Transport Strategy is not just about travel between city regions. It also includes the development of city region rail networks that provide the additional capacity required to sustain city centre growth. These networks will interconnect with HS2, new intercity services across the North and metro/tram systems, supported by much expanded park and ride facilities. They will require electrification, new rolling stock (a matter of urgency for the North in terms of quality and sufficiency), higher service frequencies, new services and the removal of network pinch points. Development of European style cross city region networks centred on hub stations is a key aspiration.

East Lancashire

In East Lancashire, a number of improvements to the rail network have either been delivered or are programmed, including the recently completed upgrade to Burnley Manchester Road station and the introduction of a new direct train service between Blackburn, Accrington, Rose Grove, Burnley and Manchester Victoria via Todmorden and Rochdale from May 2015. Lancashire County Council and Blackburn with Darwen Borough Council are also working with Network Rail to deliver a scheme to improve the reliability and frequency of rail services on the route between Clitheroe, Blackburn and Manchester Victoria. This is now a funded scheme within the Lancashire Enterprise Partnership's transport investment programme due for delivery in 2015/16. It will facilitate provision of an all-day, half hourly service between Blackburn and Manchester to be delivered through the new Northern franchise. Currently, a firm date for the commencement of the additional off-peak services has not been finalised, but it will be no later than December 2017 utilising rolling stock made available through the North West electrification programme.

Whilst the above developments will bring about some improvement to the rail network in East Lancashire, they will not address the fundamental issue of whether or how the rail network can contribute towards a transformational change in East Lancashire's economic fortunes. East Lancashire is perceived as an area that is poorly connected with a transport network that hinders the efficient movement of both people and goods, and that this relative isolation has a negative impact on economic development and impedes regeneration. The East Lancashire Rail Connectivity Study has examined this issue in depth, in particular, the importance of enhanced connectivity between East Lancashire and the growth centres of Preston and Central Lancashire, Manchester including Manchester Airport, and Leeds.

The Connectivity Study has identified a number of deficiencies with the current network, including:

- Slow journey times, especially on the 'Copy Pit' line between Burnley and Todmorden used by the train service between East Lancashire and Leeds and from May 2015, the new service between East Lancashire and Manchester Victoria via Rochdale;
- Poor reliability due to long, single-track sections, for example, between Burnley and Colne;

- Capacity constraints, with longer trains required to meet growing demand, in particular, on commuter services between Clitheroe and Manchester;
- Low service frequencies;
- Poor quality rolling stock; and
- A lack of facilities at many of the smaller stations, which will need to meet as a minimum the Station Quality Standards set out by Rail North.

All of the above make rail a less attractive mode of travel; consequently, use of the rail network in East Lancashire is relatively low compared to neighbouring areas, including between East Lancashire and neighbouring city regions.

The Connectivity study has concluded that significant investment will be necessary in order to improve both the performance and attractiveness of East Lancashire's rail network, and that without such investment, the perception of East Lancashire as being poorly connected is likely to grow. Moreover, current and proposed investment in the rail network elsewhere across the North of England has the potential to widen the connectivity 'gap' between East Lancashire and key economic centres such as Manchester and Leeds. Failure to improve or replace existing rolling stock is likely to lead to further deterioration on the quality of the trains, potentially impacting on journey quality, capacity and performance. This could result in existing rail passengers seeking to use alternative modes of transport, placing additional pressure on an increasingly congested highway network.

The Rail Connectivity Study adopted a Conditional Outputs approach in accordance with standard rail industry practice, recognising that to deliver transformational change to East Lancashire's rail network will require as a minimum the support of Network Rail, Rail North and the relevant Train Operating Companies. Whilst the realisation of each output will be subject to the identification of an affordable and value for money solution, the study concluded that electrification of the routes between Preston and Leeds / Colne and Clitheroe / Blackburn and Bolton together with associated rolling stock improvements would make the most significant contribution[12]. Inclusion of the full 'Calder Valley', which includes the route between Preston and Burnley, and the Bolton to Clitheroe route as Tier One schemes in the report of the North of England Electrification Task Force[13] with a recommendation for implementation in Control Period 6 (2019 to 2024) is therefore a most welcome development.

Skelmersdale

Whilst Skelmersdale enjoys excellent strategic connectivity to the Strategic Road Network via the M58, the local transport network is no longer capable of supporting current economic growth aspirations, with a road network that is not fit for purpose, inadequate public transport provision, lack of provision for pedestrians and cyclists and an inhospitable public realm. Access to both Liverpool and Manchester is limited; the nearest railway station, Upholland, is not easily accessible without a car

[12] East Lancashire Rail Connectivity Study Stage 3: Conditional Output Statement, Jacobs UK Ltd for Lancashire County Council, April 2015
[13] Northern Sparks, Report of the North of England Electrification Task Force, March 2015

and only served by an hourly train service to Kirkby and Wigan, and bus services are slow and journeys indirect.

The West Lancashire Highways and Transport Masterplan, adopted by Lancashire County Council in October 2014, is proposing the wholesale reconfiguration of Skelmersdale's transport networks to meet both current and future needs, not just for local residents and businesses but for West Lancashire as a whole. This is a transformational proposal and a once in a generation opportunity to reshape Skelmersdale through a single programme of works spread over a number of years to ensure that the town has a sustainable, integrated transport network that will allow it to grow and prosper in the future. At its heart is a new rail link and town centre railway station, fully integrated with the bus network and easily accessible on foot or by cycle, and with sufficient car parking provision to function as a 'Parkway' station for the wider West Lancashire area.

Skelmersdale would be served by a new spur from the existing Wigan Wallgate to Kirkby line into the town centre, enabling through services to operate to both Liverpool (via Kirkby) and Manchester (via Wigan), providing direct access to growth opportunities in both city centres and potentially at Manchester Airport and the Airport City Enterprise Zone. The Atlantic Gateway initiative, a collection of assets including transport infrastructure that represents an opportunity for growth, lies just to the south of the town. Furthermore, the new station and interchange is intended to act as a catalyst for the wider redevelopment and growth of the town centre. The Skelmersdale Rail Link features in the Lancashire Enterprise Partnership's Strategic Economic Plan submitted to the Government in March 2014 and the Liverpool City Region Long Term Rail Strategy published in August 2014.

Lancashire County Council and its partners Merseytravel and West Lancashire Borough Council commissioned Network Rail to undertake a GRIP Stages 1-2 (Guide to Rail Investment Process - output definition / feasibility) study to develop the proposal set out in the masterplan, including indicative costs. Merseytravel also has a long-standing aspiration to open a station at Headbolt Lane in Kirkby, which would impact on the project. This work has now concluded. The County Council separately commissioned Jacobs UK limited to undertake an assessment of the likely value for money and wider economic benefits of the proposal commensurate with a Strategic Outline Business Case and the Assurance Framework of the Lancashire Enterprise Partnership.

Work undertaken to date has demonstrated that it is technically feasible to construct a heavy rail link into Skelmersdale town centre in the corridor identified in the West Lancashire Highways and Transport Masterplan, and that the project could deliver value for money[14]. It is therefore a viable proposal. The County Council and partners anticipate that a scheme could be delivered during the next rail industry investment period covering 2019 to 2024 (known as 'Control Period 6'), although informal discussions with the Department for Transport suggest it would most likely need financing through the Local Growth Fund. The next stage in the project

[14] Skelmersdale Rail Link Business Case Study Final Report, Jacobs UK Ltd for Lancashire County Council, January 2015

development process is GRIP Stage 3 (option selection) the main output being determination of a single option and securing stakeholder approval.

West Lancashire

Merseyrail currently operates a fast and frequent service between Liverpool and Ormskirk using electric trains. However, onward travel to Preston requires a change of train to a diesel-operated service that is infrequent and run to an irregular timetable. Rolling stock quality is also poor. Electrification of the Ormskirk to Preston route with appropriate infrastructure enhancements would resolve the majority of issues, significantly improving connectivity between Preston, West Lancashire and the Liverpool city region. In addition, there is the potential to provide better interchange between Liverpool-Ormskirk-Preston and Manchester-Wigan-Southport services at Burscough. Both are aspirations in the Liverpool City Region Long Term Rail Strategy published in August 2014.

Morecambe

Electrification of the short length of route between the West Coast Main Line north of Lancaster and Morecambe could significantly enhance the town's connectivity thereby allowing the resort to benefit from the ongoing electrification programme across the North West. Work to be undertaken shortly will establish whether there is a business case for such an enhancement.

Lancashire's Local Strategic Priorities (2): Supporting Economic Growth, Development and Regeneration

New Ribble Crossing

The Central Lancashire Highways and Transport Masterplan included a longer term (post 2026) proposal to construct a new crossing of the River Ribble to link together the Preston Western Distributor and the South Ribble Western Distributor via a completed Penwortham Bypass to provide a continuous dual carriageway route between Cuerden and the M55 to the west of Preston. Delivery of these schemes has been accelerated through the Preston, South Ribble and Lancashire City Deal; therefore, the County Council and partners have begun to investigate whether a new crossing could progress more quickly and how such a project might be funded.

M65 East Lancashire Gateway

The M65 plays an essential role in the economy of East Lancashire, connecting people and businesses internally as well as providing the primary means of access to Central Lancashire and the M6, particularly for freight. Unlike most motorways, the M65 is not three lanes throughout its length, with reduced capacity on some sections, particularly between the M61 and Junction 6 at Whitebirk. Traffic has grown consistently by around 4% per annum since the motorway's completion in 1997, and evidence now suggests that the current level of demand at peak times is causing congestion, with some junctions at or near capacity.

The predominantly two lane section between the M61 and Whitebirk is increasingly likely to become a bottleneck, reducing the ability of the M65 to function as a major gateway to East Lancashire. Through the East Lancashire Connectivity Study, Lancashire County Council and partners are investigating whether and when additional capacity on the M65 between the M61 and Whitebirk might become necessary and how it might be provided. This work is expected to conclude by autumn 2015.

M66 East Lancashire Gateway

As part of the East Lancashire Connectivity Study, Lancashire County Council and partners are undertaking a study to examine the importance of enhanced connectivity in the M66 corridor to Rossendale and the rest of East Lancashire and to identify how best to achieve this enhanced connectivity if there is demonstrable evidence that investment will deliver significant wider economic benefits for East Lancashire and Rossendale in particular.

The study scope includes the Strategic Road Network and relevant routes into Manchester city centre, the 'Metrolink' line between Bury and Manchester Victoria and the national rail network between Rochdale and Manchester Victoria. The study is also considering what form a commuter rail link between Rawtenstall and Manchester could take, as there are a number of potential solutions to rail provision in the corridor.

Given the concern locally that congestion in the M66 corridor is now acting as a constraint on economic growth and social opportunities, the study is also assessing the wider economic, social and distributional benefits and Gross Value Added uplift of any potential transport investment. The study is expected to conclude in summer 2015.

Blackpool North Interchange

Blackpool's new central business district development (Talbot Gateway) is located adjacent to Blackpool North station, the new offices opening up opportunities for commuting by rail. Blackpool North is also the key gateway to the resort for longer distance travellers, but for such a major arrival point, the actual experience on offer is not good.

The Tramway is to be extended from the Promenade to the station, significantly improving public transport connectivity for both residents and visitors. Seamless interchange between the rail network and the tram system will be achieved, providing rail-borne access between the railway station with its newly electrified trains and the Fylde Coast's tourist attractions and hotels. It is therefore essential that a high quality, multi-modal transport interchange be established at this vital location in support of wider interventions set out in the Lancashire Growth Plan for the renewal of Blackpool.

A585 Corridor

The A585 between the M55 and Fleetwood is currently part of the Strategic Road Network and therefore managed and maintained by Highways England. Its strategic role as part of an inter-regional route between Great Britain and Northern Ireland ceased with the withdrawal of the Ro-Ro ferry service from the Port of Fleetwood to Larne in December 2010. The A585 nevertheless remains a key route within the Fylde Coast highway network and is vital to the regeneration of Fleetwood and the success of the Hillhouse International Business Park at Thornton.

As part of its Pinch Point Programme, in 2014/15 Highways England completed significant improvements at the A585/A586 'Windy Harbour' junction near Singleton and the A585 junctions with Bourne Way and West Drive between Thornton and Cleveleys at a combined cost of £3.1m. Congestion nevertheless remains an issue at a number of other locations, in particular, the Five Lane Ends traffic signals at Little Singleton, which is arguably the worst remaining bottleneck on the on the route and a difficult location at which to make a significant improvement. The Department for Transport's Roads Investment Strategy includes a commitment to deliver a new, off-line bypass of Little Singleton to reduce the impact of traffic on the local community and remove the bottleneck.

The A585 needs to operate as effectively as possible along its entire length. The County Council will therefore work with Highways England to identify a programme of cost effective, viable improvements to remove any remaining pinch-points on the route, in particular, along the unimproved length between the M55 and the Windy Harbour junction.

South Fylde Line

The consultation draft Fylde Coast Highways and Transport Masterplan identifies the South Fylde Line (Blackpool South to Kirkham and Preston via Lytham St Annes) as a key weakness in the Fylde Coast public transport network. The potential of the line could increase significantly if possible connections with the Blackpool Tramway are considered. Lancashire County Council has recently become a partner in the European SINTROPHER (Sustainable Integrated Tram-based Transport Options for Peripheral European Regions) project. The Council has secured funding to investigate the best way of enhancing the role of the South Fylde Line in providing a southern gateway to Blackpool and to establish what the most viable and cost-effective way of linking the South Fylde Line and the Blackpool Tramway might be and what benefits such a link might deliver. The study is due to report by June 2015.

Lancaster South

The area immediately to the south of Lancaster has been identified as one capable of delivering significant development, critical to meeting the future housing and employment growth needs of Lancaster and which will deliver wider economic benefits to Lancashire and beyond. It lies adjacent to Lancaster University and includes planned major housing sites at Bailrigg and Whinney Carr as well as the site of the proposed Health Innovation Park, an agreed priority in the Lancashire Growth Deal. Jointly these sites are capable of delivering up to 2,000 houses, circa 40,000m^2 of business and innovation space accommodating over 4,000 high-value jobs and circa 5,000m^2 of retail and leisure space.

Releasing the development potential of south Lancaster, including the Health Innovation Park, is severely constrained by the existing highway network, with the main access route (the A6) already operating close to capacity. A comprehensive transport solution is therefore required, including strategic and local highway improvements. This could include a reconfiguration of M6 Junction 33 to support both the Lancaster South developments and implementation of a City Centre Movement Strategy post completion of the Heysham to M6 Link Road. Key objectives for the Movement Strategy are to secure an attractive, healthy and safe local environment that contributes to the economic and social wellbeing of the city, its residents and visitors, and to reduce the environmental and social impacts of traffic to the benefit of pedestrians and cyclists and make city centre attractions more identifiable.

