

BCP Council and Dorset Council

TRANSFORMING CITIES FUND SOUTH EAST DORSET CITY REGION

Sustainable Travel Corridors Outline Business
Case

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CONTENTS

1	INTRODUCTION	9
1.1	OVERVIEW	9
1.2	SOUTH EAST DORSET TRANSFORMING CITIES FUND	9
1.3	SOUTH EAST DORSET CITY REGION STUDY AREA	10
1.4	TCF OBJECTIVES	13
1.5	OVERVIEW OF SED CITY REGION TCF PACKAGE	14
1.6	SUSTAINABLE TRAVEL CORRIDOR SCHEME	17
1.7	MEASURES FOR SUCCESS	18
2	STRATEGIC CASE	19
2.1	OVERVIEW	19
2.2	PROJECT DESCRIPTION	19
2.3	BUSINESS STRATEGY	20
2.4	LOCAL CONTEXT	29
2.5	PROBLEMS IDENTIFIED	41
2.6	IMPACT OF NOT CHANGING	50
2.7	TCF OBJECTIVES	56
2.8	MEASURES FOR SUCCESS	62
2.9	SCOPE AND OPTIONS	63
2.10	PROPOSED FINAL SUSTAINABLE TRAVEL CORRIDOR PACKAGE	69
2.11	CONSTRAINTS ON DELIVERY	76
2.12	INTERDEPENDENCIES	79
2.13	STAKEHOLDERS	79
2.14	SUMMARY	80
3	THE ECONOMIC CASE	0
3.1	INTRODUCTION	0





3.2	OPTIONS APPRAISED	0
3.3	APPRAISAL METHODOLOGY AND ASSUMPTIONS	1
3.4	APPRAISAL RESULTS	21
3.5	INITIAL BCR	24
3.6	ENVIRONMENTAL IMPACTS	24
3.7	SOCIAL IMPACTS	29
3.8	DISTRIBUTIONAL IMPACTS	31
3.9	SENSITIVITY ANALYSIS	38
3.10	VALUE FOR MONEY STATEMENT	39
4	THE FINANCIAL CASE	41
4.1	INTRODUCTION	41
4.2	COSTS	41
4.3	SCHEME PREPARATION AND CONSTRUCTION	41
4.4	RISK BUDGET	42
4.5	SPEND PROFILE	42
4.6	OUT-TURN PRICE ADJUSTMENT	43
4.7	BUDGETS / FUNDING COVER	43
4.8	WHOLE LIFE COSTS	43
4.9	ACCOUNTING IMPLICATIONS: CASH FLOW STATEMENT	44
4.10	SUMMARY OF THE FINANCIAL CASE	44
5	THE COMMERCIAL CASE	45
5.1	INTRODUCTION	45
5.2	PROCUREMENT STRATEGY	45
5.3	IN HOUSE AND EXTERNAL DESIGN CAPABILITY	47
5.4	IN HOUSE AND EXTERNAL CONSTRUCTION CAPABILITY	48
5.5	PAYMENT MECHANISMS	50
5.6	PRICING FRAMEWORK AND CHARGING MECHANISMS	50
5.7	RISK ALLOCATION AND TRANSFER	51
5.8	CONTRACT LENGTH	51





5.9	SUMMARY	51
6	THE MANAGEMENT CASE	52
6.1	INTRODUCTION	52
6.2	EVIDENCE OF SIMILAR PROJECTS	52
6.3	PROGRAMME / PROJECT DEPENDENCIES	54
6.4	GOVERNANCE, ORGANISATIONAL STRUCTURE & ROLES	54
6.5	PROGRAMME / PROJECT PLAN	58
6.6	ASSURANCE & APPROVALS PLAN	59
6.7	COMMUNICATIONS AND STAKEHOLDER MANAGEMENT	59
6.8	PROGRAMME / PROJECT REPORTING	60
6.9	KEY ISSUES FOR IMPLEMENTATION	61
6.10	CONTRACT MANAGEMENT	61
6.11	RISK MANAGEMENT STRATEGY	61
6.12	BENEFITS REALISATION PLAN	62
6.13	MONITORING AND EVALUATION	64
6.14	SCHEME EVALUATION	64
6.15	CONTINGENCY PLAN	68
6.16	SUMMARY	69

TABLES

Table 1-1 – SED TCF Objectives	13
Table 1-2 – SED TCF Programme – Sustainable Travel Corridors Measures for Success	18
Table 2-1 – Outline Business Case Contents	19
Table 2-2 – Estimated Future Jobs Growth to 2026	38
Table 2-3 – Housing Growth Estimates to 2026	40





Table 3-1 – Local Evidence of Cycling Demand Uplift	6
Table 3-2 - AMAT Standard Assumptions	7
Table 3-3 – ABC Tool Structure	9
Table 3-4 – ABC tool adjustment factor	13
Table 3-5 - Wayfinding willingness to pay	15
Table 3-6 – Appraisal Assumptions Summary	20
Table 3-7 – Improved Cycle Journey Impacts	22
Table 3-8 - Improved Pedestrian Journey Impacts	22
Table 3-9 – Other Interventions Impacts	23
Table 3-10 – Capital Costs (Redacted due to Third Party Sensitivity)	23
Table 3-11 – O&M Costs (Redacted due to Third Party Sensitivity)	23
Table 3-12 – Initial BCR	24
Table 3-13 – Environmental Impacts	29
Table 3-14 – Summary of Social Impacts	31
Table 3-15 – Overview of the DI appraisal process	32
Table 3-16 – Distribution Impact Screening – S Corridor Schemes	32
Table 3-17 - Scope of Socio-demographic analyses for distributional impact	35
Table 3-18 – Distribution Appraisal Matrix – Output summary	36
Table 3-19 – Sensitivity Analysis	39
Table 4-1 – Sustainable Travel Corridor OBC Cost estimates	41
Table 4-2 – Sustainable Travel Corridor Financial Spend Profile	42
Table 4-3 – Third Party Contribution for Sustainable Transport Corridors (Redacted due to third party sensitivity)	44
Table 5-1 - Current Contractors and Professional Services providers for BCP Council and Dorset Council	46
Table 5-2 – Sustainable Transport Corridors TCF Procurement Routes by theme	46
Table 5-3 – Gen 3 Contract Awards	49
Table 6-1 – Key Local Schemes	53
Table 6-2 – Sustainable Transport Corridor indicative Timeline	54
Table 6-3 – Contract Management arrangements for each Route to Market	61
Table 6-4 – Contract Management Processes	62





Table 6-5 – Benefits Register Summary	63
Table 6-6 – TCF Data Requirements	66

FIGURES

Figure 1-1 - South East Dorset City Region	10
Figure 1-2 - View of the Poole and Bournemouth Coastline	11
Figure 1-3 – Planned Sustainable travel routes for the South East Dorset TCF Programme	16
Figure 2-1 - Travel to Work Mode Share - Poole & Bournemouth	31
Figure 2-2 - Travel to Work Distance by Car - Poole & Bournemouth	31
Figure 2-3 - Travel to Work by Car - Total Population (Census 2011)	32
Figure 2-4 – Rail Station Entries and Exits 2004-2020	34
Figure 2-5 - Local Cycle Network	36
Figure 2-6 - Key Employment and Housing Locations in SED City Region	39
Figure 2-7 - SED City Region Highway Network	44
Figure 3-1 - Cycling Demand Daily Profile	5
Figure 3-2 - Pedestrian Demand Daily Profile	11
Figure 6-1 - TCF Governance Chart	55
Figure 6-2 - TCF Count Locations	65

APPENDICES

A – BTN Travel Monitoring Survey Results
B – Environmental Constraints Map
C – Long List of Proposed Interventions
D – Example EAST Process
E – Sustainable Travel Corridors Preliminary Drawings
F – Sustainable Travel Scheme Proformas
G – Individual Environmental Constraints Maps
H – Wayfinding – Proposed Totem Location Maps
I – Active Mode Appraisal Toolkits





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- J – Appraisal Model (removed due to Third Party sensitivity)
- K – Ambience Benefits Calculator Toolkits (removed due to Third Party sensitivity)
- L – Economic Efficiency of the Transport System (TEE) Table (removed due to Third Party sensitivity)
- M – Public Accounts (PA) Table (removed due to Third Party sensitivity)
- N – Analysis of Monetised Costs and Benefits (AMCB) Table (removed due to Third Party sensitivity)
- O – Economic Narrative
- P – Distributional Impacts Assessment Plans
- Q – Distributional Impacts Assessment Outputs Summary Worksheet
- R – Detailed Project Programme

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1 INTRODUCTION

1.1 OVERVIEW

- 1.1.1. This Outline Business Case (OBC) is submitted to the TCF Programme Management Board (PMB) and Councils Governance Board (CGB) for approval and in support of the Sustainable Travel (“S”) Corridors Scheme. The two ‘S’ corridors form part of the wider SED city region TCF Package of measures.
- 1.1.2. This OBC references back to the overall SED TCF Strategic Outline Business Case which covered the overall SOBC package and was approved by the Department for Transport to secure the TCF funding in March 2020.
- 1.1.3. An OBC for the ‘C’ Cycle Corridor improvements was published in February 2021. Following this, a series of Full Business Case (FBC) Addendum documents will be produced as corridor sections are brought forward for construction. These will be published alongside the OBC documents in order for all corridor benefits to be considered.
- 1.1.4. A series of ‘quick win’ projects have been identified to achieve early interventions across the programme. Individual FBC documents
- 1.1.5. This OBC recognises the current global challenges due to the Covid-19 pandemic and the impact it will have on the TCF programme and supporting activities and events.

1.2 SOUTH EAST DORSET TRANSFORMING CITIES FUND

1.2.1. Following a description of the wider package of schemes, the remainder of this OBC is made up of five separate cases. This Outline Business Case sets out the case for the Sustainable Corridors scheme, using the five-case methodology set out in the DfT “Transport Business Case”¹ document:

- The Strategic Case which shows that there is a robust ‘case for change’, closely aligned to wider strategic and public policy objectives;
- The Economic Case which shows that the scheme provides value for money;
- The Financial Case which explains how much the scheme will cost and how it will be paid for, showing that it is affordable and within the limits of the TCF budget;
- The Commercial Case which shows that the scheme is commercially viable; and

¹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/918399/dft-transport-business-case.pdf

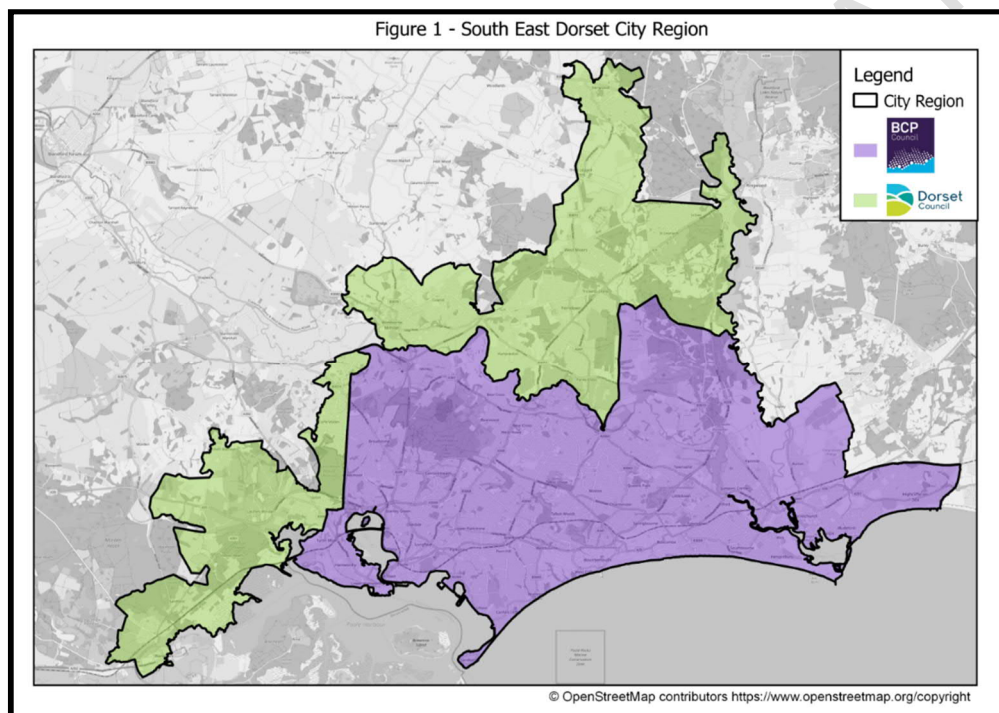


- The Management Case which shows that the scheme is achievable in practical terms, and explains how the project will be managed to ensure it achieves its objectives. This will set out the successful track record of project delivery the strong team has on similar projects such as LSTF.

1.3 SOUTH EAST DORSET CITY REGION STUDY AREA

- 1.3.1. As set out in the SOBC the SED city region covers the central core area of Bournemouth, Poole and Christchurch and the adjacent built-up towns and settlements within Dorset of Wareham, Upton, Corfe Mullen, Wimborne, Ferndown, West Moors and Verwood. This makes up the SED city region's main travel to work area.

Figure 1-1 - South East Dorset City Region



- 1.3.2. In April 2019, through local government reorganisation, nine Councils in Dorset consolidated into two new Unitary Authorities – BCP Council and Dorset Council. BCP Council covers the Bournemouth, Christchurch and Poole areas with a population approaching 400,000. Surrounding the city region are key settlements in the Dorset Council area forming the remaining travel to work area with a workday population of 463,743. The Bournemouth Primary Urban Area (which represents the SED city region) is now the 7th largest non-mayoral city region in England. The local transport network is inhibiting productivity in the city region.
- 1.3.3. The city region suffers from a range of transport challenges which include its unique geography, incomplete strategic transport network and lack of joined up sustainable transport infrastructure which leads to high car usage for people who live and work or visit the area. Furthermore, there is a lack of strategic connectivity to the wider area, in particular to Bristol and the West of England with very limited north-south links by road or



rail. Recent reports have identified the SED area as the 3rd most congested place in the UK, and 56th most congested in the world².

- 1.3.4. The natural geography of the area includes a coastline to the south, the River Stour to the north and significant areas of protected heathland. Each of these factors contribute to the complexities of addressing the transportation challenges

Figure 1-2 - View of the Poole and Bournemouth Coastline



- 1.3.5. BCP Council's Corporate Strategy³ sets out the following values:

- *We have integrity;*
- *We are passionate about our communities;*
- *We treat everyone with respect;*
- *We embrace innovation;*
- *We take pride in what we do.*

- 1.3.6. This set of values is supported by a set of Priorities and Objectives:

■ Sustainable Environment

- Ensure sustainability underpins all of our policies;
- Protect and enhance our outstanding natural environment;
- Develop an eco-friendly and active transport network;
- Tackle the climate and ecological emergency;

² TomTom Traffic Index 2018.

³ BCP Corporate Strategy: <https://www.bcpCouncil.gov.uk/About-the-council/Strategies-plans-and-policies/CorporateStrategy/Corporate-Strategy.aspx>



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- Promote sustainable resource management;
- Maximise access to our high-quality parks and open spaces.

■ Dynamic Places

- Revitalise and reinvent our High Streets and local centres;
- Invest in the homes our communities need;
- Create a sustainable, vibrant and inclusive economy;
- Increase productivity through skills development;
- Develop sustainable infrastructure;
- Support our businesses to operate more creatively;
- Create a 21st century digital infrastructure.

■ Connected Communities

- Strengthen the cultural identity of our towns and places;
- Respect and engage with our diverse communities;
- Encourage intergenerational interactions;
- Reduce loneliness and isolation;
- Ensure our communities feel safe;
- Empower a thriving voluntary and community sector.

■ Brighter Future

- Enable access to high quality education;
- Be aspirational for our children in care;
- Support parents and guardians to care for their children well;
- Prevent harm through early intervention.

■ Fulfilled Lives

- Support people to live safe and independent lives;
- Promote happy, active and healthy lifestyles;
- Develop age-friendly communities;
- Value and support carers;
- Enable people to live well through quality social care;
- Tackle homelessness and prevent rough sleeping;
- Promote lifelong learning for all.

1.3.7. The BCP Council priorities are complemented by Dorset Council's priorities:

- Economic growth – we will deliver sustainable economic growth, increasing productivity and the number of jobs in Dorset, creating great places to live, work and visit;
- Unique Environment – we will help to deliver sustainable development whilst protecting and enhancing Dorset's environment;



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- Suitable Housing – we will facilitate the availability of more affordable, suitable and decent housing;
 - Strong, Healthy Communities – we will work with residents and partners to build and maintain strong communities where people get the best start and live fulfilling lives;
 - Staying Safe and Well – we will work with all our residents to have a good quality of life.
- 1.3.8. The TCF programme will help support the vibrant SED city region communities by, for example, providing improved transport connectivity, particularly to deprived areas. This will contribute towards providing an outstanding quality of life where no one gets left behind and helps achieve our objectives aligned to the TCF objectives.
- 1.3.9. Following approval of the TCF SOBC in March 2020, the SED City Region have been progressing the TCF programme.
- 1.3.10. One of the elements of the TCF was to create a brand and dedicated communications plan to promote the programme and wider sustainable travel initiatives across the region to ensure the public and stakeholders were fully aware of the TCF programme and planned works. This brand is known as **Transforming Travel**. Transforming Travel encompasses the TCF programme to benefit Bournemouth, Christchurch, Poole and Dorset, known as the south-east Dorset city region.
- 1.3.11. TCF is one of the first programmes to be delivered under the Transforming Travel initiative and will be the largest sustainable transport infrastructure improvement programme ever seen in south east Dorset.
- 1.3.12. Transforming Travel is an overarching programme to broaden the travel options that people have for getting around our area. As well as supporting the local economy by improving productivity, this work is designed to make our region a better place by tackling congestion, improving air quality and boosting health and well-being.
- 1.3.13. The SED City Region have also produced a Local Assurance Framework, which is a requirement from the DfT, as part of the grant conditions, which sets out programme governance and decision making.

1.4 TCF OBJECTIVES

1.4.1. The Transforming Cities Fund has a series of overarching objectives. Below, Table 1-1 demonstrates the alignment of the SED TCF proposals with achieving these objectives.

Table 1-1 – SED TCF Objectives

TCF Objective	SED TCF Scheme Supporting Objective
Support the local economy and boost productivity	<p>Providing a network of reliable and efficient sustainable travel corridors linking employment, housing and town centres will improve access to jobs for residents and access to skills for employers.</p> <p>Providing access to improved workplace cycle facilities to further encourage sustainable commuting</p>





TCF Objective	SED TCF Scheme Supporting Objective
Reducing Carbon Emissions	<p>Provision of high quality cycle infrastructure, identified through LCWIP assessment, on corridors across the SED region, enabling active travel and the reduction in single-occupancy vehicles (SOVs)</p> <p>Beryl bike scheme – wider provision and introduction of e-bikes to facilitate increased use and across longer journeys, reducing unnecessary short SOV trips</p> <p>Network management to prioritise bus movements through key junctions, reducing idling of buses and enabling mode shift from Single Occupancy Vehicles</p>
Air Quality Improvements	<p>Improvements to air quality on all corridors through increased sustainable travel.</p> <p>Two active AQMAs in region. Both lie to the east of S5 and will benefit from improved sustainable travel interventions. E-bikes in particular will reduce the number of short urban car trips</p> <p>The uptake of electric vehicles is anticipated to increase significantly in coming years, improving air quality in urban areas significantly</p>
Support Housing Delivery	<p>29,400 households planned across SED region which will be connected up via the network of sustainable transport and cycle corridors</p>
Wider social/economic benefits	<p>Encouragement of low cost, sustainable travel through improved walking and cycle infrastructure are likely to disproportionately benefit lower income group and providing improved links to the most deprived areas of the region.</p> <p>Improved access to services, training and employment</p> <p>Health benefits of active travel</p> <p>Improved passenger experience for bus and rail passengers</p> <p>Bus operators are committed to provision of apprenticeship scheme places in conjunction with the TCF scheme implementation</p>
Aligned to Future Mobility Grand Challenge	<p>The widespread provision of E-bikes through the Beryl scheme will significantly improve future mobility options.</p> <p>Provision of electric car charging points at main stations to encourage the uptake of electric taxis</p> <p>Commitment to establish a multi-modal joint ticketing product.</p>

1.5 OVERVIEW OF SED CITY REGION TCF PACKAGE

- 1.5.1. The TCF package of schemes being proposed for the SED City Region covers a range of interventions aimed at enabling increased use of sustainable transport and meeting the wider TCF objectives set out by the DfT. The package is based upon a series of corridor-based interventions to connect areas of housing and linking them to employment sites to promote employment growth across the SED City Region.
- 1.5.2. The overarching ambition of the SED TCF programme is to revolutionise how people get about across the region. The vision for the programme is:





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“To create an environment where sustainable travel becomes the obvious transport choice for local journeys – enabling safer journeys to schools, building fairer and easier access to jobs, businesses and activities, tackling inequality – enabling growth and prosperity in the south-east Dorset region as part of our action plan to address the climate and ecological emergency.”

1.5.3. The following elements form the basis of the TCF package for the SED City Region and are shown in Figure 1-3:

- Improvements across six sustainable travel corridors (four cycle corridors and two sustainable travel corridors) benefiting from a range of cycle, walking and bus improvements across the south-east Dorset region, to help better connect key residential, retail and industrial areas.
- The six routes are:
 - Bournemouth rail station to/from Jumpers Common, Christchurch (C1);
 - Bournemouth town centre to/from Ferndown (C2);
 - Poole town centre to/from Wareham Road, Holton Heath (C3);
 - Poole town centre to/from Merley, Poole (C5);
 - Poole town centre to/from Ferndown & Wimborne (S5); and
 - Merley, Poole to/from Christchurch town centre (S6).

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Figure 1-3 – Planned Sustainable travel routes for the South East Dorset TCF Programme



1.5.4. Other elements of the TCF package include:

- Improved network management through bus priority and signal optimisation;
- Transport hub improvements – enabling easier interchange between modes, in particular through the expansion of the Beryl bike share scheme;
- Wayfinding and signage improvements across the SED Region; and
- Workplace facilities – improvements to workplace/education sites with ‘end of trip’ facilities.



1.6 SUSTAINABLE TRAVEL CORRIDOR SCHEME

1.6.1. This OBC relates to the two 'S' corridors. These corridors are:

- Poole town centre to/from Ferndown & Wimborne (S5)
- Merley, Poole to/from Christchurch town centre (S6)

1.6.2. The Sustainable travel corridor works comprise a series of improvements to transport infrastructure to provide improved bus infrastructure and priority measures, safe routes for cyclists, improved journey times and reliability for bus users and enhanced pedestrian facilities. Improvements include:

- Dedicated bus infrastructure
- Expansion of smart ticketing
- Bus shelter improvements
- Bus priority signal infrastructure
- Improvements to MoreBus and Yellow Bus services
- Improved cyclist and pedestrian infrastructure including:
 - Stepped cycle tracks
 - Improved lighting
 - 'Toucan' and 'Tiger' crossings to enable safe crossing for pedestrians and cyclists
 - Shared use paths where available width is more limited
 - Pavement resurfacing
- HGV management system on Longham Bridge

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1.7 MEASURES FOR SUCCESS

1.7.1. At the SOBC stage, a range of measures for success against the overarching TCF Objectives were set out. For the Sustainable Travel Corridors package, the relevant measures of success are shown below in Table 1-2 below.:

Table 1-2 – SED TCF Programme – Sustainable Travel Corridors Measures for Success

Objective	Target	Timescale	Measure (s)
Reducing Carbon Emissions	Increased use of Sustainable modes in Corridors Improve and enhance access for business and tourism	Annual travel survey from 2020	Increased bus patronage and cycle trips and corresponding reduction in SOVs; Increasing levels of e-bike share trips
Air Quality Improvements	Improved Air Quality at key monitoring points	5 years post opening	Reduction in particulate and NOx levels along corridors and at AQMAs; Reduced congestion and delay on highway network.
Wider social/economic benefits	Improve health gain and wellbeing for population Improve Road Safety	Annual Quality of Life Survey	Increased activity and exercise in population and workforce; Increased levels of walking and cycling trips Reduced collision rates on network within SED region, focused upon TCF Connectivity corridors and Freeways





2 STRATEGIC CASE

2.1 OVERVIEW

2.1.1. The Strategic Case sets out the need for the proposed improvements in the SED region, demonstrating the case for interventions via the Transforming Cities Fund. The context within which the interventions are proposed, the alignment with TCF objectives and the impact of not making these important changes are all set out below. This Strategic Outline Business Case has been compiled in line with DfT Guidance⁴. Table 2.1 below provides a checklist of the sections in the Strategic Case.

