

Local Highways Maintenance Challenge Fund



Application Form

The level of information provided should be proportionate to the size and complexity of the scheme proposed. As a guide, for a small scheme we would suggest around 10 to 15 pages including annexes would be appropriate and for a larger scheme, 15 to 30 pages.

A separate application form should be completed for each scheme up to a maximum of one large bid and one small bid for each local highway authority.

Applicant Information

Local authority name(s)*: *Bath & North East Somerset Council*

Bid Manager Name and position: *Craig Jackson, Highway Maintenance & Drainage Manager*

Contact telephone number: *07980998540*

Email address: *craig_jackson@bathnes.gov.uk*

Postal address: *Bath & North East Somerset Council
Lewis House
Manvers Street
Bath
BA1 1JG*

When authorities submit a bid for funding to the Department, as part of the Government's commitment to greater openness in the public sector under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004, they must also publish a version excluding any commercially sensitive information on their own website within two working days of submitting the final bid to the Department. The Department reserves the right to deem the business case as non-compliant if this is not adhered to.

Please specify the weblink where this bid will be published:

<http://www.bathnes.gov.uk/services/streets-and-highway-maintenance/roadworks/major-transport-schemes> (Bid Document will be placed in Document Links on the right hand side of the web page.)

SECTION A - Scheme description and funding profile

A1. Scheme name: *A4 Keynsham Bypass Highway Infrastructure Improvements*

A2. Headline description:

Please enter a brief description of the proposed scheme (in no more than 50 words)

The proposals extend to improving the 2.8 km High Speed Dual Carriageway of the detrunked (2008) section of the A4 from Broadmead roundabout junction to Hicks Gate roundabout junction and include sections of the A4 westwards towards the City of Bristol boundary and also the A4174 towards the South Gloucestershire boundary.

A3. Geographical area:

Please provide a short description of area covered by the bid (in no more than 50 words)

The A4 Keynsham bypass forms part of the strategic road network link between the cities of Bath and Bristol. At Hicks Gate Roundabout the A4174 Bristol Ring Road provides an important link to the M32/M4 Motorway network. APPENDIX 1 - Plan CFB-Appendix 1 shows the road and elements of planned work incorporated in this bid highlighting the significant residential development at Somerdale and the planned Fire Service headquarters at Hicks Gate roundabout.

OS Grid Reference: **365473 168891**

Postcode: **BS31**

Please append a map showing the location (and route) of the proposed scheme, existing transport infrastructure and other points of particular interest to the bid e.g. development sites, areas of existing employment, constraints etc.

See APPENDIX 1 - Plan No. CFB-Appendix 1

A4. Type of bid (please tick relevant box):

Small project bids (requiring DfT funding of between £5m and £20m)

Major maintenance, strengthening or renewal of bridges, tunnels, retaining walls or other structures

Major maintenance or renewal of carriageways (roads)

Major maintenance or renewal of footways or cycleways

Major maintenance or renewal of drainage assets

Upgrade of Street Lighting

Large project bids (requiring DfT funding of between £20m plus)

Major maintenance, strengthening or renewal of bridges, tunnels, retaining walls or other structures

Major maintenance or renewal of carriageways (roads)

Major maintenance or renewal of footways or cycleways

Major maintenance or renewal of drainage assets

Upgrade of Street Lighting

A5. Equality Analysis

Has any Equality Analysis been undertaken in line with the Equality Duty? Yes No

The Council has undertaken an equality analysis on its Highways Capital Structural Maintenance Programme for which this scheme would form a part of in line with Council Policies. The analysis considers the impact on different groups and concluded that there were no negative impacts with improvements for those with physical disabilities. This document is published on the Bath & North East Somerset website

http://www.bathnes.gov.uk/sites/default/files/siteimages/highway_structural_maintenance_programme.doc

SECTION B – The Business Case

B1. The Scheme – Summary/History (Maximum 200 words)

Please select what the scheme is trying to achieve (this will need to be supported by short evidence in the Business Case).

The proposals extend to approximately 2.8 kilometres of the A4 from the Broadmead roundabout junction to the Hicks Gate roundabout junction and include short sections of the A4 westwards towards the City of Bristol boundary and the A4174 towards the South Gloucestershire boundary. The proposals include for:

Treating failed carriageway construction;

Replacing failed safety barrier;

Maintenance to structures and protection to bridge piers;

Improving failed drainage systems and culverts to minimize flood problems and implement sustainable drainage systems;

Renewing roads signs, markings and cats eyes;

Environmental issues traffic management and disruption.

More details are provided in the Business case.

B2. The Strategic Case (Maximum 650 words)

This section should set out the rationale for making the investment and evidence of the existing transport problems, set out the history of the asset and why it is needed to be repaired or renewed. It should also include how it fits into the overall asset management strategy for the authority.

In particular please provide evidence on the relevant questions/issues at paragraph 15 onwards of the accompanying Challenge Fund guidance.