BROAD TIMESCALES FOR DELIVERY

By 2021

- Preston, South Ribble and Lancashire City Deal Highway Improvements*
- Preston to Manchester Rail Corridor Improvements to provide additional capacity and better quality rolling stock
- Blackburn to Bolton Rail Corridor Improvements to provide additional capacity*
- Blackpool Tramway Extension North Pier to Blackpool North Station*
- Blackpool North Interchange (Talbot Gateway)
- A585 Corridor Improvements, including a bypass of Little Singleton*

By 2026

- Preston Railway Station / HS2 Interchange
- New Ribble Crossing
- East Lancashire Rail Network Transformation, including electrification and better quality rolling stock
- M65/M66 East Lancashire Gateway Improvements
- Skelmersdale Rail Link and Town Centre Transport Interchange
- Lancaster South Supporting Infrastructure
- Lancaster to Morecambe Rail Electrification

By 2031

- 'Smart Motorway' technology extended northwards along the M6 to Junction 32
- Ormskirk to Preston Rail Electrification
- South Fylde Line Enhancements

*Funding commitment

Lancashire
Enterprise Partnership

Transport for Lancashire Committee

5th June 2015

East Lancashire Rail Connectivity Study
Conditional Output Statement

Report Author: Dave Colbert, Specialist Advisor Transportation, Lancashire County Council

Executive Summary

A key challenge for the East Lancashire Highways and Transport Masterplan is establishing the optimum balance between outward connectivity and internal accessibility to jobs, education and training. East Lancashire's rail network is relatively constrained in terms of connectivity, capacity, performance, journey quality, journey times and passenger facilities at many of the smaller stations. The network will continue to need significant investment if it is to support the local economy into the future; without such investment, the perception of East Lancashire as being poorly connected is likely to grow.

Over the past ten years, the County Council, the Community Rail Partnerships, local councils and others have supported a range of improvements to the rail network in East Lancashire that have resulted in increasing passenger numbers. Further improvements are planned, for example, infrastructure enhancements to facilitate provision of an all-day, half hourly service between Blackburn and Manchester and the new Northern franchise, which will deliver new and refurbished trains, improved services and better stations. However, in themselves, they will not address the fundamental issue of whether or how the rail network can contribute towards a transformational change in East Lancashire's economic fortunes.

The East Lancashire Rail Connectivity Study has examined this issue in depth, adopting a Conditional Outputs approach in accordance with standard rail industry practice and recognising that to deliver transformational change to East Lancashire's rail network will require the support of Network Rail, Rail North and the relevant Train Operating Companies. It has concluded that improving service frequency and journey times would deliver the greatest level of benefit, with electrification of the routes between Preston and Leeds / Colne and Clitheroe / Blackburn and Bolton / Manchester together with associated rolling stock improvements and enhanced service frequencies making the most significant contribution.

The Conditional Output Statement will strengthen Lancashire's case when engaging with the Department for Transport, Rail North, the wider rail industry and adjacent transport authorities to secure improvements to East Lancashire's rail network, in particular, with regard to the next rail industry investment period covering 2019 to 2024 ('Control Period 6').

Recommendation

The Committee is invited to note the contents of this report.

1. Background

1.1 East Lancashire is perceived as an area that is poorly connected with a transport network that hinders the efficient movement of both people and goods, and that this relative isolation has a negative impact on economic development and impedes regeneration. A key challenge for the East Lancashire Highways and Transport Masterplan is establishing the optimum balance between outward connectivity and internal accessibility to jobs, education and training.

1.2 Apart from the M65 and M66/A56 'Gateways' linking East Lancashire to the west and south respectively and which are of a reasonable standard, roads tend to follow historic routes dictated by the topography rather than travel demand; consequently, most are poorly aligned and unsuitable for carrying high volumes of traffic, particularly heavy goods vehicles. Main line rail links are likewise constrained, with resulting low line speeds having a significant impact on journey times, or as is the case with Rossendale, no longer exist. Although both road and rail routes continue across the Pennines into the Leeds City Region, they are of a much lower quality than those further south that link Liverpool and Manchester with Leeds, Sheffield and the Humber ports.

1.3 Journey times between East Lancashire and the growth centres of Manchester, Leeds and Preston are lengthy and for some require a change of train; rolling stock is generally of poor quality. Fast, frequent and reliable access by train to Manchester Airport is of critical importance for businesses across Lancashire, yet there are currently no through services from East Lancashire, resulting in many trips to the airport made by car. Of equal importance is access to other parts of the UK, including London, Birmingham and Glasgow, with improved interchange required at locations such as Preston.

1.4 Such factors all serve to heighten the sense of isolation and the perception of East Lancashire as an area of localised labour markets, narrow travel horizons and limited interaction with the adjacent economies of Manchester, Leeds and Central Lancashire. The Lancashire Strategic Economic Plan submitted to the Government in March 2014 by the Lancashire Enterprise Partnership makes it clear that for Lancashire to maintain its position as a national leader for advanced manufacturing, investment in East Lancashire's transport infrastructure will be vital to ensure the critical mass of businesses within the sector can continue to operate, invest, expand and grow, and that local people can easily access local job opportunities.

1.5 The East Lancashire Rail Connectivity Study identified a number of deficiencies with the current network, including:

- Slow journey times, especially on the 'Copy Pit' line between Burnley and Todmorden used by the train service between East Lancashire and Leeds and from May 2015, the new service between East Lancashire and Manchester Victoria via Rochdale;
- Poor reliability due to long, single-track sections, for example, between Burnley and Colne;
- Capacity constraints, with longer trains required to meet growing demand, in particular, on commuter services between Clitheroe and Manchester;
- Low service frequencies;
- Poor quality rolling stock; and
- A lack of facilities at many of the smaller stations, which will need to meet as a minimum the Station Quality Standards set out by Rail North.

All of the above make rail a less attractive mode of travel; consequently, use of the rail network in East Lancashire is relatively low compared to neighbouring areas. Furthermore, the percentage of individuals travelling to work by train is lower than the averages for both the North West and England and Wales.

1.6 A number of improvements to the rail network in East Lancashire have either been delivered or are programmed, including the recently completed upgrade to Burnley Manchester Road station and the introduction of a new direct train service between Blackburn, Accrington, Rose Grove, Burnley and Manchester Victoria via Todmorden and Rochdale from 17th May 2015. The County Council and Blackburn with Darwen Borough Council are also working with Network Rail to deliver a scheme to improve the reliability and frequency of rail services on the route between Clitheroe, Blackburn and Manchester Victoria. This is now a funded scheme within the Lancashire Enterprise Partnership's transport investment programme due for delivery in 2015/16. It will facilitate provision of an all-day, half hourly service between Blackburn and Manchester to be delivered through the new Northern franchise. At this stage, a firm date for the commencement of the additional off-peak services has not been finalised, but it will be no later than December 2017 utilising rolling stock made available through the North West electrification programme.

1.7 Whilst the above developments will bring about some improvement to the rail network in East Lancashire, they will not address the fundamental issue of whether or how the rail network can contribute towards a transformational change in East Lancashire's economic fortunes. The East Lancashire Rail Connectivity Study has examined this issue in depth, in particular, the importance of enhanced connectivity between East Lancashire and the growth centres of Manchester including Manchester Airport, Leeds and Preston and Central Lancashire.

Adopted Conditional Outputs

Connectivity

- Improve the frequency of the Blackpool South to Colne service
- Improve the frequency of the Clitheroe to Manchester service
- Improve the frequency of the Blackpool North to York service
- Improve the frequency of the Blackburn to Manchester (via Burnley) service

Capacity

- Relieve overcrowding in peak hours between Clitheroe and Manchester
- Ensure sufficient capacity to meet forecast rail passenger growth between Clitheroe and Manchester in the next ten years

Performance

- Improve the Blackpool South to Colne PPM to an overall level of at least 92.5% moving annual average by the end of CP5
- Improve the Clitheroe to Manchester Victoria service PPM to an overall level of at least 92.5% moving annual average by the end of CP5
- Improve the Blackpool North to York service PPM to an overall level of at least 92.5% moving annual average by the end of CP5

Journey Quality

- Improve the quality of rolling stock on the Blackpool South to Colne service
- Improve the quality of rolling stock on the Clitheroe to Manchester Victoria service
- Improve the quality of rolling stock on the Blackpool North to York service

Journey Times

- Reduce rail journey times between Preston and Colne to under an hour (currently 71 minutes)
- Reduce rail journey times between Clitheroe and Manchester to under an hour (currently 74 minutes)
- Reduce rail journey times between key core study area stations and central Manchester to the equivalent or better than the average off-peak period car journey
- Reduce rail journey times between key core study area stations and Manchester Airport to the equivalent or better than the average off-peak period car journey
- Reduce rail journey times between key core study area stations and West Yorkshire (Halifax and Bradford) to the equivalent or better than the average off-peak period car journey
- Reduce rail journey times between key core study area stations and Leeds to the equivalent or better than the average off-peak period car journey

- Reduce rail journey times between key core study area stations and national economic centres to the equivalent or better than the average off-peak period car journey

Passenger Facilities

- Improve station facilities within the core study area

1.8 The study has concluded that significant investment will be necessary in order to improve both the performance and attractiveness of East Lancashire's rail network, and that without such investment, the perception of East Lancashire as being poorly connected is likely to grow. Moreover, current and proposed investment in the rail network elsewhere across the North of England has the potential to widen the connectivity 'gap' between East Lancashire and key economic centres such as Manchester and Leeds. Failure to improve or replace existing rolling stock is likely to lead to further deterioration on the quality of the trains, potentially impacting on journey quality, capacity and performance. This could result in existing rail passengers seeking to use alternative modes of transport, placing additional pressure on an increasingly congested highway network.

1.9 The Rail Connectivity Study adopted a Conditional Outputs approach in accordance with standard rail industry practice and recognising that to deliver transformational change to East Lancashire's rail network will require as a minimum the support of Network Rail, Rail North and the relevant Train Operating Companies. The Conditional Output Statement is attached as Appendix 'A'. Conditional Outputs need to reflect established evidence and be complemented by bespoke analysis of associated transport benefits. It is accepted that realisation of each Conditional Output will be subject to an affordable and value for money solution being available, but they should nevertheless assist the rail industry and its partners in establishing proposals that best release the identified potential.

1.10 The study has identified that improving service frequency and journey times would deliver the greatest level of benefit, with electrification of the routes between Preston and Leeds / Colne and Clitheroe / Blackburn and Bolton / Manchester together with associated rolling stock improvements and enhanced service frequencies making the most significant contribution. In addition, station facilities across East Lancashire should be improved to meet Rail North's Station Quality Standard.

1.11 The full Calder Valley, which includes the route to Preston via Burnley, and the Bolton to Clitheroe route are included as Tier One schemes in the report of the North of England Electrification Task Force[1] with a recommendation for implementation in Control Period 6 (2019 to 2024). This would enable all services between East Lancashire and Leeds and Manchester (via Bolton and Todmorden/Rochdale) to be operated by electric powered rolling stock. There are, however, likely to be significant engineering challenges associated with

[1] Northern Sparks, Report of the North of England Electrification Task Force, March 2015

these proposals, in particular, installation of overhead electrification infrastructure.

1.12 In order to achieve the Conditional Outputs that would enhance connectivity between East Lancashire and Leeds, in particular, increased service frequency and improved journey times, the potential impact on the capacity of the Calder Valley line between Todmorden and Leeds will need to be assessed. Should future economic circumstances dictate that connectivity between East Lancashire and Leeds be enhanced to the point where capacity on the Calder Valley line becomes a constraining factor, consideration of alternative options between Burnley and Leeds such as reinstatement of the line between Colne and Skipton and associated upgrade of the existing Colne branch may become necessary. Any such alternative options would still need to demonstrate they would deliver value for money.

1.13 The Conditional Output Statement will strengthen Lancashire's case when engaging with the Department for Transport, Rail North, the wider rail industry and adjacent transport authorities to secure improvements to East Lancashire's rail network, in particular, with regard to the next rail industry investment period covering 2019 to 2024 ('Control Period 6').

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Lancashire County Council

East Lancashire Rail Connectivity Study

Stage 3: Conditional Output Statement

FINAL

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Executive Summary

The need for the East Lancashire Rail Connectivity Study was identified in the East Lancashire Highways and Transport Masterplan published for consultation by Lancashire County Council in October 2013 and subsequently adopted in February 2014. A key challenge for the Masterplan is to establish the optimum balance between outward connectivity and internal accessibility to jobs, education and training.

There is a strong perception locally that East Lancashire is poorly connected, with both road and rail networks hindering the efficient movement of people and goods, and that this relative isolation is having a negative impact on economic development and impeding regeneration.

A key focus for the Lancashire Enterprise Partnership is to ensure that Lancashire's major transport projects fully align with the delivery of key economic priorities. The principal objective of the Rail Connectivity Study is to develop a 'Conditional Output Statement' setting out what East Lancashire requires of the rail industry in support of growing its economy.

In order to answer this question, a three stage methodology has been adopted.

- *Stage 1: Data Collection and Problem Identification;*
- *Stage 2: Conditional Output Development; and*
- *Stage 3: Conditional Output Statement.*

The *Stage 1: Data Collection and Problem Identification Report (Jacobs, December 2014)* helped to identify the existing constraints within East Lancashire's Rail Network. A summary of the key issues is provided below:

- **Service frequency is low.** The majority of stations within the core study area are only served by an hourly service frequency, with only Preston, Blackburn and Accrington having a half hourly service.
- **Journey times are slow.** Car journey times are quicker than the generalised journey times by rail for all trips within the core study area.
- **Connectivity is constrained.** An interchange at Blackburn is required to link services on the (north-south) Clitheroe to Manchester line with services on the (east-west) Calder valley line. Furthermore, Preston is the only station in the core study area served by a direct train service to Manchester Airport.
- **Service reliability is poor.** The public performance measure of all three services operating within the core study area is lower than the Northern Rail average.
- **Rail usage is comparatively low.** The percentage of individuals travelling to work by train is lower in all ten Local Authority areas in the study area than the average for both the North West and England and Wales. In addition, a number of stations in the core study area have a low number of users and are therefore potentially being underutilised.
- **Passenger facilities are lacking.** An audit of existing facilities in the core study area revealed that many stations failed to meet Rail North's Station Quality Standards (SQS).

- **Network constraints exist.** The majority of the core study area's rail network is double track however two large sections of single track remain which consequently limit service frequency and impact reliability. In addition the permissible line speed varies significantly across the core study area's rail network.
- **Rolling stock quality is poor.** The National Rail Passenger Survey showed that passenger satisfaction with Northern Rail rolling stock is lower than the average for all regional services.
- **Rail demand growth.** The increase in station usage over the past 8 years has been relatively high for both the East Lancashire line (41.8%) and the Clitheroe Line (44.7%). Using a medium and high growth scenario contained within Network Rail's Regional Urban Market Study would result in further rail demand growth of between +24% to +43% over the next 10years.

The data collection and problem identification exercise undertaken has supported the local perception that East Lancashire's rail network is relatively constrained in terms of rail connectivity, capacity, performance, journey quality, journey times and passenger facilities. This is likely to have a negative impact on future economic growth.

The current deficiencies in East Lancashire's rail network can make it an unattractive mode of travel. Subsequently the current rail usage within East Lancashire is relatively low compared to neighbouring areas, with the percentage of individuals travelling to work by train being lower in all ten Local Authority areas in the study area than the average for both the North West and England and Wales. In addition, the current rail demand between East Lancashire and neighbouring City Regions is relatively low.

Furthermore, given the forecast national growth in rail demand, significant investment will be required in East Lancashire's rail network in order to improve its performance and attractiveness.

The *Stage 2: Conditional Outputs - Benefits Appraisal Report (Jacobs, December 2014)* defines the Conditional Outputs which have been adopted for East Lancashire based upon the findings from the Data Collection and Problem Identification stage.

Bespoke analysis of the potential economic benefits associated with delivering each of the identified Conditional Outputs was subsequently undertaken. It is accepted that realisation of each output will be subject to an affordable and value for money solution being identified, but the Conditional Outputs should nevertheless assist the rail industry and its partners in establishing proposals that best release the identified potential.