Table 2-1 – Outline Business Case Contents

Issue	Description	OBC Requirement	Location
Business Strategy	Context for the business case – strategic aims and responsibilities of organisation responsible	Updated	2.2
Problem Identified	Describe the problem. What is the evidence base? Is there justification for intervention?	Updated	2.4
Impact of Not Changing	What is the impact of not intervening?	Updated	2.5
Objectives	Establish specific, measurable, achievable, realistic and time-bound (SMART) objectives. Align with overarching TCF objectives	Updated	2.6
Measures for Success	Set out what constitutes successful delivery of the objectives	Updated	2.7
Scope	Explain what the project will deliver, including what is out of scope	Updated	2.8
Constraints	High level internal/external constraints	Completed	2.9
Interdependencies	Internal/external factors upon which the successful delivery of the project is dependent	Completed	2.11
Stakeholders	Outline the main stakeholder groups and their contribution.	Completed	2.12
Options	Set out options identified (including do nothing) and evaluate impact on the project objectives and wider public policy objectives. Risks associated with each option should be identified.	Completed	2.8

2.2 PROJECT DESCRIPTION

2.2.1. This Outline Business Case relates to the development of the two Sustainable Travel Corridors, as proposed as part of the SED TCF Package.





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2.2.2. The corridors are:

- S5 - Poole to Ferndown – connecting Poole town centre and rail station with the key employment location of Ferndown
- S6 - North Poole/North Bournemouth – enabling improved connections on Castle Lane East and West to link up with the Wessex Fields employment area and Bournemouth Hospital

2.2.3. Each of these corridors have been broken down into sections with a proforma document prepared to aid understanding of the proposed works in each location, as provided within the SOBC.

2.2.4. The scheme comprises improvements to bus, cycle and walking infrastructure to connect homes to jobs and pupils to schools and education centres safely; providing attractive, high-speed, direct bus connectivity with greater priority to outlying areas, and network management enhancements to enable Intelligent Transport Systems and Smart City technology;



2.3 BUSINESS STRATEGY

2.3.1. This section considers the context of the TCF programme within wider national and local policies and strategies.

CENTRAL GOVERNMENT POLICY

Industrial Strategy 2017

2.3.2. The UK Industrial Strategy was published in 2017 and set out the vision for economic prosperity and growth. The Strategy is based upon five foundations:

- Ideas – the world's most innovative economy
- People – good jobs and greater earning power for all
- Infrastructure – a major upgrade to the UK's infrastructure
- Business Environment – the best place to start and grow a business
- Places – prosperous communities across the UK

2.3.3. The Places foundation includes the commitment “to create a Transforming Cities Fund that will provide £1.7bn for intra-city transport. This will fund projects that drive productivity by improving connections within city regions.”

2.3.4. The Industrial Strategy also includes four “Grand Challenges” for technology and industry:



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1. Artificial Intelligence and Data Revolution
 2. Clean growth
 3. Future Mobility
 4. Addressing the needs of an ageing society
- 2.3.5. Although the SED city region did not submit an Expression of Interest to the Future Mobility Zones Fund, the proposals within this TCF align with future mobility innovations, in particular around Smart Ticketing, RTI technology, delivering infrastructure to accommodate future mobility and E-bikes.
- 2.3.6. The SED city region TCF bid aligns with these broad foundations, in particular supporting the creation of employment, housing growth and establishing prosperous communities through improving connectivity between areas of housing and employment across the city region.

Future Mobility

- 2.3.7. There have been a number of significant developments with regards to policy and strategy over recent months which provide the foundations for the Future Mobility agenda:
1. Four Grand Challenges within the Industrial Strategy, Department for Business, Energy and Industrial Strategy (June 2018) –The ‘Future of Mobility’ Grand Challenge outlined in the industrial Strategy outlines the Government objective to keep the UK at the forefront of transport innovation, stating that ‘we will become a world leader in the way people, goods and services move’. Opportunities to dramatically reduce congestion, carbon emissions, improve customer experience, drive efficiency and enable access for all through innovation in engineering, technology and business models will be encouraged by a flexible regulatory framework, testbed funding and research & development investment
 2. National Infrastructure Assessment, National Infrastructure Commission (July 2018) – The report makes recommendations on the infrastructure needs and priorities of the UK. In relation to the future of mobility, the commission commends the Government for positioning the UK as a leader of connected and autonomous vehicle innovation however recommends that ‘the implications of technological innovation in long term transport planning processes’ are addressed;
 3. Road to Zero, Department for Transport (July 2018) –The Government outlined its ambition to see at least 50% of new cars and 40% of new vans to be ultra-low emission by 2030 and end the sale of new conventional petrol and diesel cars and vans by 2040. The strategy also sets out plans to enable massive expansion of green infrastructure and reduce extant vehicle emissions in order to help the government achieve elements of the Industrial Strategy;
 4. Future of Mobility: Urban Strategy – Department of Transport (March 2019) - The ‘Future of mobility: urban strategy’ outlines the government’s approach to maximising the benefits from transport innovation in cities and towns.
- 2.3.8. Considering the wider access and mobility needs rather than just traditional transportation modes provides for an integrated approach to people, the places they need to visit and the activities they undertake. This also allows for a wider consideration of land use, activity and



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mobility needs, all within the context of enabling economic growth across the SED city region and delivery of the TCF programme.

HM Treasury Green Book Review⁵

- 2.3.9. In 2020, a review of the 'Green Book' guidance on options appraisal was commissioned by HM Treasury. The guidance is used to guide the appraisal and evaluation process of policies, programmes and projects seeking government funding. The guidance sets out the best practice five case model approach. In publishing its guidance on Transport Business Cases, the DfT takes direct reference from The Green Book, and as such any review of the Green Book should be taken account of within transport Business Cases following DfT and Transport Analysis Guidance (TAG). The review concluded that often the strategic context of a scheme is not demonstrated sufficiently against clear objectives, with too heavy a reliance on the BCR of schemes to secure funding.
- 2.3.10. Whilst the DfT TAG, business case guidance and value for Money framework has not changed, it is useful to consider the recommended changes in the context of this OBC and the TCF process.
- 2.3.11. The Green Book Review recommended the following changes:
- Reduced emphasis on the BCR and increased emphasis on Strategic Case
 - Projects will first need to demonstrate national policy alignment and show a contribution to these policies in the Strategic Case, specifically aligning to current government policy such as Carbon Net Zero and Levelling Up;
 - Increased emphasis on place-based analysis (including delivering the 'Levelling Up' agenda);
 - Distributional weightings and equalisation to prioritise areas 'left behind' by previous rounds of government investment in order to achieve the 'Levelling Up' agenda;
 - Adjustment to environmental appraisal including the delivery of Carbon Net Zero;
 - Increased focus on Net Zero and clear demonstration of positive environmental impacts;
 - Appraisal for transformational schemes
 - Transformational Change through coherent strategies and combined interventions rather than individual projects.
- 2.3.12. This OBC, and the SOBC submitted to the DfT in November 2019, sets out a strong Strategic Case for change and transformation of travel in the South East Dorset region. Any alterations to the Green Book and subsequently to TAG are considered to work



favourably for the TCF scheme and its focus upon Active, Sustainable and low carbon transport interventions.

- 2.3.13. Whilst the BCR of the TCF proposals was high, it has not been the driving force behind the development of the SOBC and now the OBCs for the SED TCF programme. Making the Strategic Case and demonstrating the policy alignment both nationally and locally has always been central to the programme.

CENTRAL GOVERNMENT TRANSPORT POLICIES

- 2.3.14. The SED city region TCF bid has considered a number of other Central Government transport policies to ensure consistency and compliance. These include:

1. Future Mobility Policy;
2. WebTAG Compliance and Business Case guidance;
3. Public Transport Policies;
4. Cycle Walking Investment Strategy (CWIS) Guidance.

- 2.3.15. In 2020, the Department for Transport published two key documents relevant to the TCF programme – ‘Gear Change’⁶ and LTN 1/20⁷. These documents provide revised guidance on designing high quality and safe cycle infrastructure. These documents are summarised below and have directly influenced the proposed infrastructure improvements that make up both the Sustainable Transport corridors that this OBC relates to, and the four Cycle Corridor proposals.

Bus Back Better – A New Bus Strategy for England, March 2021

- 2.3.16. In March 2021, the Government published the National Bus Strategy, aimed at rejuvenating local bus services, making them more attractive for passengers, cheaper, easier to understand and use, faster and more reliable, and greener. This aligns entirely with the overarching aims of the TCF Fund, in particular the Sustainable Transport Corridor improvements to which this OBC relates.
- 2.3.17. The Strategy places new requirements on Local Transport Authorities (LTAs) to develop Bus Service Improvement Plans and set up Enhanced Partnerships with local bus operators, with action on networks and services, fares and ticketing, passenger facilities and on-street bus priority measures. Up to £3billion of funding is to be made available to LTAs over the next five years.

⁶ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904146/gear-change-a-bold-vision-for-cycling-and-walking.pdf

⁷ <https://www.gov.uk/government/publications/cycle-infrastructure-design-ltn-120>





Bus Service Improvement Plans

- 2.3.18. All LTAs are expected to develop a Bus Service Improvement Plan (BSIP) and update it annually. BSIPs will need to:
- Be developed in collaboration with stakeholders;
 - Consider the strengths and weaknesses across the whole LTA bus network;
 - Set out a coordinated and coherent target network, addressing current under-provision and over-provision, with the same routes running in the daytime and evening;
 - Set out ambitions for coordinated scheduling to transport bus-to-bus and multi-modal interchange;
 - Consider demand responsive transport, especially in rural areas or to support shift work, industrial estates and other locations not easily accessed on scheduled services;
 - Consider Bus Rapid Transport networks for key high density corridors.
- 2.3.19. The SED TCF proposals already comprise some of these measures outlined above, and will contribute significantly to BCP and Dorset establishing their BSIPs.

Enhanced Partnerships

- 2.3.20. The strategy pushes every LTA to establish one or more Enhanced Partnerships (EPs) covering the whole bus network in their area. Bus services not included in an EP by April 2022 will not be eligible for government support or investment, including COVID recovery funding.
- 2.3.21. EPs are developed in partnership between the LTA and bus operators and are based on an EP plan, which could resemble an existing bus strategy document and/or the strategic case of a Green Book appraisal.
- 2.3.22. It is anticipated that the Business Case undertaken for the TCF programme in South East Dorset can feed directly into an EP for the region.
- 2.3.23. The overall vision of the government for the bus network is transformational, as with TCF programmes. They envisage coordinated, more comprehensive bus networks, with better coverage and services operating for longer hours at higher frequencies than currently. The strategy encourages multi-operator tickets to be offered at the same or similar prices to single-operator equivalents and suggests LTAs and operators introduce daily and weekly capping. Improvements to the passenger experience, through real-time information at bus stops and online and vehicle upgrades. The TCF programme presents the opportunity for the SED Region to achieve the improvements set out in the Bus Back Better document well ahead of other areas of the country.

Gear Change: A Bold Vision for Cycling and Walking

- 2.3.24. The document sets out a vision for achieving a significant step change in cycling and walking levels across the country. The vision is split across four themes:





Theme 1: Better Streets for Cycling and People

2.3.25. This theme sets out the ambition to facilitate the construction and implementation of extensive new cycle infrastructure, including the creation of cycle, bus and walking corridors, Low Traffic Neighbourhoods and School Streets.

2.3.26. A series of design principles are identified:

- Cyclists must be separated from volume traffic;
- Cyclists must be separated from pedestrians;
- Cyclists must be treated as vehicles, not pedestrians;
- Routes must join together into a network;
- Routes must feel direct, logical and intuitive;
- Routes and schemes must take account of user behaviour;
- Cosmetic alterations to be avoided;
- Barriers such as dismount signs should be avoided;
- Routes should be designed by cyclists.

Theme 2: Putting cycling and walking at the heart of transport, placemaking, and health policy

2.3.27. This theme sets out the need for long-term planning and programming for cycling and walking infrastructure, and the commitment of government funding. Importantly, the theme sets out that government funding for local highways investment is dependent on the inclusion of improved cycling infrastructure. Highways England have aligned their policy with this through the commitment to deliver cycling infrastructure as part of RIS2.

2.3.28. The theme also emphasises the need for multi-modal planning and the role cycling plays in onward journeys at stations, also considering the potential for bus and cycle interchange to be improved.

2.3.29. The theme goes on to state the importance of ensuring that new developments are built around active and sustainable travel. Active Travel England, the proposed new commissioning and funding body, will become a statutory consultee within the planning system to ensure adequate cycling and walking provision is made in all major developments.

Theme 3: Empowering and Encouraging Local Authorities

2.3.30. This theme recognises the need to give power and expertise to the local highway authorities, providing additional funding and new powers to enable cycling and walking infrastructure to be implemented more widely.

2.3.31. Funding will not be given by central government for schemes that do not achieve the design principles above, and the more detailed standards set out within the Appendix of the policy.





Transforming Travel

greener | healthier | better connected

2.3.32. Active Travel England will hold the budget for cycle and walking infrastructure funding, examining all applications for funding and verifying their compliance with the new national standards.

Theme 4: We will enable people to cycle and protect them when they cycle

2.3.33. This theme makes a commitment to cycle safety training for all, and alignment with health professionals to promote the health benefits of cycling.

Cycle Infrastructure Design LTN 1/20 July 2020 (Department for Transport)

2.3.34. The Local Transport Note provides guidance and good practice for the design of cycle infrastructure, in support of the Cycling and Walking Investment Strategy (CWIS). There are five core design principles where the networks and routes should be coherent, direct, safe, comfortable and attractive. These are expanded on below:

- Cycle networks should be planned and designed to allow people to reach their day to day destinations easily, along routes which connect, are simple to navigate and are of a consistently high quality.
- Cycle routes should be at least as direct than those available for motor vehicles.
- It should be safe, and perceived to be safe, so more people feel able to cycle.
- Routes should be comfortable, good quality, well-maintained smooth surfaces, adequate width for the volumes of users, minimal stopping and starting and avoiding steep gradients.
- Cycle infrastructure should help to deliver public spaces that are well-designed and finished in attractive materials and be places that people want to spend time using.

2.3.35. The 'S' Corridors schemes meet the requirements of the LTN1/20 through improving connections along and between corridors.

LOCAL POLICIES

Dorset LEP Strategic Economic Plan (SEP) – Transforming Dorset

2.3.36. The Dorset LEP produced their Strategic Economic Plan in 2014 which was then refreshed in 2016. Dorset's Economic Vision is:

“By 2033 Dorset will be one of Britain's Core City-Regions, and the most sustainable of these. Its competitiveness will be driven by innovation.”

2.3.37. The Plan is formed around four themes:

- Competitive Dorset
 - Unleash the potential of existing Dorset businesses;
 - Encourage the creation of new businesses
 - Leading the growth agenda through enterprise and business



INDUSTRIAL
STRATEGY
TRANSFORMING CITIES FUND

Improving productivity and spreading prosperity
through investment in public and sustainable transport

Working in partnership



■ Responsive Dorset

- Address the barriers to growth
- Responsive planning and development system and a dynamic housing market

■ Connected Dorset

- Improve electronic and physical connectivity throughout Dorset

■ Talented Dorset

- Enhance the skills of our current and future workforce
- Offset skills gaps, remove blockages to employment and enable adaptation in the workforce.

Dorset LEP – Emerging Industrial Strategy for Dorset

2.3.38. In December 2018, the Government asked Dorset LEP to help deliver the national strategy by developing a Local Industrial Strategy (LIS) for Dorset. Working in close collaboration with local businesses, stakeholder organisations, BCP Council and Dorset Council, Dorset's LIS will be a twenty-year plan to increase productivity, innovation, earnings and wellbeing across the county, delivering on an ambition to create a local economy that is sustainable, innovative, resilient and inclusive.

2.3.39. The emerging plan proposes the following targets:

- Reduce the productivity gap from £2.5bn to £1bn;
- Halve the wage gap between Dorset and the UK from 6% to 3%;
- Reduce the number of 50-64 year olds with no formal qualifications from 6% to 4%;
- Reduce the number of areas in Dorset LEP region considered to be in the 20% most deprived from 25 to 20;
- Increase the number of businesses undertaking Research and Development from 20% to 30%.

2.3.40. With regard to Infrastructure, the plan commits to prioritising digital infrastructure and renewable energy resilience, and 'delivering one strategic sustainable transport plan for Dorset'.

2.3.41. The TCF proposals set out within this SOBC will facilitate delivery of this LIS through providing enhanced connectivity and access to employment areas for the most deprived areas of the SED city region population.

BCP Council Emerging Local Plan

2.3.42. BCP has recently commenced the process of preparing a new Local Plan for the council area of Bournemouth, Christchurch and Poole as a whole. The plan will set the framework for development across the BCP Council area for the next 20 years and will replace the individual Local Plans currently in place covering the three towns.

2.3.43. The themes for the plan, aligning with the Corporate Strategy are:





- Sustainable Environment – leading our communities towards a cleaner, sustainable future that preserves our outstanding environment for generations to come;
- Dynamic Places – supporting an innovative, successful economy in a great place to live, learn, work, and visit;
- Connected Communities – empowering our communities so everyone feels safe, engaged, and included;
- Brighter Futures – caring for our children and young people;
- Fulfilled Lives – helping the population lead active, healthy and independent lives.

2.3.44. The TCF proposals set out within this SOBC align with these broad objectives and will enable BCP to more effectively work towards these growth plans.

Dorset Council Local Plan

Dorset Council has commenced consultation on its new Local Plan in January 2021. The strategic priorities for the plan are as follows:

- Climate and ecological emergency;
- Economic growth;
- Unique environment;
- Suitable housing; and
- Strong, healthy communities.

2.3.45. The TCF proposals set out within this OBC align with these broad objectives and will enable Dorset Council to more effectively work towards these growth plans.

Bournemouth, Poole, and Dorset Local Transport Plan 2011 to 2026

2.3.46. The LTP 3 states the key transport policies for Bournemouth, Poole, and Dorset (including Christchurch) as:

Key Transport Priorities

- Providing adequate transport infrastructure to serve and unlock major new developments, which will enable more sustainable travel than historic development, and securing developer funding to meet these needs;
- Improved transport infrastructure and access, supporting planned growth for housing and higher value jobs;
- Reduction in single occupancy car use, with growth in public transport, cycling and walking;
- Achieving no increase in congestion despite anticipated housing / economic growth to 2026;





- Continue to unlock access to new employment areas in Bournemouth, Poole, Ferndown, Aviation Business Park and the Dorset Innovation Park at Wool, an Enterprise Zone which is expected to facilitate 2,000 new jobs;
- Step change in public transport provision with improvements in bus journey times, and reliability through Quality Bus Corridors;
- More reliable and sustainable access to the Port of Poole and Bournemouth Airport, and improved connections to national road / rail networks;
- Continued investment in walking and cycling infrastructure

2.3.47. The TCF proposals set out within this OBC align with the transport priorities identified above and will enable these priorities to be realised on the ground within the LTP3 period.

Climate and Ecological Emergency

2.3.48. Both BCP and Dorset Councils have declared a 'Climate Emergency' in 2019.

2.3.49. In May 2019, Dorset Council declared the emergency and committed to:

- Taking direct action to reduce the negative environmental impact of [Dorset Council's] services;
- Using [Council] services to support and influence Dorset communities and organisations to reduce their carbon footprint;
- Working with partners to develop [the Council's] climate emergency plan.

2.3.50. In July 2019, BCP Council committed to making BCP Council and its operations carbon neutral by 2030, and to work with the wider community to look at how early the BCP region can be made carbon neutral, ahead of the UK target of 2050.

2.3.51. The TCF proposals set out within this OBC support the Climate Emergency commitments by facilitating low carbon travel across the SED city region.

2.4 LOCAL CONTEXT

LOCAL POPULATION AND DEMOGRAPHICS

2.4.1. The SED city region has a workday population of 480,000 and is forecast to experience a growth of 20,000 new jobs and 29,400 new homes by 2026. Without addressing the local transport network problems, this growth will be stifled unless the source of congestion, delays and poor air quality are mitigated.

2.4.2. The SED city region experiences significant seasonal variation in population due to its popularity as a holiday destination. Based on data from Visit England the summer period population is typically circa 30% higher than the average population across the year. Taking account of variations between weekdays and weekends this can contribute to significant variations in travel demand. Summer weekends can attract high numbers of day visitors from across the South of England.

2.4.3. Leisure and tourism is a key contributor to the economy of the SED city region. 12% of all employment is related to Tourism, with significant variations in seasonal demand. BCP





Council area is one of the few areas in the UK that competes with London in terms of hotel room occupancy rate, but the patterns are quite different. London attracts a lot of business and overseas visitors where the local trend has seen increases in domestic tourism, often dominated by short-breaks.⁸

- 2.4.4. The conurbation has resulted from the growth of three historic neighbouring towns, Bournemouth, Christchurch, and Poole. Unsurprisingly, the conurbation is polycentric, as there is no one dominant 'centre' rather a series of neighbourhoods around clusters of major employers. The SED city region geographical spread of housing, employment and education across urban sub-urban and rural areas results in complex travel and commuting patterns.
- 2.4.5. Several major strategic projects have been established to support Dorset's growth aspiration and its contribution to national economic growth.
- 2.4.6. The previously submitted SOBC sets out the population growth that has taken place across SED city region over the past seven years and future population projections for the wider Dorset area.
- 2.4.7. The growth in Bournemouth is 2.2% above the national average and 1.6% above the regional average. This has brought with it a significant increase in pressure on the local transport networks. However, there has not been a corresponding increase in road network capacity or investment in sustainable transport infrastructure.
- 2.4.8. The area also has an addition to the population from year-round tourism with over 17 million day and overnight visitors to Bournemouth, Christchurch, East Dorset, Poole and Purbeck each year.

LOCAL TRAVEL BEHAVIOUR

- 2.4.9. The majority of journeys within the city region are currently undertaken by motor vehicle – Journey to Work car mode share is 64% (2011 Census).

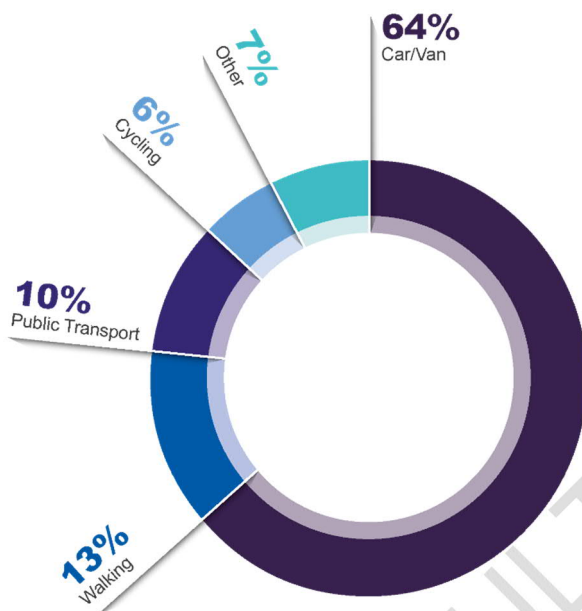
2011 Census Travel to Work Patterns

- 2.4.10. Census data for employees travelling into the Poole and Bournemouth areas from 2011 (see below) indicates that 64.1% of commuters use a car or van to travel to work. 15% of these car/ van journeys are less than 2km. In the Bournemouth area alone, this equates to 7,000 people driving less than 2km to work each day.