Supporting evidence may be provided in annexes – if clearly referenced in the strategic case. This may be used to assist in judging the strength of your strategic case arguments but is unlikely to be reviewed in detail or assessed in its own right. So you should not rely on material included only in annexes being assessed.

What are the current problems to be addressed by your scheme? (Describe any economic, environmental, social problems or opportunities which will be addressed by the scheme.)

The essential maintenance scheme comprises the resurfacing and reconstruction of 2.8 kilometres of the A4 between the Broadmead roundabout junction and the Hicks Gate roundabout junction known locally as the A4 Keynsham by pass. This is one of the area's most heavily trafficked routes and is a key access route between Bath and Bristol and is essential to the area's economic viability and growth. It is assumed that the current level of use of this road will increase and without substantial maintenance there is likely to be a cost to private and commercial movements due to ongoing repairs and maintenance. There is likely to be a further impact on the well-being of road users and residents on the alternative routes but these are not included in this assessment. The Council has undertaken minor repairs during recent times on sections of the carriageway these have only provided a short-term solution to a longer term problem. The scale of works that are required to accommodate the necessary maintenance will require ongoing maintenance for several years as the Council would only be able to support a staged approach to undertaking the works and this would increase the disruption and require additional works and costs to completing as a single project.

Why the asset is in need of urgent funding?

It removes the need for a disproportionate level of essential non cost effective pothole repairs, patching and joint sealing. Traffic management adds significantly to the costs of these repairs as it is required to be set up and taken down for each element of the work compared with a single hit as proposed by this bid.

In respect to recent reactive maintenance of the carriageway, significant aggregate loss is evident in both directions and extensive patching has been undertaken recently on the westbound section. The condition of the carriageway asset can be viewed in APPENDIX 2 - SCRIM (Deficiency) and SCANNER (Road Condition Index) survey data outputs from 2014 surveys.

Provision has been made for a new concrete safety barrier to replace the current sub-standard metal barrier in the central reserve which will not only minimise the cost and disruption arising from any minor repairs to a new metal barrier through minor damage impact but will extend the current life of the barrier to 50 years.

Provision has been made to harden the central reserve and redesign drainage. This will also reduce any ongoing grass cutting and litter maintenance and the associated traffic management costs.

Drainage improvements will be undertaken to reduce the effect of fluvial flooding on adjacent sports and recreational facilities and will incorporate sustainable measures reducing the impact on rivers and watercourses.

Provision has been made to repair and strengthen existing bridge parapets.

Provision has been made to use 'low noise' surfacing and to replace the existing high friction surfacing with a higher polished stone value material to reduce ongoing maintenance of high friction surfaces and to reduce traffic noise at adjacent residential development. Further material removed will be recycled as far as possible to reduce the volume of material to be taken off site

Provision has been made to review existing road markings and junction layout at Broadmead roundabout to improve traffic flow and capacity thus reducing delays at this location.

What options have been considered and why have alternatives have been rejected?

An assessment has been undertaken to continuing the piecemeal approach to maintain this important section of road assuming an annual budget of approximately £500,000. It is estimated that the total works would cost an additional £3million over a period of 12-15 years with traffic disruption within that period likely to be in excess of 75 weeks. This does not allow for any routine maintenance which would be required during that period. Our concern is that carrying the work in the manner would suggest that it could be 10 - 15 years before some elements of the carriageway and other areas are refurbished.

What are the expected benefits / outcomes?

The main benefits resulting from the scheme will minimise any ongoing maintenance costs on this section of road for several years. This is a vital corridor between Bristol and Bath and undertaking the project in the proposed manner will reduce disruption to road users and negate the effects of traffic using alternative routes whilst ongoing maintenance activities are being carried out.

Please provide information on the geographical areas that will benefit from your scheme. You should indicate those areas that will directly benefit, areas that will indirectly benefit and those areas that will be impacted adversely.

The areas in the main corridor between Bristol and Bath will benefit from reduced congestion and alternative routes through the township of Keynsham will see less impact from diverted traffic.

A letter of support for this bid is provided in APPENDIX 3 from the Local Enterprise Partnership, namely the West of England Partnership.

What will happen if funding for this scheme is not secured - would an alternative (lower cost) solution be implemented (if yes, please describe this alternative and how it differs from the proposed scheme)?

An annual programme of carriageway resurfacing over an extended period funded from the Structural Maintenance allocation. This will impact on and reduce the availability of suitable funds to meet the Authority's asset management outcomes over several years and will lead to increased revenue costs not only on sections of the proposed works route but on other sections of the network which will have to be considered and prioritised against available annual budgets.

What is the impact of the scheme?

The scheme will require several weeks of restricted traffic movements whilst works are being undertaken. It is intended to keep traffic flowing in both directions during the works using contra-flows and other suitable traffic management arrangements. Undertaking the scheme in this proposal will allow further schemes within the future capital programme to be implemented earlier and this reduce the ongoing maintenance. Undertaking the scheme will minimise any revenue requirements for a period of up to 20 years on the carriageway and a longer period of up to 50 years on other structures.