The adopted Conditional Outputs for East Lancashire's rail network and the potential transport benefits associated with the delivery of each output is shown in Table 1-A overleaf.

Objective	Ref	Conditional Outputs	Potential Transport Benefits* (£m) (60 year appraisal period)	
Connectivity	1	Improve the frequency of the Blackpool South - Colne service.	+ 1tph	£164.9
			+ 2tph	£266.2
	2	Improve the frequency of the Clitheroe to Manchester service.	+ 1tph	£56.5
			+ 2tph	£165.8
	3	Improve the frequency of the Blackpool North to York service.	+ 1tph	£272.9
			+ 2tph	£608.3
	4	Improve the frequency of the Blackburn to Manchester (via Burnley) service.	+ 1tph	£19.1
			+ 2tph	£117.8
Capacity	5	Relieve overcrowding in peak hours between Clitheroe and Manchester.	£67.1	
	6	Ensure sufficient capacity to meet forecast rail passenger growth between Clitheroe and Manchester in the next 10 years.	£83.8	
Performance	7	Improve the Blackpool South to Colne service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.	£56.5	
	8	Improve the Clitheroe to Manchester Victoria service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.	£52.9	
	9	Improve the Blackpool North to York service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.	£158.3	
Journey Quality	10	Improve the quality of rolling stock on the Blackpool South to Colne service.	£12.8	
	11	Improve the quality of rolling stock on the Clitheroe to Manchester Victoria service.	£29.6	
	12	Improve the quality of rolling stock on the Blackpool North to York service.	£61.3	
Journey Times	13	Reduce rail journey times between Preston and Colne to under an hour (currently 71 minutes).	£31.9	
	14	Reduce rail journey times between Clitheroe and Manchester to under an hour (currently 74 minutes).	£62.0	
	15	Reduce rail journey times between key core study area stations and Central Manchester to the equivalent or better than the average off peak period car journey time.	£264.9	
	16	Reduce rail journey times between key core study area stations and Manchester Airport to the equivalent or better than the average off peak period car journey time.	£379.5	
	17	Reduce rail journey times between key core study area stations and West Yorkshire (Halifax and Bradford) to the equivalent or better than the average off peak period car journey time.	£174.6	
	18	Reduce rail journey times between key core study area stations and Leeds to the equivalent or better than the average off peak period car journey time.	£389.0	
	19	Reduce rail journey times between key core study area stations and National Economic Centres to the equivalent or better than the average off peak period car journey time.	N/A	
Passenger Facilities	20	Improve station facilities within the core study area.	£11.8	

Table 1-A: Adopted Conditional Outputs and Potential Transport Benefits.

The benefits appraisal revealed that delivery of the adopted Conditional Outputs had significant potential transport benefits. In particular improving the rail service frequency and journey times within the study would deliver the greatest level of benefit. If all of the Conditional Outputs are delivered there will be significant benefits to UK plc.

If no improvements are made to improve the frequency and journey times of rail services operating in East Lancashire it is likely that the perception of East Lancashire being poorly connected will grow stronger. This perception is likely to be further exacerbated by recent announcements proposing rail network improvements in the North of England which have the potential to increase the connectivity gap between East Lancashire and economic centres in the North, in particular Manchester and Leeds.

Consequently, the connectivity gap between East Lancashire and major settlements in the North of England could widen in the future without investment in East Lancashire's rail network. This would have a negative impact on the economy of East Lancashire as people and business would be less likely to locate here.

In addition, if the current rolling stock in East Lancashire is not improved or replaced then the quality of the trains will deteriorate over time, resulting in the passenger experience being negatively impacted both in terms of journey quality, capacity and performance. Consequently, this could result in existing rail passengers seeking to use alternative modes of transport which would place additional pressure on an already congested highway network.

The Conditional Outputs were defined as being conditional as achieving each Output is conditional upon affordable and economically viable options being identified. Consequently, the Conditional Output Statement stage (Stage 3) has undertaken an option appraisal exercise in order to identify options which would make the most significant contribution towards delivering the potential transport benefits associated with the delivery of the adopted Conditional Outputs.

The eight options which have been shortlisted are shown in Table 1-B.

Type	Shortlisted Options
Facility Improvements	Improve station facilities across the study area to meet Rail North's SQS criteria which cover access facilities, information provision and passenger facilities.
Infrastructure Improvements	Electrification of the line between Clitheroe and Bolton.
	Electrification of the line between Preston and Colne / Leeds (including the newly reinstated Todmorden Curve).
	Journey time improvements on the Copy Pit line (the section between Todmorden and Burnley).
Service Improvements	Improve the quality of Rolling Stock operating on services in the core study area so that it is comparable with similar regional services in other parts of the country (for example, the rolling stock currently operating on the TransPennine Express services between Manchester and Leeds).
	Improve service frequency between East Lancashire and Central Manchester.
	Add additional carriages to the existing peak services between Clitheroe and Manchester to increase capacity.
	Improve service frequency between East Lancashire and Leeds.

Table 1-B: Shortlisted Options.

The Report of the North of England Electrification Task Force (Northern Sparks, March 2015) scored the 32 non-electrified lines in the North of England. The Clitheroe to Bolton line and the full Calder Valley line between Leeds and Manchester (via Bradford and Brighouse) and Preston were both prioritised for electrification as a Tier 1 scheme. Tier 1 schemes have been identified based primarily on the scale of economic impact they will bring. The Northern Sparks report recommends that more detailed business cases are developed for Tier 1 schemes with a view to including them in the work programme for Control Period 6 (2019 - 2024).

It is recommended that further analysis is undertaken on each of the shortlisted options in order to assess their feasibility and economic viability.

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Appendices

Appendix A Option Appraisal

1 Introduction

1.1 Background

East Lancashire comprises the boroughs of Burnley, Hyndburn, Pendle, Rossendale and Ribble Valley together with the unitary authority of Blackburn with Darwen Borough Council. It is an area that has seen significant economic decline over a sustained period of time. The decline of industry and the resultant erosion of the local economic base have led to significant economic and social deprivation, high levels of unemployment and a relatively poor skills base. Labour markets tend to be relatively self-contained or with adjacent districts, where residents with low wages, poor skills and low aspirations will only travel limited distances for employment opportunities.

The five shire districts between them nevertheless provide employment for over 136,000 people, with almost a quarter of all employment in manufacturing. In addition, East Lancashire has a growing portfolio of higher value industries, with aerospace, advanced manufacturing, advanced flexible materials, digital and creative industries all featuring strongly. The Enterprise Zone at Samlesbury lies on the boundary with Central Lancashire and the launch of the Lancashire Advanced Engineering and Manufacturing Zone in April 2012 has focussed attention on the area's transport links and wider connectivity. Other priorities for the Lancashire Enterprise Partnership include a Local Growth Accelerator Strategy for East Lancashire, focused on delivering economic change but also supporting innovative ways of tackling deprivation and economic inactivity, in particular, enabling residents from deprived communities to access new jobs or enterprise opportunities.

There is a strong perception locally that East Lancashire is poorly connected, with both road and rail networks hindering the efficient movement of people and goods, and that this relative isolation is having a negative impact on economic development and impeding regeneration. A key challenge for the East Lancashire Highways and Transport Masterplan is establishing the optimum balance between outward connectivity and internal accessibility to jobs, education and training.

Apart from the M65 and M66/A56, roads tend to follow historic routes dictated by the topography rather than travel demand; consequently, most are poorly aligned and unsuitable for carrying high volumes of traffic, particularly heavy goods vehicles. Main line rail links are likewise constrained by topography, with resulting low line speeds having a significant impact on journey times, or as is the case with Rossendale, no longer exist. Although both road and rail routes continue eastward across the Pennines into Yorkshire, they are of a much lower quality than those further south that link Liverpool and Manchester with Leeds, Sheffield and the Humber ports.

1.2 Rationale for Study

The Rail Connectivity Study is one of five components that make up the East Lancashire Connectivity Study (ELCS). The ELCS was identified in the East Lancashire Highways and Transport Masterplan, which was published for consultation by Lancashire County Council and Blackburn with Darwen Borough Council in October 2013 and subsequently adopted in February 2014.

The principal objective of the Rail Connectivity Study has been to develop a Conditional Output Statement setting out what East Lancashire requires of the rail industry in support of growing its economy.

Conditional Outputs need to reflect established evidence and be complemented by bespoke analysis of the associated potential transport benefits. It is accepted that realisation of each Conditional Output will be subject to an affordable and value for money solution being available, but they should nevertheless assist the rail industry and its partners in establishing proposals that best release the identified potential.

The Rail Connectivity Study has identified existing constraints in East Lancashire's rail network that the rail industry, working with local partners, will need to address in order to facilitate the realisation of the identified potential transport benefits.

The study and its outputs will support the case for future investment in East Lancashire's rail network through the next rail industry investment period between 2019 and 2024 (known as 'Control Period 6') and future franchise specifications.

1.3 Outline Methodology

The Rail Connectivity Study has followed the methodology outlined in Figure 1-A.

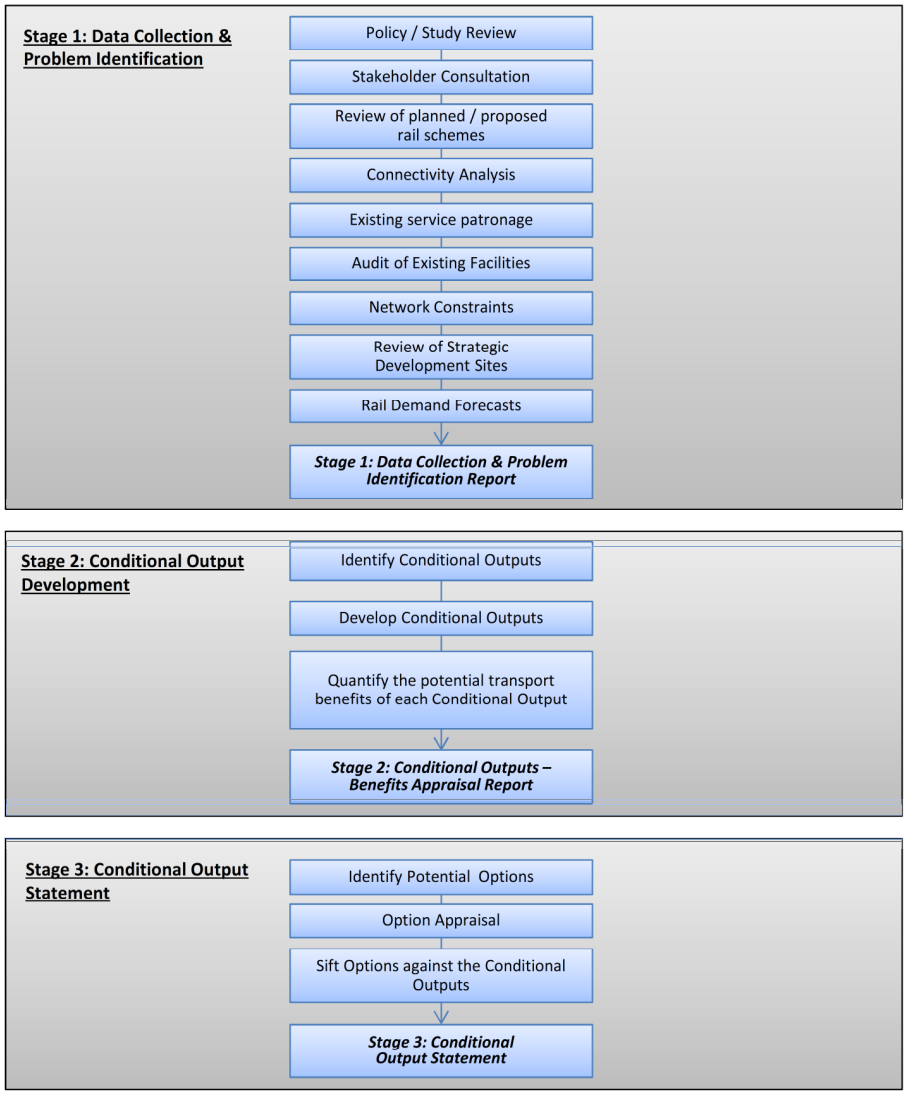


Figure 1-A: Rail Connectivity Study Outline Methodology.

1.4 Report Purpose

The purpose of the Conditional Output Statement is to provide a robust evidence base to support the case for future investment in East Lancashire's rail network in support of growing its economy.

The Outputs are conditional as achieving each Output is conditional upon affordable and economically viable options being identified. For this reason, the Conditional Output Statement reports the results of an Option Appraisal exercise. The Option Appraisal has been undertaken in order to identify those options likely to make the most significant contribution to delivering the potential transport benefits calculated in Stage 2 of the study.

This report will also include a summary of the Data Collection and Problem Identification Stage (Stage 1) and the Conditional Output Development Stage (Stage 2) of the East Lancashire Rail Connectivity Study.

1.5 Sources of Information

For full details on either the Data Collection and Problem Identification Stage (Stage 1) or the Conditional Output Development Stage (Stage 2) please consult the following reports which are available upon request from the County Council:

- *Rail Connectivity Study Stage 1: Data Collection and Problem Identification Report (Jacobs, December 2014); and*
- *Rail Connectivity Study Stage 2: Conditional Outputs - Benefits Appraisal Report (Jacobs, December 2014).*

1.6 Report Structure

The remainder of this report is structured as follows:

- *Chapter 2: Study Area;*
- *Chapter 3: Data Collection Findings;*
- *Chapter 4: Conditional Outputs;*
- *Chapter 5: Potential Transport Benefits;*
- *Chapter 6: Potential Options; and*
- *Chapter 7: Conclusions.*

2 Study Area

2.1 Introduction

This chapter of the report sets out the extent of the study area considered as part of the Rail Connectivity Study.

2.2 Study Area

The Rail Connectivity Study considered the following rail corridors:

- *Preston to Burnley Manchester Road and onward connectivity to Leeds via Bradford and Manchester via Rochdale;*
- *Preston to Colne; and*
- *Clitheroe to Bolton and onward connectivity to Manchester.*

However, the focus of the study is on the East Lancashire rail network as a whole, rather than individual rail corridors. For this reason a core study area focussing solely on East Lancashire has been defined, as well as a buffer study area showing rail connectivity with major settlements further afield.

Figure 2-A shows the extent of the core study area.