⁸ <https://www.bournemouth.co.uk/dbimngs/Bmth%20Poole%20Tourism%20Strategy%202017-22.pdf>

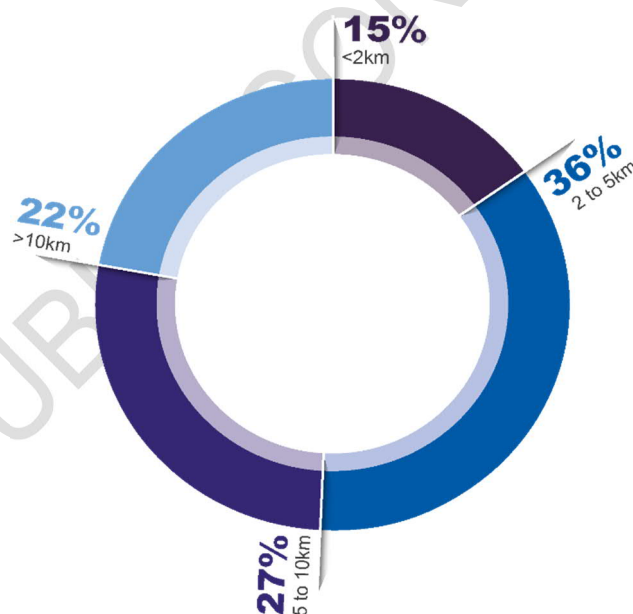


Figure 2-1 - Travel to Work Mode Share - Poole & Bournemouth



Source: 2011 Census

Figure 2-2 - Travel to Work Distance by Car - Poole & Bournemouth

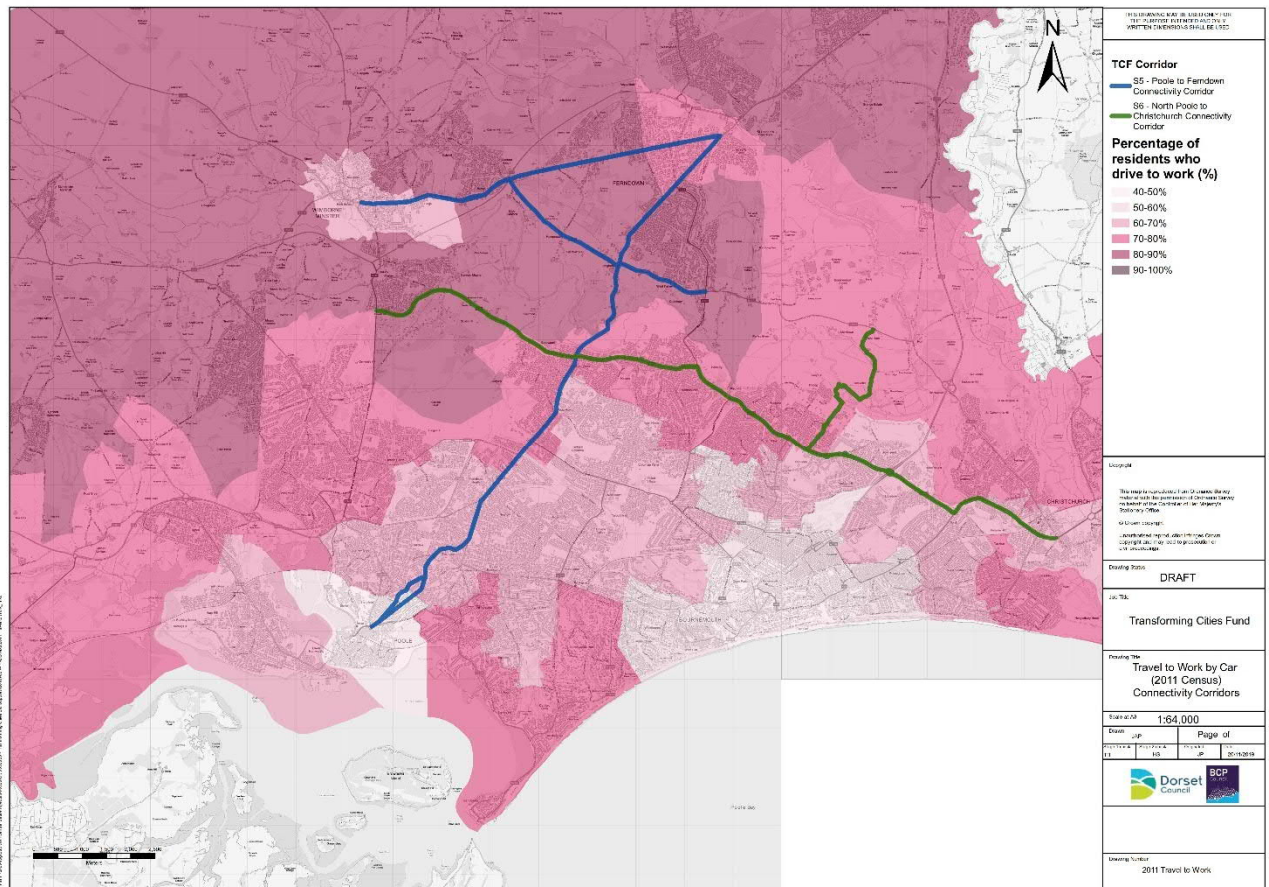


Source: 2011 Census

2.4.11. The map shown in Figure 2-3 below provides a spatial representation of the high use of car and van for travel to work purposes in the conurbation. The map shows there are areas of high car use within the more central urban areas, not just the more rural periphery as might be expected.



Figure 2-3 - Travel to Work by Car - Total Population (Census 2011)



Business travel network – Travel plan data

- 2.4.12. The Business Travel Network (BTN)⁵, supported by BCP Council and Dorset Council, provides local businesses and employers support in facilitating sustainable staff travel. The BTN provides free advice and resources and assists in developing travel plans for workplaces.
- 2.4.13. Members of the BTN commit to developing and delivering Travel Plans. This entails carrying out site audits and Staff Travel Surveys. The results of these surveys are then used to identify appropriate ‘hard’ and ‘soft’ measures to encourage sustainable travel by employees and visitors.
- 2.4.14. The results from a number of Staff Travel Surveys carried out by BTN members from across the SED city region are provided in Appendix A.

PUBLIC TRANSPORT NETWORK

Bus Network

- 2.4.15. The bus network in the SED city region is primarily provided by two main operators – Morebus (part of Go South Coast) and Yellow Buses. The operators run a comprehensive network of services east-west through the region. Journey times on radial routes are less competitive.





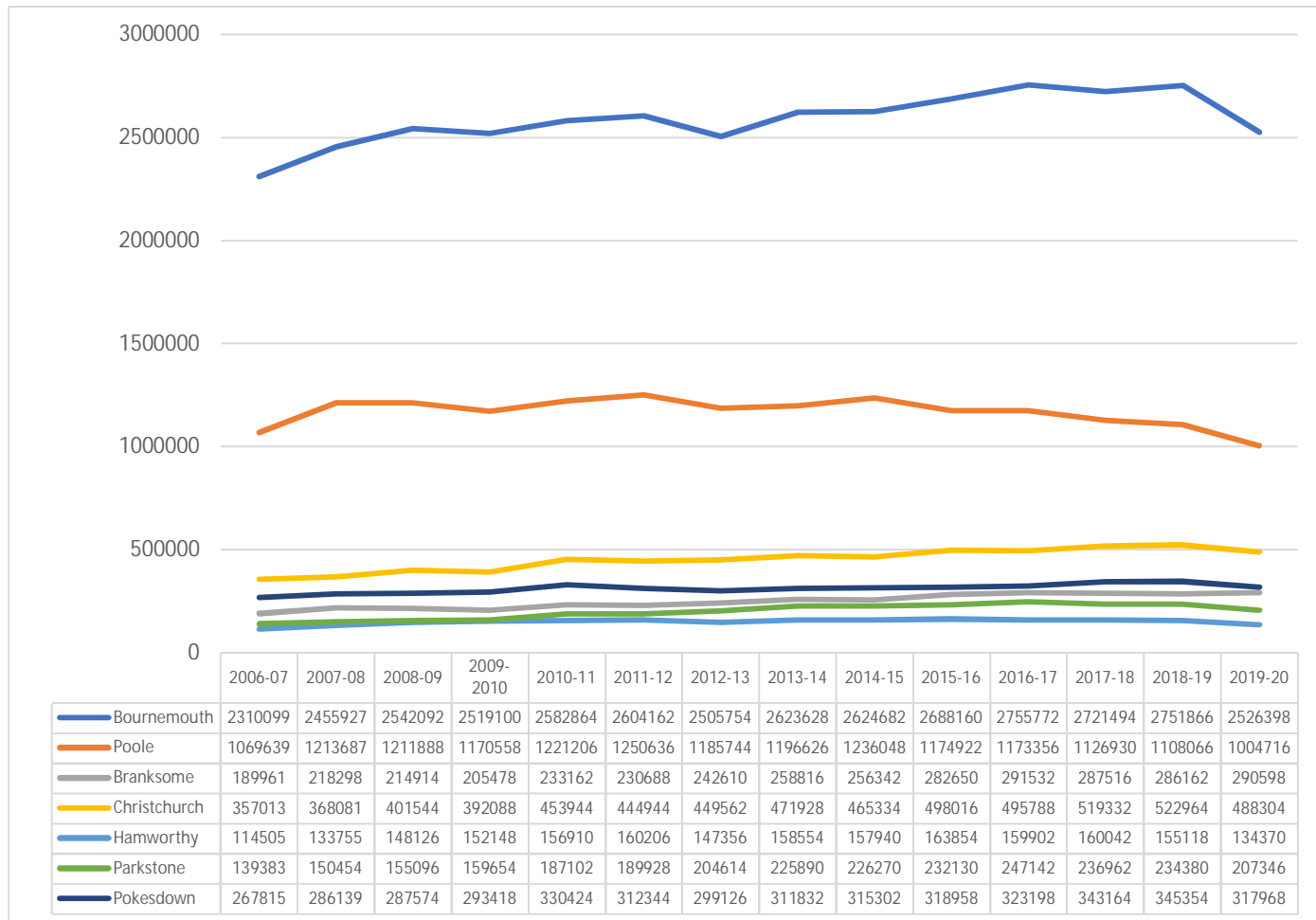
- 2.4.16. Bus services within the SED city region have been highly successful in recent years with an increase in patronage of 85% between 2004/05 and 2016/17. This is one of the largest increases in the whole of the UK. There are many factors behind this success which has been driven by a strong and effective voluntary Quality Bus Partnership.
- 2.4.17. The A35 Corridor Three Towns Travel LSTF project received £12.1m, supported by £5.5m local contributions. A further £3.4m was received from the Better Bus Area Fund towards bus improvements along the corridor. The project enabled a step-change in infrastructure and passenger facilities. This has resulted in high frequency bus services on the main east/west corridor significantly reducing dependency on the car for residents and visitors and produced an increase in patronage on the corridor of approximately 7.5% between 2012 and 2015/6. There has not been a corresponding investment in the radial routes, creating an imbalance in the level of service frequency, quality and journey times across the network
- 2.4.18. Both major local bus operators have invested heavily in upgrading their fleets; newer, cleaner buses, on-bus technology including next stop audio/visual, Wi-Fi, USB charging and GPS/RTI, development of contactless and smart ticketing systems and producing clearer stop-specific bus timetables. These improvements have been well received by the passengers as demonstrated by the 2018 Transport Focus Bus Passenger Survey which rated Bournemouth and Poole joint top in England at 91% for overall passenger satisfaction.

Rail Network

- 2.4.19. The SED city region benefits from seven rail stations however there is only a single east/west line. There are currently three trains an hour between Poole and Brockenhurst with an additional Cross-Country service adding a fourth service between Bournemouth and Brockenhurst. There are no rail connections from the northern suburban areas to the town centres.
- 2.4.20. There are two primary inter-city stations (Poole and Bournemouth) in the BCP Council area and five smaller stations (Branksome, Christchurch, Hamworthy, Parkstone and Pokesdown).
- 2.4.21. Figure 2-4 shows the change in rail passenger levels at stations across the SED city region between 2006 and 2017. The data shows an upward trajectory of passenger numbers across all stations. While Bournemouth has seen the largest absolute increase in passenger entry and exits over that period at almost 500,000 additional movements, Parkstone has shown the largest percentage increase in movements at 77%, with Branksome increasing by 54%. In general, rail use has grown significantly, a pattern seen across the rail network over recent years.



Figure 2-4 – Rail Station Entries and Exits 2004-2020



Cycle Network

- 2.4.22. The SED city region cycling network is growing and relatively well used. The leisure market is well catered for with some excellent NCR and coastal routes as well as being within easy reach of the popular New Forest and Isle of Purbeck nearby. There is huge potential for increasing the modal share of cycling.
- 2.4.23. There are several Sustrans Local, Regional and National Cycle routes within the region together with Public Rights Of Way (PROW). These include cycleways and footpaths. There are also small sections of bridleways. Interventions will seek to connect with these existing routes where possible.
- 2.4.24. Figure 2-7 below shows the extent of the current designated Local Cycle Network across the SED Region.
- 2.4.25. This shows the NCN running along the seafront, connecting Poole with Bournemouth and Christchurch. However, the routes inland are more sparse with little network connectivity. This lack of connectivity across the region does not provide a high quality, safe and reliable network suitable for all commuters.



Covid-19 – Emergency Active Travel Fund

2.4.26. The Covid-19 pandemic has accelerated cycling and walking infrastructure investment in some areas through the Active Travel Fund tranches of funding. The first tranche of funding received by BCP Council has been used to implement temporary measures in the following locations:

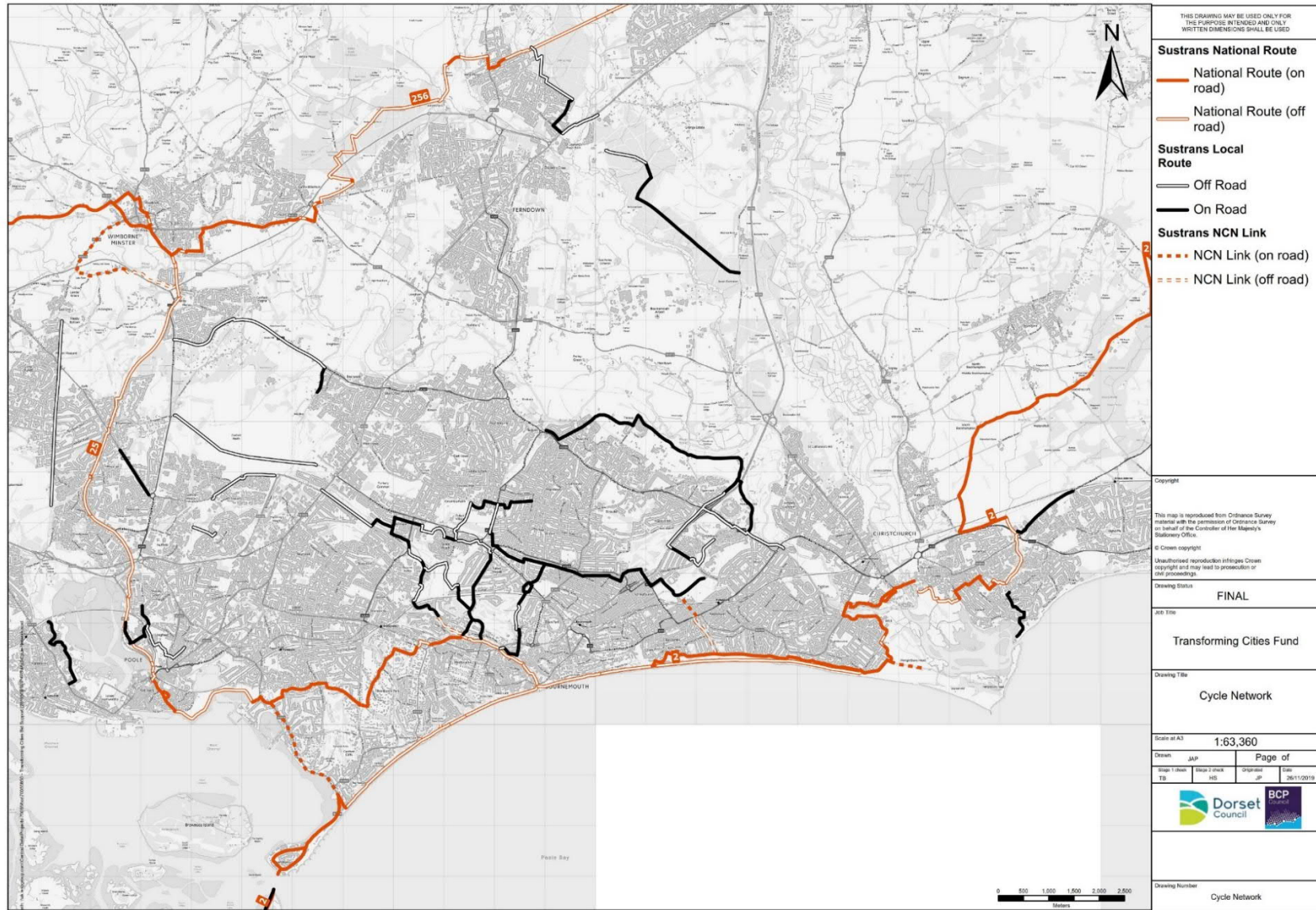
- Bird's Hill Road – creation of a low traffic neighbourhood
- Darby's Lane – cycle prioritisation
- Evening Hill – installation of a protected cycle lane
- Poole Quay/Lower High Street – town centre pedestrianisation
- Stanley Green Road – creation of a low traffic neighbourhood
- Victoria Park Road – creation of a low traffic neighbourhood
- Whitecliff Road – prioritising cycling and walking.

2.4.27. Whilst the measures are currently temporary in nature to respond directly to the need to socially distance during the pandemic, feedback is being collated on the schemes from the public in order to determine whether these measures, and similar measures elsewhere, should be made permanent. Further Tranche 2 funding has recently been secured by BCP Council which will be used in some cases to make temporary measures identified above permanent, and also expand measures to other locations in the council area. These measures will directly compliment and align with the TCF proposals.

FOR PUBLIC CONSULTATION



Figure 2-5 - Local Cycle Network



Commuter Challenge Results – 2017 & 2019

- 2.4.28. Sustrans have operated commuter challenge competitions in the SED city region in 2017 and 2019. The 2017 Commuter Challenge covered the former Bournemouth Borough Council area; whilst in 2019 the Commuter Challenge covered Dorset.
- 2.4.29. The purpose of the 'Challenge' is to encourage sustainable commuting over a period of time, with workplaces registering for the challenge, incentivised by the offer of prizes for logging sustainable journeys. The findings of those challenges are set out in the previously submitted SOBC but generally presented positive results with a move towards active travel modes.

Bournemouth Commuter Challenge 2017

- 2.4.30. During the 2017 challenge, 751 participants registered to take part. As a result, 3,795 Single Occupancy Vehicle trips were replaced, with 51% of those being by active travel modes.

Follow up surveys determined that 76% of participants had increased the number of days on which they do physical activity after taking part in the Challenge. 38% of respondents had increased the amount they cycle, and 41% had increased the amount they walk since participating in the Challenge.

Dorset Commuter Challenge 2019

- 2.4.31. The 2019 challenge ran for 4 weeks and was aimed specifically at employers only. During the 2019 challenge, 614 individuals registered to take part. Of those, 541 logged journeys (88%). The challenge logged 3,342 Single Occupancy Vehicle trips replaced with 2,141 of these switching to active travel modes.
- 2.4.32. 49% of follow up respondents felt they were more likely to become physically active as a result of taking part in the Challenge. Motivating factors included 'reducing environment impact' (68%), 'improving fitness' (66%) and 'improving health' (64%).

EMPLOYMENT

- 2.4.33. It is estimated that circa 20,000 new jobs will be created in the SED city region by 2026 and future forecasts suggest this figure will increase significantly beyond 2026 as recognised in DLEPs Dorset Horizon 2038 – a Vision for Growth⁹
- 2.4.34. Table 2-2 summarises the main employment areas in SED city region, highlighting the largest employment locations and the main areas where new jobs are forecast to be created. It should be noted that the proposed SED city region TCF network d Cycle

⁹ https://dorsetlep.s3.amazonaws.com/Horizon%202038%20final/Dorset_Horizon2038_Nov2018_FINAL.pdf

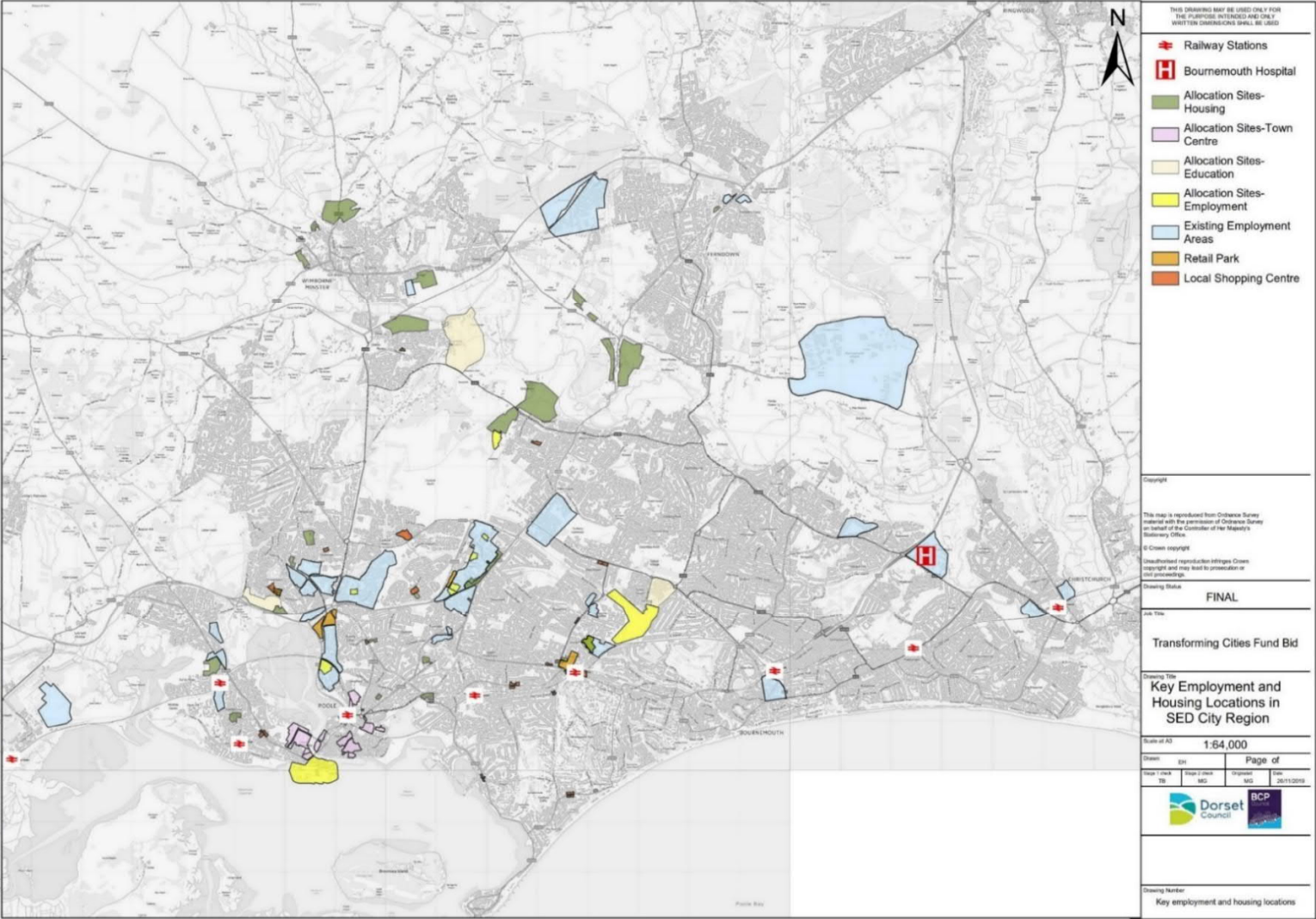
Freeways will serve all of these employment locations. The locations of the major employment and housing locations is shown in Figure 2-6 below.

Table 2-2 – Estimated Future Jobs Growth to 2026

Ref	Employment Site/Area	Estimated Existing Jobs	Estimated New Jobs by 2026
1	Bournemouth Aviation Park	2,000	3,000
2	Wessex Fields/Chaseside	10,000	2,500
3	Lansdowne Business District	8,000	2,000
4	Bournemouth Town Centre	4,000	1,000
5	Poole Town Centre	4,000	1,500
6	Talbot Heath (Digital Village – new site)	0	2,000
7	Nuffield Industrial Estate	4,500	1,300
8	Ferndown Industrial Estate	4,000	1,800
9	Holton Heath Industrial Estate	1,500	500
	Sub Total	38,000	15,600
	Other locations		4,400
	Total		20,000

FOR PUBLIC CONSULTATION

Figure 2-6 - Key Employment and Housing Locations in SED City Region



HOUSING

- 2.4.35. Each of the amalgamated planning authorities have updated their Growth Plans. As national and local land supply objectives have continued to shift, the physical, environmental and economic constraints of the green-belt, ecology and air quality interventions have restricted growth. Due to the urban nature of the main towns, there is limited scope for major housing delivery growth close to the town centres. Therefore most of the significant housing allocation sites are located on the edges of the existing urban areas. These locations generally have poor connectivity to employment centres and thus require additional transport investment.
- 2.4.36. Whilst Poole recently reviewed its Community Infrastructure Levy to address viability and delivery, having decided to amalgamate the authorities, BCP Council recognise the need to complete a Local Plan Review as part of a need to address affordability in the region.
- 2.4.37. TCF forms part of a package of interventions to influence travel demand, provide transport connectivity to link housing to urban centres and support sustainable growth.
- 2.4.38. Table 2-3 indicates the breakdown of the additional 29,400 new homes required in SE Dorset by 2026 based upon work being undertaken by the Local Planning Authorities as part of their complete and emerging Local Plans.

Table 2-3 –Housing Growth Estimates to 2026

ONS Code	Local Planning Authority (LPA) Area	Total LPA Areas Workday population (2011 Census)	SED city region Area Workday population (2011 Census)	Total LPA Areas Indicative assessment of housing need - Dwellings per Annum 2016 to 2025	SED city region Indicative assessment of housing need - Dwellings per Annum 2016 to 2026 (Pro-rata based on workday pop.)	SED city region Indicative assessment of total additional housing (dwellings) 2016 to 2026
E06000028	Bournemouth	175,409	175,409	1,458	1,458	14,580
E06000029	Poole	154,823	154,823	710	710	7,100
E07000048	Christchurch	48,152	48,152	352	352	3,520
E07000049	East Dorset	81,069	68,687	442	374	3,745
E07000051	Purbeck	43,750	16,672	120	46	457
Totals		503,203	463,743	2,646	2,504	29,402





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2.5 PROBLEMS IDENTIFIED

- 2.5.1. The SED city region, comprising the BCP Council area and adjacent urban areas within Dorset Council, suffers from limited connected sustainable transport choices available for people who live and work in or visit the area, along with a range of transport challenges including its unique geography, incomplete strategic transport network and increasing population, all of which lead to increased levels of congestion.
- 2.5.2. To overcome the productivity gap, it is essential that unnecessary car use is reduced in lieu of alternative sustainable modes. Previous transport studies highlighted areas such as Wimborne and Ferndown as having bus and cycling connectivity requiring improvements leading to an overdependence upon cars, resulting in congestion.