B3. The Financial Case – Project Costs

Before preparing a scheme proposal for submission, bid promoters should ensure they understand the financial implications of developing the scheme (including any implications for future resource spend and ongoing costs relating to maintaining and operating the asset), and the need to secure and underwrite any necessary funding outside the Department's maximum contribution.

Please complete the following tables. **Figures should be entered in £000s** (i.e. £10,000 = 10).

Table A: Funding profile (Nominal terms)

£000s	2015-16	2016-17	2017-18	Total
<i>DfT Funding Sought</i>		£5,107		£5,107
<i>LA Contribution</i>	£100	£468		£568
<i>Other Third Party Funding</i>				

Notes:

- 1) Department for Transport funding must not go beyond 2017-18 financial year.
- 2) A minimum local contribution of 10% (local authority and/or third party) of the project costs is required.

TABLE B SCHEME ESTIMATE

Cost heading	Cost (£000s)	Date estimated	Status
<i>Design and preparation</i>	£375	February 2015	<i>Engineers estimate</i>
<i>Site supervision</i>	£75	February 2015	<i>Engineers estimate</i>
<i>Traffic management</i>	£200	February 2015	<i>Engineers estimate</i>
<i>Carriageway works</i>	£1,750	February 2015	<i>Engineers estimate</i>
<i>Structures work</i>	£500	February 2015	<i>Engineers estimate</i>
<i>Safety Barrier</i>	£2,100	February 2015	<i>Engineers estimate</i>
<i>Drainage works</i>	£525	February 2015	<i>Engineers estimate</i>
<i>Sign and marking</i>	£150	February 2015	<i>Engineers estimate</i>
TOTAL	£5,675		

Cost estimates have been considered from current contracts and recent tendered works cost.

B4. The Financial Case - Local Contribution / Third Party Funding

Please provide information on the following points (where applicable):

- a) The non-DfT contribution may include funding from organisations other than the scheme promoter. Please provide details of all non-DfT funding contributions to the scheme costs. This should include evidence to show how any third party contributions are being secured, the level of commitment and when they will become available.

The non DfT element of 10% of the overall budget will be funded from the Authority's Structural Maintenance Programme for the period identified. The A4 runs adjacent to several areas of new development which will impact on traffic flows. Contributions have been set aside in Section 106 agreements for strategic works in the immediate area including within the proposed scheme and these will be undertaken as additional works over and above the proposals being considered.

- b) Where the contribution is from external sources, please provide a letter confirming the body's commitment to contribute to the cost of the scheme. The Department is unlikely to fund any scheme where significant financial contributions from other sources have not been secured or appear to be at risk.

Have you appended a letter(s) to support this case? Yes No N/A

- c) Please list any other funding applications you have made for this scheme or variants thereof and the outcome of these applications, including any reasons for rejection.

No previous funding applications submitted.

B5. The Financial Case – Affordability and Financial Risk (maximum 300 words)

This section should provide a narrative setting out how you will mitigate any financial risks associated with the scheme (you should refer to the Risk Register – see Section B10).

Please ensure that in the risk register that you have not included any risks associated with ongoing operational costs and have used the P50 value.

Please provide evidence on the following points (where applicable):

- a) What risk allowance has been applied to the project cost?

A contingency allowance of 10% has been included in those elements of the estimate where risk of price fluctuation occurs.

- b) How will cost overruns be dealt with?

Where possible cost overruns will be value engineered to manage the risk and where this is not possible it will be funded from the annual structural maintenance budget.

c) What are the main risks to project delivery timescales and what impact this will have on cost?

The main risks in delivering the project are weather related events, unforeseen ground conditions and public utility apparatus. The works are planned to be undertaken in the summer months of 2016 thus reducing weather risk to a minimum but any significant rain related events will affect the programme delivery and implementation of the improved drainage arrangements. Ground conditions have not been fully investigated but knowledge of the area suggests that there are no risks associated with this. There is no proposed public utility apparatus issues associated with the scheme but full consultation will be undertaken in line with agreed protocols to ensure that any diversion or alterations will be minimised.

B6. The Economic Case – Value for Money

a) If available for smaller scheme bids, promoters should provide an estimate of the Benefit Cost Ratio (BCR) of the scheme.

b) For larger schemes costing £20 million or more we would expect the bid to include a BCR and this should align with WebTAG - <https://www.gov.uk/transport-analysis-guidance-webtag>

Where a BCR is provided please provide separate reporting in the form of an Annex to the bid to enable scrutiny of the data and assumptions used in deriving that BCR. This should include:

- A description of the key risks and uncertainties in the data and assumptions and the impact these have on the BCR;
- Key assumptions including (but not limited to): detail of the data used to support the analysis, appraisal period, forecast years, level of optimism bias applied; and
- A description of the modelling approach used to forecast the impact of the scheme and evidence to demonstrate that it is fit-for-purpose.

c) Please provide the following data which may form a key part of our assessment:
Note this material should be provided even if a BCR estimate has been supplied (unless already covered in a VfM Annex).

