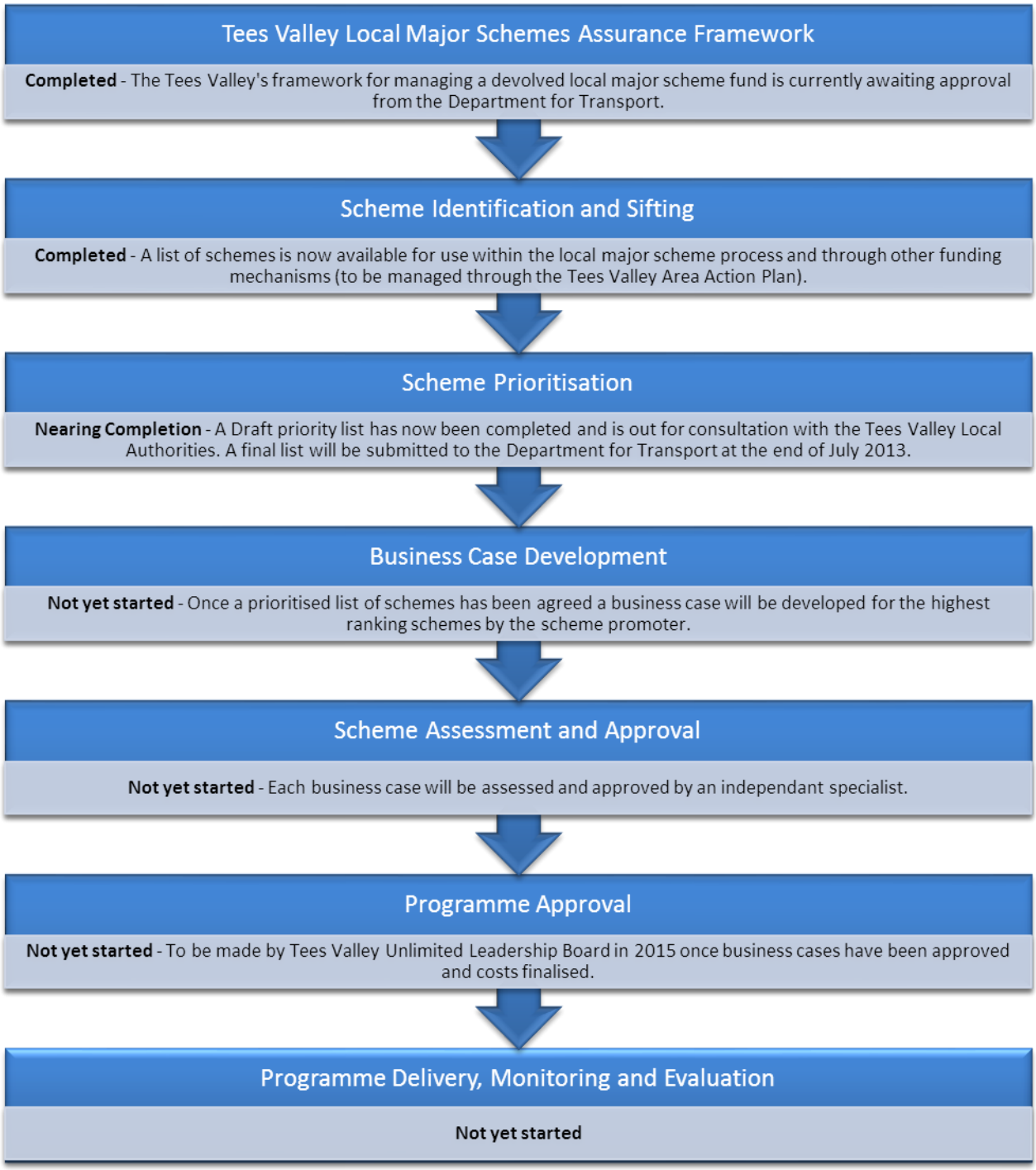
Tees Valley Local Major Scheme Prioritisation Draft 3

This note sets out the draft priority list for the Tees Valley's 2015-19 local major transport scheme budget, which has been devolved from central government. The management of this budget is explained in further detail within the Tees Valley Local Major Transport Schemes Assurance Framework. The process and the Tees Valley's current position is summarised below:



Scheme Identification and Sifting

Scheme Identification

Scheme Identification

A long list of highway and public transport schemes has been identified through the Tees Valley Area Action Plan (AAP). This has been achieved within the AAP by identifying congestion hotspots using the Tees Valley Multimodal Model. The model helps to predict where development and growth, specified within the Development Database, will contribute to future congestion on the Tees Valley's Strategic Road Network. Numerous schemes are then tested within the model to identify which will mitigate these congestion hotspots and appropriate schemes are added to the long list. The long list of schemes has also been supplement by schemes identified by local authorities through work they have undertaken on a site by site basis.

The model provides an assessment of each scheme and produces outputs that can be used within the sifting and prioritisation process.

Sifting

The sifting criteria have been selected so that any scheme that reaches the prioritisation phase would most likely be able to be developed into a WebTAG compliant business case with further work. The sifting criteria are:

- **Value for Money**: A Benefit Cost Ration (BCR) of greater than 1.5
- **Total Scheme Cost**: Between £1.5m and £20m
- **Timescale**: A scheme would be deliverable within the funding period (2015-19) and would provide sufficient benefits to offset its costs within 5 years of the end of the period.

The full long list of schemes is shown below. Those highlighted in yellow meet all of the sifting criteria and have been taken forward in the Local Major Scheme process for prioritisation. Schemes which do not make it past the sifting process will continue to be considered within the AAP. The AAP accounts for schemes that would only be required longer term or would be better suited to other funding sources, where schemes may have to meet different criteria than those specified for Local Major Scheme funding.