PHYSICAL AND NATURAL CONSTRAINTS

- 2.5.3. The transport network itself is constrained by the coastline to the south. Although the coast is a significant asset and one of the country's most spectacular natural features that attracts many visitors, it results in the lack of orbital routes that many other urban areas benefit from. The River Stour also runs through the SED city region. This provides another valuable natural asset albeit currently also presenting a barrier to north-south transport movements particularly for sustainable modes.
- 2.5.4. The SED city region contains a patchwork of and is surrounded by numerous protected sites. Many of these protected sites are concentrated in the marine and coastal areas south of Poole and to the north of Christchurch associated with the River Stour and River Avon. Most protected sites are Special Protection Areas (SPA), Ramsar Sites and Sites of Special Scientific Interest (SSSI) designations associated with heathland, river valley, meadow and marine habitats.
- 2.5.5. The area is bordered by the South East Dorset and South West Hampshire Green Belt which includes the New Forest National Park and to the north lies the Cranborne Chase AONB which covers 380 sq. miles of countryside overlapping the boundaries of Wiltshire, Dorset, Hampshire and Somerset. In summary, the area enjoys a world class, protected environment and landscape which in a transport context, presents significant constraints and fewer opportunities to improve mobility.
- 2.5.6. Appendix B shows the various physical and natural environmental designations that represent constraints, but also potential opportunities, to delivering sustainable and strategic transport infrastructure.

PRODUCTIVITY & PLANNED LOCAL GROWTH

- 2.5.7. The SED city region has huge potential for economic growth and increased productivity, evidenced by the proposed job forecasts to 2026. However, evidence is suggesting that the local transport network is stifling productivity across the area.
- 2.5.8. Gross Value Added (GVA) per hour worked data from the Office for National Statistics (ONS) indicates that Dorset under-performs relative to the UK. The SOBC sets out the GVA hours worked in 2016 which allows the estimation of how much more could be produced if the region were to perform at the same level as the national average.





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- 2.5.9. Compared with the UK average, output per hour (productivity) in the Dorset Council area is £4.80 lower and in the Bournemouth & Poole areas of BCP Council it is £3.90 per hour lower.
- 2.5.10. In 2016, total GVA in the DLEP area was £16.13bn. Filling the output gap would raise this by £2.5bn across the whole of Dorset. Making an adjustment for population and relative productivity between the SED city region it is estimated that by matching the UK level of productivity, the SED city region could contribute an additional £1.5bn GVA per annum to the UK's economy.
- 2.5.11. Although this output gap is not specifically attributed to poor transport network, qualitative evidence set out within the TCF SOBC suggests local businesses consider transport to be the most significant issue when considering potential growth.

Bournemouth, Christchurch and Poole Travel Survey 2019

- 2.5.12. In January 2019 BCP Council carried out a Travel Survey designed to monitor long-term trends in personal travel, to inform the development of policy and to help identify measures to improve sustainable travel in the area.
- 2.5.13. The aim of the survey was as follows:

- Provide baseline data
- Identify travel patterns and trends
- Monitor long-term trends in personal travel
- Inform travel policy
- Understand barriers and incentives to sustainable travel

- 2.5.14. The online survey sought to better capture the travel patterns of those who live, work and go to school within the BCP Council area. Findings of the survey are set out in the SOBC.

Business Travel Network – Key Issues Arising from Surveys

- 2.5.15. Based on a broader review of Travel Plans and sustainable travel activities across the Business Travel Network and the SED city region, the following issues have been identified:
- Lack of facilities for staff using active travel modes (workplaces and educational establishments).
 - Insecure cycle storage, lack of shower and changing facilities and kit drying facilities
 - Lack of facilities for children using active travel modes to get to school. Covered secure cycle storage & scooter storage with additional space for storage/lockers for helmets & wet weather gear.
 - Lack of all-weather bus stops – exacerbated by indirect routes and high-ticket fares, and perceived low quality of service





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- Lack of Season ticket offers from South Western Railway for local commuter journeys on the train. Need for salary sacrifice schemes to be more readily available for staff to enable the purchase of season tickets.
- Lack of integrated ticketing across modes, other than the PlusBus option for rail/bus travel.
- Low uptake of car sharing in businesses, lack of infrastructure, monitoring and promotion
- Lack of car sharing amongst staff at Educational Establishments
- Workplace car park management is often inadequate, and not based on business need. This impacts on car sharing promotion and uptake. Also, the need to have more prioritising of car sharing parking bays to be prominent and near to the building.
- Lack of smart working infrastructure – resulting in peak and off-peak trips which are not necessary (commuting and business travel)
- Lack of EV charging infrastructure in the workplace
- Lack of on-street residential EV charging infrastructure, limiting the uptake of EV vehicles
- Dangerous and irresponsible parental parking near to educational establishments creating congestion issues, impacting on road safety, safety of and perception of safety of active travel (Walking, Cycling & scootering).
- Increase in air pollution levels through use of motor vehicle in the near vicinity of the schools and increasing levels of idling.

LOCAL HIGHWAY NETWORK

2.5.16. In the SED city region, there are no motorways, few trunk roads and a lack of dual carriageway primary routes. Many planned major road schemes were abandoned in the 1980s and 1990s. This has led to isolated sections of dual carriageway interconnecting with pre-existing lengths of single carriageway roads. Figure 2-10 overleaf shows the main highway network across the region.



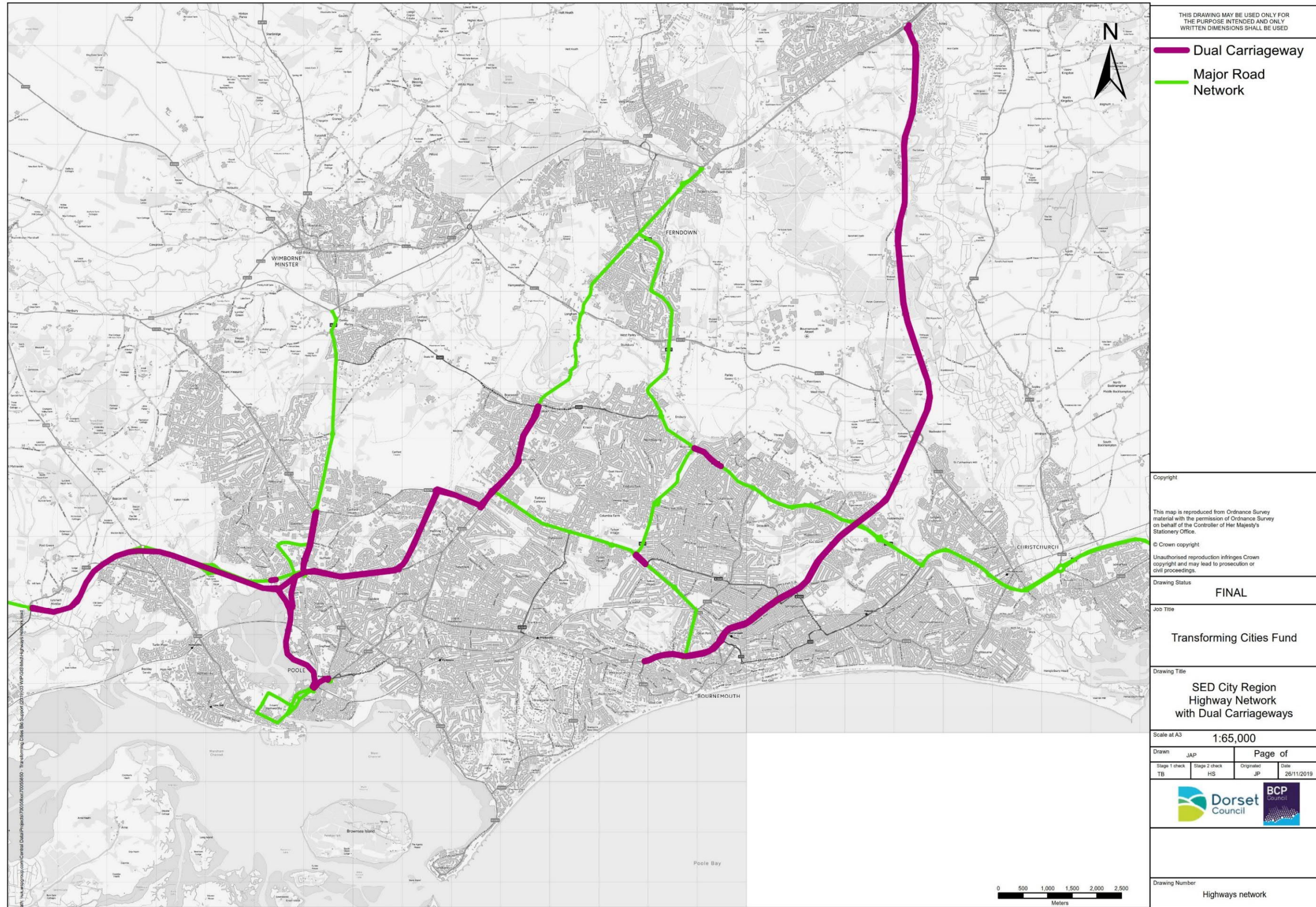
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Figure 2-7 - SED City Region Highway Network



- 2.5.17. Work undertaken for Poole's former Local Plan provides a useful evidence base for setting the scene for a 'do nothing' scenario¹⁰.
- 2.5.18. The transport modelling to inform the plan was undertaken using the South East Dorset Transport Model; a strategic SATURN (Simulation and Assignment of Traffic in Urban Road Networks) traffic model which covers the SED city region. The model covers the morning and evening weekday periods of 8-9am and 5-6pm and considers car, light goods vehicle (van) and heavy goods vehicle trips.
- 2.5.19. The model ran across several future year demand scenarios that forecasts traffic levels, congestion, delays and junction performance in 2033. It also identified locations that were worst affected. The SATURN model predicted the overall number of trips on the network in 2033 based on TEMPRO 2017 growth factors derived from NTEM data for the 'Do Minimum' case. By adding the Poole Plan growth sites to TEMPRO, the model then predicted the overall number of trips in 2033 with the Poole Plan growth sites included, known as the 'Do something' case. This allowed an understanding of the likely impact of the new growth sites over and above background growth
- 2.5.20. The main Future demand scenarios without mitigation considered were:
- i. Do Minimum 2033– Background growth and committed development in 2033; and
 - ii. Do Something 2033– The Do Minimum + additional growth sites in the Poole Local Plan.
- 2.5.21. The model predicted that in the Do Minimum 2033 scenario the Poole network in 2033 will experience approximately 34% more trips than in 2012. Adding the Poole Plan growth sites, the network is forecast to contain 36.8% more trips than in 2012, therefore it can be stated that the newly allocated sites in the Poole Local Plan add 2.5% more trips across the full network on top of the existing planned and further background growth.
- 2.5.22. The South East Dorset model was refreshed and new data used as part of the SOBC including planned growth across the whole SED city region. This model has been used for the OBC but it should be noted that more detailed modelling will be undertaken at FBC stage.
- 2.5.23. Due to a lack of sustainable travel choices, the local highway network accommodates high levels of traffic resulting in urban congestion, very poor network resilience, unreliable journey times, severance and air quality issues for residential neighbourhoods.
- 2.5.24. There are two Air Quality Management Areas locally. These are discussed further later in the chapter. Both are located in the Parkstone area of Poole, northeast of the town centre.

¹⁰ <https://www.poole.gov.uk/planning-and-building-control/planning-policy-and-guidance/poole-local-plan-evidence-base/>



- 2.5.25. The lack of a connected strategic network causes increased traffic congestion, characterised by low traffic speeds and increased journey times on the main approaches to the conurbation, particularly on the main corridors in the peak periods (e.g. A31T, A338, A35, A348, and A3049).
- 2.5.26. The A35 runs west from Bournemouth, connecting the SED city region with Dorchester and Devon further west. To the east/northeast, the A338 connects Bournemouth to St Leonards, the A31 and Ringwood. Both of these routes are important connecting routes into the SED city region and links to the Strategic Road Network.
- 2.5.27. The A338 has recently been the subject of works delivered through the Bournemouth International Growth (BIG) Programme, a £45m Growth Deal project aimed at tackling congestion and poor highway links to the Airport and developments sites in the vicinity. This programme is scheduled to continue through to 2021. The works provide significant additional highway capacity for inbound traffic, improving journey times into the conurbation.
- 2.5.28. The SOBC set out the trend in motor vehicle traffic and compared to car vehicles traffic which shows the increase in car vehicle traffic was similar to all motor vehicle traffic trends. Bournemouth saw a rise of 3.7% between 2011 and 2018, Poole saw a rise of 1.4% but Dorset's increase was 7.9%. This was higher than the national and regional average. The dominance of private car traffic across the region has created a congested network with slow vehicle speeds and high volumes.
- 2.5.29. Work carried out by BCP Council officers using Highways Analyst illustrated the increase in journey times and reductions in average speeds across Poole and Bournemouth between 2011 and 2016 a summary of that work was set out in the SOBC, however using the various data sources it is clear that congestion has increased Dorset especially in the Urban Areas between 2011 and 2016.

LOCAL BUS NETWORK

- 2.5.30. Whilst the recent bus patronage and satisfaction levels discussed above are very encouraging there are challenges that remain to be addressed. Locations further from the SED city region core tend to have less competition between operators and higher fares as a result. Journey times can also be long and less attractive to commuters particularly on the north-south corridors to Wimborne and Ferndown. Long distance bus routes are not as attractive as they could be due to journey times and fares (relative to car use). Services are not usually very direct and do not operate as limited stop services due to the need to maximise passenger loadings to remain commercial.
- 2.5.31. The passenger experience is confusing particularly for the large number of visitors and students from the UK and overseas as whilst both operators serve the main routes on a high frequency basis, this is undertaken with no coordination on timings, differing fare structures, no transfers between tickets, and varying service offers. The challenge is therefore to replicate the success of the east-west corridor provision on other key transport corridors in the city region in line with the aspirations of the National Bus Strategy.
- 2.5.32. The BCP Council Travel Survey questioned respondents as to why they are prevented or deterred from using public transport. Lack of direct routes, time, cost and frequency all



feature as prominent deterrents from using public transport. These factors are being addressed to a greater or lesser extent as part of the TCF package, in particular as part of the 'S' Corridors scheme.

LOCAL RAIL CONNECTIVITY

- 2.5.33. The SOBC identified that the rail network is currently not used to its maximum potential for local journeys within the conurbation and from the wider Dorset / Hampshire sub region. The limited services (two per hour at irregular intervals) from Wareham and Hamworthy into Poole and Bournemouth does not provide an attractive frequency for local commuters. Ticket pricing is also a disincentive for local travellers. Rail travel from the SED city region to London is slow, with the journey from Bournemouth to London taking almost two hours.
- 2.5.34. At both Bournemouth and Poole Rail Stations, issues were identified relating to poor access for pedestrians and cyclists. At Poole, links to the town centre and the bus station are particularly unattractive for 'first mile/last mile' connectivity.

Poole Station

- 2.5.35. The current station suffers from a poor quality cramped building with inadequate waiting and toilet facilities. The forecourt is poorly laid out for drop-off, interchange and onward travel.
- 2.5.36. Access to the station for pedestrians and cyclists from other parts of the town is unattractive with 'first/last mile' links between the station, the bus station and the shopping centre similarly difficult. The bus station provides important connectivity from within and beyond Poole.



Bournemouth Travel Interchange

- 2.5.37. The recent improvement of the westbound station forecourt including bus facilities has been a major step forward, but the upside forecourt has lacked the same level of investment. As



rail patronage continues to grow it is likely that there will be increased pressure on internal facilities within the station that require significant improvement to bring the interchange fully up to a high quality modern standard. On the forecourt, cycle parking provision is limited. Beyond the station, pedestrian and cycle connections into the town centre are poor and

circuitous around the supermarket and via Station Road roundabout subway. This does not provide a suitable gateway to the town centre.

- 2.5.38. Other stations within the conurbation suffer from very poor access conditions not only via the immediate platform access but also between the station and the surrounding streets. Several of these underutilised stations are in need of major upgrade. Connectivity with the bus network in some cases is provided but others are poorly linked. The introduction of the shared bike scheme during 2019 offers significant opportunity for improve urban connectivity between modes.
- 2.5.39. Similar to Poole Station, enhancement of services at Wareham Station is currently constrained by the presence of a poor-quality level crossing which restricts the ability to offer improved frequencies due to the need for significant upgrade.
- 2.5.40. In line with Gear Change, there is a need to significantly improve the opportunity to interchange from cycle or bus to rail at stations.

CYCLE NETWORK

- 2.5.41. The SED city region cycling network is growing and well used however the area suffers from many common challenges. Poor safety, due to a lack of segregation, a lack of high quality connectivity between modes and a lack of well-connected routes that link popular origins and destinations are major barriers to take up of cycling as a natural mode of choice for journeys to work and education. Journey to Work modal share in 2011 Census was 5.5%, compared with 2.8% across England and Wales. This compares with 8.2% in Bristol, 6% in Exeter and 5% in Brighton and Hove.

Pedal Cycle Casualties

- 2.5.42. Individually, over the past five years Bournemouth is the fourth worst and Poole the thirteenth worst Local Highway Authority nationally in terms of road cycling casualties from 2012 to 2016. Combining the totals from both places Bournemouth and Poole as sixth worst, highlighting the need for major improvements to cycling infrastructure in the SED city region.
- 2.5.43. There is no appropriate data to compare the relative performance of SED city region with other areas of the country. The following table, which indicates the number of cycling casualties per million population, is therefore based upon the joint performance of Bournemouth and Poole.



Table 2-4 - Reported casualty rate per million population, England, 2012-2016

ONS Code	Region/Local Authority	2012	2013	2014	2015	2016	5 Year Ave	Rank
E06000028	Bournemouth	803	689	711	715	486	681	(4)
E06000029	Poole	390	483	560	405	363	440	(13)

DfT RAS30045

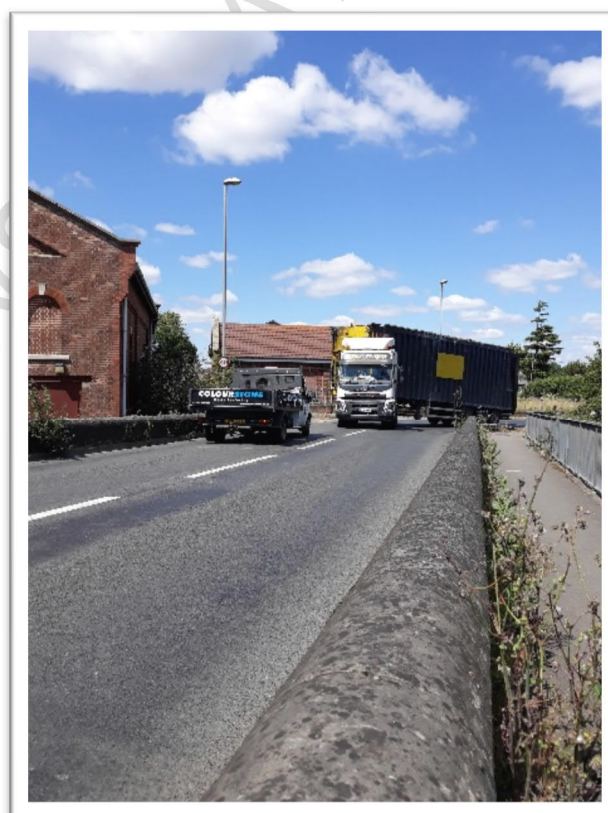
2.5.44. The current cycle facilities lack cohesion, with small sections of high quality infrastructure within a broader poorly connected network. It is important to provide a more comprehensive network of cycle route to better facilitate regular and leisure cycle use for all residents, visitors and employees in the SED city region.

NETWORK MANAGEMENT

2.5.45. Road Traffic collisions have an effect, not just an immediate one on those involved, but also a longer term impact on the local highway network in the area where they occur. If traffic flows can be regulated in such a way that speeds are lower and more consistent, then the frequency of collisions is lowered and, in all probability, the severity of any crashes that do occur is reduced.

2.5.46. The highway network itself is constrained by the coast to the south which, resulting in the lack of orbital routes that many other urban areas benefit from. Transport issues are further exacerbated by limited crossings over the River Stour which runs to the north of the SED city region. This results in a transport network that is very sensitive and vulnerable to traffic incidents and weather-related disruption. Therefore an improved network management system that responds to events on the network quickly and efficiently is essential.

2.5.47. A particular area on the network that causes ongoing concern is Longham Bridge on the A348 Ringwood Road. The existing bridge is Grade 2 listed. Due to insufficient carriageway width and the sub-standard approach alignment to the bridge, there are regular incidents involved HGV vehicles striking the bridge masonry parapets. This leads to frequent disruption causing re-routing and congestion on parallel routes and impacts significantly on the resilience of the highway network. This crossing lies on the S5 corridor so is of particular importance to this OBC.



2.6 IMPACT OF NOT CHANGING

OVERVIEW

- 2.6.1. Market failure to provide accessible, efficient, enjoyable and safe transportation alternatives to the motor vehicle has resulted in the SED city region being heavily congested, resulting in significant negative externalities. Without government intervention the status quo will prevail and roads will continue to be congested, carbon emission levels will continue to rise, air quality will deteriorate, economic growth, housing delivery and productivity will be further constrained. Furthermore, health and wellbeing will be adversely affected in residential and urban areas, and car dependency will continue to prevail disproportionately impacting deprived communities.
- 2.6.2. Across the board, a limited investment in sustainable travel modes will not result in the modal shift required in order for the SED city region to achieve the level of economic productivity that the output gap identified in Section 2.4 above suggests is possible over coming years.
- 2.6.3. Motor vehicles prove to be expensive on individuals, as well as for society. The economic, social, environmental, and health consequences associated with motor vehicles (and car oriented urban design as found in Bournemouth, Christchurch and Poole) are well documented. Thus, individual incentives for the “rational behaviour” of using a car does not lead to the rational outcomes expected for the individual or the conurbation.
- 2.6.4. Without significant investment through the TCF programme, BCP Council will fail to achieve it’s target of being a carbon neutral authority by 2030, and a carbon neutral community well before 2050.
- 2.6.5. In summary, not changing will mean:
- Opportunities for increasing modal shift will be reduced;
 - Traffic congestion (and impact upon productivity) would continue to be an issue;
 - Improvements to air quality will not be realised;
 - Opportunities to encourage and incentivise active and healthier travel will be missed;
 - Opportunities for increasing travel choice, particularly for those at risk of social exclusion, will be missed

HIGHWAY NETWORK

- 2.6.6. Based on the evidence set out earlier in this report, congestion and delay will continue to increase on the network without a combined improvement in sustainable transport options and a shift in council-wide parking policy.



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2.6.7. As detailed earlier, Poole's Local Plan evidence base is relevant in setting the scene for a 'do nothing' scenario.

2.6.8. The overall model statistics (with no mitigation) do show considerable additional queuing in the 2033 forecasts both with and without the additional Poole Plan sites. Average modelled vehicle speeds in the AM peak are shown to reduce from around 43kph to 32.2kph (a fall 25%) with background growth only and to 31.6kph with the Poole Plan sites added (a fall of 28%). In the PM peak, average modelled vehicle speeds are shown to reduce to 31.2kph with the background growth only (a fall of 28%) to 28.7kph including the Poole Plan sites (a fall of 33 %). The additional sites can be said to reduce average vehicle speeds by an additional 5%.



BUS NETWORK

Bus Services

2.6.9. The bus network suffers from significant journey time and reliability issues due to the level of congestion and delay experienced on the network. Without improvements to bus corridors delays will continue and opportunities to attract new bus passengers will be limited. Bus journey times will continue to be scheduled based on very low speeds, limiting the opportunities to attract new passengers, particularly commuters who will require competitive journey times and a reliable service.



2.6.10. Bus priority measures on corridors and at junctions are essential to achieve significant modal shift from car to bus. Furthermore, the existing poor quality waiting facilities, in particular in Christchurch, and lack of RTI information does not make bus use attractive for time-dependent journeys.

2.6.11. If congestion continues to increase, bus modal share is likely to reduce. This will undermine the deliverability of housing and employment growth across the city region.



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- 2.6.12. The S5 route runs through busy sections of the network, linking up Poole town centre with existing employment and residential areas including Mannings Heath. The corridor is currently the route for several important bus routes including the X6, 11 and 14.
- 2.6.13. The S6 route runs west to east from Merley to the north of Poole to Christchurch in the east of the region. The corridor again connects up a number of key employment and residential centres including Castlepoint, Bournemouth Hospital, Bearwood and Kinson, with the corridor coinciding with sections of routes 2, 4a, 6h, 14, 15 and 32.
- 2.6.14. Both of these corridors provide essential bus connectivity across the SED Region. However with the growing congestion on the network, without additional bus priority measures patronage will not increase.