A description of the do-minimum situation (i.e. what would happen without Challenge Fund investment).	<i>The works will have to be undertaken over a 12 to 15 year period utilising existing structural maintenance block funding on a piecemeal basis.</i>
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Details of significant monetised and non-monetised costs and benefits of the scheme (quantified where possible)	<i>The on-going traffic disruption along the route carrying the works out over a prolonged period will have significant impact on the local economy and businesses alike.</i>
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Length of scheme (km)	<i>2.8</i>
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Number of vehicles on affected section (AADT in vehicles and if possible split by vehicle type) – to include details of data (age etc.) supporting this estimate.	<i>All vehicles 26549 see APPENDIX 5 AADT data for full breakdown.</i>
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d) Other VfM information where relevant - depending on type of scheme bid:

Details of required restrictions/closures if funding not provided (e.g. type of restrictions; timing/duration of restrictions; etc.)	<i>Works undertaken piecemeal over 12 to 15 years with significant disruption to users.</i>
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Length of any diversion route, if closure is required (over and above existing route) (km)	N/A
Regularity/duration of closures due to flooding: (e.g. number of closures per year; average length of closure (hrs); etc.)	NONE
Number and severity of accidents: both for the do minimum and the forecast impact of the scheme (e.g. existing number of accidents and/or accident rate; forecast number of accidents and or accident rate with and without the scheme)	N/A
Number of existing cyclists; forecasts of cycling usage with and without the scheme (and if available length of journey)	N/A

B7. The Commercial Case (maximum 300 words)

This section should set out the procurement strategy that will be used to select a contractor and, importantly for this fund, set out the timescales involved in the procurement process to show that delivery can proceed quickly.

What is the preferred procurement route for the scheme? For example, if it is proposed to use existing framework agreements or contracts, the contract must be appropriate in terms of scale and scope.

Elements of the work which can be procured through existing term contracts will be undertaken in this manner, however where works are dependent on traffic management and require sequential completion it will be more cost effective to undertake a competitive procurement through Corporate Pro-contract arrangements.

**It is the promoting authority's responsibility to decide whether or not their scheme proposal is lawful; and the extent of any new legal powers that need to be sought. Scheme promoters should ensure that any project complies with the Public Contracts Regulations as well as European Union State Aid rules, and should be prepared to provide the Department with confirmation of this, if required. An assurance that a strategy is in place that is legally compliant is likely to achieve the best value for money outcomes is required from your Section 151 Officer below.*

B8. Management Case - Delivery (maximum 300 words – for b)

Deliverability is one of the essential criteria for this Fund and as such any bid should set out any necessary statutory procedures that are needed before it can be constructed.

- a) An outline project plan (typically in Gantt chart form) with milestones should be included as an annex, covering the period from submission of the bid to scheme completion. The definition of the key milestones should be clear and explained. The critical path should be identifiable and any contingency periods, key dependencies (internal or external) should be explained.

Has a project plan been appended to your bid? Yes No

See APPENDIX 6 - Outline Project Programme

b) Please summarise any lessons your authority has learned from the experience of delivering other DfT funded programmes (such as pinch point schemes, local majors, Local Sustainable Transport Fund, and Better Bus Areas) and what would be different on this project as a result.

Utilising good project management arrangements has been crucial in delivering LSTF and Bath Package works to date.

B9. Management Case – Governance (maximum 300 words)

Please name who is responsible for delivering the scheme, the roles (Project Manager, SRO etc.) and set out the responsibilities of those involved and how key decisions are/will be made. An organogram may be useful here. This may be attached as an Annex.

Project Delivery Structure arrangement shown in APPENDIX 7. It is intended that the works will be designed, managed and delivered utilising existing in-house staff resources, however where specialist expertise or supplementary resources are required these will be acquired through current framework professional services contracts.

B10. Management Case - Risk Management

A risk register covering the top 5 (maximum) specific risks to this scheme should be attached as an annex including, if relevant and in the top 5, financial, delivery, commercial and stakeholder issues.

Please ensure that in the risk register cost that you have not included any risks associated with ongoing operational costs and have used the P50 value.

Has a risk register been appended to your bid?

Yes

No

See APPENDIX 4

SECTION C – Monitoring, Evaluation and Benefits Realisation

C1. Benefits Realisation (maximum 250 words)

Please provide details on the profile of benefits, and of baseline benefits and benefit ownership. This should be proportionate to the size of the proposed scheme.

The completion of the scheme will extend the serviceable life of the carriageway asset up to 20 years, and up to 50 years in respect to the safety barrier and bridge parapet and drainage assets

On-going revenue maintenance cost will be significantly reduced for a significant period beyond the delivery of the scheme. Benefits in reduced disruption along this route as a result of reactive and planned maintenance works on the route will be realised for at least the next 10 years.

C2. Monitoring and Evaluation (maximum 250 words)

Evaluation is an essential part of scheme development and should be considered and built into the planning of a scheme from the earliest stages. Evaluating the outcomes and impacts of schemes is important to show if a scheme has been successful.