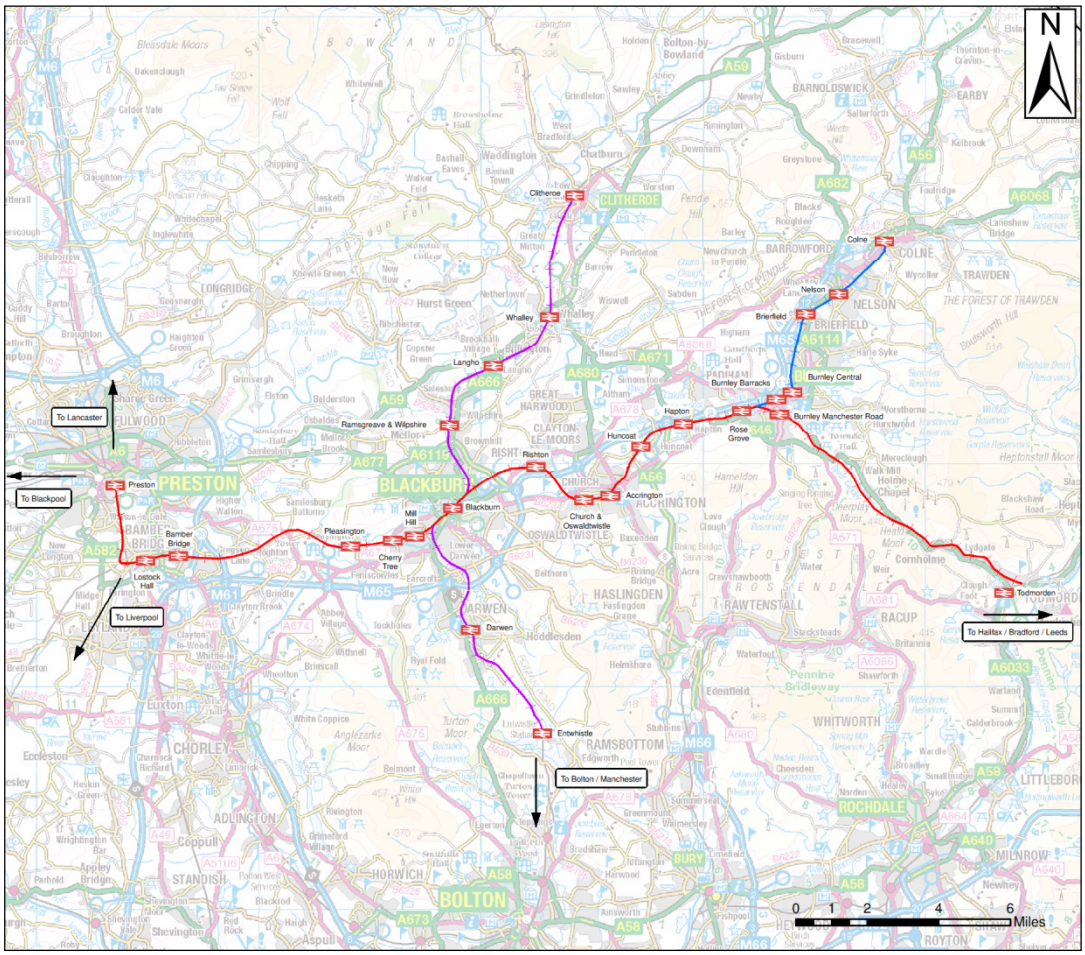


Figure 2-A: Core Study Area.

Figure 2-B shows the extent of the buffer study area.

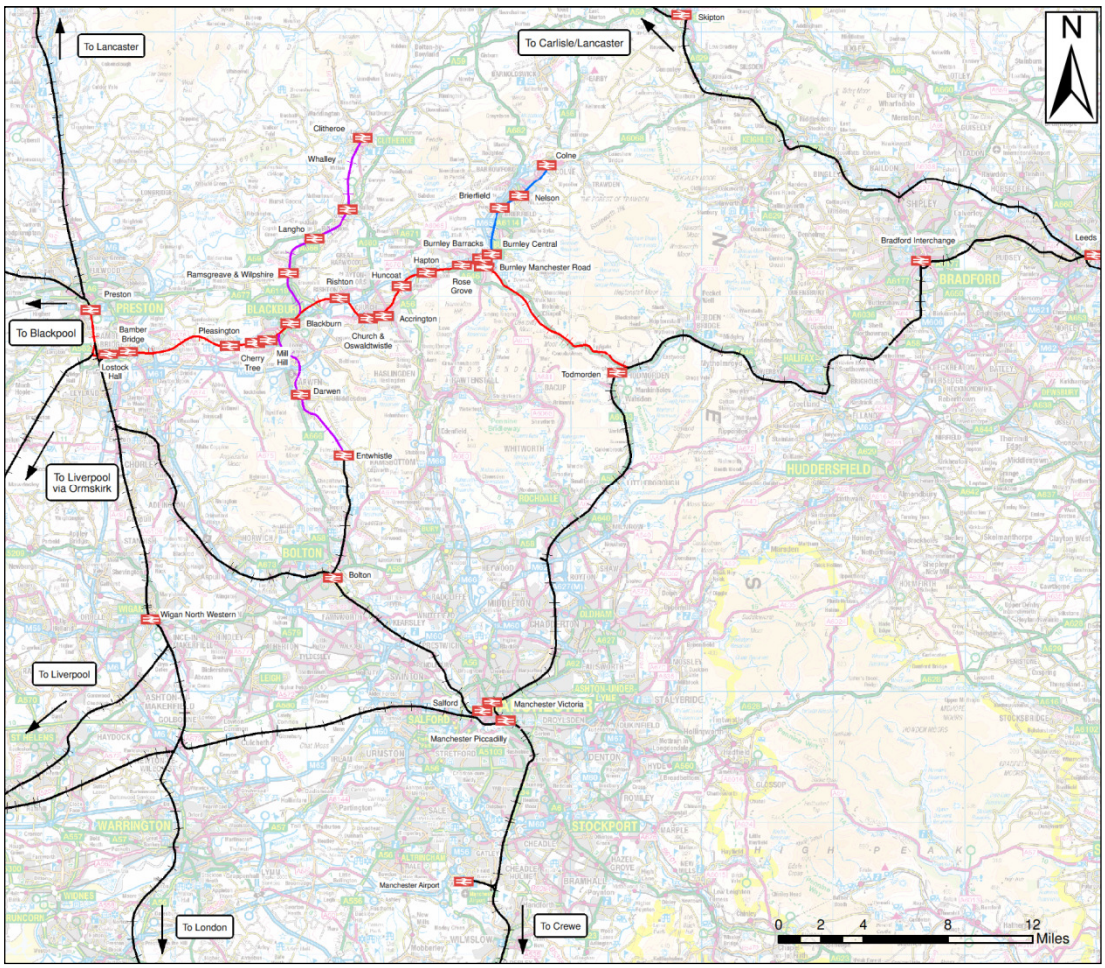


Figure 2-B: Buffer Study Area.

3 Data Collection Findings

3.1 Introduction

This chapter of the report provides a summary of the data collection findings as reported in the *Rail Connectivity Study Stage 1: Data Collection and Problem Identification Report (Jacobs, December 2014).*

In order to gain a greater understanding of the perceived problems in the study area and potential options, a workshop was held which was attended by a number of key local stakeholders from relevant Councils, Network Rail, Train Operating Companies and various rail industry organisations.

3.2 Document Review

The report includes a comprehensive document review including consideration of previous studies, local, sub national and national policies as well as technical guidance and information.

The National Rail Passenger Survey (January 2014) indicates that only 78% of Northern Rail passengers were satisfied with their journey overall, which is below the national average of 83%.

A number of local policies cite issues with the rail network across East Lancashire and a need for investment in both infrastructure and services in order to continue passenger growth in this area.

3.3 Review of Proposed and Committed Schemes

A review of proposed and committed rail schemes that would impact on East Lancashire's rail network has been undertaken. Two committed schemes, which will have a significant impact upon rail travel within East Lancashire, were identified. These are:

- *Additional Blackburn to Manchester (via Burnley) Hourly Service; and*
- *Blackburn to Bolton Rail Corridor Improvements Scheme.*

It is expected the additional Blackburn to Manchester (via Burnley) hourly service will come into operation in May 2015.

The timetable and service changes associated with the Blackburn to Bolton Rail Corridor Improvements Scheme are due to be introduced in December 2016.

Longer term, the construction of High Speed 2 could have a significant impact upon rail connectivity within the UK. HS2 proposals currently terminate in Manchester upon completion of Phase 2 in 2032/33. Proposals for a Preston Station / HS2 Interchange scheme are included in Lancashire's Strategic Economic Plan (SEP). The scheme would include enhancements at Preston station to improve the interchange between local and national services.

3.4 Development Proposals Review

A review of existing and proposed future developments in the study area has been undertaken in liaison with Lancashire County Council's Economic Development service.

The review revealed that there is a significant amount of future development proposed within the study area. Furthermore, a number of the key development sites are located in close proximity to the three rail corridors that are being investigated as part of the Rail Connectivity Study.

3.5 Socio-Economic Analysis

A comprehensive analysis of the demographics of East Lancashire's population has been undertaken using 2011 census data. The key finding from the socio economic analysis are as follows:

- *The percentage of individuals travelling to work by train is lower in all Local Authority areas in the study area than the average for both the North West and England and Wales;*
- *The total number of rail trips originating from East Lancashire (2,056 daily trips) is significantly lower than in West Yorkshire (32,635 daily trips) and Greater Manchester (28,065 daily trips);*
- *The total number of rail trips between East Lancashire and West Yorkshire is very low (217 daily trips);*
- *The majority of Local Authority areas in the Rail Connectivity Study area have average household and personal incomes lower than the Lancashire and North West averages; and*
- *Average house prices throughout the Core Study area remain well below the national average. Average house prices in the Core Study area Local Authority areas have generally been decreasing since 2010.*

3.6 Connectivity Analysis

The connectivity analysis undertook an assessment of the existing rail connectivity between key population centres within the study area, including a comparison of rail travel against other travel modes. The analysis considered:

- *Rail service frequency;*
- *Journey times and interchanges;*
- *Generalised Journey Times;*
- *Fares;*
- *Service Reliability;*
- *A comparison of rail travel compared to car and bus travel;*
- *Access to Manchester Airport;*
- *Access between Ribble Valley and Preston; and*
- *HS2 Connectivity.*

The analysis identified that the rail service frequency in the study area is poor, with the majority of stations being served by an hourly service (only Preston, Blackburn and Accrington have a half hourly service frequency).

Rail journey times between East Lancashire and destinations further afield are relatively long compared to the equivalent car journey times.

Connectivity between the rail lines in the core study is poor, meaning that direct access from the core study area to Manchester Airport is limited. Preston is the only core study area station to have a direct service to Manchester Airport.

In addition, the analysis found service reliability to be poor. The performance of all three services operating within the core study area is lower than the Northern Rail average.

3.7 Station Usage

Station usage data was collated and analysed in order to gain an understanding of demand for rail travel in the study area. The analysis considered station usage along the three rail corridors within the core study area and the historic station usage from 1997/98 to 2013/14.

The station usage figures show that since the economic downturn in 2008, the rate of growth of station usage figures has generally increased. However, a number of stations in the core study area have a low number of users and could therefore potentially be underutilised.

3.8 Station Facilities

It is understood that the quality of passenger facilities present at a railway station impacts on people's perception of rail travel and their ability to access the rail network. An audit of the station facilities at each station in the core study area compared to Rail North's Station Quality Standard has revealed that a number of stations fail to meet the Standard.

3.9 Network Constraints

Constraints on the rail network affect the operation of rail services in the study area and could potentially impact on opportunities to implement future network upgrades. The network constraints analysis considered:

- *Track Constraints; and*
- *Rolling Stock.*

The analysis identified that there are two long sections of single track rail line in the core study area which consequently limit service frequency and impact on reliability. In addition, the permissible line speed varies significantly across the core study area's rail network. The quality of rolling stock operating within the core study area is poor and the National Rail Passenger Survey shows that passenger satisfaction with Northern Rail rolling stock is lower than the average for all regional services.

3.10 Rail Demand

Consideration of rail demand has been used to highlight key transport movements by rail within the study area using MOIRA, the industry standard rail demand forecasting software. A matrix has been created illustrating rail demand within the core study area and to strategic locations such as Manchester and Leeds.

The matrix identifies that the largest trip movements on Northern Rail operated services are between station pairs with an origin or destination at Preston, Blackburn, Bolton, Manchester (Group) or Leeds.

4 Conditional Outputs

4.1 Introduction

This chapter presents the adopted Conditional Outputs for the study and summarises how they were identified.

4.2 Conditional Outputs

The Conditional Outputs were identified based upon the findings of the data collection exercise (see *Rail Connectivity Study Stage 1: Data Collection and Problem Identification Report*) and through discussions with the study's project management group.

Six objectives were identified which covered the key issues with East Lancashire's rail network. The six objectives are:

- *Connectivity;*
- *Capacity;*
- *Performance;*
- *Journey Quality;*
- *Journey Times; and*
- *Passenger Facilities.*

Conditional Outputs were then developed to address each of the six objectives. The East Lancashire Rail Connectivity Study subsequently identified twenty Conditional Outputs, as presented in Table 4-A.

The Conditional Outputs were agreed at a meeting with the study's project management group held in County Hall, Preston on the 5th August 2014.

Objective	Ref	Conditional Outputs
Connectivity	1	Improve the frequency of the Blackpool South to Colne service.
	2	Improve the frequency of the Clitheroe to Manchester service.
	3	Improve the frequency of the Blackpool North to York service.
	4	Improve the frequency of the Blackburn to Manchester (via Burnley) service.
Capacity	5	Relieve overcrowding in peak hours between Clitheroe and Manchester.
	6	Ensure sufficient capacity to meet forecast rail passenger growth between Clitheroe and Manchester in the next 10 years.
Performance	7	Improve the Blackpool South to Colne service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.
	8	Improve the Clitheroe to Manchester Victoria service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.
	9	Improve the Blackpool North to York service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.
Journey Quality	10	Improve the quality of rolling stock on the Blackpool South to Colne service.
	11	Improve the quality of rolling stock on the Clitheroe to Manchester Victoria service.
	12	Improve the quality of rolling stock on the Blackpool North to York service.
Journey Times	13	Reduce rail journey times between Preston and Colne to under an hour (currently 71 minutes).
	14	Reduce rail journey times between Clitheroe and Manchester to under an hour (currently 74 minutes).
	15	Reduce rail journey times between key core study area stations and Central Manchester to the equivalent or better than the average off peak period car journey time.
	16	Reduce rail journey times between key core study area stations and Manchester Airport to the equivalent or better than the average off peak period car journey time.
	17	Reduce rail journey times between key core study area stations and West Yorkshire (Halifax and Bradford) to the equivalent or better than the average off peak period car journey time.
	18	Reduce rail journey times between key core study area stations and Leeds to the equivalent or better than the average off peak period car journey time.
	19	Reduce rail journey times between key core study area stations and National Economic Centres to the equivalent or better than the average off peak period car journey time.
Passenger Facilities	20	Improve station facilities within the core study area.

Table 4-A: Conditional Outputs.

5 Potential Transport Benefits

5.1 Introduction

The potential transport benefits associated with each of the Conditional Outputs have been appraised as part of the Conditional Output Development Stage (Stage 2).

This chapter of the report provides a summary of the appraisal methodology and results.

5.2 Appraisal Methodology

Following identification of the Conditional Outputs, an appraisal methodology note was drafted and circulated to the project management group. This document outlined the proposed methodology for appraising the benefits of each Conditional Output and subsequently formed the basis of the *Stage 2: Conditional Outputs - Benefits Appraisal Report (Jacobs, December 2014).*

The appraisal methodology is based on Department for Transport (DfT) Transport Analysis Guidance (TAG) and the rail Passenger Demand Forecasting Handbook (PDFH) guidance as appropriate.

In accordance with DfT TAG guidance, the benefits associated with each Conditional Output have been calculated, annualised and appraised over a standard 60 year period, discounted to 2010 prices and values.

In order to capture all of the potential transport benefits, three benefit streams were identified:

- *Rail User Benefits associated with a change in Generalised Journey Time (GJT);*
- *Train Operating Company (TOC) Benefits associated with an increase in revenue; and*
- *Non-Rail User Benefits associated with a reduction in total vehicle kilometres and subsequent savings from a reduction in:*
  - *Congestion;*
  - *Infrastructure costs;*
  - *Accidents;*
  - *Air Pollution;*
  - *Noise;*
  - *Greenhouse Gases; and*
  - *Indirect Taxation.*

The appraisal methodology for each objective is outlined in brief in the following sections of this chapter. For further detail please consult the *Stage 2: Conditional Outputs - Benefits Appraisal Note (Jacobs, December 2014).*

5.2.1 Connectivity Conditional Outputs

In order to measure the benefits associated with improved connectivity, the railway industry standard demand forecasting software MOIRA was used to forecast the impact of service frequency improvements.