Vehicle Quality

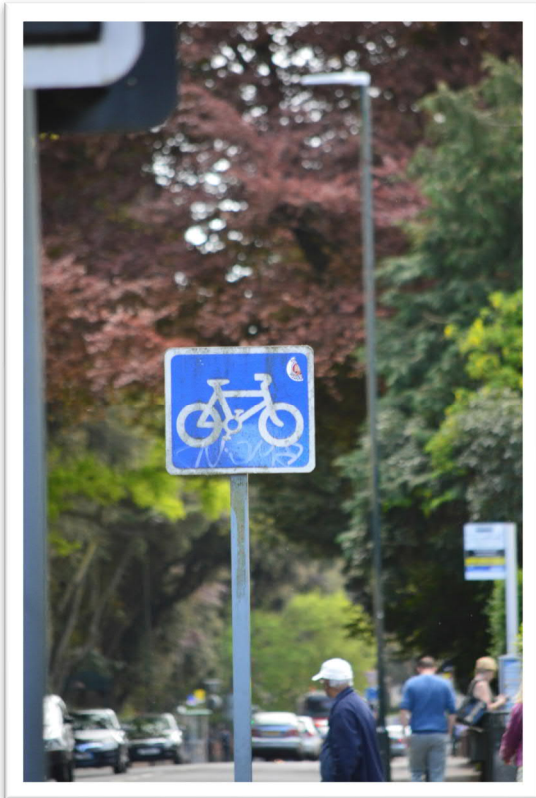
- 2.6.15. Without TCF funding, if bus patronage remains static or falls, the level of operator investment in new, cleaner vehicles will be lower, leading to impacts on air quality, health and wellbeing and journey quality.
- 2.6.16. It is unlikely that a Bournemouth town centre circular bus service would be provided without TCF support and unless alternative sources of funding could be found, it is unlikely that electric buses would be procured for new routes.
- 2.6.17. As detailed above, both corridors are served by busy bus routes run by Yellow Buses and More. With the publication of the National Bus Strategy, there is increased expectation on the provision of high-quality clean vehicles to enhance customer satisfaction. The combined provision of bus priority and improved passenger facilities at stops will encourage an increase in patronage and increased investment in cleaner, greener vehicles in order to retain these passengers.

CYCLE NETWORK

- 2.6.18. Without transformational levels of investment in the local cycle network, there is likely to be very limited further growth in cycle use across the SED city region. This will restrict health and wellbeing benefits and may also influence business's ability to recruit and maintain staff.
- 2.6.19. The LCWIP process confirms the locations where interventions will be best placed to achieve modal shift to cycle. Without TCF funding, the programme for introducing these interventions will be extended and therefore the benefits will take longer to be realised.



Road traffic estimates for 2018 show that 3.3bn miles were cycled in Great Britain last year – 33.7% more than recorded in 1993. If safer cycling environments are not provided then the risk is that greater numbers of cyclists will be injured as cycle patronage increases further. Cyclists make up 1% of all vehicle traffic, travelling 3.3 billion vehicle miles. In road safety casualty terms, however, they make up around 5% of all Fatalities and 12% of all Serious Injuries



FOR PUBLIC CONSULTATION





LOCAL HEALTH AND DEPRIVATION

Local Health Profile

2.6.20. Local Authority Health Profiles provide an overview of health for each local authority in England. Below are selected indicators taken from the 2019 profiles of Dorset Council and BCP Council.

Table 2-5 - Local Authority Health Profile Data 2019

Indicator	BCP Council Area	Dorset Council Area	England Average
Life Expectancy (male)	80.2	80.2	79.6
Life Expectancy (female)	83.7	83.7	83.1
Under 75 mortality rate	302.8	302.8	331.9
Diabetes Diagnosis rate	74.0	74.0	78.0
Percentage of Physically Active Adults	71.0	70.5	66.3
Percentage of adults classified as overweight or obese	61.9	61.7	62.0
Year 6: Prevalence of Obesity	16.5	16.1	20.1
Percentage of Children in Low Income Families	14.0	14.0	17.0

2.6.21. Life expectancy, mortality rates, obesity levels and diabetes diagnosis rates are all below the England average, demonstrating a healthy population across BCP and Dorset Council areas.

2.6.22. A healthier population are more likely to make use of sustainable active travel infrastructure where provided. Regular physical activity reduces the risk of dementia by up to 30%, depression by up to 30%, Type 2 diabetes by up to 40% and cardiovascular disease by up to 35%¹¹.

¹¹ Public Health England (2019) Physical activity: applying All Our Health (online). Available at: <https://www.gov.uk/government/publications/physical-activity-applying-all-our-health/physical-activity-applying-all-our-health>





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- 2.6.23. These statistics should be considered alongside the population age breakdown of the SED city region, as detailed at Section 2.3 which shows a higher proportion of the population within the SED city region aged 65 and over.

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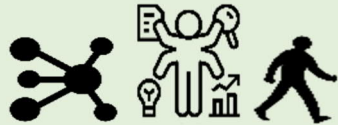

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2.7 TCF OBJECTIVES

2.7.1. As detailed in Chapter 1, The Transforming Cities Fund has a series of overarching objectives. Below, Table 2-7 demonstrates the alignment of the SED TCF proposals with achieving these objectives.

Table 2-6 – SED TCF Scheme Objectives

TCF Objective		SED TCF Scheme Supporting Objective
Support the local economy and boost productivity		<p>Providing a network of reliable and efficient sustainable travel corridors linking employment, housing and town centres will improve access to jobs for residents and access to skills for employers.</p> <p>Providing access to improved workplace cycle facilities to further encourage sustainable commuting</p>
Reducing Carbon Emissions		<p>Provision of high quality cycle infrastructure, identified through LCWIP assessment, on corridors across the SED region, encouraging active travel and the reduction in single-occupancy vehicles (SOVs)</p> <p>Beryl bike scheme – wider provision and introduction of e-bikes to facilitate increased use and across longer journeys, reducing unnecessary short SOV trips</p> <p>Network management to prioritise bus movements through key junctions, reducing idling of buses and encouraging mode shift from SOVs</p>
Air Quality Improvements		<p>Improvements to air quality on all corridors through increased sustainable travel.</p> <p>Two active AQMAs in region. Both lie to the east of S5 and will benefit from improved sustainable travel interventions. E-bikes in particular will reduce the number of short urban car trips</p> <p>The uptake of electric vehicles is anticipated to increase significantly in coming years, improving air quality in urban areas significantly</p>
Support Housing Delivery		<p>29,400 households planned across SED region which will be connected up via the network of sustainable transport and cycle corridors</p>
Wider social/economic benefits		<p>Encouragement of low cost, sustainable travel through improved walking and cycle infrastructure are likely to disproportionately benefit lower income group and providing improved links to the most deprived areas of the region.</p> <p>Improved access to services, training and employment</p> <p>Health benefits of active travel</p> <p>Improved passenger experience for bus and rail passengers</p> <p>Bus operators are committed to provision of apprenticeship scheme places in conjunction with the TCF scheme implementation</p>
Aligned to Future Mobility Grand Challenge		<p>The widespread provision of E-bikes through the Beryl scheme will significantly improve future mobility options.</p> <p>Provision of electric car charging points at main stations to encourage the uptake of electric taxis</p> <p>Commitment to establish a multi-modal joint ticketing product.</p>



- 2.7.2. The SED city region TCF package has been developed to focus upon addressing the sustainable transport problems identified within this Strategic Case. The SED city region covers the main travel to work area and the TCF proposals are aimed at enabling commuters to 'switch' to sustainable transport modes, along with improved sustainable transport for those that already walk, cycle or travel by bus. This will improve their health and wellbeing, reduce carbon emissions, improve air quality, and reduce congestion and delay on the local highway network thereby boosting productivity, enabling housing delivery and growth.
- 2.7.3. A significant productivity gap exists in the city region, exacerbated by a constrained transport network dominated by private car use. The formation of BCP Council and the joined-up approach with Dorset Council for this TCF programme presents a real opportunity to address this economic under-performance through joint working and a strategic approach across operators, employers, Councils, LEP, and other key stakeholders.
- 2.7.4. This section sets out the identified opportunities that the TCF package provides for the local cycle network, as well as a summary of the wider transport network impacts.

HIGHWAY NETWORK

- 2.7.5. Whilst reducing the propensity of people to travel by private car in the SED city region is the focus of the TCF package, these measures will reduce traffic levels on main corridors, improving air quality and improving journey times for bus services.
- 2.7.6. Other improvements to the highway network include addressing pinch points on the network and enhancements to the UTMC systems to better respond to issues in the network [across](#) the SED region.

CAR PARKING

- 2.7.7. To achieve the full benefit of the proposed TCF package, there needs to be a step change reduction in private car use. An important part of this is parking provision at key trip destinations.
- 2.7.8. On 9th October 2019, BCP Council committed to undertaking a strategic parking review (SPR)¹² across their administrative area with the remit of amalgamating policies from preceding local authorities into one new uniform strategy. A consistent approach to parking policy will complement sustainable transport initiatives by leveraging demand management tools where most appropriate.
- 2.7.9. On 5th January 2021, a new Parking Standards Supplementary Planning Document (PSSPD) was adopted, coming into immediate effect. Fundamentally, it applies a Zonal

¹² <https://democracy.bpcouncil.gov.uk/documents/s12933/20191009%20-%20Strategic%20Car%20Parking%20Review.pdf>





approach to parking standards reflecting relative levels of accessibility. Areas across the municipality are categorised as one of four types:

1. Main Centre (Zone A)
2. District Centre (Zone B)
3. Business Hub (Zone C) or
4. Suburban / rural location (Zone D).

2.7.10. Parking requirements for all new developments are stipulated according to prescribed zonal characteristics. Principally its function is to:

- Ensure car parking provision is congruent with the type, scale and setting of new development; and
- Encourage a modal shift to non-car alternatives through parking restraint plus investment in public transport and active travel.

2.7.11. The next stage of the SPR will look at existing parking infrastructure managed by the Council, from controlled parking zones / permits, to off-street car parks and associated tariffs. As part of this, consideration will be given as to how these can be best aligned with emerging TCF proposals and the PSSPD.

BUS NETWORK

2.7.12. The TCF programme presents the opportunity to improve the bus infrastructure along key corridors, enabling the achievement of better and more reliable journey times. Bus priority measures at signals can reduce delay through congested junctions and faster boarding and alighting through smart ticketing will further reduce journey times and improve the customer experience. The expectations set out within the National Bus Strategy document can be achieved at an early stage through the TCF investment.

2.7.13. Both main bus operators in the SED city region run diesel vehicles of varying ages and efficiencies. Investment in improved, cleaner vehicles, will be beneficial both in terms of air quality, but also in terms of the image and attractiveness of services to new passengers. The Climate Emergency declaration, along with the promotion of cleaner vehicles through the National Bus Strategy makes the investments coming forward as part of the TCF package particularly timely.

RAIL NETWORK

2.7.14. The growth in rail passengers over recent years as detailed in Section 2.3 represents a very positive situation, despite certain problems identified with the local station conditions and facilities. The TCF programme will seek to improve conditions for passengers at stations and provide enhanced interchange opportunities

2.7.15. In the longer term, there is a need for a solution to the level crossing constraint, and safety issues related to the curvature of existing station platforms. Early feasibility work into the relocation of, or redevelopment of the existing station is in progress, in partnership with Network Rail.





CYCLE NETWORK

- 2.7.16. The LCWIP will deliver on multiple policy objectives set out in the Local Transport Plan. An infrastructure plan that delivers a safer and better connected cycling network will contribute to tackling climate change, create better quality environments, help regenerate the town and local centres, improve economic performance, improve air quality, contribute to living healthier lifestyles and the wellbeing of residents and visitors to Dorset and reduce congestion.
- 2.7.17. BCP Council and Dorset Council are currently developing the Local Cycling and Walking Infrastructure Plans (LCWIPs) that will set out a coordinated plan of investment in infrastructure across the conurbation and enable residents and visitors to the area to make cycling a natural and convenient choice for shorter journeys, either for work, study or leisure. The process of developing an LCWIP has ensured that we have created an evidence based plan that identifies quick wins, makes the most of existing infrastructure, plugs the gaps in the network, connects trip generators with trip attractors and genuinely enables all cohorts to cycle safely and conveniently and make cycling the preferred choice for travel. The LCWIP process has directly informed the TCF programme of interventions as detailed above.
- 2.7.18. The Cycling Vision within Dorset up to 2026 is: -
“To create a cycle-friendly environment and culture where residents and visitors of varying ages and abilities cycle regularly as the obvious choice for shorter distance journeys.”
- 2.7.19. The Cycling Vision directly supports Government’s ambition for Cycling in England as set out in its adopted Cycling and Walking Investment Strategy (CWIS) 2017:
“We want to make cycling and walking the natural choice for shorter journeys, or as part of a longer journey”.
- 2.7.20. The Cycling Vision further supports the overarching Local Transport Plan 3 vision –
“To create a safe, reliable and accessible transport system for Bournemouth, Poole and Dorset that assists in the development of a strong low carbon economy, maximises the opportunities for sustainable transport, and respects and protects the area’s unique environmental assets.”

BIKE SHARE AND ELECTRIC BIKE SCHEMES

- 2.7.21. BCP Council awarded a 5-year contract for bike share to Beryl in 2019. Operation commenced in June 2019 and currently covers Poole and Bournemouth areas with a total of 1,200 bikes across 330 bays.





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- 2.7.22. Since being introduced, the bike share scheme has registered 11,000 users and over 100,000km cycled in 6 months. The average journey distance across the BCP scheme currently is 3km.
- 2.7.23. Expansion of bike share to other local towns and centres including Christchurch will be effective in addressing congestion caused by first and last mile journeys.
- 2.7.24. LCWIP analysis using Propensity to Cycle Tool (PCT) has shown that Christchurch has much higher levels of 'propensity to cycle' compared with the wider region due to the flatter topography.
- 2.7.25. Beryl are also proposing to add 300 electric bikes (e-bikes) to the BCP Beryl scheme. This will encourage bike share usage in hillier areas, allow for longer journeys and enable a more diverse set of users, particularly older people. A recent study of the activity of electric bike users compared to conventional bike users and non-cyclists found that average trip distance for e-bike users were approximately twice that of conventional bike users (9.4km compared to 4.8km).



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WAYFINDING & SIGNAGE

2.7.26. Wayfinding is an intrinsic part of the overall package of infrastructure improvements. Wayfinding provides essential information (e.g. direction, journey time, bike share locations, providing information on travel app) to both residents and visitors on the key destinations using accessible walking and cycling routes across the SED city region and will complement the enhanced walking and cycling network emerging through the LCWIP process. This will provide users with added confidence in their journeys and link to other sustainable modes such as bus, rail and bike share.

2.7.27. A Wayfinding project has recently been delivered in Bournemouth Town Centre and this has been very well received by residents and visitors. The scheme has provided a series of Wayfinding 'totems' around the town centre providing onward travel information and maps. Prior to the deployment of this a thorough quality audit process was undertaken and lessons learnt can be applied to wider expansion. The expansion and development of the scheme could not otherwise be funded across the SED city region due to budget constraints.



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2.8 MEASURES FOR SUCCESS

2.8.1. Set out below are a series of proposed SMART targets against which the success of the TCF programme will be measured. These align with the TCF objectives as discussed in Table 2.7 above and cover the overall TCF package.

Table 2-7 – SMART Measures for Success

Objective	Target	Timescale	Measure (s)
Support the Local Economy and Boost Productivity	Close the productivity gap Boost economic growth; prosperity and investment	5 years post opening	GVA (£) per hour relative to UK by 2028 Delivery of commercial development – consents and construction levels by 2028
Reducing Carbon Emissions	Increased use of Sustainable modes in Corridors Improve and enhance access for business and tourism	Annual travel survey from 2020	Increased bus patronage and cycle trips and corresponding reduction in SOVs on an annual basis; Increasing levels of e-bike share trips year on year
Air Quality Improvements	Improved Air Quality at key monitoring points	5 years post opening	Reduction in particulate and NOx levels along corridors and at AQMAs; Reduced congestion and delay on highway network. Year on year reduction.
Housing Delivery	Support Housing Growth	5 years post opening	Delivery of housing development – consents and completions by 2028 in line with Local Plan
Wider social/economic benefits	Improve health gain and wellbeing for population Embrace innovation and new technology Improve Road Safety	Annual Quality of Life Survey 5 years post opening Annual monitoring	Increased activity and exercise in population and workforce; Increased levels of walking and cycling trips year on year. Increased levels of Smart Ticketing uptake; Increased levels of e-bike share trips year on year. Reduced collision rates on network within SED region, focused upon TCF Sustainable Travel corridors and Cycle Freeways year on year
Aligned to Future Mobility Grand Challenge	Facilitate use of future mobility options	Annual monitoring	Increased EV and E-bike Modal Share year on year.



2.9 SCOPE AND OPTIONS

- 2.9.1. This section sets out the process by which the overall TCF proposed package of interventions was decided and how various options have been considered in order to fully address the TCF objectives.
- 2.9.2. The focus of the TCF programme seeks to provide residents, employees and visitors with a transformational change to sustainable travel options across the conurbation meeting both TCF and local objectives. Alongside specific corridor interventions, a series of region-wide improvements and initiatives are also included.

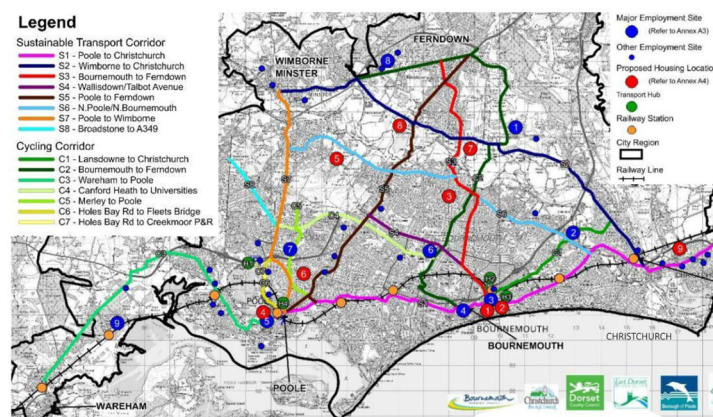
SCOPING PROCESS – EOI

- 2.9.3. An initial Expression of Interest (EOI) was submitted the DfT in June 2018 to the TCF Call for Proposals.
- 2.9.4. The EOI introduced the concept of a series of transport packages focused around sustainable transport and digital corridors, complemented by a network of strategic cycle routes.
- 2.9.5. The original EOI had a technology bias and DfT feedback in March 2019 was that proposals should be more focused upon sustainable modes of transport including walking, cycling, bus and rail interventions.

SCOPING PROCESS – EAST APPRAISAL

- 2.9.6. Following the feedback from the DfT the identified corridors within the EOI were reviewed by BCP Council and Dorset Council, their partners and stakeholders. Interventions were updated to address the comments received. This was to ensure that the proposals aligned with the TCF objectives as outlined in the guidance.
- 2.9.7. A long list of interventions across the SED city region were drawn up supporting improvements to corridors (as shown in Figure 2-8 below from the original EOI), connections between corridors and network wide improvements.

Figure 2-8 - Original EOI corridors identified for TCF programme





EAST Methodology for SOBC

- 2.9.8. The primary method utilised for option sifting was the EAST methodology. The steps used to complete the EAST methodology for the Sustainable Corridor options are described below. The updated interventions per corridor were appraised and sifted.
- 2.9.9. The aim of the EAST is to “identify – at a high level – the nature and extent of the impacts of all modes of transport / mode shift related interventions in order to prioritise the Sustainable Travel and cycle corridors based on the average scores from the EAST appraisal criteria and to enable the ranking of proposals to determine a preferred set of interventions across a range of cost levels.”

EAST process

- 2.9.10. The EAST methodology offers a structured way to consider which options best fit the overall TCF and local objectives. The EAST methodology is divided into two distinct phases.

Phase 1 – post EOI and pre June 2019 draft SOBC submission to DfT

- 2.9.11. Phase 1 consists of an initial ‘long list’ of interventions drawn up for each corridor to cover a range of modes, approaches and scales of intervention to address the overall TCF and BCP&D objectives.
- 2.9.12. For each of the Sustainable Corridors (S1 to S8) the list of interventions through site visits and workshops has been determined and split into the following broad themes to assist with further economic appraisal.
- Bus journey time
 - Bus quality impacts
 - Cycleways
 - Cycle Facilities
 - Pedestrian facilities
 - Mix Cycleway and Footway
 - Transport Hubs
 - Enhanced Infrastructure
 - Network Management and Technology.
- 2.9.13. For the Sustainable Travel corridors the long list of identified interventions considered criteria to ensure that the identified interventions fit within the TCF and SED city region objectives and are also deliverable within the timescales of the TCF programme – between 2020 and 2023.
- 2.9.14. Following the creation of the long-list of interventions for each Sustainable Travel corridor an initial sift was undertaken, which involved assessing whether the options address the following criteria.

- Whether the option is within the **TCF scope**;



- Whether the option is deliverable within the TCF programme timescales; and
- Whether the option is **already a committed scheme**. (i.e. programmed for delivery)

2.9.15. The long list of interventions per corridor is detailed at Appendix C.

2.9.16. This process, known as the Initial Option Sift, produced a shortened list of interventions in preparation for Phase 2.

Phase 2 - pre June 2019 draft SOBC submission to DfT

2.9.17. Phase 2 consisted of two parts: The Strategic Viability Assessment and the ranked EAST Assessment. This phase of the option sifting analysed the remaining interventions in more depth in order to rank the interventions for each corridor to determine the low, medium and high to inform a draft SOBC required by DfT in June 2019. This confirmed which corridors were taken forward for further appraisal and detailed modelling to inform SOBC which was issued to the DfT.

2.9.18. The Strategic Viability Assessment consisted of reviewing and scoring the sifted long list interventions against the TCF weighted objectives as set out below.

Table 2-8 – Overall Corridor EAST Scores and Ranking for Sustainable Transport Connectivity Corridors.

Sustainable Transport Connectivity Corridors	Overall Score	Overall Ranking
S5 - Poole to Ferndown	3.504	1
S3 - Bournemouth to Ferndown	3.503	2
S6 - North Poole to North Bournemouth	3.493	3
S1 - Poole to Christchurch	3.469	4
S4 - Wallisdown/Talbot Road	3.440	5
S2 - Wimborne to Christchurch	3.432	6
S7 - Poole to Wimborne	3.400	7
S8 - Broadstone to A349	3.287	8

Phase 3 – post June 2019 draft SOBC submission to DfT

2.9.19. Following the submission of the draft SOBC to DfT in June 2019 and subsequent comments received from DfT on the draft submission BCP Council and Dorset Council worked with partners and stakeholders to refine the TCF package of interventions.

2.9.20. A detailed review of the proposed costs and delivery of proposed schemes within the draft SOBC was undertaken and detailed modelling working in co-development with DfT.

2.9.21. It was concluded (in discussions with the DfT) that certain elements of the draft proposal would not be delivered by the end of the TCF programme in March 2023 and there were



questions on affordability. Therefore, a further sifting exercise took place which removed Poole bus station improvements and specific elements of cycle corridors. 3 levels of ask were determined to undergo detailed modelling, development of preliminary design drawings and independent quantity surveying checks. In conclusion the top three ranked Sustainable corridors comprised S5, S6 and then S3.

Strategic Modelling to Inform Low, Medium and High Asks at SOBC stage

- 2.9.22. The following section outlines the strategic modelling undertaken to develop the TCF programme for the SOBC into OBC stage. It should be noted that the Active Mode Appraisal Toolkit and Ambience Benefits Calculator are detailed in the Economic Case Chapter.
- 2.9.23. A CUBE/Voyager Forecast trip-end model (SEDTEM) produces an unconstrained forecast demand that represents future growth in both highway and public transport using growth assumptions from National Trip-End Model (NTEM), National Road Transport Forecast (NRTF) and explicit planning assumption across the modelled hours for the study areas
- 2.9.24. A CUBE/Voyager Multi-modal incremental demand model (SED_D) that considers the impact of frequency choice, main mode choice, macro-time choice, destination choice and sub-mode choice on reference demand produced from the SEDTEM in response to changes travel costs across the 24-hour period
- 2.9.25. A SATURN Highways Assignment model (SED_H) representing vehicle-based movements across the sub-region of a typical 2017 morning peak hour (08:00-09:00), an average inter-peak hour (10:00-16:00) and an evening peak hour (17:00-18:00)
- 2.9.26. A CUBE/Voyager Public Transport Assignment model (SED_PT) representing bus and rail-based movements across the same areas for the similar morning, inter-peak and evening peak hour to the SED_H.

Forecast year at SOBC stage

- 2.9.27. Three forecast year models have been produced for 2023, 2031 and 2039 using:
- Trips generated from the developments identified in the Uncertainty Log
 - Growth factors for car trips and public transport trips were taken from the National Trip End Model (NTEM) via the TEMPRO software.
 - Growth factors for LGV and HGV trips were taken from the 2018 Road Traffic Forecasts.
- 2.9.28. The Uncertainty Log was developed by WSP with information on proposed developments and planned infrastructure improvements within Bournemouth, Christchurch, East Dorset and Poole. The development totals are summarised in Table 2-9.





Table 2-9 – Development assumption

Planning Authority	Number of Developments	Number of Developments larger than 100 households (HHs)	HHs due to be completed between 2018 and 2023	HHs due to be completed between 2023 and 2028	HHs due to be completed between 2028 and 2033	Total number of HHs due to be completed.
Bournemouth	269	9	2,360	547	229	3,136
Christchurch	82	3	1,396	0	0	1,396
East Dorset	138	6	2,008	0	0	2,008
Poole	455	30	4,822	3,096	2,882	10,800
Total	944	48	10,586	3,643	3,111	17,340

2.9.29. The forecast year Do Minimum highways network was developed by Dorset Council and refined by WSP to improve model performance using committed highway infrastructure.