Please set out how you plan to measure and report on the benefits identified in Section C1, alongside any other outcomes and impacts of the scheme

As the project is intended to undertake maintenance of existing assets the main benefit will be extending the serviceable life of these assets which will not need any significant investment in future years thereby allowing crucial funding to be used in the maintenance and improvement of other highway assets across the network. Any works on this strategic route does impact on the local economy.

A fuller evaluation for large schemes may also be required depending on their size and type.

SECTION D: Declarations

D1. Senior Responsible Owner Declaration

As Senior Responsible Owner for the A4 Keynsham Bypass Highway Infrastructure Improvements I hereby submit this request for approval to DfT on behalf of Bath & North East Somerset Council and confirm that I have the necessary authority to do so.

I confirm that Bath & North East Somerset Council will have all the necessary powers in place to ensure the planned timescales in the application can be realised.

Name: Kelvin Packer

Signed:

Position: Group Manager – Highways & Traffic



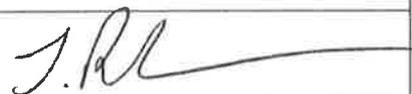
D2. Section 151 Officer Declaration

As Section 151 Officer for Bath & North East Somerset Council I declare that the scheme cost estimates quoted in this bid are accurate to the best of my knowledge and that Bath & North East Somerset Council:

- has allocated sufficient budget to deliver this scheme on the basis of its proposed funding contribution
- will allocate sufficient staff and other necessary resources to deliver this scheme on time and on budget
- accepts responsibility for meeting any costs over and above the DfT contribution requested, including potential cost overruns and the underwriting of any funding contributions expected from third parties
- accepts responsibility for meeting any ongoing revenue requirements in relation to the scheme
- accepts that no further increase in DfT funding will be considered beyond the maximum contribution requested
- has the necessary governance / assurance arrangements in place
- has identified a procurement strategy that is legally compliant and is likely to achieve the best value for money outcome
- will ensure that a robust and effective stakeholder and communications plan is put in place

Name: Tim Richens

Signed:

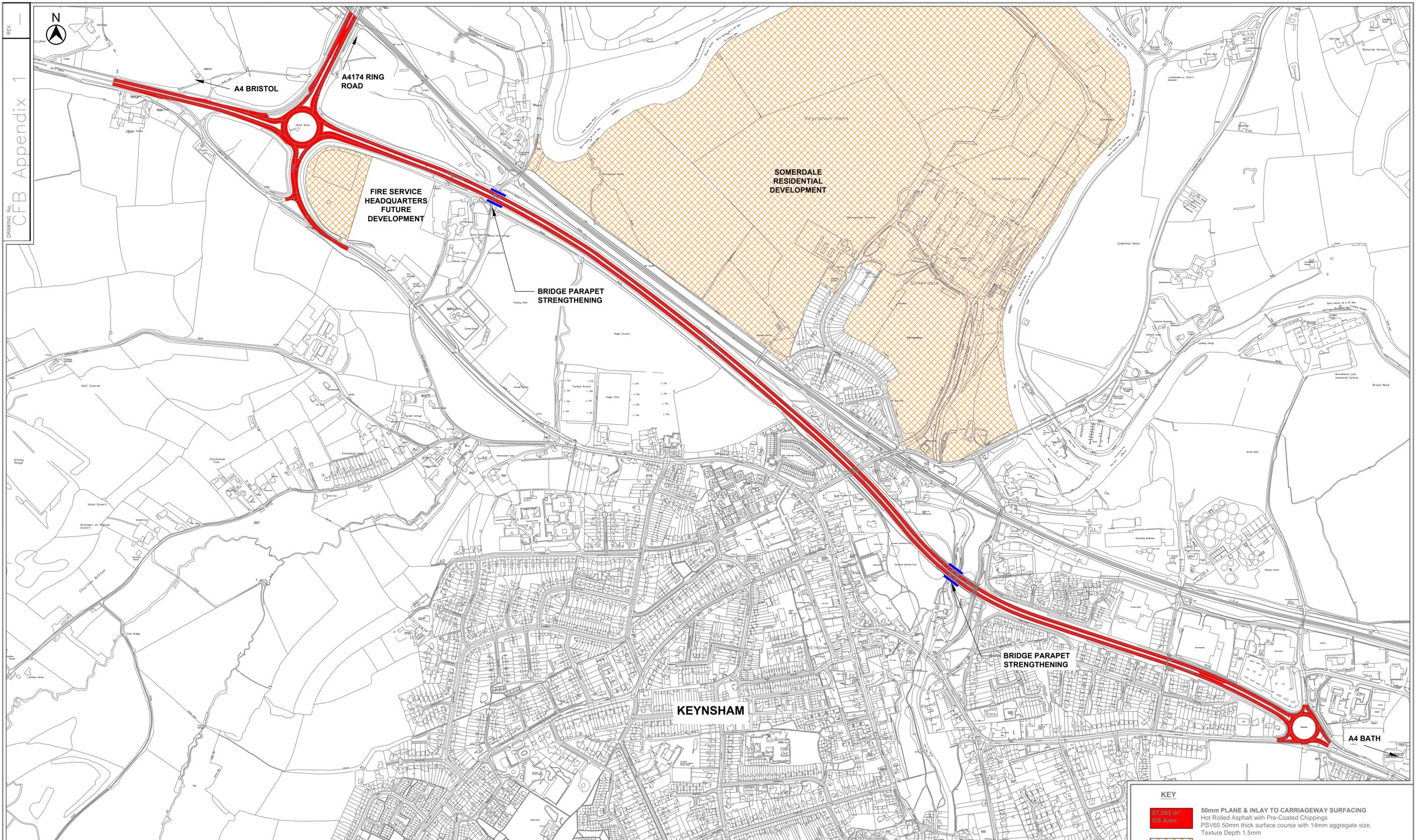


Submission of bids:

The deadline for bid submission is 5pm, **9 February 2015**

An electronic copy only of the bid including any supporting material should be submitted to:

roadmaintenance@dft.gsi.gov.uk copying in steve.berry@dft.gsi.gov.uk



DRAWING No. CFB Appendix 1



Scale NTS @A1

ISSUED FOR INFORMATION

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KEY	
	50mm PLANE & INLAY TO CARRIAGEWAY SURFACING Hot Rolled Asphalt with Pre-Coated Chippings PSV65 50mm thick surface course with 14mm aggregate size. Texture Depth 1.5mm