Two scenarios were considered for each Conditional Output. They are:

- *Scenario 1 - forecast the effect of an additional one train per hour; and*
- *Scenario 2 - forecast the effect of an additional two trains per hour.*

The additional services assumed similar stopping patterns and journey times as per the existing services.

5.2.2 Capacity Conditional Outputs

This analysis focused on the Clitheroe to Manchester Line as discussions with stakeholders identified that this line currently suffers from capacity issues in the peak hours.

The current rail service between Blackburn and Manchester Victoria is hourly, with additional services during peak periods. The Blackburn to Bolton Rail Corridor Improvements Scheme will enable an all-day half hourly service to operate between Blackburn and Manchester Victoria from December 2016. However, as the scheme will only provide additional services in the off peak period, it is expected that its impact on relieving overcrowding on peak services will be negligible.

The potential transport benefits from reduced overcrowding were calculated using Value of Time Multipliers (dependent on the level of overcrowding) sourced from the Passenger Demand Forecasting Handbook (PDFH).

In order to calculate the potential transport benefits associated with forecast rail passenger growth, growth factors were applied to the passenger counts for 10 years, based upon forecasts contained within Network Rail's Regional Urban Market Study.

5.2.3 Performance Conditional Outputs

The performance Conditional Outputs were specifically related to the reliability of trains compared to the published timetable. The potential transport benefits of the performance Conditional Outputs were calculated by examining the impact of a reduction in the standard deviation of actual train arrival times.

Northern Rail provided a dataset of actual train arrival times between January 2013 and January 2014 for all three services operating within the core study area. The potential transport benefits associated with improving the Public Performance Measure (PPM) to Network Rail's target of 92.5% were then calculated.

5.2.4 Journey Quality Conditional Outputs

The journey quality Conditional Outputs were specifically related to the 'on-train' experience of passengers. The current level of passenger satisfaction was determined using the Passenger Focus National Rail Passenger Survey (NRPS). Four areas of journey quality were considered:

- *Train Environment;*
- *Passenger Security;*
- *Train Cleanliness; and*
- *Availability of Information.*

The potential transport benefits from improved journey quality were calculated using Incremental Value of Time Multipliers (dependent on the level of current and expected future satisfaction) sourced from the PDFH.

5.2.5 Journey Times Conditional Outputs

In order to measure the benefits associated with improved journey times, the railway industry standard demand forecasting software MOIRA was used to forecast the impact of timetable changes.

Target rail journey times were set using the average off peak car journey time between two stations (sourced from Google Maps). The analysis considered a number of key core study area stations, shown in Table 5-A.

Tier	Station
Primary	Preston
	Burnley
	Blackburn
Secondary	Clitheroe
	Accrington
	Nelson
	Rose Grove
	Darwen

Table 5-A: Key Core Study Area Stations.

5.2.6 Passenger Facilities Conditional Outputs

The passenger facilities Conditional Outputs were specifically related to the facilities available to passengers at stations.

The potential transport benefits were calculated by identifying the facilities required at each station to meet Rail North's Station Quality Standard (SQS) criteria and applying a value per facility improvement, sourced from the PDFH and previous studies.

The value per facility was then multiplied by the relevant station demand to calculate the potential transport benefits.

5.3 Appraisal Results

Table 5-B at the end of this chapter summarises the total potential transport benefits for all Conditional Outputs. It shows that the potential transport benefits associated with the Conditional Outputs vary significantly.

The connectivity and journey time Conditional Outputs provide the largest level of potential transport benefits. The capacity, performance and journey quality Conditional Outputs provide comparable levels of potential transport benefits and the passenger facilities Conditional Output provides the lowest level of potential transport benefits.

It is important to note that the costs associated with delivering a scheme that could achieve each of the Conditional Outputs will also vary significantly and thus affect value for money.

Improvements to the Blackpool North to York service provide the greatest level of potential transport benefits for the connectivity, performance, journey quality and journey time Conditional Outputs. However, a significant proportion of these benefits will be realised outside of the core study area.

Connectivity

Improving the service frequency of the Blackpool North to York service generates the highest level of overall potential transport benefits across the UK rail network (up to £608.3m).

However, of all the Conditional Outputs investigated, a service frequency improvement of an additional two trains per hour on the Blackpool South to Colne service would provide the largest increase in passenger journeys within the core study area.

Improving access to Manchester and Leeds through improved service frequencies provides a comparable level of increased passenger journeys in the core study area.

Capacity

Analysis of passenger counts shows that that there is significant overcrowding on the morning peak services on the Clitheroe to Manchester line.

Improving train capacity on the Clitheroe to Manchester line to relieve current overcrowding and accommodate potential future growth in demand would generate significant benefits to the study area (up to £83.8m).

Performance

Improving the performance of all three services currently operating in the study area would generate significant potential transport benefits, with the load factors on three morning services all exceeding 138% from Blackburn to Manchester.

The Blackpool South to Colne service currently has the lowest PPM statistic. However, improving the current performance of the Blackpool North to York service to meet the target PPM figure of 92.5% would generate the highest level of potential transport benefits (£158.3m) due to the demand on this service being higher.

Journey Quality

Improvements to journey quality relate to the physical environment of the train, cleanliness, security and available information. Improving the quality of the rolling stock on all three services operating in the study area would generate significant journey quality benefits (between £12.8 - £61.3m). Improving the quality of rolling stock would also contribute to achieving a number of the other Conditional Outputs.

Journey Times

Improving journey times between the core study area and Leeds generates the highest level of potential transport benefits across the UK rail network (£389m).

However, improving journey times between key core study area stations and Manchester would result in the largest increase in passenger journeys within the core study area.

Passenger Facilities

The appearance of railway stations and the facilities provided greatly impact on people's perception of the quality of the rail network.

Although the potential transport benefits associated with the delivery of the passenger facilities Conditional Output (£11.8m) are lower than the benefits associated with other Conditional Outputs, it is likely that the cost of achieving this Conditional Output would be significantly lower.

The Impact of Doing Nothing

A qualitative assessment on the impact of doing nothing has also been undertaken for each objective (detailed in section 4.2), considering what the impact on East Lancashire's rail network would be if no investment occurred.

If no improvements are made to improve the frequency and journey times of rail services operating in East Lancashire it is likely that the perception of East Lancashire being poorly connected will grow stronger. This perception is likely to be further exacerbated by recent announcements proposing rail network improvements across the North of England, which have the potential to increase the connectivity gap between East Lancashire and economic centres in the North, in particular Manchester and Leeds.

Consequently, the connectivity gap between East Lancashire and major settlements in the North of England could widen in the future without investment in East Lancashire's rail network. This could have a negative impact on the economy of East Lancashire as people and business would be less likely to locate here.

In addition, if the current rolling stock in East Lancashire is not improved or replaced then the quality of the trains will deteriorate over time, resulting in the passenger experience being negatively impacted both in terms of journey quality, capacity and performance. Consequently, this could result in existing rail passengers seeking to use alternative modes of transport, which would place additional pressure on an already congested highway network.

Vision	Objective	Reference	Conditional Outputs	Potential Transport Benefits* (£m) (60 year appraisal period)				
				Rail User Benefits		TOC Benefits	Non Rail User Benefits (MEC's)	Total Benefits
Improve rail connectivity in order to facilitate future economic growth within East Lancashire.	Connectivity	1	Improve the frequency of the Blackpool South - Colne service.	+ 1tph	£118.9	£34.4	£11.6	£164.9
				+ 2tph	£187.8	£56.3	£22.2	£266.2
		2	Improve the frequency of the Clitheroe to Manchester service.	+ 1tph	£40.5	£10.0	£6.0	£56.5
				+ 2tph	£113.4	£32.5	£19.9	£165.8
		3	Improve the frequency of the Blackpool North to York service.	+ 1tph	£185.8	£53.9	£33.2	£272.9
				+ 2tph	£400.0	£115.4	£92.8	£608.3
		4	Improve the frequency of the Blackburn to Manchester (via Burnley) service.	+ 1tph	£12.3	£4.3	£2.4	£19.1
				+ 2tph	£73.8	£27.5	£16.5	£117.8
	Capacity	5	Relieve overcrowding in peak hours between Clitheroe and Manchester.	£60.9		£3.7	£2.5	£67.1
		6	Ensure sufficient capacity to meet forecast rail passenger growth between Clitheroe and Manchester in the next 10 years.	£76.1		£4.6	£3.1	£83.8
	Performance	7	Improve the Blackpool South to Colne service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.	£52.5		£2.5	£1.4	£56.5
		8	Improve the Clitheroe to Manchester Victoria service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.	£48.5		£2.6	£1.8	£52.9
		9	Improve the Blackpool North to York service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.	£148.8		£5.2	£4.3	£158.3
	Journey Quality	10	Improve the quality of rolling stock on the Blackpool South to Colne service.	£10.5		£1.5	£0.9	£12.8
		11	Improve the quality of rolling stock on the Clitheroe to Manchester Victoria service.	£24.7		£2.9	£2.0	£29.6
		12	Improve the quality of rolling stock on the Blackpool North to York service.	£52.0		£5.1	£4.2	£61.3
	Journey Times	13	Reduce rail journey times between Preston and Colne to under an hour (currently 71 minutes).	£23.7		£6.5	£1.7	£31.9
		14	Reduce rail journey times between Clitheroe and Manchester to under an hour (currently 74 minutes).	£43.6		£13.1	£5.3	£62.0
		15	Reduce rail journey times between key core study area stations and Central Manchester to the equivalent or better than the average off peak period car journey time.	£172.3		£57.2	£35.4	£264.9
		16	Reduce rail journey times between key core study area stations and Manchester Airport to the equivalent or better than the average off peak period car journey time.	£245.5		£86.4	£47.6	£379.5
		17	Reduce rail journey times between key core study area stations and West Yorkshire (Halifax and Bradford) to the equivalent or better than the average off peak period car journey time.	£126.8		£32.4	£15.4	£174.6
		18	Reduce rail journey times between key core study area stations and Leeds to the equivalent or better than the average off peak period car journey time.	£278.6		£71.3	£39.1	£389.0
		19	Reduce rail journey times between key core study area stations and National Economic Centres to the equivalent or better than the average off peak period car journey time.	N/A				
	Passenger Facilities	20	Improve station facilities within the core study area.	£9.0		£1.7	£1.1	£11.8

Table 5-B: Potential Transport Benefits Summary.

N.B. All benefits quoted are for a 60 year appraisal period in 2010 prices, discounted to 2010.

6 Potential Options

6.1 Introduction

This chapter of the report presents the potential options considered as part of the Conditional Output Statement Stage (Stage 3) of the Rail Connectivity Study and how they have been appraised.

It also presents the shortlisted options and contains a summary of the potential transport benefits and deliverability issues associated with each shortlisted option.

6.2 Identification of Potential Options

A number of sources were used in order to identify a long list of potential options.

As noted in chapter 3, a problems and options workshop was held as part of Stage 1 of the Rail Connectivity Study. The workshop was attended by a number of key local stakeholders from relevant Councils, Network Rail, Train Operating Companies and various rail industry organisations. The workshop offered an opportunity to utilise the local knowledge and experience of the key stakeholders to gather their thoughts on the key issues affecting the study area and the potential options that may alleviate the identified issues.

The findings of the *Rail Connectivity Study Stage 1: Data Collection and Problem Identification Report (Jacobs, December 2014)* were also used to identify any further potential options for inclusion in the study.

Ongoing liaison with the project management group throughout the project provided further potential options for inclusion in the long list of options.

A total of thirty six potential options were subsequently compiled, as shown in Table 6-A. The options were then categorised under the following headings:

- *Facility Improvements;*
- *Infrastructure Improvements; and*
- *Service Improvements.*

Type	Potential Option
Facility Improvements	Station improvements at Rose Grove (to make it an interchange).
	Park & Ride at Colne rail station.
	Park & Ride on the Clitheroe to Bolton line.
	Introduction of CCTV at stations to encourage use of isolated stations.
	Introduce ticket machines and increase the monitoring of fare collection by guards to improve revenue collection.
	Introduce new ticketing options.
	Introduce Real Time Passenger Information at stations within the core study area.
	Additional car parking at stations within the core study area.
	Improved walking and cycling links to stations.
	Improved bus/rail interchange at Colne.
	Improved bus/rail interchange at Burnley.
	Improve station facilities across the study area to meet Rail North's SQS criteria which cover access facilities, information provision and passenger facilities.
Infrastructure Improvements	Introduce new signalling technology to provide journey time improvements.
	Electrification of the line between Clitheroe and Bolton.
	Electrification of the Calder Valley line.
	Add loops to single track line to improve service frequency and reliability.
	Reinstate Skipton - Colne line.
	Electrification of the line between Preston and Colne / Leeds (including the newly reinstated Todmorden Curve).
	Upgrade to a double track line between Rose Grove and Colne in order to facilitate a more frequent service (between Blackpool South & Colne).
	Close stations with low footfall.
	Remove line speed restrictions (e.g. Farington Curve (30mph), Hall I' th' Wood – Bolton (20mph) and North of Darwen (30mph)).
	Journey time improvements on the Copy Pit line (the section between Todmorden and Burnley).
Service Improvements	Alter stopping patterns in the core study area in order to deliver journey time savings.
	Tailor timetables to fit in with Burnley College, a large potential source of rail users.
	Extend the new Manchester to Blackburn service to Preston; review calling pattern west of Accrington and link to a review of the calling pattern of the Colne service west of Rose Grove.
	Improve marketing of stations, lines, potential destinations and fares, along with how this information is communicated.
	Introduce a direct service between Clitheroe and Preston/Colne.
	Improve the quality of Rolling Stock operating on services in the core study area so that it is comparable with similar regional services in other parts of the country (for example, the rolling stock currently operating on the TransPennine Express Services between Manchester and Leeds).
	Improve service frequency in core study area in line with Rail North's Interconnected Urban Matrix.
	Restructure fares.
	Improve service frequency between East Lancashire & Manchester Airport.
	Improve service frequency between East Lancashire & Central Manchester.
	Add additional carriages to the existing peak services between Clitheroe and Manchester to increase capacity.
	Improve service frequency between Burnley & Colne.
	Improve service frequency between East Lancashire & Leeds.
	Introduce a regular service between Clitheroe and Hellifield (currently a Sunday service).

Table 6-A: Potential Options.

6.3 Option Appraisal

A qualitative option appraisal exercise has been undertaken in order to identify the extent to which each option is likely to contribute to the potential transport benefits associated with each of the Conditional Outputs.

The option appraisal process is outlined below:

1. *Each option was assessed independently and a decision was made as to whether each option would be expected to contribute to the potential transport benefits of each Conditional Output.*

2. *Consideration was given to the likely contribution of each option towards the issues which underpinned the development of each Conditional Output, based on evidence gathered as part of Stage 1 of the study.*

3. *Options were scored on a three-point scale (Slight, Moderate or Significant) dependent on their expected contribution to the potential transport benefits of each Conditional Output. Options which were not expected to contribute towards the potential transport benefits of a Conditional Output were scored N/A.*

4. *To ensure consistency, scores were benchmarked for each conditional output in turn by comparing the scores of all options.*

Following the option appraisal process, a high level capital cost estimate was assigned to each option based upon the following ranges:

- *< £5 million;*
- *£5 million to £50 million; and*
- *> £50 million.*

It was noted that some service improvement options would not be subject to any capital costs; however operational costs would exist which would need to be considered if the option were to be developed further.