2.9.30. The forecast year Do Minimum Public Transport network was developed by Dorset Council as part of the Highway Model Development.

2.9.31. The forecast year Low Ask, Medium Ask and High Ask networks i.e. Do Something were produced by WSP using infrastructure schemes/plans provided by BCP Council and Dorset Council for the following scenarios:

- **LOW ASK**

Sustainable Connectivity Corridors: SCC5, SCC6

- **MEDIUM ASK**

Sustainable Connectivity Corridors: SCC5, SCC6, SCC3

- **HIGH ASK**

Sustainable Connectivity Corridors: SCC5, SCC6, SCC3 (with additional region-wide bus infrastructure)

2.9.32. Further work is currently being undertaken within the South East Dorset Multi-Modal Transport Study Model (SEDMMTS) to estimate the impacts of the proposals on bus and highway users. At this stage, no outputs from the modelling have been included within this OBC and as such these impacts on bus or highway users are not included in the Economic appraisal.

Local Cycling and Walking Infrastructure Plan (LCWIP)

2.9.33. The Transforming Cities Fund has been running alongside the LCWIP process in South East Dorset and therefore the network development and identification of key corridors has been aligned. This provides efficiency in identifying interventions and a robust approach upon which the cycling and walking elements of the TCF bid has been based.

2.9.34. The LCWIP process has been used to derive and prioritise cycling and walking interventions across the SED city region.

2.9.35. LCWIPs are a strategic approach to identifying cycling and walking improvements required at the local level. They enable a long-term approach to developing local cycling and

walking networks and form a vital part of the strategy to increase the number of trips made on foot or by cycle.

2.9.36. The key outputs of LCWIPs are:

- A Network plan for walking and cycling which identifies preferred routes and core zones for further development;
- A prioritised programme of infrastructure improvements for future investment;
- A report which sets out the underlying analysis carried out and provides a narrative which supports the identified improvements and network.



2.9.37. In BCP, a network was devised by identifying the main origins and destinations across the area. Origins were based on existing residential neighbourhoods along with urban extensions as identified within local policy. Destinations were based on a variety of journey purposes including town centres, employment areas, educational institutions, leisure attractions and key transport interchanges.

Figure 2-8 earlier in the report shows the identified Strategic Cycle Network Corridors. This network and the analysis undertaken in preparing the wider LCWIP has been used to verify and inform the proposed TCF corridor improvements. Developing the LCWIP in tandem with the TCF provided an efficient way of collecting evidence and identifying improvements that are complementary to the wider TCF package of proposals.

A Primary Cycle Network (Figure 2-9) has been devised for the BCP area identifying the recommended main cycle routes. Alongside this, a secondary network is being devised to identify interconnecting links to the main network, and quieter routes to be used. This secondary network is designed to connect areas and destinations of lower priority, but provide a density of network across the BCP area to facilitate safe cycling across the whole area

POST-SOBC DESIGN DEVELOPMENT & OPTIONEERING

2.9.38. Since the confirmation of the TCF funding from the Department for Transport, significant further design development has been undertaken to refine the proposed sustainable travel corridor infrastructure.

2.9.39. The funding successfully secured aligned with the original 'Low Ask' proposals in the submitted SOBC document. These proposals included the two Sustainable Travel corridors providing links between the main towns across the SED Region.

2.9.40. Since the submission of the SOBC, the designs for the two Sustainable Travel Corridors have been refined and developed through the Transforming Travel programme. Consultation on the corridors has been undertaken via the Transforming Travel website,

seeking to capture the views and opinions of stakeholders, members and the public prior to the designs being fixed.

Table 2-10 – TCF Objective Weighting

Objective number	TCF Objective	Weighting
1	Improve intra-city transport	1.25
2	Improve productivity through the provision of public and sustainable transport connectivity	1.25
3	Improve access to work and delivering growth	1.1
4	Encourage use of new mobility systems and technology	1.1
5	Tackle air pollution and reduce carbon emissions	1.1
6	Deliver more homes	1.1
7	Deliver apprenticeships and improving skills	1.1

- 2.9.41. Each intervention was scored on the above criteria out of five, with five being largely beneficial and one being largely adverse.
- 2.9.42. Thereafter the interventions per corridor undertook further scoring (out of five) using a more detailed EAST assessment. This involved using DfT's Transport Business Case Principles, specifically the five-case business model.
- 2.9.43. For the draft SOBC submitted in June 2019 an overall average EAST score for each Sustainable Transport Connectivity Corridor and Cycle Freeway was determined. Both groups of corridors were ranked to prioritise the corridors for the draft SOBC stage (June 2019) before further analysis was completed for the final SOBC (November 2019).
- 2.9.44. Appendix D provides an example of the EAST process followed to inform the early sifting process
- 2.9.45. Of particular importance is the need to align all cycle infrastructure designs with the Gear Change Vision document, and LTN 1/20 as summarised earlier which sets out clear design guidance for cycle infrastructure in the future.

2.10 PROPOSED FINAL SUSTAINABLE TRAVEL CORRIDOR PACKAGE

- 2.10.1. The sifting, appraisal (inc. DfT comments) and design development process detailed above has resulted in the development of the 'S' corridor package of interventions. The proposed interventions along the corridors include dedicated bus infrastructure, the expansion of



smart ticketing, bus shelter improvements, bus priority signal infrastructure, improvements to MoreBus and Yellow Bus services and a HGV management system on Longham Bridge.

- 2.10.2. The corridor works for improved pedestrian and cycle facilities comprise a series of network improvements such as stepped cycle tracks; improved lighting; 'Toucan' and 'Tiger' crossings to enable safe crossing for pedestrians and cyclists; shared use paths where available width is more limited; and pavement resurfacing.
- 2.10.3. In addition to the improvements to bus connectivity and cycling and pedestrian infrastructure along these corridors, wayfinding totems and signage is also proposed as part of the scheme. Wayfinding infrastructure is largely proposed within central Poole, Bournemouth and Christchurch, with further signage along the cycling and sustainable travel corridors.

TCF FUNDED PACKAGE

Sustainable Travel Corridors

- 2.10.4. Following the initial sifting exercise, DfT comments and review on the connectivity between the Freeways, Connectivity Corridors, housing and employment sites, high quality sustainable travel improvements will be delivered on two corridors. The package of measures...

Sustainable Travel Corridor Proformas

- 2.10.5. Each of the Sustainable Travel Corridors have been broken down into sections with a proforma document prepared to aid understanding of the proposed works in each location.
- 2.10.6. Detailed preliminary drawings of the sections can be found under Appendix E and Proformas in Appendix F. These proformas provide overview of each section of the Sustainable Travel Corridors, with details of the proposed interventions on each section.
- 2.10.7. Alongside the Corridor schemes detailed above, a series of other areas of intervention form part of the overall TCF package. These will come forward through a combination of TCF and LA/Third Party collaborative funding and are summarised below.

Transport Hubs

Wayfinding & Signage

- 2.10.8. Wayfinding is an intrinsic part of the overall package of infrastructure improvements for the TCF programme. Wayfinding will provide essential information (e.g. direction, journey time, bike share locations, providing information on travel app) to commuters, residents and visitors, and encourage them to use the accessible walking and cycling routes across the SED city region. Improved wayfinding will also complement the wider enhanced walking and cycling network emerging through the LCWIP process. This will provide users with added confidence in their journeys and link to other sustainable modes such as bus, rail and bike share to improve users journey from home to work.
- 2.10.9. The wayfinding package of improvements allows for the introduction of up to 160 new wayfinding totems across the SED city region, 20 'Smart' interactive totems, and a further



450 direction signs along sustainable transport corridors and the Public Rights of Way network.

2.10.10. Location maps showing the proposed Wayfinding Totems are provided at Appendix H.

Highway Network Management

- Enhancement of UTMC systems and standardisation across boundaries to ensure compatibility. Potential integration with Street Manager/Elgin;
- Bus Priority along S corridors using Ticketer system at key junctions;
- Enhanced collaborative working across systems with HE and Dorset Council - Link Dorset UTMC to Highways England UTMC; and
- HGV Management / warning system at Longham Bridge – this will improve traffic flow, journey times and reliability.

LOCAL AUTHORITY/THIRD PARTY FUNDED SCHEMES

Transport Hubs

2.10.11. A region wide package aimed at enabling interchange between sustainable modes is proposed. This includes a series of proposed improvements at rail stations which would come forward in partnership with Network Rail, South Western Railway, Go South Coast/Morebus and Yellow Buses.

Rail station Improvements

2.10.12. The TCF programme will unlock the following improvements at mainline and local rail stations:

- E-bike hubs at key stations;
- Improved forecourts at stations with passenger information and onward travel/last mile provision; through improved signage and walk/cycle links;

2.10.13. The options that are proposed at the rail stations as part of the TCF programme will complement the recently announced Cycle Rail fund at Bournemouth, Parkstone and Wareham railway stations. These 3 stations have been awarded a total of £101,350 for cycle parking¹³.

■ 13 https://www.gov.uk/government/news/68-million-boost-to-help-thousands-more-rail-commuters-travel-by-bike?utm_source=885ee1d8-38c7-466a-b07e-ac34272da6af&utm_medium=email&utm_campaign=govuk-notifications&utm_content=immediate





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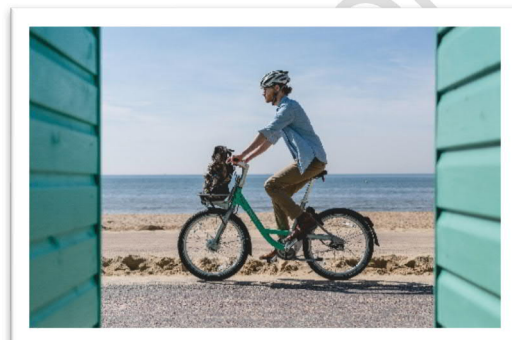
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E-bike Sharing & Mobility Hubs

2.10.14. The TCF programme will enable the expansion of the existing Beryl Bike scheme across a wider area of the SED city region and the incorporation of e-bikes across the network allowing a more accessible bike sharing scheme.

2.10.15. Beryl Bikes have developed proposals to expand the existing bike hire scheme into Christchurch with an existing 300 bikes spread across 50 new bays. Since the publication of the SOBC, the majority of these new bikes and bays have been delivered. They are concentrated in Christchurch and along corridors S6 and C1.

2.10.16. In addition, Beryl are proposing the introduction of up to 200 additional e-bikes to the share scheme. These are intended to broaden the appeal of the bike scheme to a broader age group and geography, as well as enabling their use for longer distance journeys. These e-bikes will be distributed across the existing bays initially for use across the whole SED city region.



2.10.17. The Beryl Bike expansion proposals will be funded through a combination of LA and Third-party contribution.

- Establishment of mobility hubs across the region providing access to e-bike charging facilities. These will be delivered through a series of 'parklets' replacing on-street parking with a community facility;
- E-cargo bikes to be incorporated into town centre parklets/hubs for use by local businesses;
- Compatibility of Beryl scheme with broader Smart ticketing system to enable ITSO compliant ticketing across modes.

Workplace Facilities – Cycle Facilities Grant

2.10.18. Alongside the network infrastructure to be implemented, it will be important to ensure facilities at the ends of trips are suitable and attractive for users in order to achieve high quality point to point journeys.

2.10.19. A cycling 'End of Trip Facilities Grant Scheme' for workplaces and education sites will be delivered as part of the TCF package. This will complement the provision of cycling infrastructure and result in larger impacts, increasing the number of cycle trips and cycling modal share. The funding for this element will be via LTP3.

2.10.20. The focus of the Grant Scheme will be to provide good quality cycle parking facilities at



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workplaces and education sites. Where cycle parking facilities are present other end of trip facilities will also be considered like cycle pumps, repair stands, showers, lockers, clothes dryers and charging points for e-bikes. Where possible cycle parking facilities will be provided that can accommodate non-standard bikes such as adapted bikes and cargo bikes.

2.10.21. Key aspects of the Grant Scheme will include:

- Procurement process by BCP Council and Dorset Council to select preferred suppliers for the provision of end of trip facilities to applicants;
- Applicants will choose from a menu of pre-selected facilities up to the value of £20,000 - Local Authorities place the orders for selected facilities with the suppliers;
- Applicants will be required to provide 20% match funding;
- Online promotional material;
- An online application process including guidance and application form;
- Guidance will cover all information pertinent to the application process and the applicants ongoing obligations;
- Successful applicants will be required to sign Terms and Conditions;
- A robust application assessment process including a site visit to discuss the application with the applicant and check the proposal meets the Grant Scheme's standards;
- Strong 'back office' processes;
- Ongoing monitoring by successful applicants and evaluation by the Local Authorities.

2.10.22. The Grant Scheme will also accommodate a limited number grant awards for 'bespoke' facilities or as contributions towards large cycle facilities projects. For example, where a workplace is planning to provide significant cycling facilities as part of a programme facilitating active travel.

2.10.23. This will differ from the 'standard' approach as outlined above in that:

- Applications will be by invitation only;
- The grant award will be for a financial contribution towards a project;
- Grant awards may be more than £20,000;
- Procurement of these facilities will be the responsibility of the applicants who will need to demonstrate they have the capabilities of doing this.

2.10.24. As part of the Terms and Conditions of the Grant Scheme successful applicants will be required to participate in Cycle UK's Cycle-Friendly Employer Certification Scheme and obtain, as a minimum, their Bronze Accreditation. To obtain accreditation applicants will need to deliver measures that support cycling across a number of different categories including information, communication and incentives for employees; coordination and organisation; facilities and parking management.



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Bus Operator Contributions

2.10.25. Both main bus operators – Morebus and Yellow Buses – are committed to providing contributions to complement the TCF package.

2.10.26. Identified contributions and measures are detailed below:

- Vehicle upgrades – both operators have committed to upgrade existing and purchase new vehicles serving the main corridor routes. Vehicles will be Euro 6 engine clean diesels providing a direct contribution to improved air quality along these corridors and the wider network;
- Investment in new routes;
- Bespoke marketing of new and improved services on corridors;
- Apprenticeships & training – both operators have committed to providing engineering apprenticeship places for the period of the TCF funding programme; Training in customer service for drivers has also been committed.

Joint Ticketing

2.10.27. The TCF Programme will deliver, through LA funding:

- Tap on tap off functionality (with joint ticketing capability) compatible on all bus, rail and cycle services across the network;
- An app-based joint ticketing system across all operators;
- Transferable ticketing product (60 or 90 minute) along with day, week and monthly passes to use across bus, local rail and Beryl bike trips;
- Integrated multi-modal based journey planner available locally that typically provides details of costs and other factors influencing travel;
- Integrated cycle journey planner available locally, including links to cycle hire scheme and other modes.



Further LTP Funded Schemes

2.10.28. A number of other areas for investment through LTP3 as match funding have been identified to further complement the TCF package:

- Travel Safety Measures – Safer Routes to Schools funding;
- Mode filtering to prioritise cycling;
- Town centre walking improvements;



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- Westbourne package.
-

FUTURE SCHEME DEVELOPMENT

2.10.29. The TCF funding will unlock the future potential of other schemes across the SED city region. Schemes already identified and planned alongside TCF include:

Poole Railway Station

2.10.30. As detailed above, the Station suffers from a poor location and poor-quality facilities on-site. It is recognised that the access to the station is poor and the location of level crossings close to the High Street represents an access constraint.

2.10.31. Early feasibility work into the relocation of, or redevelopment of the existing station is in progress with Network Rail.

Poole Bus Station

2.10.32. The Heart of Poole regeneration plans are well developed. Currently, the plans comprise the construction of a new state of the art bus station with an associated off-site bus depot facility. The new bus station will provide a high quality gateway to the town centre, connecting into the TCF sustainable transport network and providing a much improved facility for bus passengers.

Bus Fleet Upgrades

2.10.33. As part of the wider LTP investment in the future, BCP will seek to introduce electric bus technology within Poole Town Centre using LTP or developer contributions in order to upgrade an already deteriorating council-owned fleet.

WIDER ECONOMIC BENEFITS

2.10.34. The direct and indirect benefits of the TCF proposals will have a positive impact on the local economy. Table 2-11 below sets out the identified benefits for Commuters and Business Users.

Table 2-11 – Expected Wider Economic Impacts

Commuter User Benefits	Business User Benefits
More efficient travel between key employment and residential areas due to more direct cycling routes and higher network efficiency	Higher productive efficiency due to lower time costs
More reliable daily commutes between employment and residential areas due to higher network efficiency	Lower uncertainty in business-to-business and business-to-consumer connections thanks to higher network resilience



Increased labour market participation of lower income residents thanks to lower generalised transport costs	Lower business transaction costs thanks to higher network resilience
Increases in disposable income and consumer welfare thanks to a wider variety of lower cost transport options	Increased labour market participation as key employment areas become more accessible to segments of the local labour market
Increased labour productivity and output as a result of the above developments	Increased business productivity and output as a result of the above developments

2.10.35. Increased accessibility across the SED city region will enable more people to access the most productive parts of the local economy, increasing the concentration of workers in productive places. Accessibility improvements are driven by reductions in bus journey times and improvements to journey quality for bus and active mode users.

2.10.36. Expansion of the sustainable transport network will mean that future population and economic growth can be accommodated whilst producing fewer negative environmental and social externalities. Enabling future development presents opportunities to increase economic output in the SED city region and to attract high-skilled workers who may choose to remain or relocate in the area to benefit from improved local markets, and the improved local environment.

2.10.37. Although not appraised quantitatively, reduced transport costs are likely to lead to improved productivity, agglomeration, and clustering benefits; with the proposals focussing on reducing costs and improving accessibility in the most important economic corridors in the area.

2.11 CONSTRAINTS ON DELIVERY

ENVIRONMENTAL CONSTRAINTS WITHIN THE SED CITY REGION

2.11.1. This section considers the local environmental constraints that may impact on the delivery of the Sustainable Travel Corridors package of improvements and identifies relevant local environmental designations to be taken into account during the construction and delivery programme. A set of Environmental Constraints Maps are provided at Appendix G.

Air Quality

2.11.2. There are two Air Quality Management Areas (AQMAs) within the SED city region. None of them are located within 500m of the S Corridors. There are no potential constraints associated with air quality.

Noise and Vibration

2.11.3. There are a number of Noise Important Areas (NIA) within the SED city region. A total of 15 NIAs lie directly on the S Corridors with further NIA's present in the immediate vicinity and surrounding area of the S Corridors. The NIA's are mainly located along roads leading to and within the more densely built-up areas of Poole, Bournemouth and Christchurch. The noise levels would be primarily generated by high levels of traffic travelling through the





areas with additional noise sources from Bournemouth International Airport and local commercial and industrial premises. The S Corridors would seek to mitigate these noise levels by causing a modal shift from cars to more sustainable transport methods. Any works within NIA's may be subject to conditions to ensure noise levels are not affected within the designations.

Historic Environment

2.11.4. There are numerous statutory designated heritage assets within 100m of both S Corridors. These include several Listed Buildings, Scheduled Monuments, Registered Parks and Gardens and Conservation Areas. There are clusters of designated heritage assets associated with the centre of Christchurch to the east, Poole to the south-west and the villages of Holdenhurst and Muscliff to the north and Wimborne Minster to the west. Non-designated heritage assets are also likely to be present. Historic heritage, including potential unknown buried archaeological remains are key constraints to the scheme. Further assessments of potential impacts on statutory and non-statutory designated heritage assets would be required to inform required mitigation to minimise potential adverse impacts and maximise potential opportunities.

Landscape and Townscape

- 2.11.5. Approximately half of the SED city region area is within the Greenbelt, particularly the more rural areas further away from the town centres. In general, the urban areas i.e. Poole and Bournemouth are excluded from the designation. The S Corridors are, in places, located within the Greenbelt, therefore the interventions will need to be mindful of these areas.
- 2.11.6. The SED city region is surrounded by the Cranborne Chase & West Wiltshire Downs Area of (AONB) to the north of Bournemouth and by the Dorset AONB to the south and west Poole. Given the S Corridors are located within an urban environment and the distance to the AONBs, potential impacts on landscape are not considered likely to be significant with the potential constraints and opportunities being linked to townscape.
- 2.11.7. Further assessments of potential landscape and townscape impacts would be required to inform required mitigation to minimise potential adverse impacts and maximise potential opportunities. The headline focus of TCF is improving connectivity between urban centres and suburbs with a focus on modal shift towards sustainable modes including public transport, cycling and walking. Key words in the Government literature point towards an expectation that schemes will be 'transformational' and mention is also made of a 'place-based' approach.
- 2.11.8. The National Infrastructure Commission has established four design principles that underpin 'good design' for national infrastructure: climate, people, places, value. These principles encompass outcomes, such as maximising the impact of investment through delivery of multiple benefits, but also the process of getting there which should be collaborative and inclusive.
- 2.11.9. Through sensitive and holistic landscape design this project can offer a transformative, place-based approach for the corridors to have a broader scope that also encompasses opportunities for social and environmental benefits which would also support delivery of wider corporate strategic objectives. As an example, incorporating green and blue





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infrastructure objectives would also deliver benefits that respond to climate change factors (such as air quality, flood risk, biodiversity loss and urban heat island effect) and benefit the health and well-being of users and local communities.

Nature Conservation and Biodiversity

2.11.10. The SED city region contains numerous environmentally designated sites and Priority Habitats. Many of the protected sites are concentrated in the marine and coastal areas south of Poole and to the north of Christchurch associated with the River Stour and River Avon. Most protected sites are Special Protection Areas (SPA), Ramsar Sites and Sites of Special Scientific Interest (SSSI) designations associated with heathland, river valley, meadow and marine habitats.

2.11.11. Further assessments would be required in order to understand potential ecological impacts to statutory and non-statutory designated sites, habitats and protected species. Further surveys would be required to inform any required mitigation and to minimise and potential adverse impacts.

Drainage and the Water Environment

2.11.12. The SED city region is dissected by the River Stour and River Avon between Bournemouth and Christchurch. Much of the SED city region within vicinity of these rivers is at risk of flooding. Further assessments would be required, in particular for areas directly over or immediately adjacent these rivers to understand any potential implications to water quality and flood risk.

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2.12 INTERDEPENDENCIES

Political Context

2.12.1. Working across boundaries with the newly formed BCP and Dorset Councils.

Interaction with Bus and Rail operators and local businesses

2.12.2. The TCF programme is founded upon good relationships with local bus and rail operators along with key local employers and other stakeholders.

Technological Compliance

2.12.3. The TCF programme will ensure compliance with existing systems such as ITSO across operators and network management systems e.g. UTMIC.

Alignment with Funding Streams

2.12.4. The TCF programme will align with and rely on the success of associated projects:

- Local Growth Deal DLEP Programmes;
- LTP settlements continuing at 2019/20 levels

2.13 STAKEHOLDERS

2.13.1. Through the TCF process, a range of stakeholders have been consulted and integrated into the planning and development of the intervention packages. Direct consultation has been undertaken with:

- Members of the public;
- Local Councillors;
- Local MPs;
- Department for Transport;
- Dorset LEP;
- Local businesses;
- Morebus (Go South Coast);
- Yellow Buses;
- South Western Railway;
- Network Rail;
- Highways England;
- Sustrans;
- Cycling UK
- Beryl Bikes;
- Environment Agency;





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- Natural England;
- Bournemouth Airport;
- Bournemouth and Poole Hospitals; and
- Bournemouth University and other educational establishments.

Since the TCF funding was secured, these stakeholders have continued to be consulted and involved in the design development. A Communications Plan has been developed by the TCF Programme Management Board. Further details are provided below under the Management Case.

2.14 SUMMARY

In summary, this section demonstrates a strong strategic case as the Sustainable Travel corridors fit wider strategic goals within BCP & Dorset Councils. The Sustainable Travel corridors will have wider economic and health benefits to benefit the whole of the SED City Region.

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3 THE ECONOMIC CASE

3.1 INTRODUCTION

- 3.1.1. This Outline Business Case (OBC) considers two sustainable travel corridors (S corridors) within the BCP and Dorset areas. These corridors form part of the Transforming Cities Fund (TCF) programme of works, which includes sustainable travel and cycling corridors within the BCP and Dorset areas. Improved bus connectivity and infrastructure for cyclists and pedestrians will be delivered along the two sustainable transport corridors.
- 3.1.2. The Strategic Outline Business Case (SOBC) for the TCF programme was submitted to DfT in November 2019, which considered the Value for Money (VfM) of the whole TCF package. The TCF package demonstrated very high VfM, delivering benefits to bus users, cyclists and pedestrians.
- 3.1.3. The objectives of the scheme include to provide a network of reliable and efficient sustainable travel corridors linking employment, housing and town centres to improve access to jobs for residents and access to skills for employers. Also to encourage active travel through the delivery of high quality infrastructure. The Economic Narrative included in Appendix O sets out the economic context and potential impacts of the scheme. The TCF package ensures continuity of active travel infrastructure, avoiding disjointed segments for sections of journeys.
- 3.1.4. This Economic Case identifies the impacts of the two S corridors to inform the assessment of their Value for Money (VfM). It considers the impacts that can be measured and quantified, and those that are assessed qualitatively. To assess the value for money of the S corridors, these impacts have been compared to the scheme costs.