	FUTURE DEVELOPMENT

Bath & North East Somerset Council

KELVIN PACKER
SERVICE MANAGER – HIGHWAYS AND PARKING
ENVIRONMENTAL SERVICES

PRODUCED BY
HIGHWAYS MAINTENANCE

SCHEME TITLE
**CHALLENGE FUND
2015/16**

DRAWING TITLE
**KEYNSHAM BYPASS
KEYNSHAM
GENERAL ARRANGEMENT**

REV.	DATE	REVISIONS	DRWN.	CHKD.	APPROV.

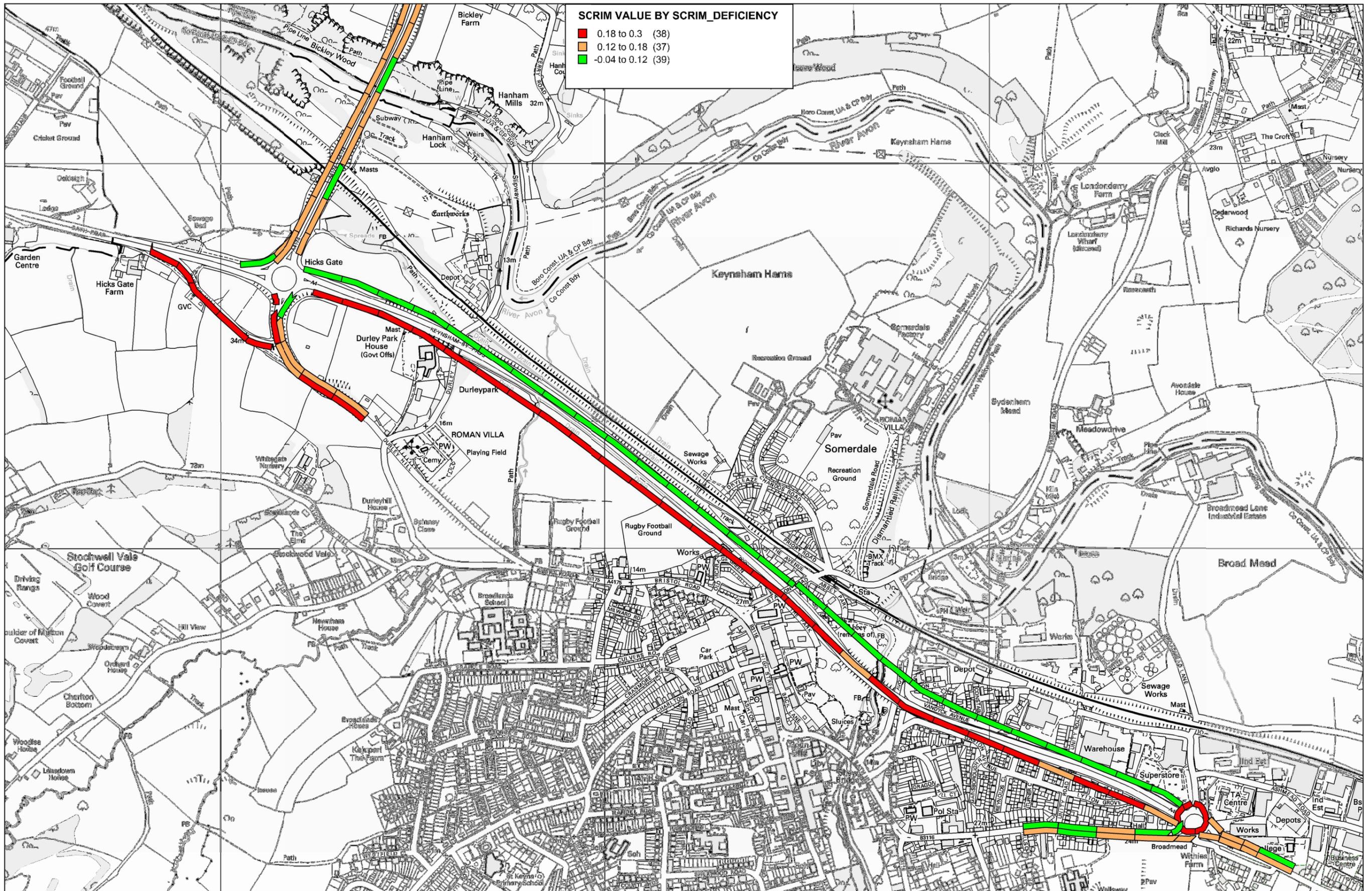
DATE	Dec 2014	DRAWN BY	TMc	APPROVED BY	AH	
SCALE	NTS	CHECKED	CW			
CLIENT REF.	CHALLENGE FUND BID 2015/16 KEYNSHAM BYPASS GENERAL ARRANGEMENT					
DRAWING No.	CFB Appendix 1				REV.	—