Scheme	In Timescale	Cost £m	BCR	Benefit Year*	2015-19 Position Assessment
A174 Extension Dual	YES	3.28	12.786	2015	ADVANCE - prioritisation
West Park Link	YES	1.075	24.438	2015	Alternative Funding (Cost)
A66(T) Yarm Road [Grade Separation]	YES	12	21.050	2018	ADVANCE - prioritisation
Portrack Relief Road	YES	9.832	22.331	2019	ADVANCE - prioritisation
A66(T) Elton Interchange	YES	7	13.844	2020	ADVANCE - prioritisation
Manhattan Gate	YES	4.5	4.262	2021	ADVANCE - prioritisation
Yarm Back Lane/Darlington Lane	YES	2	1.542	2031	Later Delivery
Nunthorpe Parkway	YES	5	0.000	n/a	Alternative (Benefit)
A66(T) Yarm Road	YES	4.307	0.000	n/a	Alternative (Benefit)
Inner Ring - Northgate	YES	4	0.000	n/a	Alternative (Benefit)
A1(M)/A68 (J58)	YES	1.5	0.000	n/a	Alternative (Benefit)
UTMC*	YES	2	n/a	n/a	Later Delivery
Tees Valley Metro - Darlington Station	NO	18	3.114	2016	Later Delivery
A66(T) Great Burdon	NO	2.706	15.167	2033	Later Delivery
Inner Ring - Feethams	NO	5.5	0.000	n/a	Alternative (Benefit)
E Middlesbrough to Prissick	NO	11	28.093	n/a	Later Delivery
Stainton Way Western Extension	NO	8	3.797	n/a	Later Delivery
Main Line - Darlington Station	NO	70	n/a	n/a	Later Delivery
A66(M)/A1(M) (J57)	NO	7.5	n/a	n/a	Later Delivery
Inner Ring - Russell Street	NO	7	n/a	n/a	Later Delivery
A19/A174 (Option 6)	NO	6	n/a	n/a	Later Delivery
A66(T) Blands Corner	NO	4.56	n/a	n/a	Later Delivery
Central Park Southern Access	NO	3.05	n/a	n/a	Later Delivery
Inner Ring - Freemans Place	NO	2.83	n/a	n/a	Later Delivery
North Burn Access	NO	n/a	n/a	n/a	Later Delivery
Greystones	NO	n/a	n/a	n/a	Later Delivery
Teesside Park Second Access	NO	n/a	n/a	n/a	Later Delivery
Wynyard/Wolviston	NO	n/a	n/a	n/a	Later Delivery
Oakesway-Port Access	NO	n/a	n/a	n/a	Later Delivery
Dockside Road Extension	NO	n/a	n/a	n/a	Later Delivery
Swans Corner/Ormesby Bank-A174	NO	n/a	n/a	n/a	Later Delivery
A174 Dual Redcar - Saltburn	NO	n/a	n/a	n/a	Later Delivery
Rail: Nunthorpe - Guisborough	NO	n/a	n/a	n/a	Later Delivery

*Benefit Year relates to when a scheme begins to have a positive benefit and starts to pay back its costs.

Scheme Prioritisation

The Tees Valley transport priorities were established within Connecting the Tees Valley, the Tees Valley Statement of Transport Ambition, published in April 2011. This provided a Tees Valley transport perspective on the 2010 National Infrastructure Plan and a response to the Tees Valley's Economic and Regeneration Statement of Ambition. The role of transport was summarised within three challenges, which were to:

- Improve the journey experience of transport users of urban, regional and local networks, including interfaces with national & international networks;
- Improve the connectivity and access to labour markets of key business centres; and
- Deliver quantified reductions in greenhouse gas emissions within cities and regional networks, taking account of cross-network policy measures.

These challenges have shaped the development of the Tees Valley Area Action Plan, which has led to the prioritisation of Local Major Schemes by their delivery of GVA (Gross Value Added), homes and carbon benefits.

The shortlisted schemes have then been indexed by their relative (to other schemes within the shortlist) GVA, homes delivered and carbon benefit per £1m spent. As well as meeting the Tees Valley's value for money criteria to pass through the sifting process, the benefits per £1m spent will also favour higher value for money schemes in the prioritisation process. Weightings of 1, 2 and 3 have been applied to each index respectively to calculate a total score.

GVA

The GVA of a scheme has been derived from the number of jobs[1] that could be facilitated by the extra road capacity generated by a scheme, as predicted by the Tees Valley Strategic Transport Model. The type of job generated is then determined using the Tees Valley Development Database and a GVA is generated from the direct jobs, indirect jobs and construction jobs.

The final GVA index is then calculated by dividing the GVA by the cost of the scheme and indexing it against the other shortlisted schemes.

Homes Delivered

The number of homes[1] delivered is estimated from the extra road capacity generated by a scheme, as predicted by the Tees Valley Strategic Transport Model. The final Homes Delivered index is then calculated by dividing the number of homes delivered by the cost of the scheme and indexing it against the other shortlisted schemes.

Carbon Benefit

The carbon benefits of a scheme have been derived from the Tees Valley Strategic Transport Model, through TUBA analysis. In simple terms, a scheme which increases the average speed on the surrounding road network will improve fuel efficiency and therefore increase the carbon benefit.

[1] Taken from the Tees Valley Development Database

This is of course up to a certain speed threshold where a higher average speed will start to have a negative effect on fuel efficiency, thus a reduction in the carbon benefit.

The final Carbon Benefit index is then calculated by dividing the benefit by the cost of the scheme and indexing it against the other shortlisted schemes.