3.2 OPTIONS APPRAISED

- 3.2.1. An extensive option development process was undertaken for the SOBC, including sifting and refinement of options to identify the preferred packages to put forward for central government funding. Following feedback from the DfT, a further sifting exercise took place which removed certain elements of cycle corridors. 3 levels of ask were determined to undergo detailed modelling, development of preliminary design drawings and independent quantity surveying checks. In conclusion the top three ranked Sustainable corridors comprised S5, S6 and then S3. Corridors S5 and S6 were taken forward as the 'Low Ask' within the SOBC.
- 3.2.2. As part of the OBC process these designs have been considered in further detail and refined as required to ensure deliverability and feasibility in both locations.
- 3.2.3. The two sustainable travel corridors aim to provide attractive, high-speed, direct bus connectivity along corridors that are important to the local economy. The corridors also include cycling and walking interventions to improve the environment for active travel, thus supporting sustainable travel options in the corridors. The current proposals are aligned with the developing Local Cycling and Walking Investment Programme (LCWIP) for Bournemouth, Christchurch and Poole.





3.2.4. The two corridors are:

- S5 - Poole to Ferndown - connecting Poole town centre and rail station with the key employment location of Ferndown
- S6 - North Poole/North Bournemouth - enabling improved connections on Castle Lane East and West to link up with the Wessex Fields employment area and Bournemouth Hospital

3.2.5. The proposed interventions along the corridors include:

- Dedicated bus infrastructure
- Expansion of smart ticketing
- Bus shelter improvements
- Bus priority signal infrastructure
- Improvements to MoreBus and Yellow Bus services
- Improved cyclist and pedestrian infrastructure including:
 - Stepped cycle tracks
 - Improved lighting
 - 'Toucan' and 'Tiger' crossings to enable safe crossing for pedestrians and cyclists
 - Shared use paths where available width is more limited
 - Pavement resurfacing
- HGV management system on Longham Bridge

3.2.6. In addition to the improvements to bus connectivity and active travel infrastructure along these corridors, wayfinding totems and signage is also proposed as part of the scheme. Wayfinding infrastructure is largely proposed within central Poole and Christchurch, with further signage along the sustainable travel corridors. Appendix H shows the location of the proposed wayfinding totems.

3.2.7. The appraisal also considers the impacts of the introduction of e-bikes from operator Beryl which is part of the TCF package. The e-bikes are proposed to be introduced between Bournemouth and Poole. The SOBC also included the expansion of Beryl Bikes in Christchurch, however this has already been delivered in September 2020.

3.2.8. The appraisal of the sustainable transport corridors compares the benefits (and costs) of the with scheme case to the without scheme case to estimate the incremental benefits of the intervention.

3.3 APPRAISAL METHODOLOGY AND ASSUMPTIONS

3.3.1. The Economic Case has been developed following the principles of the HM Treasury Green Book and the Department for Transport's (DfT) Transport Analysis Guidance (TAG). The economic appraisal refers to, and follows the guidance of, the following TAG Units:

- TAG Unit A1-1 (May 2018): Cost-Benefit Analysis;





- TAG Unit A1-2 (July 2017): Scheme Costs;
- TAG Unit A1-3: User and Provider Impacts;
- TAG Unit A4-2: Distributional Impacts;
- TAG Unit A5-4: Marginal External Costs; and
- TAG Unit A5-1: Active Mode Appraisal.

3.3.2. In line with TAG, all costs and benefits in the appraisal have been presented in 2010 present values (market prices). The appraisal period varies by element of the scheme, depending on the life span of the infrastructure. The following appraisal periods have been used:

- Bus and highway infrastructure: 60 years;
- Cycling and pedestrian infrastructure: 30 years;
- Wayfinding infrastructure and bus shelter improvements: 20 years; and
- Beryl Bikes: 4 years.

3.3.3. For cycling, pedestrian, bus and wayfinding infrastructure a scheme opening year of 2023 has been used, the roll out of Beryl Bikes is assumed take place between 2022 and 2023.

3.3.4. An assessment has been made of the benefits of the interventions, with an overall assessment comparing aggregated costs and benefits across the two corridors.

3.3.5. The following themes of intervention have been included in the appraisal:

- Interventions aimed at improving bus journey times;
- Interventions aimed at improving bus quality;
- Interventions aimed at improving cycling journeys;
- Interventions aimed at improving pedestrian journeys; and
- The impacts of the above on highway users.

3.3.6. For both S corridors, the interventions aligning with the themes above have been assessed. An appraisal model has been developed to compare the benefits of the interventions to the estimated costs for the S corridors. A bottom-up approach has been used to estimate the costs, where the cost of each corridor is calculated based on the interventions within it. These corridor capital costs are then summed to give the total capital costs across both S corridors. The treatment of costs for the Economic Case has been carried out in the appraisal model (e.g. inclusion of optimism bias, discounting, market price conversion).

BUS AND HIGHWAY OPERATION

3.3.7. Five elements of impacts to bus and highway users are expected to be captured for monetisation. These include:

- Impacts for bus users (including journey time, fare changes)
- Bus quality benefits related to smart ticketing





- Bus priority signal infrastructure
- Impacts for highway users of changes to bus operation and cycling infrastructure (including journey time, vehicle operating costs)
- Environmental and social impacts of mode shift from highway

3.3.8. Further work is currently being undertaken within the South East Dorset Multi-Modal Transport Study Model (SEDMMTS) to estimate the impacts of the proposals on bus and highway users. At this stage, no outputs from the modelling have been included within this OBC and as such these impacts on bus or highway users are not included in the appraisal.

IMPROVING CYCLING JOURNEYS

3.3.9. Along the corridors there are proposed improvements to cycling infrastructure, the nature of these improvements varies by route. Some examples include:

- Widen existing cycle provision;
- Provide on road segregated cycle lanes; and
- Provide off-road segregated cycle tracks e.g. resurfacing existing paths to create cycle tracks.

3.3.10. In line with TAG Unit A5.1, the DfT's Active Mode Appraisal Toolkit (AMAT) (July 2020 update) has been used to estimate the benefits associated with this improved cycling infrastructure. The tool considers the benefits in terms of physical activity, absenteeism, journey quality, environmental, indirect tax and decongestion. The current and anticipated cycle demand is input to the AMAT, as well as the change in infrastructure provision. Combining this with a number of assumptions from the National Travel Survey (NTS) regarding journey length, journey speed, purpose split and cycling diversion factors, the tool estimates the benefits associated with the intervention. An AMAT has been developed for each section of each corridor (see Section 2.10 of the Strategic Case for the corridor sections) to reflect the interventions proposed on that section. Where there may be infrastructure proposed for multiple roads within a section (i.e. S5-1), then a separate AMAT has been used for each of these.

3.3.11. The following sections discuss the approach to using the AMAT in this Business Case.

Intervention

3.3.12. The AMAT allows the existing infrastructure for the route to be selected, and the proposed new infrastructure. Within the tool, the options that can be selected to capture these before and after states include:

- No provision;
- Shared bus lane;
- Wider lane;
- On-road non-segregated cycle lane;
- On-road segregated cycle lane; and





- Off-road segregated cycle track.

- 3.3.13. The tool cannot be used to establish the benefits of wider changes to cycling infrastructure, for example the widening of a cycle lane, improved wayfinding, lighting, raised tables at junctions and toucan/parallel crossings. Therefore, the benefits of cycling interventions that have been monetised in the appraisal are restricted to those that align with the headings above.
- 3.3.14. For each section of the corridors the proposed infrastructure has been considered against the categories above to determine the most appropriate.
- 3.3.15. The AMAT requires the average proportion of a trip which uses the scheme infrastructure as an input. The length of infrastructure proposed for each section of corridor is compared to the average cycle journey length provided in the AMAT to give the proportion of journey experiencing the benefit. This average journey length of 4.8KM is based on NTS.

Existing Demand

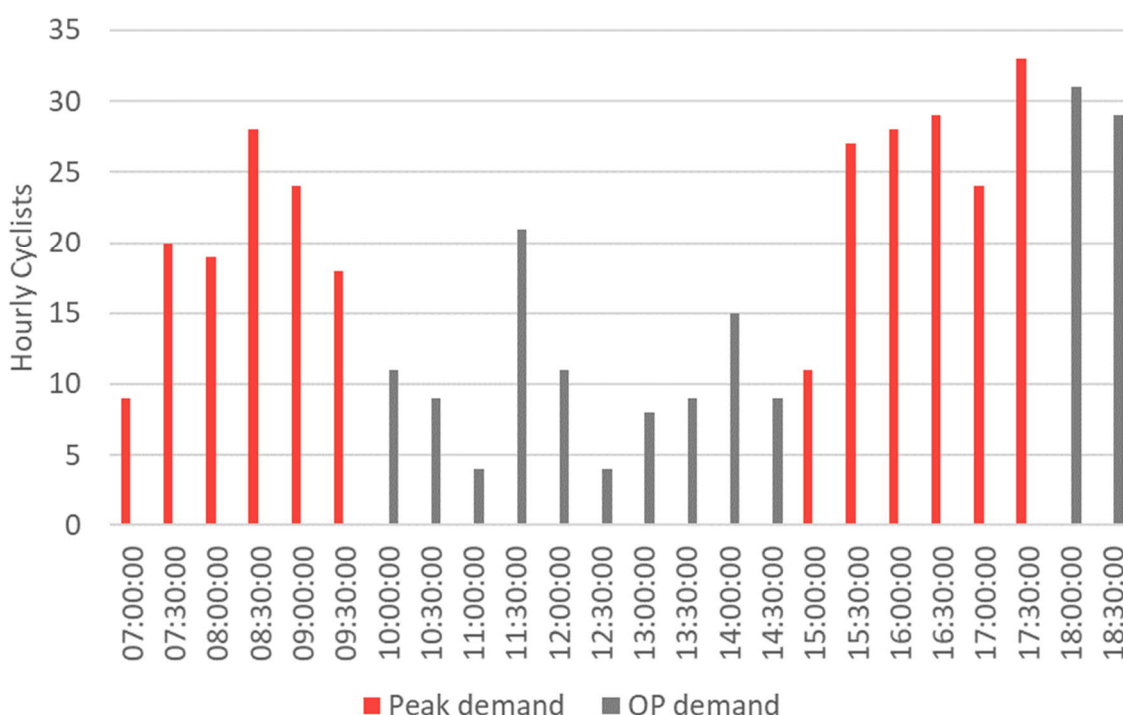
- 3.3.16. The AMAT requires the existing and scheme induced demand to be included as an input. To establish the existing cycling demand along the corridors several data sources have been used:
- Existing count data held by DfT;
 - Existing count data held by BCP or Dorset Councils; and
 - Data collected as part of the SOBC.
- 3.3.17. Given the count data is from a range of sources, to ascertain that it is representative of an average day, the month and collection period of each count has been considered. For the cycle count data, 92% of the count locations were collected in a neutral month (i.e. not December through to February, and July), and 8% during summer months. There was insufficient data to normalise all counts to an average day, and given the vast majority of the data collected was in neutral months this was considered to be suitably representative of an average day.
- 3.3.18. These counts (both existing and collected) have been allocated to each of the cycling interventions based on closest proximity. Where it was identified that there was no count data within a reasonable distance of an intervention, the average cycle demand for the corridor was calculated and used.
- 3.3.19. The input to the AMAT is daily demand, therefore a process has been undertaken to expand/adjust the count data from the various sources to ensure it represents average daily demand. Much of the count data used was collected over a 12-hour period. As part of its monitoring processes, BCP have established a relationship between 12-hour and 24-hour demand. It is estimated that the expansion factor to estimate 24-hour demand from 12-hour demand is 1.22.
- 3.3.20. Where count data was collected only in the peak periods (0700 – 1000, 1500 – 1800) this has also been expanded to a 24-hour period for inclusion in the AMAT. The hourly profile of





existing cycle demand at Holdenhurst Road was used¹⁴ to calculate a factor to expand from peak periods to 12-hour. The count location on Holdenhurst Road is adjacent to Bournemouth rail station, therefore it experiences high levels of footfall and cyclist demand. This count point was chosen as it had an hourly count profile for both pedestrians and cyclists. Over a 12 hour period, almost 4,000 pedestrians were recorded and 430 cyclists. This count point has been used as it has an hourly profile for both pedestrians and cyclists. Using the above factor of 1.22 the demand has then been adjusted to 24-hour. Figure 3-1 shows the 12-hour demand profile at Holdenhurst Road. The same count point has been used to expand both cycling demand and pedestrian demand (see Existing Demand section within Improving Pedestrian Journeys), this ensures consistency in expansion of count estimates.

Figure 3-1 - Cycling Demand Daily Profile



3.3.21. The AMAT expands the daily demand to annual demand using a factor of 253.

Scheme Induced Demand

3.3.22. To estimate the scheme induced cycling demand, local evidence of demand uplift pre- and post- cycling interventions has been used.

3.3.23. As part of the Olympics Transport Package, 24km of cycle route was built in an around Weymouth. Within this package, a 3m wide shared use footway was constructed parallel to

¹⁴ Hourly demand data for Holdenhurst Road (June 2018)



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Weymouth Way which was a single carriageway, 60mph relief road with no footway or cycleway. Prior to intervention previous counts indicated between 40 and 100 cyclists per day. Over the last 5 years, an Automatic Cycle Counter (ACC) has reported consistent daily demand between 250 and 300 cyclists.

- 3.3.24. Portland Beach Road is another scheme delivered under the Olympic Transport Package, and involved widening an existing footway to allow for shared use. The scheme was completed in phases to 2011/12. Prior to intervention the daily cycle demand in 2008 was seen to be in the region of 140 users, ACCs now measure this demand to be 250-300 cyclists a day.
- 3.3.25. Surface improvements and integration with the wider cycling network has seen demand on the Rodwell Trail increase from 190 cyclists per day in 2008 to 420 per day in 2018.
- 3.3.26. The construction of a 3.5m wide, 1.6km long shared use path was constructed on Ham Lane in 2018/19. This road is a 60mph single carriageway. A long-term cycle count on an adjoining link showed 20 to 30 cyclists per day before intervention. A counter was installed at the time of intervention and has recorded between 60 and 90 cyclists per day. As a result of the neighbouring TCF programme schemes and wider network connectivity a significant increase in usage is anticipated. During the COVID-19 lockdown in March 2020 Dorset Council observed a significant increase in cycle movements on this link also highlighting the scheme’s potential positive impact as a leisure route
- 3.3.27. A stepped cycle track was implemented on Castle Lane West. Peak hour counts (0800 - 0900) before and after the intervention were undertaken. In 2014, before the intervention, 50 cyclists were recorded on the road in the AM peak hour, by 2017 this had increased to 73 suggesting a 46% increase. It should be noted that there was a small reduction outside of the peak hour.
- 3.3.28. Across four ACC sites in Weymouth (Preston Beach Cycleway, Portland Beach Road Cycleway, Radpipole Park Drive Cycleway and Rodwell Trail), the average daily cycle demand in 2008 was 660, by 2014 this had increased to 1,010. The infrastructure changes to two of these sites are detailed above, the remainder show the resultant uplift on the surrounding network. Across these sites a 55% increase in cycling demand was therefore seen. For comparison, over the same period in East Dorset there was no increase in demand recorded on a set of three ACCs, where average daily demand remained at 530 cyclists. This demonstrates the impact of intervention on cycling demand in the local area.
- 3.3.29. Table 3-1 below shows a summary of this local evidence of cycling demand uplift through intervention.

Table 3-1 – Local Evidence of Cycling Demand Uplift

Scheme	Demand Before	Demand After	% Change
Weymouth Way	40 - 100	250 - 300	150 – 650%
Portland Beach Road	140	240 - 300	79 – 114%
Rodwell Trail	190	420	121%
Ham Lane	20 - 30	60 - 90	100 – 350%
Castle Lane West	50 (0800 – 0900)	73 (0800 – 0900)	46% (0800 – 0900)



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Weymouth ACCs (4 locations)	660	1,010	55%
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- 3.3.30. As mentioned above, the four ACC sites across Weymouth that recorded a 55% cycling demand uplift when interventions were implemented have been compared to an appropriate control group. Having this control group for comparison provides confidence that the demand uplift is induced by the interventions, which is the measure input to the AMATs. Therefore, a 55% uplift in cycling demand as a result of TCF interventions has been applied within the AMAT toolkit. It should be noted that this is considerably lower than some of the local evidence presented in the table above, and therefore could be viewed as conservative.
- 3.3.31. Given the importance of this assumption, sensitivity tests have been carried out that assume alternative levels of demand uplift to the 55% used in the central case.
- 3.3.32. Across the S corridors there is a range of proposed interventions and infrastructure that spans the various local case studies. Considering the local evidence set out above, the average uplift in demand across the seven case studies was circa 155%. To reflect that the scheme could result in a higher level of demand uplift, a sensitivity test assuming a 110% uplift has been undertaken. This uplift represents double the core scenario forecast of a 55% uplift.
- 3.3.33. In addition to an upside sensitivity test, a downside test has also been undertaken. A number of national case studies exist as part of the Cycling City and Towns Programme, and the Cycling Demonstration Towns. These studies found an average of 24% and 29% uplift in cycling demand respectively. A lower bound sensitivity test has been undertaken assuming a 27% uplift in cycle demand, this is within the bounds of the national case studies and represents half of the uplift assumed for the core scenario.
- 3.3.34. These demand uplifts have been assumed in the sensitivity tests results presented in Section 3.9.

AMAT Assumptions

3.3.35. The AMAT is populated with the standard assumptions for a number of parameters primarily based on TAG and the NTS. A small number of assumptions are based on alternative inputs. The table below shows the standard assumptions within the AMAT.

Table 3-2 - AMAT Standard Assumptions

AMAT Assumption	Value	Source
Average length of trip	Cycling: 4.84km Walking: 1.1km	National Travel Survey Data 2012-14
Average speed	Cycling: 15km/h Walking: 5km/h	National Travel Survey Data 2016
Proportion of users who are employed	56.40%	National Travel Survey Data 2018
Proportion otherwise using a car	11%	Literature Review carried out by RAND Europe / Systra for DfT
Proportion otherwise using a taxi	8%	Literature Review carried out by RAND Europe / Systra for DfT



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Return journeys	90%	National Travel Survey Data 2018
Background growth rate in trips	0.75%	National Travel Survey Data 2006-2016
Period over which this growth rate applies	20 years	Assumption based on TAG
Number of days for which intervention data is applicable per year	253 days	Number of working days per year
Car occupancy rate	1.6	National Travel Survey 2002-16
Taxi occupancy rate	2.4	TAG Data Book 2010

Outputs

3.3.36. Within the tool the benefits are assessed over a 30-year appraisal period. This is in line with the DfT guidance. The output of the AMAT tool are the monetised impacts of the intervention under the following headings in 2010 PV:

- Congestion benefit;
- Infrastructure;
- Accident;
- Local air quality;
- Noise;
- Greenhouse gases;
- Reduced risk of premature death;
- Absenteeism;
- Journey ambience; and
- Indirect tax.

3.3.37. The costs of the interventions have been considered outside of the AMAT tool and has been incorporated into the appraisal model.

3.3.38. The AMATs for the S corridors are included in Appendix I.

IMPROVING PEDESTRIAN JOURNEYS

3.3.39. Both S corridors include improvements to the pedestrian infrastructure. Examples of this include:

- Provision of zebra/toucan crossings where there are currently informal crossing points;
- Widening of pavements;
- Resurfacing of pedestrian paths; and
- Improved lighting along off-road pedestrian paths.



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3.3.40. The benefits associated with improvements to pedestrian infrastructure in terms of crossings, pavement widening, and lighting have been captured using the Ambience Benefits Calculator (ABC) tool, a model developed by Transport for London (TfL). The ambience valuations within the model are calculated based on market research assessing users' willingness to pay for improvements to their journey¹⁵. Benefits associated with pavement resurfacing have been captured in the walking section of the AMAT, as these cannot be suitably captured within the ABC tool.

Ambience Benefits Calculator

Intervention

3.3.41. For the purposes of the Business Case, the 'walking' section of the tool has been used. Within this, changes to the following groups of infrastructure can be captured:

- Crossings;
- Street security;
- Street signs;
- Pavements; and
- Facilities and visual attractions.

3.3.42. For each of the groups above an attribute is selected, for this attribute the conditions pre- and post-intervention are selected in the tool. The tool calculates a pence per trip from willingness to pay market research for the conditions before and after intervention. Table 3-3 shows an example.

Table 3-3 – ABC Tool Structure

Group	Attribute	State		Willingness to pay (2014 prices, pence per trip)		
		Before	After	Before	After	Diff.
Crossings	Proximity of 'green man crossing'	No pedestrian 'green man' crossing nearby	Pedestrian 'green man' crossing at a convenient point nearby	0	3.909	3.909

3.3.43. For some attributes the minutes per trip for which the improved infrastructure is experienced is required as an input i.e. for improvements to pavements which cover a greater distance than say a pedestrian crossing. For consistency with the AMAT, which is discussed in detail in earlier sections, the average length of walk journey and walking speed

¹⁵ Business Case Development Manual, TfL Finance, March 2017





has been based on the 2016 National Travel Survey. This gives an average walking trip length of 1.1km, combined with an average walking speed of 5km/h this gives an average journey time of 13mins 12s. For those interventions requiring a duration input, the journey time has been calculated based on the length of enhanced pedestrian infrastructure divided by a walking speed of 5km/h. The length of infrastructure provision has been considered per section of each corridor.

Existing Demand

- 3.3.44. The tool requires the existing and scheme induced demand to be included as an input. Existing walking demand has been established based on pedestrian count survey data. Existing count data has been supplemented by primary data collected during the SOBC stage. A proportionate approach has been taken given that for any one corridor there are a vast number of interventions to improve journey ambience for pedestrians. It was not feasible, or realistic, to collect pedestrian count data for each of these locations (there are in the region of 62 interventions enhancing pedestrian facilities across the two corridors). The count location in the closest proximity to the intervention has been identified for use in the ABC tool, or, where no count point was reasonably close, an average corridor demand has been calculated (the average of the available count data in each corridor).
- 3.3.45. To provide confidence that the count data is representative of an average day, the month and collection period of each count location has been considered. For the pedestrian count data, all counts were collected in a neutral month (i.e. not December through to February, and July) therefore no adjustment to the count data was considered necessary.
- 3.3.46. The ABC model considers daily demand, therefore a process has been undertaken to expand the count data from the various sources to ensure it represents an average daily demand.
- 3.3.47. The count data collected during the SOBC stage was collected in the morning and evening peaks, with counts between:
- AM peak: 0700 – 1000; and
 - PM peak: 1500 – 1800
- 3.3.48. For use in the ABC tool, this peak data has been expanded to represent 24-hour daily demand. This has been done in two steps, firstly by expanding to a 12-hour demand, and then to scale from 12-hour to 24-hour. To calculate the 12-hour expansion factor, the hourly profile of existing pedestrian demand at Holdenhurst Road was used¹⁶. Figure 3-2 shows the daily profile of pedestrian demand that has been used to expand the peak hour count data. The total peak period demand was circa 50% of the 12-hour demand, therefore a factor of 2.01 has been applied to the peak period count data to expand to 12-hour demand. To calculate the 12-hour to 24-hour expansion factor, National Travel Survey data

¹⁶ Hourly demand data for Holdenhurst Road (June 2018)

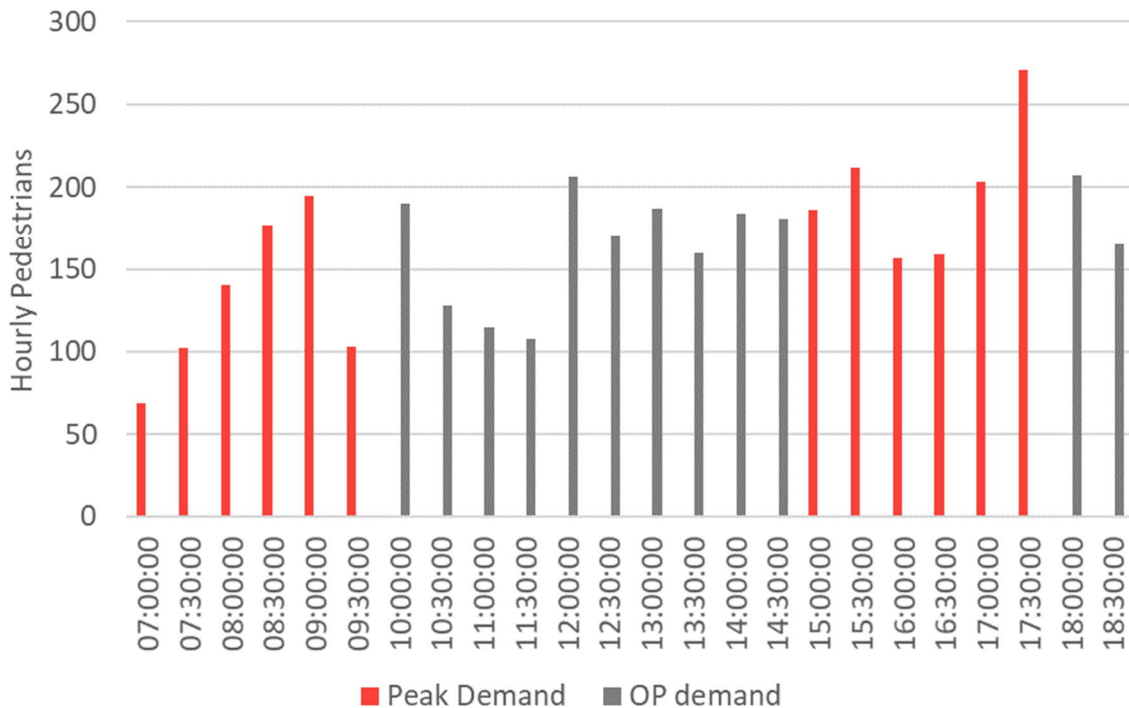




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on time of travel has been used¹⁷. Comparing the 12-hour demand between 0700 and 1900 and the 24-hour demand gives an expansion factor of 1.16. This factor is applied to the 12-hour pedestrian demand data to expand to a full day.