Appendix A includes the option appraisal matrix showing the scores of each individual option against the Conditional Outputs.

6.4 Option Sift

The option sift process identified eight options which are likely to contribute most significantly to the potential transport benefits associated with delivery of the Conditional Outputs.

These eight shortlisted options will require further investigation in order to assess their feasibility and economic viability.

The eight shortlisted options are shown in Table 6-B.

Type	Shortlisted Options
Facility Improvements	Improve station facilities across the study area to meet Rail North's SQS criteria which cover access facilities, information provision and passenger facilities.
Infrastructure Improvements	Electrification of the line between Clitheroe and Bolton.
	Electrification of the line between Preston and Colne / Leeds (including the newly reinstated Todmorden Curve).
	Journey time improvements on the Copy Pit line (the section between Todmorden and Burnley).
Service Improvements	Improve the quality of Rolling Stock operating on services in the core study area so that it is comparable with similar regional services in other parts of the country (for example, the rolling stock currently operating on the TransPennine Express Services between Manchester and Leeds).
	Improve service frequency between East Lancashire and Central Manchester.
	Add additional carriages to the existing peak services between Clitheroe and Manchester to increase capacity.
	Improve service frequency between East Lancashire and Leeds.

Table 6-B: Shortlisted Options.

Table 6-C shows the option appraisal matrix containing only the shortlisted options. The table shows that the shortlisted options contribute to a number of Conditional Outputs. Consequently, if all shortlisted options are delivered, each Conditional Output would be achieved to some extent.

Shortlisted Options

The Conditional Outputs recorded below were discussed and agreed at a meeting held at County Hall on 5th August 2014.

Vision	Objective	Reference	Conditional Outputs		Potential Transport Benefits* (£m) (60 year appraisal period)	Shortlisted options: Electrification of the line between Clitheroe and Bolton.		Journey time improvements on the Copy Pit line (the section between Todmorden and Burnley).		Improve service frequency between East Lancashire & Central Manchester.		Improve service frequency between East Lancashire & Leeds.	
						Improve station facilities across the study area to meet Rail North's SQS criteria which cover access facilities, information provision and passenger facilities.		Electrification of the line between Preston and Colne/Leeds (including the newly reinstated Todmorden Curve).		Improve the quality of Rolling Stock operating on services in the core study area so that it is comparable with similar regional services in other parts of the country (for example, the rolling stock currently operating on the TransPennine Express services between Manchester and Leeds).		Add additional carriages to the existing peak services between Clitheroe and Manchester to increase capacity.	
Improve rail connectivity in order to facilitate future economic growth within East Lancashire.	Connectivity	1	Improve the frequency of the Blackpool South to Colne service.	+ 1tph	£164.9	N/A	N/A	Significant	N/A	N/A	Moderate	N/A	Moderate
				+ 2tph	£266.2	N/A	N/A	Significant	N/A	N/A	Moderate	N/A	Moderate
		2	Improve the frequency of the Clitheroe to Manchester service.	+ 1tph	£56.5	N/A	Significant	N/A	N/A	N/A	Significant	N/A	Moderate
				+ 2tph	£165.8	N/A	Significant	N/A	N/A	N/A	Significant	N/A	Moderate
		3	Improve the frequency of the Blackpool North to York service.	+ 1tph	£272.9	N/A	N/A	Significant	N/A	N/A	Moderate	N/A	Significant
				+ 2tph	£608.3	N/A	N/A	Significant	N/A	N/A	Moderate	N/A	Significant
		4	Improve the frequency of the Blackburn to Manchester (via Burnley) service.	+ 1tph	£19.1	N/A	N/A	N/A	N/A	N/A	Moderate	N/A	Moderate
				+ 2tph	£117.8	N/A	N/A	N/A	N/A	N/A	Moderate	N/A	Moderate
	Capacity	5	Relieve overcrowding in peak hours between Clitheroe and Manchester.		£67.1	N/A	Significant	N/A	N/A	Moderate	Significant	Significant	N/A
		6	Ensure sufficient capacity to meet forecast rail passenger growth between Clitheroe and Manchester in the next 10 years.		£83.8	N/A	Significant	N/A	N/A	Moderate	Significant	Significant	N/A
	Performance	7	Improve the Blackpool South to Colne service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.		£56.5	N/A	N/A	Significant	N/A	Significant	N/A	N/A	N/A
		8	Improve the Clitheroe to Manchester Victoria service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.		£52.9	N/A	Significant	N/A	N/A	Significant	N/A	Slight	N/A
		9	Improve the Blackpool North to York service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.		£158.3	N/A	N/A	Significant	Slight	Significant	N/A	N/A	N/A
	Journey Quality	10	Improve the quality of rolling stock on the Blackpool South to Colne service.		£12.8	N/A	N/A	Significant	N/A	Significant	N/A	N/A	N/A
		11	Improve the quality of rolling stock on the Clitheroe to Manchester Victoria service.		£29.6	N/A	Significant	N/A	N/A	Significant	N/A	N/A	N/A
		12	Improve the quality of rolling stock on the Blackpool North to York service.		£61.3	N/A	N/A	Significant	N/A	Significant	N/A	N/A	N/A
	Journey Times	13	Reduce rail journey times between Preston and Colne to under an hour (currently 71 minutes).		£31.9	N/A	N/A	Significant	N/A	Moderate	N/A	N/A	N/A
		14	Reduce rail journey times between Clitheroe and Manchester to under an hour (currently 74 minutes).		£62.0	N/A	Significant	N/A	N/A	Moderate	N/A	N/A	N/A
		15	Reduce rail journey times between key core study area stations and Central Manchester to the equivalent or better than the average off peak period car journey time.		£264.9	N/A	Significant	Slight	Moderate	Moderate	N/A	N/A	N/A
		16	Reduce rail journey times between key core study area stations and Manchester Airport to the equivalent or better than the average off peak period car journey time.		£379.5	N/A	Significant	Slight	Moderate	Moderate	N/A	N/A	N/A
		17	Reduce rail journey times between key core study area stations and West Yorkshire (Halifax and Bradford) to the equivalent or better than the average off peak period car journey time.		£174.6	N/A	N/A	Significant	Significant	Moderate	N/A	N/A	N/A
		18	Reduce rail journey times between key core study area stations and Leeds to the equivalent or better than the average off peak period car journey time.		£389.0	N/A	N/A	Significant	Significant	Moderate	N/A	N/A	N/A
		19	Reduce rail journey times between key core study area stations and National Economic Centres to the equivalent or better than the average off peak period car journey time.		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Passenger Facilities	20	Improve station facilities within the core study area.		£11.8	Significant	N/A	N/A	N/A	N/A	N/A	N/A	N/A
					High Level Capital Cost Estimate (£m)	£5m - £50m	> £50m	> £50m	£5m - £50m	N/A *	N/A *	N/A *	N/A *

*All benefits quoted are for a 60 year appraisal period in 2010 prices, discounted to 2010.

Table 6-C: Option Appraisal Matrix for Shortlisted Options.

6.5 Shortlisted Options

The main benefits and any major deliverability issues associated with each of the shortlisted options are summarised below.

(a) Improve station facilities across the study area to meet Rail North's SQS criteria which cover access facilities, information provision and passenger facilities.

Improved station facilities directly benefit rail passengers at the origin and interchange stations of their journeys. The potential transport benefits calculated as part of the Passengers Facilities Conditional output relate to improving facilities to meet Rail North's Station Quality Standard (SQS).

The appearance of railway stations and the facilities provided greatly impact people's perception of the quality of the rail network. If no investment is made to improve the level of facilities offered at railway stations in East Lancashire then the rail network is less likely to be able to attract new demand. Furthermore, if the quality of passenger facilities at stations deteriorates over time then existing rail passengers may look to alternative modes of transport in order to undertake their journey.

This option has been shortlisted as it is the only option to score significantly against the passenger facilities Conditional Output.

It is not anticipated that there would be any major deliverability issues associated with this option.

All stations within the core study require some level of intervention in order to meet Rail North's Station Quality Standard. The upgrades required are predominantly related to 'Access' facilities (e.g. car parking, cycle parking and step free access to all platforms) and 'Information' facilities (e.g. customer information screens, help points and bus information posters). In general, stations in the core study area with low usage require the most significant level of intervention.

The capital cost of implementing this option is likely to be between £5 million - £50 million.

(b) Electrification of the line between Clitheroe and Bolton.

Electrification of rail lines allows the introduction of electric powered rolling stock on the rail network. Electric powered rolling stock has the potential to offer reduced journey times, reduced noise and air pollution, improved journey quality, more reliable journey times and additional seating capacity. Other benefits can also be realised such as reduced operational, energy and maintenance costs. The introduction of new rolling stock also offers the industry an opportunity to review the infrastructure capability, such as permissible line speeds.

The electrification of the rail line between Clitheroe and Bolton will allow for services operating between Clitheroe and Manchester and between Blackburn and Manchester to utilise modern rolling stock powered by overhead electric lines.

This option has been shortlisted as it scored significantly against all objectives, with the exception of the passenger facilities objectives.

The Stage 1 Report identified reliability of rail services within the study area as an issue and although the Clitheroe to Manchester service offered the highest Public Performance Measure (PPM) in the core study area, at 89.4% between January 2013 and January 2014, it still fell short of Network Rail's target of 92.5%.

Additional seating capacity provided by electric rolling stock could contribute significantly to the potential transport benefits of the capacity Conditional Outputs by relieving overcrowding, which was also identified in the Stage 1 Report as an issue between Blackburn and Manchester Victoria.

There is also potential for significant journey time savings to be realised between key core study area stations and Manchester, through the introduction of electric rolling stock. These journey time savings could in turn generate additional demand for the rail network due to the increasing competitiveness of rail travel compared with alternative modes of transport.

There are significant deliverability issues associated with rail electrification schemes, in particular there are significant engineering constraints to be overcome in terms of track layout, topography and overhead structures. There is also likely to be significant disruption to rail passengers as a result of the engineering works.

Since the commencement of the Rail Connectivity Study, the Report of the North of England Electrification Task Force (Northern Sparks, March 2015) scored the 32 non-electrified lines in the North of England and prioritised the Clitheroe to Bolton line for electrification as a Tier 1 scheme. Tier 1 schemes have been identified based primarily on the scale of economic impact they will bring. The Northern Sparks report recommends that more detailed business cases are developed for Tier 1 schemes with a view to including them in the work programme for Control Period 6 (2019 - 2024).

The capital cost of implementing this option is likely to be greater than £50 million.

Figure 6-A illustrates the location of the shortlisted option as well as existing rail electrification schemes.

(c) Electrification of the line between Preston and Colne / Leeds (including the newly reinstated Todmorden Curve).

As discussed previously there are significant benefits from the electrification of rail lines.

The electrification of the rail line between Preston and Colne / Leeds would be delivered in conjunction with the North's wider rail electrification programme and enable the following services to utilise modern rolling stock powered by overhead electric lines:

- Blackpool North – York;
- Preston – Colne; and
- Blackburn – Manchester (via the Todmorden Curve).

This option has been shortlisted as it scored significantly against all objectives, with the exception of the passenger facilities and capacity objectives. This option scored particularly well in the option appraisal as it directly benefits two train services operating through the core study area, namely the Blackpool South to Colne service and the Blackpool North to York service.

The Stage 1 Report identified reliability of services within the study area as an issue. The Blackpool South to Colne service offered the lowest PPM in the core study area, at 82.9% between January 2013 and January 2014, and the Blackpool North to York service offered the second lowest PPM, at 85.3% between January 2013 and January 2014. Both services were significantly below Network Rail's target of 92.5%.

There is also potential for significant journey time savings to be realised between key core study area stations and Colne / Leeds through the introduction of electric rolling stock. These journey time savings will in turn generate additional demand for the rail network due to the increasing competitiveness of rail travel compared with alternative modes of transport.

There are significant deliverability issues associated with rail electrification schemes, in particular there are significant engineering constraints to be overcome in terms of track layout, topography and overhead structures. There is also likely to be significant disruption to rail passengers as a result of the engineering works.

The Report of the North of England Electrification Task Force (Northern Sparks, March 2015) also prioritised the full Calder Valley line between Leeds and Manchester (via Bradford and Brighouse) and Preston as the highest scoring Tier 1 scheme. The Northern Sparks report recommends that more detailed business cases are developed for Tier 1 schemes with a view to including them in the work programme for Control Period 6 (2019 - 2024).

It should be noted that the branch line between Burnley and Colne has been identified as a Tier 2 scheme and as such it is expected this scheme would be developed for funding post Control Period 6 (2024).

The capital cost of implementing the option is likely to be greater than £50 million.

Figure 6-A illustrates the location of the shortlisted option as well as existing rail electrification schemes.

(d) Journey time improvements on the Copy Pit line (the section between Todmorden and Burnley).

Journey time improvements on the rail network can be realised through a range of interventions, for example removing line speed restrictions, improving signalling technology or reducing the number of stops required on a service.

Journey time improvements on the Copy Pit line between Todmorden and Burnley Manchester Road will benefit the Blackpool North to York service. It will also benefit the new Blackburn to Manchester (via Burnley) service which is due to come into operation in May 2015.

This option has been shortlisted as it has scored well against the journey times Conditional Outputs. Journey time improvements to the Copy Pit line will allow the reduction of journey times between key core study area stations and Central Manchester, Halifax, Bradford and Leeds.

It is also expected that there would be slight improvements to the performance of the services operating on the Copy Pit line.

There are significant deliverability issues associated with this option, in particular there are significant engineering constraints to be overcome in terms of track layout, topography and overhead structures. There is also likely to be significant disruption to rail passengers as a result of the engineering works. Recent improvement works undertaken on this section of the line (to the Holme Tunnel) required complete closure of the section between Todmorden and Burnley and a bus replacement service to be put into operation.

The capital cost of implementing this option is likely to be between £5 million and £50 million.

Figure 6-A illustrates the location of the shortlisted option.

(e) Improve the quality of Rolling Stock operating on services in the core study area so that it is comparable with similar regional services in other parts of the country (for example, the rolling stock currently operating on the TransPennine Express Services between Manchester and Leeds).

Improving the quality of rolling stock has a wide range of benefits to both rail passengers and the train operating company. Similar to the electrification benefits, upgraded rolling stock has the potential to reduce operational, energy and maintenance costs. The benefits to the rail passengers include increased comfort, improved environment, improved security and improved journey time reliability.

If combined with an electrification scheme, there are significant benefits to be realised through upgrading the rolling stock in the study area.

This option has been shortlisted as it has scored well against all objectives with the exception of connectivity and passenger facilities.

There are significant deliverability issues associated with this option, in particular the availability of rolling stock. Currently the rail lines in the core study area can only operate diesel powered rolling stock, of which there is currently a limited supply. In the short term diesel powered units could be sourced through a cascade system where diesel rolling stock becomes surplus to requirements after electrification. Longer term, electric powered rolling stock could be sourced in tandem with electrification of the rail lines through East Lancashire.

There are not expected to be any capital costs associated with the implementation of this option due to the current procurement methods employed by the UK rail industry whereby rolling stock is leased from Rolling Stock Operating Companies (ROSCOs). The costs of this option would therefore be attributed to the annual operational costs of the TOC rather than capital costs.

(f) Improve service frequency between East Lancashire and Central Manchester.