Other Criteria

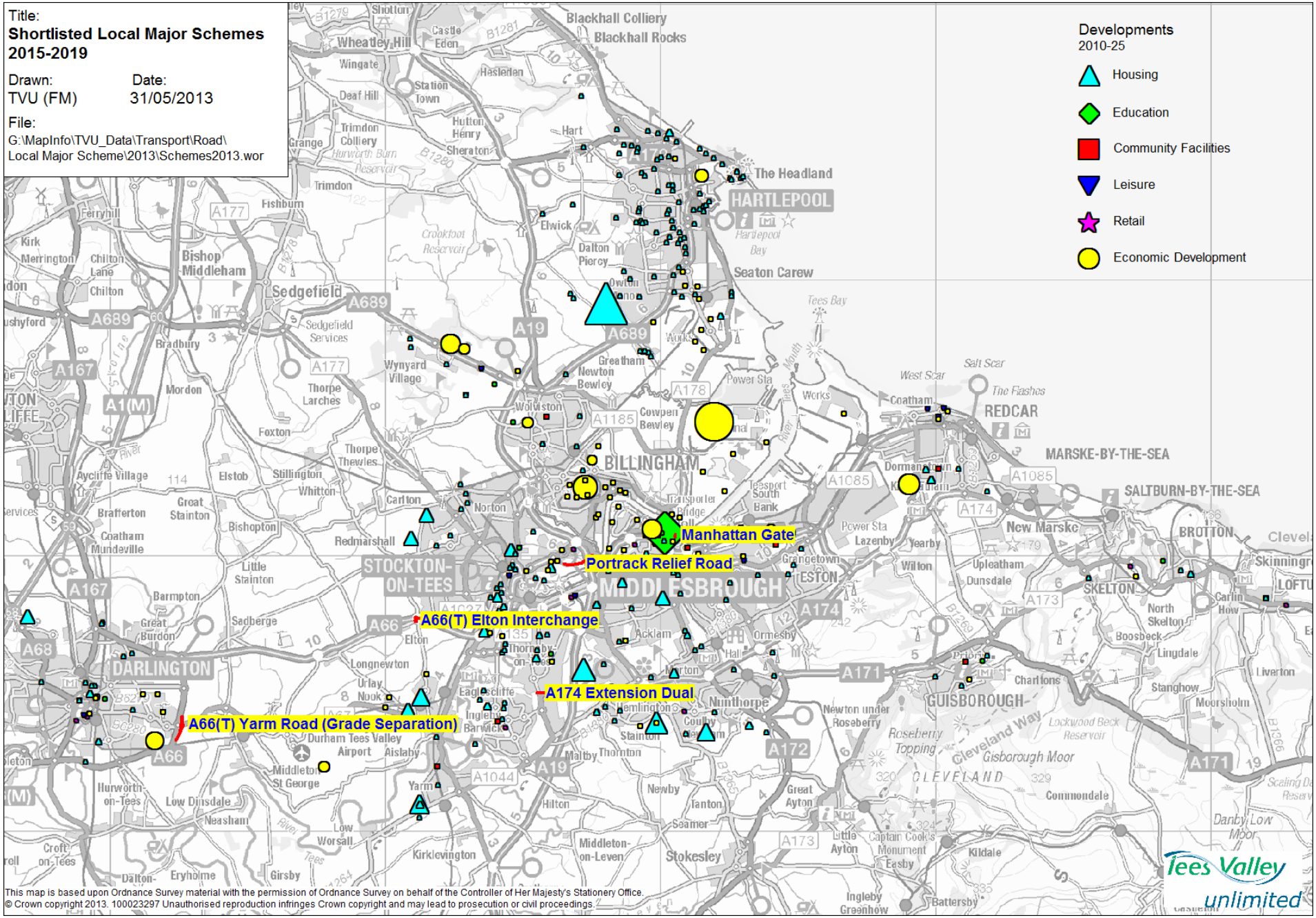
Local contributions, external funding and any income that could be generated from a scheme will be taken into consideration at a later stage, once scheme business cases have been developed. Noise, air quality, the physical environment, social and distributional impacts will also be considered at this time.

Scheme Prioritisation

Scheme	Promoting Authority	Scheme Cost	Local Contribution	VFM	GVA			Homes			Carbon Benefits			Total	Risks
		£m	£m		Index	Weighting	Score	Index	Weighting	Score	Index	Weighting	Score		
Manhattan Gate	Middlesbrough	4.5	1.35	4.262	1.00	3	**3.00**	0.16	2	**0.31**	0.35	1	**0.35**	**3.66**	Alternative Funding
Portrack Relief Road	Stockton-on-Tees	9.832		22.331	0.68	3	**2.03**	0.38	2	**0.76**	0.21	1	**0.21**	**3.01**	
A174 Extension Dual	Stockton-on-Tees	3.28	1.538	12.786	0.35	3	**1.05**	0.43	2	**0.85**	1.00	1	**1.00**	**2.90**	Alternative Funding
A66(T) Elton Interchange	Stockton-on-Tees	7		13.844	0.25	3	**0.74**	1.00	2	**2.00**	0.06	1	**0.06**	**2.80**	Scheme under development
A66(T) Yarm Road [Grade Separation]	Darlington	12		21.050	0.42	3	**1.25**	0.13	2	**0.26**	-0.26	1	**-0.26**	**1.25**	Scheme under development