APPENDIX 2

A4 Keynsham Bypass - SCRIM Deficiency 2014

Author : CJ
Date : 05/02/2015
Scale : NTS

Bath & North East
Somerset Council

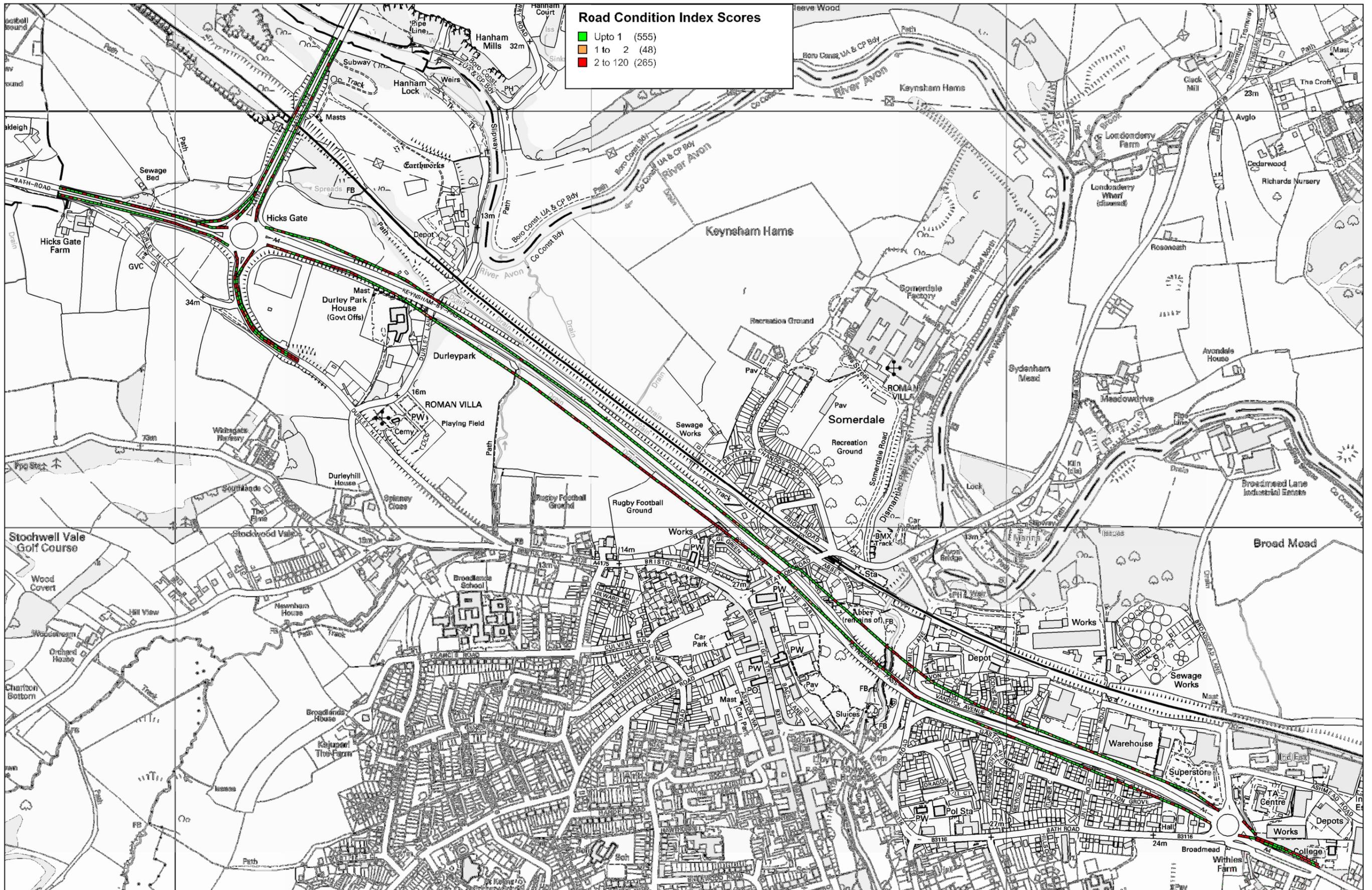


APPENDIX 2

A4 Keynsham Bypass - SCANNER Road Condition Index 2014

Author : CJ
Date : 05/02/2015
Scale : NTS

Bath & North East
Somerset Council



WEST OF ENGLAND LOCAL ENTERPRISE PARTNERSHIP

Steve Berry
Head of Local Highways Maintenance
Department for Transport
Great Minster House
33 Horseferry Road
London
SW1P 4DR

Department for Transport Challenge Fund – Keynsham Bypass

Dear Mr Berry

I am pleased to offer the support of the West of England Local Enterprise Partnership to this bid for funding for works on the A4 Keynsham Bypass the through the Department's Challenge Fund.

This scheme is on the major route which links the key economic centres Bristol and Bath and its continued efficient operation is therefore vital. It is also an important route for access to the Temple Quarter Enterprise Zone and Bath City Riverside Enterprise Area, which together are planned to deliver up to 24,000 new jobs by 2030.

I therefore welcome this submission and hope for a positive outcome.

Yours sincerely



Barbara Davies
Chief Executive

A4 KEYNSHAM BYPASS INFRASTRUCTURE IMPROVEMENTS PROJECT RISKS							
RISK ID	RISK DESCRIPTION	LIKELY IMPACT IF RISK OCCURS	IMPACT	LIKELIHOOD	SCORE	MITIGATION	OWNER
R01	Inability to procure suitable contractor.	Delays to construction programme, increased costs.	HIGH	LOW	10	Corporate procurement arrangements followed, due diligence undertaken in tender process.	Highways
R02	Project management systems not well organised.	Delays to project delivery, project outcomes not achieved.	HIGH	LOW	10	PRINCE2 principles in place.	Highways
R03	Failure to achieve programme.	Delays to project delivery, project overruns in time and cost.	MEDIUM	MEDIUM	9	Early contractor involvement, regular programming meetings, no surprise culture.	Highways
R04	Unforeseen public utility issues.	Delays to project delivery, project overruns in time and cost.	HIGH	LOW	10	Plans of layout obtained, trial holes to confirm location, depth etc. prior to works commencing.	Highways
R05	Programming, estimating and forecasting procedures inaccurate.	Project overruns in time and cost.	MEDIUM	LOW	6	PRINCE2 principles in place.	Highways
R06	Failure of communication to stakeholders.	Loss of public reputation.	MEDIUM	LOW	6	Communications plan in place, significant early warning of works through press, radio, social media, contact telephone and e mail address publicised.	Corporate
R07	Unanticipated failure of substructure.	Delays to project delivery, project overruns in time and cost.	HIGH	LOW	10	Preliminary ground investigation to confirm conditions.	Highways
R08	Non availability of specialist contractors	Delays to project delivery, project overruns in time and cost.	MEDIUM	MEDIUM	9	Early contractor involvement to source specialist services.	Highways
R09	Severe weather conditions.	Delays to project delivery, project overruns in time and cost.	HIGH	LOW	10	Works planned for early summer.	Highways
R010	Hazardous Material	Encountering hazardous materials in current road construction.	HIGH	LOW	10	Advance material testing.	Highways

Challenge Fund Bid AADT Data

Site No: 00000030
A4 Keynsham By-Pass
Vehicle Class Report

Site Reference: 00000030
ANNUAL SUMMARY 2014

	Total Vol.	Bin 1 1	Bin 2 2	Bin 3 3	Bin 4 4	Bin 5 5
Monday	26955	22757	2393	1211	408	187
Tuesday	28246	23708	2580	1298	458	202
Wednesday	28261	23784	2530	1288	452	207
Thursday	28591	24019	2566	1336	466	204
Friday	29105	24635	2545	1282	443	200
Saturday	24314	22162	1409	425	160	159
Sunday	20373	19066	972	195	94	46
5 Day Ave.	28232	23780	2523	1283	445	200
7 Day Ave.	26549	22876	2142	1005	354	172

Key

- Bin 1 = Car, Car + Trailer, Light Vans
- Bin 2 = Heavy Van & Mini Bus
- Bin 3 = Rigid Lorries
- Bin 4 = Rigid Lorries + Trailer, Articulated HGV's
- Bin 5 = Bus and Coach

APPENDIX 6
A4 Keynsham Bypass Highway Infrastructure Improvements
Outline Project Programme

Activity	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	
Bid Submission																							
Funding Confirmation																							
Preliminary Design																							
Budget Settlement																							
Consultation/PR																							
Detailed Design																							
Prepare Procurement Docs																							
Procurement/Tender																							
Construction																							

**A4 Keynsham Bypass Highway Infrastructure Improvements
Proposed Project Delivery Team Structure**