Improving the rail service frequency has a wide range of benefits to both the TOC's and rail passengers. An increased service frequency will reduce rail passengers GJT and improve rail passenger's perception of the connectivity between areas. As a result of improved connectivity and reduced GJT an increase in demand, and subsequent increase in TOC revenue, can be expected.

This option has been shortlisted as it has scored well against all of the connectivity Conditional Outputs and both capacity Conditional Outputs.

There are significant deliverability issues associated with this option, in particular the availability of rolling stock. As identified previously there is a limited supply of diesel powered rolling stock. In the short term, diesel powered units could be sourced through a cascade system. Longer term, electric powered rolling stock could be sourced in tandem with the electrification of the rail lines through East Lancashire.

There are not expected to be any capital costs associated with the implementation of this option as additional rolling stock would be leased from ROSCOS, as such the costs of this option would be attributed to the annual operational costs of the TOC rather than capital costs.

(g) Add additional carriages to the existing peak services between Clitheroe and Manchester to increase capacity.

The addition of carriages to existing peak services between Clitheroe and Manchester would provide benefits to rail passengers in terms of reduced overcrowding and to the TOC in terms of additional revenue from an increase in demand.

The addition of carriages to existing peak services between Clitheroe and Manchester will address overcrowding issues identified between Blackburn and Manchester Victoria.

It is expected this option would realise significant benefits from the capacity Conditional Outputs. This option has been shortlisted as it is anticipated it would be relatively low cost to implement and the benefits from reducing overcrowding on this line have been shown to be significant.

There are significant deliverability issues associated with this option, in particular the availability of rolling stock. As identified previously there is a limited supply of diesel powered rolling stock. In the short term, diesel powered units could be sourced through a cascade system. Longer term, electric powered rolling stock could be sourced in tandem with the electrification of the rail lines through East Lancashire.

There are not expected to be any capital costs associated with the implementation of this option as additional rolling stock would be leased from ROSCOS, as such the costs of this option would be attributed to the annual operational costs of the TOC rather than capital costs.

Figure 6-A illustrates the location of the shortlisted option.

(h) Improve service frequency between East Lancashire and Leeds.

As outlined previously, improving the rail service frequency has a wide range of potential transport benefits to both rail passengers and the TOC's.

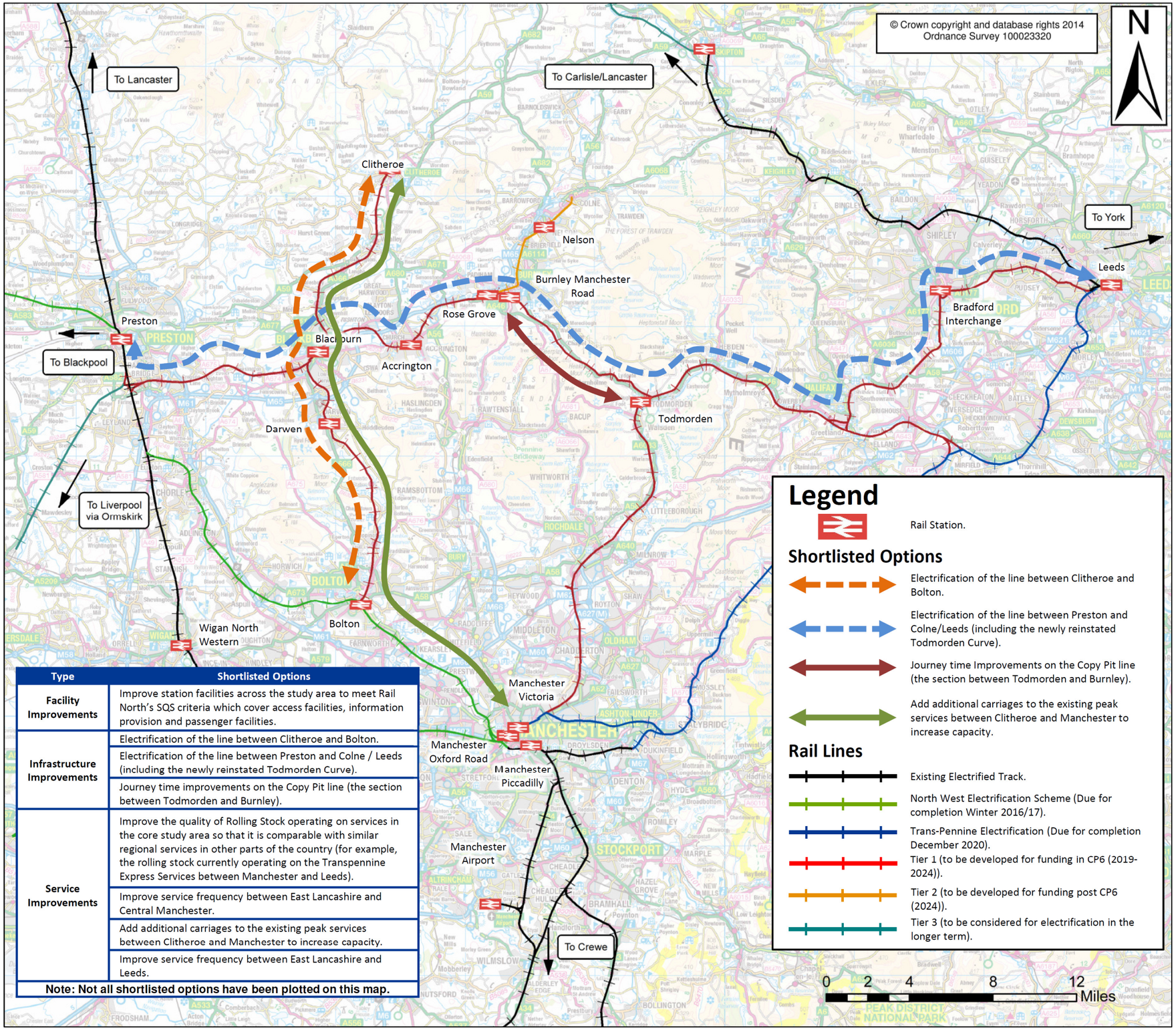
This option has been shortlisted as it has scored well against all of the connectivity Conditional Outputs and consequently there are significant levels of potential transport benefits to be realised from its implementation.

There are significant deliverability issues associated with this option, in particular the availability of rolling stock. As identified previously there is a limited supply of diesel powered rolling stock. In the short term, diesel powered units could be sourced through a cascade system. Longer term, electric powered rolling stock could be sourced in tandem with electrification of the rail lines in East Lancashire.

There are not expected to be any capital costs associated with the implementation of this option as additional rolling stock would be leased from ROSCOS, as such the costs of this option would be attributed to the annual operational costs of the TOC rather than capital costs.

In order to achieve the Conditional Outputs that would enhance connectivity between East Lancashire and Leeds, service frequency on the existing Calder Valley line needs to be improved.

If future economic circumstances dictate that connectivity between East Lancashire and Leeds should be further enhanced to the point where capacity on the Calder Valley line becomes a constraining factor, consideration of alternative options between Burnley and Leeds may become necessary. Any alternative options would need to demonstrate that they would deliver value for money.



Type	Shortlisted Options
Facility Improvements	Improve station facilities across the study area to meet Rail North's SQS criteria which cover access facilities, information provision and passenger facilities.
Infrastructure Improvements	Electrification of the line between Clitheroe and Bolton.
	Electrification of the line between Preston and Colne / Leeds (including the newly reinstated Todmorden Curve).
	Journey time improvements on the Copy Pit line (the section between Todmorden and Burnley).
Service Improvements	Improve the quality of Rolling Stock operating on services in the core study area so that it is comparable with similar regional services in other parts of the country (for example, the rolling stock currently operating on the Transpennine Express Services between Manchester and Leeds).
	Improve service frequency between East Lancashire and Central Manchester.
	Add additional carriages to the existing peak services between Clitheroe and Manchester to increase capacity.
	Improve service frequency between East Lancashire and Leeds.
Note: Not all shortlisted options have been plotted on this map.	

Figure 6-A: Shortlisted Options

7 Conclusions

The data collection and problem identification exercise undertaken has supported the local perception that East Lancashire's rail network is relatively constrained in terms of rail connectivity, capacity, performance, journey quality, journey times and passenger facilities. If no investment is secured to improve East Lancashire's rail network it is likely to have a negative impact on future economic growth.

The current deficiencies in East Lancashire's rail network can make it an unattractive mode of travel. Subsequently the current rail usage within East Lancashire is relatively low compared to neighbouring areas, with the percentage of individuals travelling to work by train being lower in all Local Authority areas in the core study area than the average for both the North West and England and Wales. In addition, the current rail demand between East Lancashire and neighbouring City Regions is relatively low.

Given the forecast national growth in rail demand the *Stage 1: Data Collection and Problem Identification Report (Jacobs, December 2014)*, concluded that significant investment is required in East Lancashire's rail network in order to improve its performance and attractiveness.

The *Stage 2: Conditional Outputs - Benefits Appraisal Report (Jacobs, December 2014)* defines the Conditional Outputs which have been adopted for East Lancashire based upon the findings from the Data Collection and Problem Identification stage.

Bespoke analysis of the potential economic benefits associated with delivering each of the identified Conditional Outputs was subsequently undertaken. It is accepted that realisation of each output will be subject to an affordable and value for money solution, but the Conditional Outputs should nevertheless assist the rail industry and its partners in establishing proposals that best release the identified potential.

The agreed Conditional Outputs for East Lancashire's rail network and the potential transport benefits associated with the delivery of each output is shown in Table 7-A.

Objective	Ref	Conditional Outputs	Potential Transport Benefits* (£m) (60 year appraisal period)	
Connectivity	1	Improve the frequency of the Blackpool South - Colne service.	+ 1tph	£164.9
			+ 2tph	£266.2
	2	Improve the frequency of the Clitheroe to Manchester service.	+ 1tph	£56.5
			+ 2tph	£165.8
	3	Improve the frequency of the Blackpool North to York service.	+ 1tph	£272.9
			+ 2tph	£608.3
	4	Improve the frequency of the Blackburn to Manchester (via Burnley) service.	+ 1tph	£19.1
			+ 2tph	£117.8
Capacity	5	Relieve overcrowding in peak hours between Clitheroe and Manchester.	£67.1	
	6	Ensure sufficient capacity to meet forecast rail passenger growth between Clitheroe and Manchester in the next 10 years.	£83.8	
Performance	7	Improve the Blackpool South to Colne service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.	£56.5	
	8	Improve the Clitheroe to Manchester Victoria service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.	£52.9	
	9	Improve the Blackpool North to York service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.	£158.3	
Journey Quality	10	Improve the quality of rolling stock on the Blackpool South to Colne service.	£12.8	
	11	Improve the quality of rolling stock on the Clitheroe to Manchester Victoria service.	£29.6	
	12	Improve the quality of rolling stock on the Blackpool North to York service.	£61.3	
Journey Times	13	Reduce rail journey times between Preston and Colne to under an hour (currently 71 minutes).	£31.9	
	14	Reduce rail journey times between Clitheroe and Manchester to under an hour (currently 74 minutes).	£62.0	
	15	Reduce rail journey times between key core study area stations and Central Manchester to the equivalent or better than the average off peak period car journey time.	£264.9	
	16	Reduce rail journey times between key core study area stations and Manchester Airport to the equivalent or better than the average off peak period car journey time.	£379.5	
	17	Reduce rail journey times between key core study area stations and West Yorkshire (Halifax and Bradford) to the equivalent or better than the average off peak period car journey time.	£174.6	
	18	Reduce rail journey times between key core study area stations and Leeds to the equivalent or better than the average off peak period car journey time.	£389.0	
	19	Reduce rail journey times between key core study area stations and National Economic Centres to the equivalent or better than the average off peak period car journey time.	N/A	
Passenger Facilities	20	Improve station facilities within the core study area.	£11.8	

Table 7-A: Adopted Conditional Outputs and Potential Transport Benefits.

The benefits appraisal revealed that delivery of the identified Conditional Outputs could deliver significant transport benefits. In particular improving the rail service frequency and journey times within the study would deliver the greatest level of benefit. If all of the Conditional Outputs are delivered there will be significant benefits to UK plc.

If no improvements are made to the frequency and journey times of rail services operating in East Lancashire it is likely that the perception of East Lancashire being poorly connected will grow stronger. This perception is likely to be further exacerbated by recent announcements proposing rail network improvements across the North of England which have the potential to increase the connectivity gap between East Lancashire and economic centres in the North, in particular Manchester and Leeds.

Consequently, the connectivity gap between East Lancashire and major settlements in the North of England could widen in the future without investment in East Lancashire's rail network. This could have a negative impact on the economy of East Lancashire as people and business would be less likely to locate here.

In addition, if the current rolling stock in East Lancashire is not improved or replaced then the quality of the trains will deteriorate over time, resulting in the passenger experience being negatively impacted both in terms of journey quality, capacity and performance. Consequently, this could result in existing rail passengers seeking to use alternative modes of transport, which would place additional pressure on an already congested highway network.

The Conditional Outputs were defined as being conditional as achieving each Output is conditional upon affordable and economically viable options being identified. Consequently, the Conditional Output Statement stage (Stage 3) has undertaken an option appraisal exercise in order to identify options which would make the most significant contribution towards delivering the potential transport benefits associated with the delivery of the adopted Conditional Outputs.

The results of the option appraisal have been presented in this report and the eight options that are likely to make the most significant contribution to delivering the potential transport benefits are presented in Table 7-B.

Type	Shortlisted Options
Facility Improvements	Improve station facilities across the study area to meet Rail North's SQS criteria which cover access facilities, information provision and passenger facilities.
Infrastructure Improvements	Electrification of the line between Clitheroe and Bolton.
	Electrification of the line between Preston and Colne / Leeds (including the newly reinstated Todmorden Curve).
	Journey time improvements on the Copy Pit line (the section between Todmorden and Burnley).
Service Improvements	Improve the quality of Rolling Stock operating on services in the core study area so that it is comparable with similar regional services in other parts of the country (for example, the rolling stock currently operating on the TransPennine Express Services between Manchester and Leeds).
	Improve service frequency between East Lancashire and Central Manchester.
	Add additional carriages to the existing peak services between Clitheroe and Manchester to increase capacity.
	Improve service frequency between East Lancashire and Leeds.

Table 7-B: Shortlisted Options.

The Report of the North of England Electrification Task Force (Northern Sparks, March 2015) scored the 32 non-electrified lines in the North of England. The

Clitheroe to Bolton line and the full Calder Valley line between Leeds and Manchester (via Bradford and Brighouse) and Preston were both prioritised for electrification as a Tier 1 scheme. Tier 1 schemes have been identified based primarily on the scale of economic impact they will bring. The Northern Sparks report recommends that more detailed business cases are developed for Tier 1 schemes with a view to including them in the work programme for Control Period 6 (2019 - 2024).

It is recommended that further analysis is undertaken on each of the shortlisted options in order to assess their feasibility and economic viability.

In conclusion, the Rail Connectivity Study has identified the deficiencies within East Lancashire's rail network. The study has identified a series of Conditional Outputs which set out what East Lancashire requires from the rail industry in support of growing its economy. The study has shown there are significant potential transport benefits to be realised from improvements to the rail network and a shortlist of options which are likely to make the most significant contribution to delivering the potential transport benefits has been identified.

Appendix A Option Appraisal

East Lancashire Rail Connectivity Study

Option Sifting Matrix

The Conditional Outputs recorded below were discussed and agreed at a meeting held at County Hall on 5th August 2014.