Note

The numbers provided above are indicative. The model is to be rebuilt and scenarios rerun for the final business case production.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Shortlisted Local Major Schemes 2015-2019
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Date: 31/05/2013
File:
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Developments 2010-25
Housing
Education
Community Facilities
Leisure
Retail
Economic Development
Manhattan Gate
Portrack Relief Road
A66(T) Elton Interchange
A174 Extension Dual
A66(T) Yarm Road (Grade Separation)
HARTLEPOOL
BILLINGHAM
STOCKTON-ON-TEES
MIDDLESBROUGH
REDCAR
DARLINGTON
GUISBOROUGH
SALTBURN-BY-THE-SEA
MARSKE-BY-THE-SEA
Tees Valley unlimited
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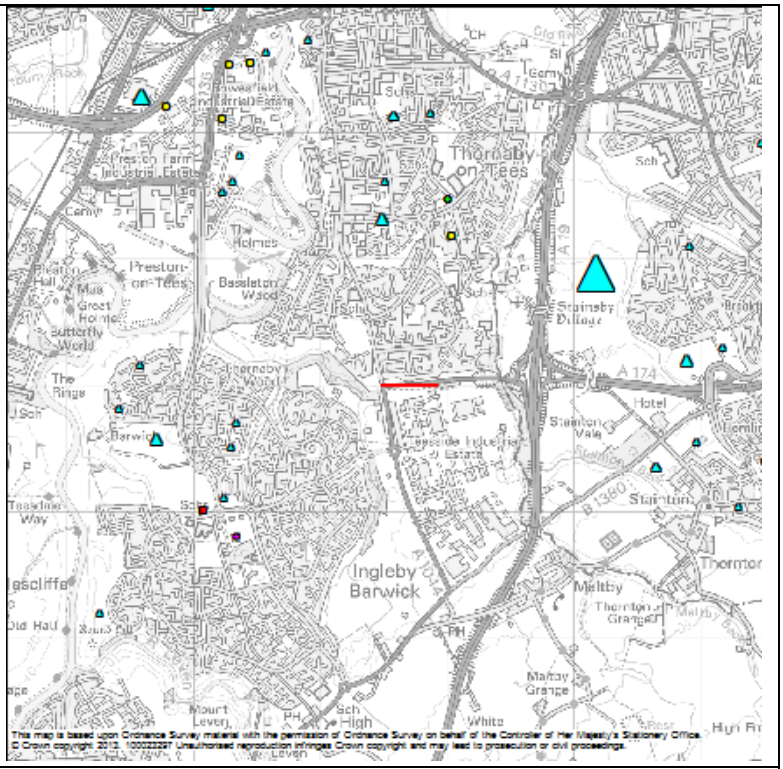
A174 Extension Dualling

Scheme Promoter:
Stockton-on-Tees Borough Council

Description:
Dualling of the A174 Extension between approved UK Land roundabout access to Teesside Industrial Estate and the A174/A1044 junction. This will link with the Highways Agency approved pinch point scheme for the A19/A174 interchange.



Total Scheme Cost:
£3.28m

Total Scheme Score (out of 6):
2.90

Local Contribution:
£1.538m

Local Contribution Source:
Private developer

Cost Profile:	2015/16	2016/17	2017/18	2018/19	2019+
	£3.28m				

Transport Issues scheme addresses:
Congestion at the A174/A1044 junction leading to access issues into Teesside Industrial Estate and access to and from the strategic road network. The scheme will release economic and housing development opportunities.

Scheme feasibility & risks:
The scheme is completely within Council Highway land and has a low risk level.

What evidence is available to support case:
Detailed model of junction showing AM and PM peak congestion.

What work has been undertaken towards the scheme:
Outline scheme design and modelling.

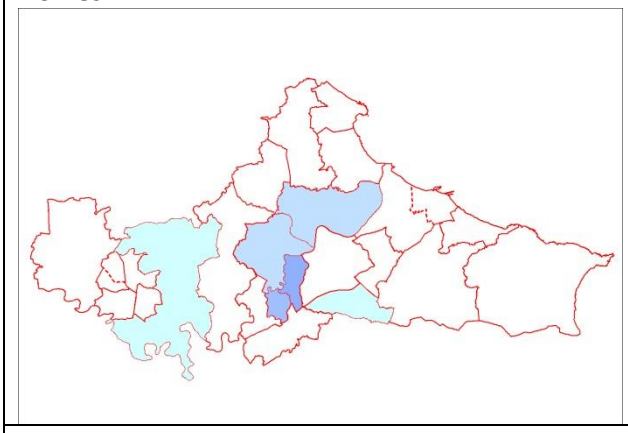
Lower cost alternative:
Various options explored.

Possible future additional developments/stages:
None

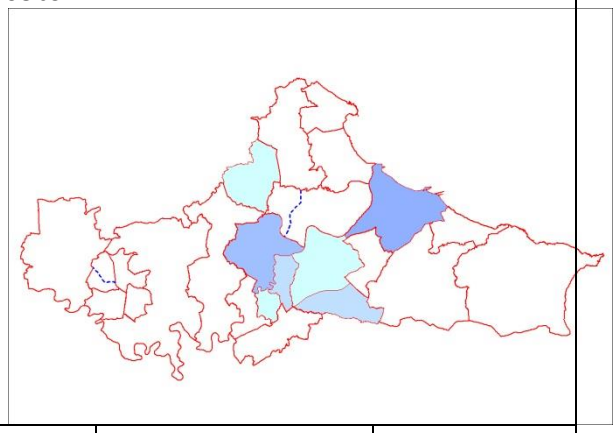
Revenue Generated:
None

Location of developments facilitated by the extra capacity released by the scheme:

Homes



Jobs



Criteria	Value	Score
Value for Money	12.786	
Benefit Year (when scheme would become beneficial)	2015	
Economic Growth (work related trips)	£7.91m	
Access to Employment (commute)	£28.17m	
Access to Amenities (other)	£6.13m	
Carbon Benefit	£0.89m	1
Payback Years (time taken for benefit to outweigh cost)	5	
Resilience of Network (extra capacity made available)	5563 veh/km	
Jobs	551	
Homes	147	0.85
GVA	£14.002m/pa	1.05
Total		**2.90**

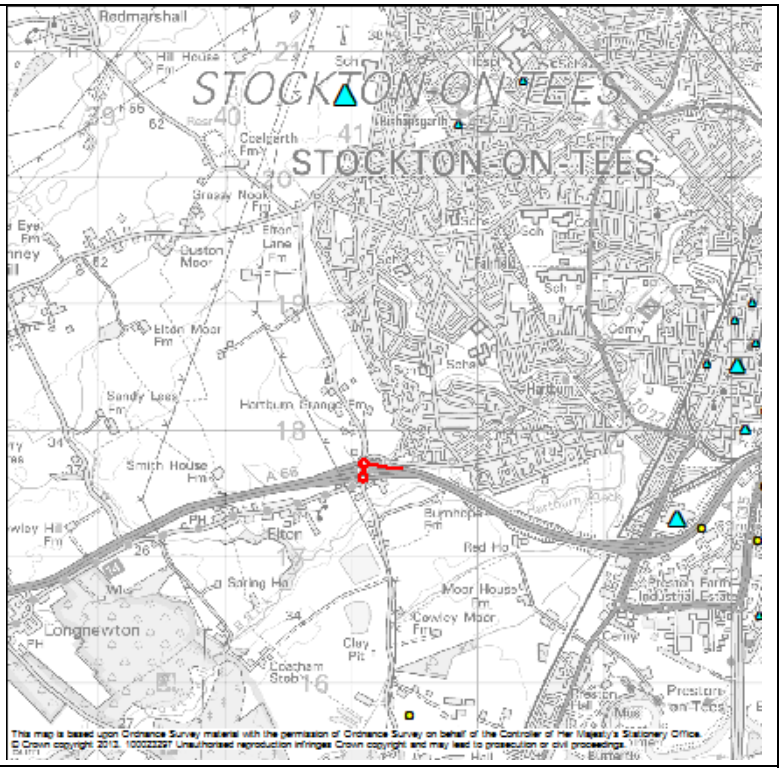
A66(T) Elton Interchange

Scheme Promoter:
Stockton-on-Tees Borough Council

Description:
Adaption of existing junction layout (2 adjacent roundabouts) to a single roundabout using the existing bridges.

The widening of the eastbound slip onto the A66 to improve capacity.

Reduction of speed limit on the A66 to 50mph through and to the east of the junction.



Total Scheme Cost:
£7m

Total Scheme Score (out of 6):
2.80

Local Contribution:
None

Local Contribution Source:
-

Cost Profile:	2015/16	2016/17	2017/18	2018/19	2019+
			£3.5m	£3.5m	

Transport Issues scheme addresses:
Capacity on Elton Interchange is stifling growth on West Fairfield/Harrowgate Lane. There are developer proposals for between 2500-3000 homes for the area.

Scheme feasibility & risks:
Risk level is assumed low

What evidence is available to support case:
Arup are currently developing a micro-sim model for the west of Stockton.

What work has been undertaken towards the scheme:
Outline modelling work and alignment work for the roundabout itself.

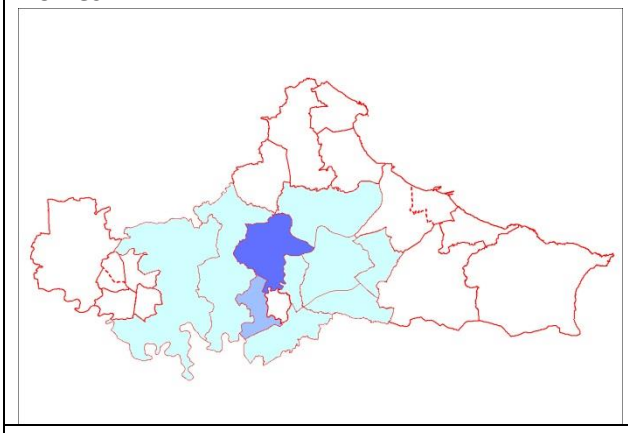
Lower cost alternative:
At this stage detailed design and costs are not yet available.

Possible future additional developments/stages:
Links to roundabout proposal on Darlington Back Lane/Yarm Back Lane junction.

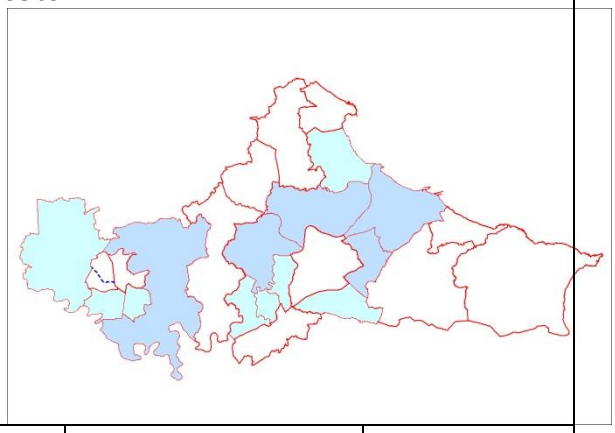
Revenue Generated:
None

Location of developments facilitated by the extra capacity released by the scheme:

Homes



Jobs

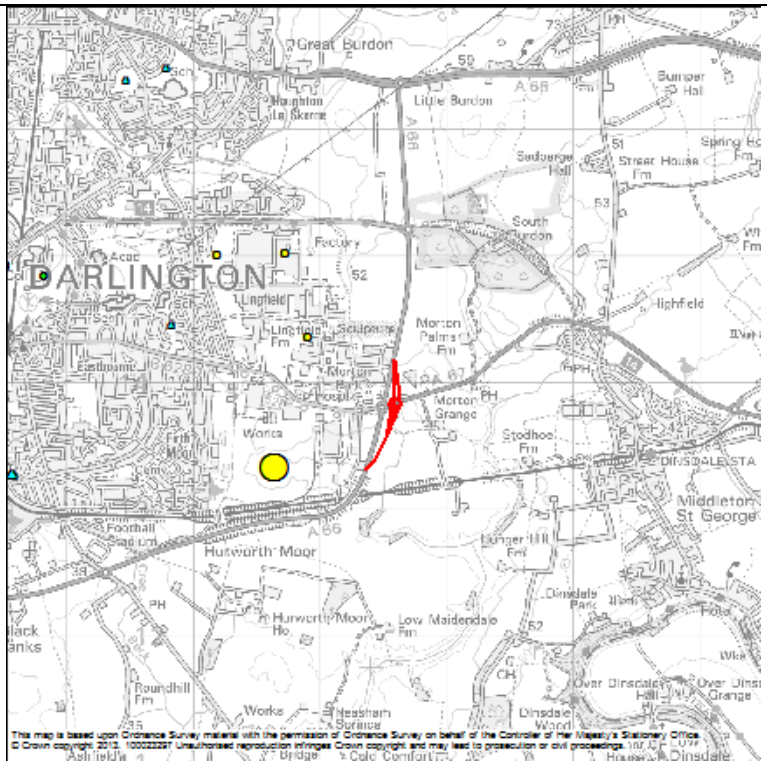


Criteria	**Value**	**Score**
Value for Money	13.844	
Benefit Year (when scheme would become beneficial)	2015	
Economic Growth (work related trips)	£19.79m	
Access to Employment (commute)	£45.27m	
Access to Amenities (other)	£15.83m	
Carbon Benefit	£0.21m	0.06
Payback Years (time taken for benefit to outweigh cost)	7	
Resilience of Network (extra capacity made available)	1088 veh/km	
Jobs	1129	
Homes	1384	2.00
GVA	£39.799m/pa	0.74
Total		**2.80**

A66(T) Yarm Road

Scheme Promoter:
Darlington Borough Council

Description:
Conversion of the A66(T) Yarm Road roundabout to a grade separated roundabout.



Total Scheme Cost:
£12m

Total Scheme Score (out of 6):
1.25

Local Contribution:
Not yet identified

Local Contribution Source:
LTP; DETC Development Fund; HA; DTVA

Cost Profile:	2015/16	2016/17	2017/18	2018/19	2019+
			£6m	£6m	

Transport Issues scheme addresses:
The A66(T) Darlington Bypass serves both strategic and local vehicle movements around the east side of Darlington. The single carriageway road is increasingly experiencing traffic congestion at peak periods and this is already acting as a barrier to the full realisation of the residential and economic potential of development sites in the urban area. This has been raised as an issue in the Darlington Economic Strategy and is one of the tasks within the adopted strategy's action plan, not least mitigating the effect on the prestige Morton Palms office development.

Scheme feasibility & risks:
Land acquisition required at Yarm Road

What evidence is available to support case:
Policy CS19 in the Local Development Framework Core Strategy sets out the case for improvements along this section of the A66. The adjacent Lingfield & Morton Palms areas are the Council's second Priority Employment Area (Policy CS5).

A development total of 161,680 sqm has been allocated within the adjacent employment areas in the urban area, with a further 231,600 sqm reserved for aviation related uses at Durham Tees Valley Airport.

Policies CS6 & CS10 also identify adjacent areas for cultural, tourism and housing.

DETC Development Fund assessment
Economic Strategy feedback

What work has been undertaken towards the scheme:
Outline design and cost estimates prepared by Highways Agency, 2011

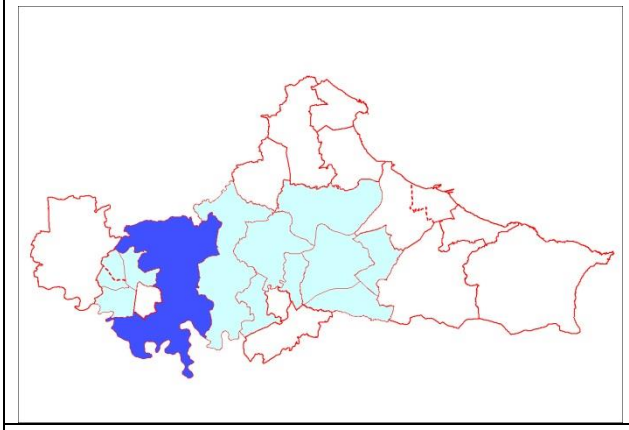
Lower cost alternative:
None

Possible future additional developments/stages:
Further improvements to the A66 around Darlington.

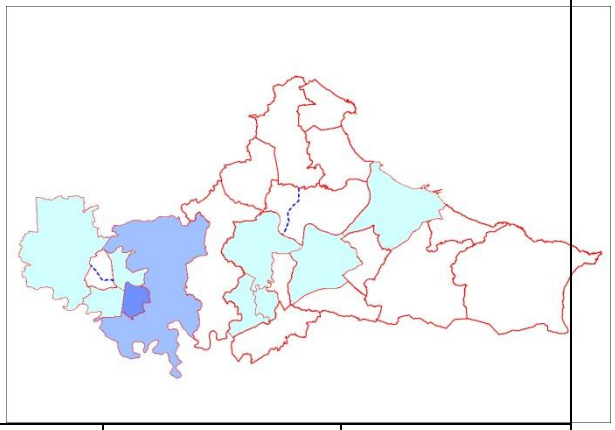
Revenue Generated:
None, although development enabled will generate business rates or Council Tax.

Location of developments facilitated by the extra capacity released by the scheme:

Homes

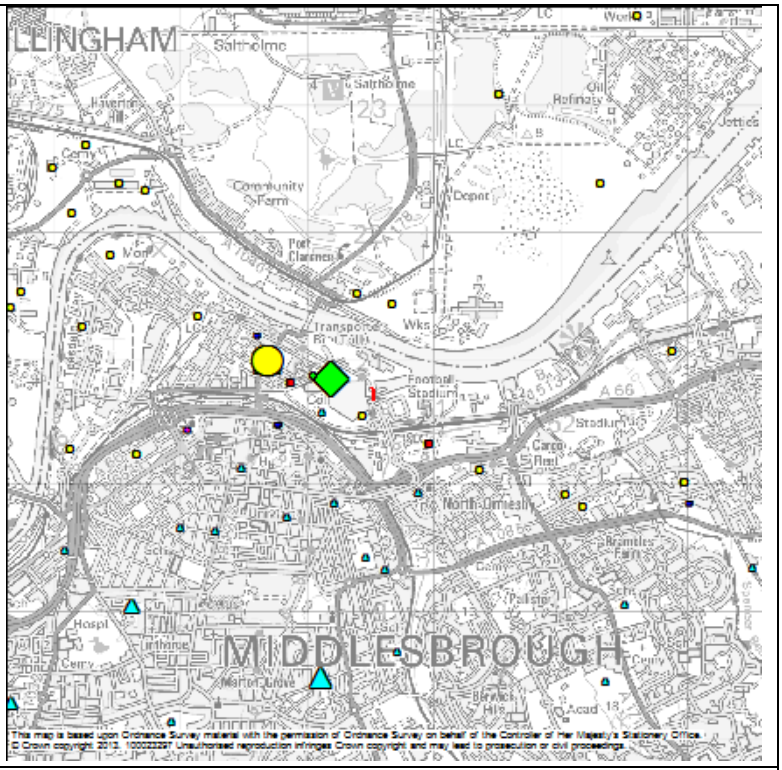


Jobs



Criteria	Value	Score
Value for Money	21.050	
Benefit Year (when scheme would become beneficial)	2018	
Economic Growth (work related trips)	£33.32m	
Access to Employment (commute)	£108.61m	
Access to Amenities (other)	£15.44m	
Carbon Benefit	-£1.60m	-0.26
Payback Years (time taken for benefit to outweigh cost)	14	
Resilience of Network (extra capacity made available)	692veh/km	
Jobs	1704	
Homes	309	0.26
GVA	£115.297m/pa	1.25
Total		**1.25**

Manhattan Gate

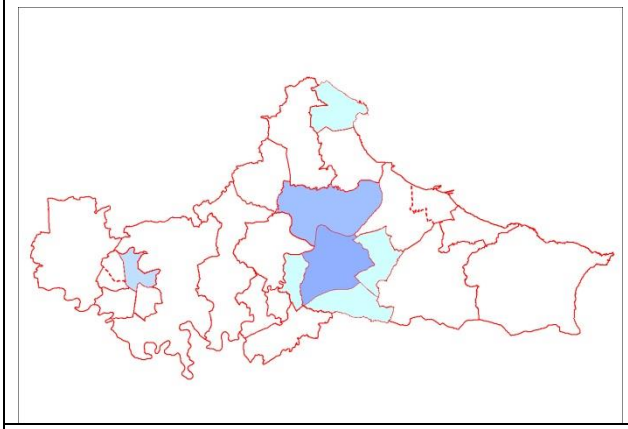
<table>
<tr><td colspan="3">Scheme Promoter:
Middlesbrough Council</td><td colspan="3" rowspan="2"> 
</td></tr>
<tr><td colspan="3">Description:
The provision of a vehicular and pedestrian bridge over the dock entrance for improved access to Middlehaven which would unlock further major development sites and improve connectivity of the area, providing greater resilience to the wider road network.</td></tr>
<tr><td colspan="3">Total Scheme Cost:
£4.5m</td><td colspan="3">Total Scheme Score (out of 6):
3.66</td></tr>
<tr><td colspan="3">Local Contribution:
£1.35m</td><td colspan="3">Local Contribution Source:
HCA</td></tr>
<tr><td>Cost Profile:</td><td>2015/16</td><td>2016/17</td><td>2017/18</td><td>2018/19</td><td>2019+</td></tr>
<tr><td></td><td>£1.5m</td><td>£3m</td><td></td><td></td><td></td></tr>
<tr><td colspan="6">Transport Issues scheme addresses:

Provides a vital direct transport link into Middlehaven. Improving linkages and removing access barriers to the transport network to stimulate economic activity and growth. No. of gross jobs created – 600</td></tr>
<tr><td colspan="6">Scheme feasibility & risks:
Feasibility study has been completed giving 3 possible bridge options.</td></tr>
<tr><td colspan="6">What evidence is available to support case:
A contribution of 30% towards the total cost of the scheme has been secured from HCA. This project would generate economic growth by creating opportunities for business development and employment opportunities for local people.</td></tr>
<tr><td colspan="6">What work has been undertaken towards the scheme:
Feasibility study completed and project is being progressed to RIBA Stage D.</td></tr>
<tr><td colspan="6">Lower cost alternative:
None</td></tr>
<tr><td colspan="6">Possible future additional developments/stages:
This scheme will accelerate the rate of investment in this flagship regeneration scheme.</td></tr>
<tr><td colspan="6">Revenue Generated:</td></tr>
</table>

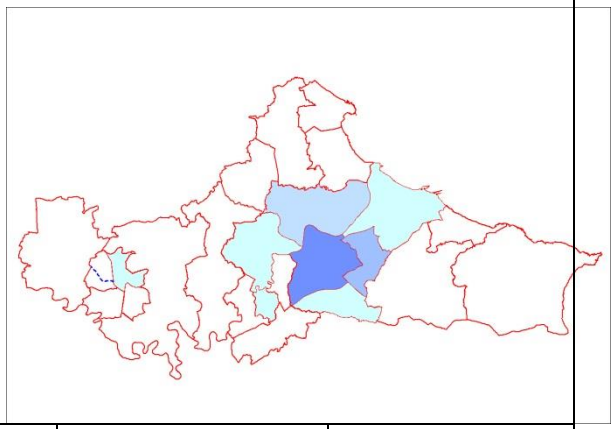
None

Location of developments facilitated by the extra capacity released by the scheme:

Homes



Jobs

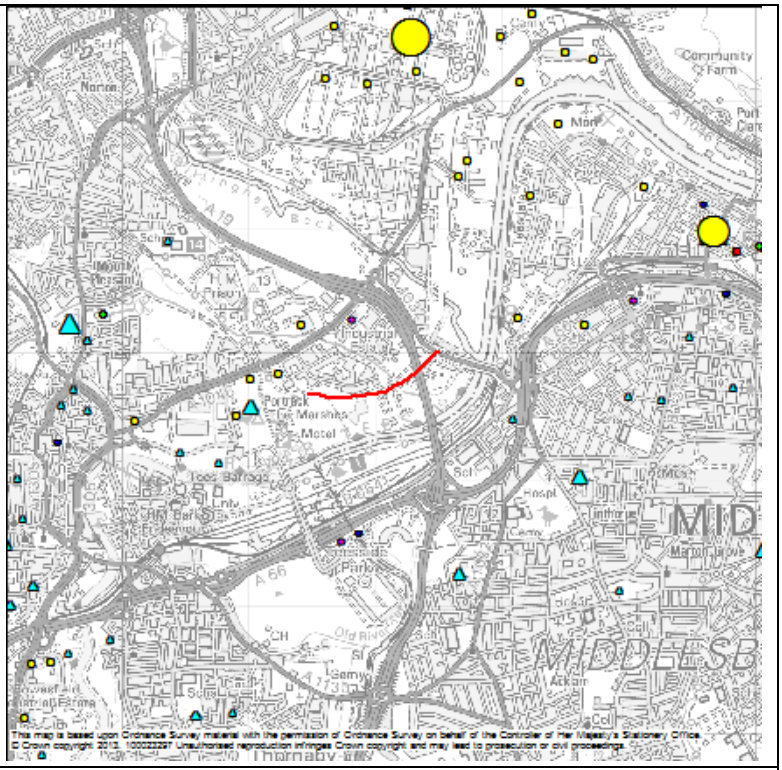


Criteria	Value	Score
Value for Money	4.262	
Benefit Year (when scheme would become beneficial)	2021	
Economic Growth (work related trips)	£21.17m	
Access to Employment (commute)	£51.75m	
Access to Amenities (other)	-£3.30m	
Carbon Benefit	£0.56m	0.35
Payback Years (time taken for benefit to outweigh cost)	7	
Resilience of Network (extra capacity made available)	1247veh/km	
Jobs	1459	
Homes	97	0.31
GVA	£72.37m/pa	3.00
Total		**3.66**

Portrack Relief Road

Scheme Promoter:
Stockton-on-Tees Borough Council

Description:
The scheme would include the creation of a new 1.3km highway link by utilising the former Billingham Beck Branch Railway between Marston Road and the A1032 Newport Bridge Approach Road.



Total Scheme Cost:
£9.832m

Total Scheme Score (out of 6):
3.01

Local Contribution:
None

Local Contribution Source:
-

Cost Profile:	2015/16	2016/17	2017/18	2018/19	2019+
		£0.8m	£4.516m	£4.516m	

Transport Issues scheme addresses:
The area is well served by highway infrastructure but the intersection of the A19 with the A66 is one of the most heavily congested roads in the region. It is recognised that to open up development opportunities within both communities a package of proposals needs to be developed and delivered which will embrace a combination of improvements and management of the primary road infrastructure, additional secondary road infrastructure, improvements to public transport and various traffic management measures.

Scheme feasibility & risks:

What evidence is available to support case:
An Outline Business Case – Second Stage (River Tees North Bank Infrastructure Measures) was produced for the Stockton-Middlesbrough Initiative in February 2011. This included details on highway engineering, civil engineering, financial appraisal and environmental appraisal.

What work has been undertaken towards the scheme:
As above

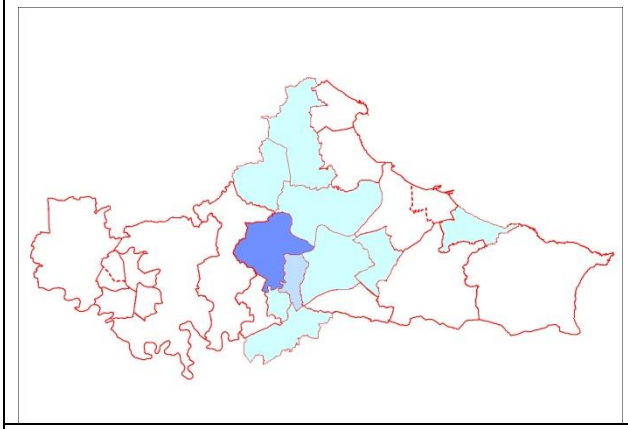
Lower cost alternative:
None

Possible future additional developments/stages:
None

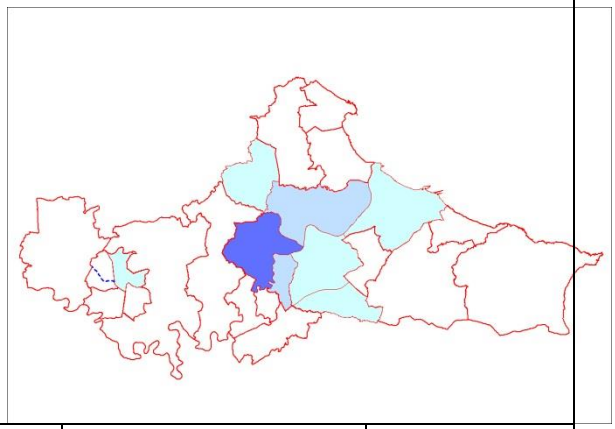
Revenue Generated:
None

Location of developments facilitated by the extra capacity released by the scheme:

Homes



Jobs



Criteria	**Value**	**Score**
Value for Money	22.331	
Benefit Year (when scheme would become beneficial)	2019	
Economic Growth (work related trips)	£69.28m	
Access to Employment (commute)	£247.15m	
Access to Amenities (other)	£11.37m	
Carbon Benefit	£1.06m	0.21
Payback Years (time taken for benefit to outweigh cost)	2	
Resilience of Network (extra capacity made available)	1519veh/km	
Jobs	3685	
Homes	743	0.76
GVA	£153.198m/pa	2.03
Total		**3.01**