Vision	Objective	Reference	Conditional Outputs		Potential Transport Benefits* (£m) (60 year appraisal period)	Facility Improvements											
						Improve station facilities across the study area to meet Rail North's SQS criteria which cover access facilities, information provision and passenger facilities.	Park & Ride at Colne rail station.	Introduction of CCTV at stations to encourage use of isolated stations.	Introduce new ticketing options.	Additional car parking at stations within the core study area.	Improved bus/rail interchange at Colne.	Station improvements at Rose Grove (to make it an interchange).	Park & Ride on the Clitheroe to Bolton line.	Introduce ticket machines and increase the monitoring of fare collection by guards to improve revenue collection.	Introduce Real Time Passenger Information at stations within the core study area.	Improved walking and cycling links to stations.	Improved bus/rail interchange at Burnley.
Improve rail connectivity in order to facilitate future economic growth within East Lancashire.	Connectivity	1	Improve the frequency of the Blackpool South to Colne service.	+ 1tph	£164.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
				+ 2tph	£266.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		2	Improve the frequency of the Clitheroe to Manchester service.	+ 1tph	£56.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
				+ 2tph	£165.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		3	Improve the frequency of the Blackpool North to York service.	+ 1tph	£272.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
				+ 2tph	£608.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		4	Improve the frequency of the Blackburn to Manchester (via Burnley) service.	+ 1tph	£19.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
				+ 2tph	£117.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Capacity	5	Relieve overcrowding in peak hours between Clitheroe and Manchester.		£67.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		6	Ensure sufficient capacity to meet forecast rail passenger growth between Clitheroe and Manchester in the next 10 years.		£83.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Performance	7	Improve the Blackpool South to Colne service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.		£56.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		8	Improve the Clitheroe to Manchester Victoria service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.		£52.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		9	Improve the Blackpool North to York service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.		£158.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Journey Quality	10	Improve the quality of rolling stock on the Blackpool South to Colne service.		£12.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		11	Improve the quality of rolling stock on the Clitheroe to Manchester Victoria service.		£29.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		12	Improve the quality of rolling stock on the Blackpool North to York service.		£61.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Journey Times	13	Reduce rail journey times between Preston and Colne to under an hour (currently 71 minutes).		£31.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		14	Reduce rail journey times between Clitheroe and Manchester to under an hour (currently 74 minutes).		£62.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		15	Reduce rail journey times between key core study area stations and Central Manchester to the equivalent or better than the average off peak period car journey time.		£264.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		16	Reduce rail journey times between key core study area stations and Manchester Airport to the equivalent or better than the average off peak period car journey time.		£379.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		17	Reduce rail journey times between key core study area stations and West Yorkshire (Halifax and Bradford) to the equivalent or better than the average off peak period car journey time.		£174.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		18	Reduce rail journey times between key core study area stations and Leeds to the equivalent or better than the average off peak period car journey time.		£389.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		19	Reduce rail journey times between key core study area stations and National Economic Centres to the equivalent or better than the average off peak period car journey time.		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Passenger Facilities	20	Improve station facilities within the core study area.		£11.8	Significant	Slight	Slight	Slight	N/A	Moderate	N/A	Moderate	Slight	Slight	N/A	N/A
					High Level Capital Cost Estimate (£m)	£5m - £50m	< £5m	< £5m	< £5m	< £5m	< £5m	< £5m	< £5m	< £5m	< £5m	< £5m	< £5m

*All benefits quoted are for a 60 year appraisal period in 2010 prices, discounted to 2010.

* Delivery of this scheme will not be subject to any capital costs, however operational costs will exist.

East Lancashire Rail Connectivity Study

Option Sifting Matrix

The Conditional Outputs recorded below were discussed and agreed at a meeting held at County Hall on 5th August 2014.

Vision	Objective	Reference	Conditional Outputs		Potential Transport Benefits* (£m) (60 year appraisal period)	Infrastructure Improvements: Electrification of the line between Clitheroe and Bolton.	Add loops to single track line to improve service frequency and reliability.	Electrification of the line between Preston and Colne/Leeds (including the newly reinstated Todmorden Curve).	Close stations with low footfall.	Journey time improvements on the Copy Pit line (the section between Todmorden and Burnley).	Introduce new signalling technology to provide journey time improvements.	Electrification of the Calder Valley line.	Reinstate Skipton - Colne line.	Upgrade to a double track line between Rose Grove and Colne in order to facilitate a more frequent service (between Blackpool South & Colne).	Remove line speed restrictions (e.g. Farington Curve (30mph), Hall I' th' Wood – Bolton (20mph) and North of Darwen (30mph)).
Improve rail connectivity in order to facilitate future economic growth within East Lancashire.	Connectivity	1	Improve the frequency of the Blackpool South to Colne service.	+ 1tph	£164.9	N/A	N/A	N/A	Moderate	N/A	Significant	Moderate	N/A	N/A	N/A
				+ 2tph	£266.2	N/A	N/A	N/A	Moderate	N/A	Significant	Moderate	N/A	N/A	N/A
		2	Improve the frequency of the Clitheroe to Manchester service.	+ 1tph	£56.5	N/A	Significant	N/A	Moderate	N/A	N/A	N/A	N/A	N/A	N/A
				+ 2tph	£165.8	N/A	Significant	N/A	Moderate	N/A	N/A	N/A	N/A	N/A	N/A
		3	Improve the frequency of the Blackpool North to York service.	+ 1tph	£272.9	N/A	N/A	Slight	N/A	Slight	Significant	N/A	N/A	N/A	N/A
				+ 2tph	£608.3	N/A	N/A	Slight	N/A	Slight	Significant	N/A	N/A	N/A	N/A
		4	Improve the frequency of the Blackburn to Manchester (via Burnley) service.	+ 1tph	£19.1	N/A	N/A	Slight	N/A	Slight	N/A	N/A	N/A	N/A	N/A
				+ 2tph	£117.8	N/A	N/A	Slight	N/A	Slight	N/A	N/A	N/A	N/A	N/A
	Capacity	5	Relieve overcrowding in peak hours between Clitheroe and Manchester.		£67.1	N/A	Significant	N/A	Significant	N/A	N/A	N/A	N/A	N/A	N/A
		6	Ensure sufficient capacity to meet forecast rail passenger growth between Clitheroe and Manchester in the next 10 years.		£83.8	N/A	Significant	N/A	Significant	N/A	N/A	N/A	N/A	N/A	N/A
	Performance	7	Improve the Blackpool South to Colne service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.		£56.5	Moderate	N/A	N/A	Moderate	N/A	Significant	Moderate	N/A	Slight	N/A
		8	Improve the Clitheroe to Manchester Victoria service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.		£52.9	Moderate	Significant	N/A	Moderate	N/A	N/A	N/A	N/A	Slight	N/A
		9	Improve the Blackpool North to York service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.		£158.3	Moderate	N/A	Moderate	N/A	N/A	Significant	N/A	N/A	Slight	Slight
	Journey Quality	10	Improve the quality of rolling stock on the Blackpool South to Colne service.		£12.8	N/A	N/A	N/A	N/A	N/A	Significant	N/A	N/A	N/A	N/A
		11	Improve the quality of rolling stock on the Clitheroe to Manchester Victoria service.		£29.6	N/A	Significant	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		12	Improve the quality of rolling stock on the Blackpool North to York service.		£61.3	N/A	N/A	N/A	N/A	N/A	Significant	N/A	N/A	N/A	N/A
	Journey Times	13	Reduce rail journey times between Preston and Colne to under an hour (currently 71 minutes).		£31.9	Slight	N/A	N/A	N/A	N/A	Significant	N/A	N/A	Slight	N/A
		14	Reduce rail journey times between Clitheroe and Manchester to under an hour (currently 74 minutes).		£62.0	Slight	Significant	N/A	N/A	N/A	N/A	N/A	N/A	Slight	N/A
		15	Reduce rail journey times between key core study area stations and Central Manchester to the equivalent or better than the average off peak period car journey time.		£264.9	Slight	Significant	Slight	N/A	N/A	Slight	N/A	N/A	Slight	Moderate
		16	Reduce rail journey times between key core study area stations and Manchester Airport to the equivalent or better than the average off peak period car journey time.		£379.5	Slight	Significant	Slight	N/A	N/A	Slight	N/A	N/A	Slight	Moderate
		17	Reduce rail journey times between key core study area stations and West Yorkshire (Halifax and Bradford) to the equivalent or better than the average off peak period car journey time.		£174.6	Slight	N/A	Significant	N/A	Slight	Significant	N/A	N/A	Slight	Significant
		18	Reduce rail journey times between key core study area stations and Leeds to the equivalent or better than the average off peak period car journey time.		£389.0	Slight	N/A	Significant	N/A	Slight	Significant	N/A	N/A	Slight	Significant
		19	Reduce rail journey times between key core study area stations and National Economic Centres to the equivalent or better than the average off peak period car journey time.		N/A	NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Passenger Facilities	20	Improve station facilities within the core study area.		£11.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
					High Level Capital Cost Estimate (£m)	> £50m	> £50m	> £50m	£5m - £50m	> £50m	> £50m	£5m - £50m	< £5m	£5m - £50m	£5m - £50m

*All benefits quoted are for a 60 year appraisal period in 2010 prices, discounted to 2010.

* Delivery of this scheme will not be subject to any capital costs, however operational costs will exist.

East Lancashire Rail Connectivity Study

Option Sifting Matrix

The Conditional Outputs recorded below were discussed and agreed at a meeting held at County Hall on 5th August 2014.

Vision	Objective	Reference	Conditional Outputs		Potential Transport Benefits* (£m) (60 year appraisal period)	Service Improvements: Tailor timetables to fit in with Burnley College, a large potential source of rail users.	Improve marketing of stations, lines, potential destinations and fares, along with how this information is communicated.	Improve the quality of Rolling Stock operating on services in the core study area so that it is comparable with similar regional services in other parts of the country (for example, the rolling stock currently operating on the TransPennine Express services between Manchester and Leeds).	Restructure fares.	Improve service frequency between East Lancashire & Central Manchester.	Improve service frequency between Burnley & Colne.	Introduce a regular service between Clitheroe and Hellifield (currently a Sunday service).
						Alter stopping patterns in the core study area in order to deliver journey time savings.	Extend the new Manchester to Blackburn service to Preston; review calling pattern west of Accrington and link to a review of the calling pattern of the Colne service west of Rose Grove.	Introduce a direct service between Clitheroe and Preston/Colne.	Improve service frequency in core study area in line with Rail North's Interconnected Urban Matrix.	Improve service frequency between East Lancashire & Manchester Airport.	Add additional carriages to the existing peak services between Clitheroe and Manchester to increase capacity.	Improve service frequency between East Lancashire & Leeds.
Improve rail connectivity in order to facilitate future economic growth within East Lancashire.	Connectivity	1	Improve the frequency of the Blackpool South to Colne service.	+ 1tph	£164.9	N/A	N/A	Slight	N/A	Slight	N/A	Significant	N/A	Moderate	Moderate	N/A	Slight	Moderate	N/A
				+ 2tph	£266.2	N/A	N/A	Slight	N/A	Slight	N/A	Significant	N/A	Moderate	Moderate	N/A	Slight	Moderate	N/A
		2	Improve the frequency of the Clitheroe to Manchester service.	+ 1tph	£56.5	N/A	N/A	N/A	N/A	Slight	N/A	Significant	N/A	Significant	Significant	N/A	N/A	Moderate	N/A
				+ 2tph	£165.8	N/A	N/A	N/A	N/A	Slight	N/A	Significant	N/A	Significant	Significant	N/A	N/A	Moderate	N/A
		3	Improve the frequency of the Blackpool North to York service.	+ 1tph	£272.9	N/A	N/A	Slight	N/A	N/A	N/A	Significant	N/A	Moderate	Moderate	N/A	N/A	Significant	N/A
				+ 2tph	£608.3	N/A	N/A	Slight	N/A	N/A	N/A	Significant	N/A	Moderate	Moderate	N/A	N/A	Significant	N/A
		4	Improve the frequency of the Blackburn to Manchester (via Burnley) service.	+ 1tph	£19.1	N/A	N/A	N/A	N/A	N/A	N/A	Significant	N/A	Moderate	Moderate	N/A	N/A	Moderate	N/A
				+ 2tph	£117.8	N/A	N/A	N/A	N/A	N/A	N/A	Significant	N/A	Moderate	Moderate	N/A	N/A	Moderate	N/A
	Capacity	5	Relieve overcrowding in peak hours between Clitheroe and Manchester.		£67.1	N/A	N/A	N/A	Slight	Slight	Moderate	Significant	Slight	Significant	Significant	Significant	N/A	N/A	N/A
		6	Ensure sufficient capacity to meet forecast rail passenger growth between Clitheroe and Manchester in the next 10 years.		£83.8	N/A	N/A	N/A	Slight	Slight	Moderate	Significant	Slight	Significant	Significant	Significant	N/A	N/A	N/A
	Performance	7	Improve the Blackpool South to Colne service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.		£56.5	Slight	N/A	N/A	N/A	N/A	Significant	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		8	Improve the Clitheroe to Manchester Victoria service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.		£52.9	Slight	N/A	N/A	N/A	N/A	Significant	N/A	N/A	N/A	N/A	Slight	N/A	N/A	N/A
		9	Improve the Blackpool North to York service PPM to an overall level of at least 92.5% moving annual average by the end of CP5.		£158.3	Slight	N/A	N/A	N/A	N/A	Significant	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Journey Quality	10	Improve the quality of rolling stock on the Blackpool South to Colne service.		£12.8	N/A	N/A	N/A	N/A	N/A	Significant	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		11	Improve the quality of rolling stock on the Clitheroe to Manchester Victoria service.		£29.6	N/A	N/A	N/A	N/A	N/A	Significant	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		12	Improve the quality of rolling stock on the Blackpool North to York service.		£61.3	N/A	N/A	N/A	N/A	N/A	Significant	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Journey Times	13	Reduce rail journey times between Preston and Colne to under an hour (currently 71 minutes).		£31.9	Moderate	N/A	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		14	Reduce rail journey times between Clitheroe and Manchester to under an hour (currently 74 minutes).		£62.0	Moderate	N/A	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		15	Reduce rail journey times between key core study area stations and Central Manchester to the equivalent or better than the average off peak period car journey time.		£264.9	Slight	N/A	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		16	Reduce rail journey times between key core study area stations and Manchester Airport to the equivalent or better than the average off peak period car journey time.		£379.5	Slight	N/A	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		17	Reduce rail journey times between key core study area stations and West Yorkshire (Halifax and Bradford) to the equivalent or better than the average off peak period car journey time.		£174.6	Slight	N/A	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Slight
		18	Reduce rail journey times between key core study area stations and Leeds to the equivalent or better than the average off peak period car journey time.		£389.0	Slight	N/A	N/A	N/A	N/A	Moderate	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Slight
		19	Reduce rail journey times between key core study area stations and National Economic Centres to the equivalent or better than the average off peak period car journey time.		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Passenger Facilities	20	Improve station facilities within the core study area.		£11.8	N/A	N/A	N/A	Slight	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
					High Level Capital Cost Estimate (£m)	N/A	N/A	N/A *	< £5m	N/A *	N/A *	N/A *	N/A	N/A *	N/A *	N/A *	N/A *	N/A *	N/A *

*All benefits quoted are for a 60 year appraisal period in 2010 prices, discounted to 2010.

* Delivery of this scheme will not be subject to any capital costs, however operational costs will exist.