Figure 3-2 - Pedestrian Demand Daily Profile



3.3.49. The count points used are generally for pedestrians walking along a route, as opposed to at crossings. Therefore to account for the fact that the number of pedestrians benefitting from the crossing improvements is likely lower than those walking along routes, an adjustment factor has been used. This factor has been calculated based on a count point which captured pedestrians using a crossing as well as those travelling along the route. The number of pedestrians crossing has been compared to those walking along the route to provide a factor of 38%. It is acknowledged that the proportion of pedestrians using crossings may vary considerably and will be context specific, however, with limited data, and taking a proportionate approach, this factor has been applied across both corridors.

Scheme Induced Demand

3.3.50. The ABC tool also requires the demand uplift as a result of the scheme as an input. Across all interventions the demand uplift has been assumed to be 12%. This uplift is based on the findings of the Living Streets publication *Making the Case for Investment in the Walking Environment*. This report reviews evidence of the impact of schemes targeting improvement

¹⁷ 2018 NTS Table NTS0501 Trips by time of day and day of week



of the walking environment. The report evaluated the impact of improvements to Mixed Priority Routes (MPR), where these included reducing road carriageway widths, increasing the number of formal and informal crossing points and the use of high quality materials and street furniture. These improvement categories align well to the enhanced pedestrian infrastructure interventions included in this TCF bid. The report states that across the 12 MRP demonstration projects in England, pedestrian demand increased by between 2% and 22%. The midpoint of this range has been assumed for the core scenario. It is acknowledged that the induced demand may vary by intervention type and location, however given the number of interventions it is not proportionate to consider each in this level of detail. The uplift assumed represents the average uplift, it also represents the impact on active travel of consistency of provision. This TCF bid is focussed on increasing active mode/sustainable travel through providing additional infrastructure with better connections to existing infrastructure, giving an improved overall journey experience. As the TCF bid will lead to a significant overall improvement to the pedestrian environment in the proposed corridors, the overall demand uplift is considered appropriate.

- 3.3.51. The impact of this assumption on the level of benefits forecast is captured in the sensitivity testing reported in Section 3.9. Two tests have been conducted, halving the pedestrian induced demand to a 6% uplift, and doubling the pedestrian induced demand to a 24% uplift.

Outputs

- 3.3.52. The ABC tool has the capacity to monetise the benefits of multiple interventions within one toolkit. Therefore, an ABC toolkit has been prepared for each corridor. The output of the model is the total annual monetised ambience benefits for the corridor. The price base of outputs can be selected within the model. The tool has been developed using 2014 values, and uses the November 2017 Data Book. To ensure the inflation and discounting assumptions are consistent with the remainder of the Business Case, the ambience benefits have been output in 2014 prices and values and adjusted outside the tool in the economic appraisal model.
- 3.3.53. Prior to rebasing to the appraisal price base, the ABC tool outputs have been adjusted to reflect that the tool is built based on market research of willingness to pay in London and therefore may not be directly representative of other areas. A number of methods were considered for adjusting the toolkit output to account for potential bias in the results. The most appropriate and proportionate method, given the data available, was considered to be making an adjustment based on the differential between London income levels and local income levels. To adjust the outputs of the tool, the average income in London has been compared to the population weighted average earnings in Bournemouth, Christchurch and Poole using the ONS dataset¹⁸. The table below shows this comparison.

¹⁸ Income and tax by borough and district or unitary authority: 2016-17, Office of National Statistics





Table 3-4 – ABC tool adjustment factor

County and district/unitary authority	Number of individuals	Average income	Weighted average	Adjustment factor
London	4,210,000	£46,900		
Bournemouth UA	90,000	£27,700	£29,817	64%
Poole UA	76,000	£32,100		
Christchurch	25,000	£30,500		

3.3.54. Based on this an adjustment factor of 0.64 has been applied to the annual ambience benefit of the ABC tool for each corridor.

3.3.55. To rebase the adjusted ABC tool outputs to represent a 30-year appraisal in 2010 PV the following adjustments have been made:

- Assume the ABC tool output in 2014 prices for each of the 30 years from 2023;
- To reflect growth in Values of Time (VOTs) over these 30 years, apply the forecast growth in GDP/capita from 2014 to each appraisal year in line with the TAG Data Book;
- Deflate the benefits from 2014 prices to 2010 in line with GDP Deflator forecast from the TAG Data Book; and
- Apply discounting at 3.5% per year to convert to 2010 values.

3.3.56. It is assumed that as the willingness to pay values are based on survey data, that they are already in market prices.

3.3.57. The adjustment to 2010 PV is undertaken in the economic appraisal model.

AMAT

Intervention

3.3.58. To capture the benefits to pedestrians of improved surfacing of footways, the Walking section of the AMAT has been used. Within the Tool the current and future standard of walking infrastructure on the route can be selected using a 'Yes' or 'No' for various categories. It is assumed that currently the pavement is not even, but that in the future this will be.

3.3.59. To avoid risk of double counting with impacts within the ABC no further changes to pedestrian infrastructure are modelled within the AMAT.

Existing Demand

3.3.60. The assumption for existing demand is the same as that used in the ABC tool.

Scheme Induced Demand

3.3.61. The assumption for the scheme induced demand is the same as that used in the ABC tool.





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Outputs

3.3.62. The outputs of the AMAT for walking schemes are consistent with those output for cycling schemes, as detailed previously.

OTHER INTERVENTIONS

3.3.63. There are three other interventions for which the benefits could not be estimated using the tools described above. These are wayfinding infrastructure; provision of Beryl e-bikes; and improved bus infrastructure along the corridors and in the wider region. The approaches taken to estimate the benefits of these interventions are discussed in the sections below.

Wayfinding

3.3.64. A range of wayfinding improvements will be delivered along both sustainable travel corridors. These improvements include:

- 121 wayfinding totems (including smart totems); and
- 182 wayfinding signs.

3.3.65. Appendix H shows the proposed locations of the wayfinding interventions. Where infrastructure is proposed off-corridor, i.e. within central Poole, Bournemouth and Christchurch, these have been allocated to the nearest corridor section to capture the costs and impacts within the appraisal.

3.3.66. The willingness to pay values from the ABC tool have been used to monetise the benefits associated with this improved signage. The ABC tool allows three 'states' for signs to public transport and attractions:

- No signs to public transport, no maps or information boards;
- Signs to public transport; and
- Local area maps, information board and signed routes

3.3.67. It is assumed that following the installation of the totems these areas would then be the third 'state' where the 32inch double sided totems will provide maps of the local area, directions to key attractions and public transport. The interactive totems will allow members of the public to access bus and train timetable information as well as interactive maps. The totems will also act as WiFi hotspots providing internet connectivity to the public. From review of the local area, BCP Council assessed that 90% of these wayfinding totems are proposed to be installed in areas where there are currently no signs to public transport and no maps or information boards. The remaining 10% are in areas where there are currently signs to public transport. These proportions have been used to estimate the benefits of the wayfinding totems.

3.3.68. Further benefit will be achieved through the installation of 182 wayfinding signs along the corridors. For these, it is assumed that the current 'state' is that there are no signs to public transport, no maps or information boards. Following implementation of the signs it is assumed that these areas would then be the second 'state' where there would be signs to public transport (in reality these signs could be to local attractions, high street, etc).



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3.3.69. The table below shows the willingness to pay for improvements to wayfinding, using values from the ABC tool.

Table 3-5 - Wayfinding willingness to pay

Wayfinding before 'state'	Wayfinding after 'state'	Willingness to pay (2014 prices, pence per trip)
No signs to public transport, no maps or information boards	Local area maps, information boards and signed routes	12.5
Signs to public transport	Local area maps, information boards and signed routes	1.6
No signs to public transport, no maps or information boards	Signs to public transport	10.9

3.3.70. The wayfinding interventions are proposed for Poole and Christchurch Town Centres, and along the corridors. An average of the pedestrian demand per section of corridor has been used to estimate the demand that will benefit from these interventions. Where there are sections without count data, the average of the corridor has been used. This does not consider the cycling demand that will benefit from increased signage along the S corridors, therefore the benefits of wayfinding could be greater than those captured within the appraisal.

3.3.71. The number of proposed wayfinding totems / signs has been multiplied by the daily demand and the willingness to pay to estimate the daily benefit of the interventions. An annualisation factor of 332, from the ABC tool, has used to expand this to annual benefits. Similar to the ABC tool outputs used to estimate the benefits of enhanced pedestrian infrastructure, these annual benefits have then been adjusted to account for the differences in willingness to pay between London and the study area.

3.3.72. To reflect that the count data reflects a single point within each corridor section, and not necessarily the number of individuals who encounter the wayfinding infrastructure, a sensitivity test has been undertaken where the wayfinding benefits have been reduced by 50%.

3.3.73. The installation of the wayfinding improvements will be in line with the completion of the corridors, and is therefore assumed to be installed in 2023. The benefits are considered over a 20-year period, in line with the expected life expectancy of the infrastructure. Wayfinding benefits are converted to 2010 PV within the economic appraisal model.

Beryl Bikes

3.3.74. BCP Council and Beryl Bikes propose to roll out e-bikes in the region as part of the TCF programme. Beryl bikes are currently available within the Bournemouth and Poole area, where it has demonstrated a strong user market with 12,000 users and over 42,000 journeys. E-bikes allow improved accessibility for those in hillier areas and those whose commute may be too long to conventionally cycle. E-bikes can encourage longer journeys than conventional bikes.



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- 3.3.75. As part of the TCF bid it is proposed to incorporate 100 e-bikes to the current Beryl bike provision in the area, with these assumed to be equally spread across the two corridors. It is assumed that the e-bikes would be rolled out between March 2022 and March 2023.
- 3.3.76. In order to estimate the benefits associated with this provision, the average rides per bike per day has been multiplied by the bike provision to give a daily demand increase. It is assumed that this demand is not captured from existing cycling demand as those already using private bike are unlikely to switch to paying to use bikes. The rides per day per bike has been provided by Beryl bikes based on monitoring and evaluation of their current operation, this is estimated to be 1.4. Combining this with the phasing of introduction of bikes between 2022 and 2023 suggests a daily demand of 109 rides in 2022 and 140 from 2023 onwards.
- 3.3.77. The AMAT tool has been used to estimate the health benefits associated with this increase in cycling demand. The daily demand entered into the tool is the demand induced by the scheme, and the benefits associated with reduced risk of premature death and absenteeism have been extracted from the outputs. To reflect that journeys via e-bike are likely to have less physical health benefits than conventional bikes, the benefits have been scaled down by a factor of 50% for inclusion in the appraisal. The appraisal period for e-bikes is relatively short compared to the other interventions, the benefits have been considered over a 4-year period from 2022 to 2025.
- 3.3.78. The outputs of the AMAT are in 2010 PV and so have been included directly into the economic appraisal model.

Bus Shelter Infrastructure

- 3.3.79. As part of the TCF programme, improved bus shelters will be installed across the S5 and S6 corridors. On the S5 corridor, 41 shelters will be installed, and 44 shelters will be installed on S6. These improved waiting facilities will result in journey quality benefits to bus users utilising these stops.
- 3.3.80. In order to estimate the benefits associated with the improved shelters, the values from the TAG Data Book have been used. These provide the value of improved infrastructure to bus users in generalised minutes. Table M3.2.1 of the Data Book gives a value of new bus shelters of 1.08 generalised minutes. In order to monetise these perceived journey times, values of time from the TAG Data Book have been used. A weighted average value of time for business, commuting and other users has been calculated, assuming a 3%, 28% and 69% split between business, commuting and other. These proportions are based on the journey purpose split for public transport demand within the SEDMMTS model. The values of time are in 2010 prices and values. These values of time are multiplied by the perceived journey time savings (in generalised minutes) to provide the monetised benefits. To estimate the total benefits these monetised values have been applied to the number of bus users experiencing the benefit. The number of boarders at each of the bus stops proposed for improvement has been extracted from the SEDMMTS model for the DM and DS scenarios in 2023, 2031 and 2039. In line with TAG Unit A1.3, the rule of a half has been applied to new users when estimating the benefits.
- 3.3.81. The benefits associated with improved bus shelters have been estimated over a 20-year appraisal period.





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3.3.82. Benefits due to improved bus shelter infrastructure have been included within the appraisal at this stage, however these will be subject to change as further work on the modelling of highway and bus user impacts is undertaken and the estimate of the number of users impacted is updated. The majority of these benefits are however to 'baseline' bus users therefore the scale of benefits currently estimated is unlikely to change significantly.

HGV Management System

3.3.83. The existing Longham Bridge on the A348 Ringwood Road is Grade 2 listed and has insufficient carriageway width and a sub-standard approach alignment. Therefore there are regular incidents involving HGVs striking the bridge leading to disruption and re-routing onto parallel routes. The TCF package includes the installation of a warning system for HGVs approaching the bridge. In order to lessen the impact of incidents, traffic flows would be monitored in real time. The benefits of this infrastructure have not been quantified in the appraisal.

3.3.84. This type of intervention is difficult to model within a strategic transport model, and would be better assessed within a micro-simulation model. If this type of intervention was included then it would most likely have a beneficial impact on the appraisal.

OVERALL BENEFITS

3.3.85. The sections above have described how the benefits of the S corridors are assessed and quantified considering five categories of benefits:

- Improving cycling journeys: AMAT tool over 30-years;
- Improving pedestrian journeys: ABC tool and AMAT tool over 30-years;
- Wayfinding: bespoke calculations drawing on values from the ABC tool over 20-years;
- Beryl Bikes: bespoke calculations drawing on values from the AMAT over 4-years; and
- Bus shelter infrastructure: bespoke calculation drawing on values from the TAG Data Book and SEDMMTS over 20-years (subject to change).

3.3.86. Bus and highway operation impacts (improving bus journey times, bus quality, environmental and social impacts, and changes to highway users) are not currently included within the appraisal whilst further work to understand these impacts is undertaken.

3.3.87. The benefits from these sources have been brought together in the economic appraisal model. The model rebases each of these inputs to ensure they are consistent with the 2010 appraisal base year and calculates the overall present value of benefits.

3.3.88. The impacts for the corridors include:

- Enhanced pedestrian infrastructure (ABC tool and AMAT)
 - Ambience benefits
- Cycling infrastructure (AMAT)
 - Congestion benefits
 - Accidents
 - Local air quality





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- Noise
- Greenhouse gases
- Reduced risk of premature death
- Absenteeism
- Journey ambience
- Indirect tax
- Other interventions: wayfinding, e-bikes and bus shelter improvements (subject to change) (AMAT, ABC and bespoke calculations)
 - Ambience benefits
 - Reduced risk of premature death
 - Absenteeism
 - Journey quality benefits

CAPITAL COSTS

- 3.3.89. The Capital Expenditure (CapEx) is the cost required to develop and construct the infrastructure. A bottom-up approach has been used to estimate the costs, where the cost of each corridor is calculated based on the interventions within it. These corridor capital costs are then summed to give the total capital cost of the S corridors. Costs are assumed to be incurred from 2021 through to 2023 when the full programme is completed.
- 3.3.90. The scheme costs for the sustainable travel corridors have been prepared by WSP. The costs are estimated in 2020 prices, to which inflation is applied to reflect the value in the year the cost is incurred. To convert the 2020 cost estimate to outturn costs inflation has been applied based on the BCIS All-In TPI forecasts.
- 3.3.91. A Quantified Risk Assessment (QRA) has been carried out for the scheme. This assessment estimated the risk allowance to be included in the scheme costs. This QRA has been incorporated with the base scheme costs for inclusion in the Business Case. Please refer to the Financial and Management Cases for further detail of the QRA exercise undertaken.
- 3.3.92. The costs associated with the wider elements of the scheme including smart ticketing, wayfinding, bus shelters, Beryl bikes, signal priorities and the HGV management system have been included within the economic appraisal.
- 3.3.93. For further detail of the scheme cost estimation methodology please refer to the Financial Case.
- 3.3.94. For inclusion in the appraisal the following adjustments have been made to these costs:
- Apply optimism bias;
 - Deflate to 2010 prices;
 - Discount to 2010 values; and
 - Apply market price adjustment.
- 3.3.95. An adjustment for optimism bias is made in the appraisal of interventions to reflect the well-established systematic bias in scheme cost and delivery time estimates, where there is a tendency for promoters to underestimate cost and be over optimistic about delivery



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timescales. Both may lead to an increase in outturn cost, which needs to be reflected in the appraisal. The appraisal uses an optimism bias of 15% as recommended in TAG Unit A1.2 for bus schemes and cycling and pedestrian projects at Stage 2 of development (OBC stage).

3.3.96. Although the impacts on bus and highway users have not been quantified at this stage, the total scheme costs have been included in the appraisal.

OPERATING AND MAINTENANCE COSTS

3.3.97. The Operating and Maintenance (O&M) costs have been considered separately for the corridors and the other interventions (wayfinding, Beryl bikes, bus shelter improvements), and the timescales over which these costs are considered varies to reflect the appraisal period of each category.

Bus, Cycling and Pedestrian Infrastructure

3.3.98. The anticipated O&M costs for each corridor have been estimated by BCP Council based on experience of delivering, operating and maintaining infrastructure of this nature. The O&M costs associated with the sustainable travel corridors have been considered from scheme opening in 2023 until 2082. It has been estimated that the revenue generated through smart ticketing will cover the operating and maintenance cost of this element, therefore no O&M costs have been included in the economic appraisal for smart ticketing.

3.3.99. Although the impacts on bus and highway users have not been quantified at this stage, the O&M costs of this infrastructure have been included in the appraisal.

Wayfinding Totems

3.3.100. BCP Council also estimated the likely O&M costs associated with the wayfinding totems. The O&M costs for wayfinding totems is estimated to be £200 per year per unit, this comprises £120 for cleaning, inspection and maintenance and £100 for vandalism and updating of maps. For the smart totems the cleaning, inspection and maintenance cost is £700, the cost of power is £590 and the vandalism and updating of maps cost remains at £100. In total this gives an annual O&M cost for each smart totem of £1,390. Costs associated with the operation and maintenance of the wayfinding totems are considered for 20 years from 2023 in line with the benefits assessment.

Beryl Bikes

3.3.101. There will be O&M costs incurred by Beryl associated with the delivery of three-bikes in the region. To make this a viable investment for Beryl, it is assumed that these costs would be offset by the revenue generated. As this revenue impact has not been captured within the appraisal, it is not considered appropriate to capture the O&M costs. Therefore no O&M costs associated with the operation of Beryl bikes have been included within the appraisal.

Bus Shelter Infrastructure

3.3.102. The costs of maintaining and operating the additional bus shelters installed on the corridors has been estimated by BCP to be £440 per year per shelter (in 2019 prices). This cost comprises £120 for cleaning, inspection and maintenance, £280 for operating the Real Time Information (RTI) display and £40 for power. This O&M cost is included for all shelters along the S corridors.





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Bus Priority Signal Infrastructure & HGV Management System

3.3.103. O&M costs related with bus priority signal infrastructure and the HGV management system have not been included within the appraisal. There are anticipated to be minimal additional whole life costs associated with these intervention.

3.3.104. The level of inflation associated with O&M costs has been assumed to be in line with general inflation, therefore no real growth has been applied. Given BCP's experience in this area, there is a lower likelihood of cost overruns, therefore no optimism bias has been applied to these costs.

3.3.105. In the economic appraisal model, the O&M costs have been deflated and discounted to 2010 prices and values, and adjusted to market prices.

SUMMARY

3.3.106. The table below provides a summary of the key assumptions used in the appraisal of the corridors.

Table 3-6 – Appraisal Assumptions Summary

Assumption	Value	Source
Scheme opening year	2023	
Appraisal period	Bus Infrastructure: 60 years (2023 – 2082) Active Mode: 30 years (2023 – 2052) Wayfinding: 20 years (2023 – 2042) Beryl bikes/e-bikes: 4 years (2022 – 2025) Bus shelter infrastructure: 20 years (2023 – 2042)	HM Treasury Green Book TAG Assumption
Appraisal base year	2010	HM Treasury Green Book
Appraisal output price base	2010 PV	HM Treasury Green Book
Discount rate	Year 0 – 30: 3.5% Year 31 – 60: 3.0%	TAG Data Book Table A1.1.1
Market price adjustment	1.19	TAG Data Book
General inflation	GDP Deflator Forecasts	TAG Data Book
Construction inflation	BCIS All-In TPI Forecasts	BCIS All-In TPI Forecasts
O&M cost inflation	General Inflation	Assumption





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Pedestrian demand peak to 12-hour expansion factor	2.01	BCP count data
Pedestrian demand 12-hour to 24-hour expansion factor	1.16	National Travel Survey (2018)
Pedestrian scheme induced demand	12%	'Making the Case for Investment in the Walking Environment' Living Streets
Willingness to pay adjustment factor	0.64	Comparison of London and BCP average earnings (ONS dataset)
Cycling demand peak to 12-hour expansion factor	1.94	BCP count data
Cycling demand 12-hour to 24-hour expansion factor	1.22	BCP count data
AMAT annualisation factor	253	AMAT default value
Cycling scheme induced demand	55%	Cycling Demonstration Towns and Cycling City and Towns Programme evaluation (Sustrans)
Construction period	Bus, cycling and pedestrian infrastructure: 2021 – 2023 Wayfinding: 2021 - 2023 Beryl bikes: 2022 – 2023 Bus Shelters: 2021 - 2023	
Optimism Bias on capex	15%	Assumption
	No OB applied to third party contribution costs	
Optimism Bias on opex	0%	Assumption

3.4 APPRAISAL RESULTS

3.4.1. The tables below show a summary of the appraisal results, under the themes of interventions set out in the sections above.



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3.4.2. Table 3-7 below shows the benefits associated with improving cycling journeys through better quality infrastructure on the corridors. These impacts have been calculated using the DfT's AMAT.

Table 3-7 – Improved Cycle Journey Impacts

Impact	£m, 2010 PV over appraisal period
Congestion	1.50
Accident	0.25
Local air quality	0.03
Noise	0.02
Greenhouse gases	0.06
Reduced risk of premature death	29.62
Absenteeism	3.65
Journey ambience	10.30
Indirect tax	-0.12
Total	45.32

3.4.3. This table shows the benefits associated with improved cycle journeys are mainly generated through the health benefits of cycling including reduced risk of premature death and reduction in absenteeism from work. These health impacts account for 73% of the benefits across the corridors. The impact on journey ambience is also significant where enhanced provision of cycling infrastructure improves the quality of journey experienced by cyclists.

3.4.4. There are decongestion benefits associated with mode shift from private car, improving journey times for other highway users, and tied in with this is a reduction in indirect tax revenues where fuel usage reduces. Also associated with mode shift from private car are benefits in terms of air quality, noise, accidents and greenhouse gases.

3.4.5. Table 3-8 below shows the benefits associated with improving pedestrian journeys through enhanced infrastructure on the corridors. These impacts have been calculated using the TfL ABC tool and the DfT AMAT tool.

Table 3-8 - Improved Pedestrian Journey Impacts

Impact	£m, 2010 PV over appraisal period
Ambience Benefits	2.36
Congestion	0.01
Accident	<0.01
Local air quality	<0.01
Noise	<0.01
Greenhouse gases	<0.01
Reduced risk of premature death	0.21
Absenteeism	0.04





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Journey ambience	0.02
Indirect tax	-0.00
Total	2.64

3.4.6. Table 3-9 below shows the impacts as a result of the other interventions discussed previously (wayfinding, Beryl Bikes and bus shelter infrastructure). The range of impacts that has been assessed varies by each of these interventions dependent on the appraisal methodology and anticipated benefits.

Table 3-9 – Other Interventions Impacts

Impact	£m, 2010 PV over appraisal period
Wayfinding	
Ambience Benefits	9.78
Beryl Bikes	
Health Benefits (reduced risk of premature death and absenteeism)	0.03
Bus Shelter Infrastructure	
Journey Quality Benefits	4.34
Total	14.15

3.4.7. The most substantial contributor to these benefits is the ambience benefits associated with improved wayfinding. The TCF package includes extensive provision of wayfinding totems and signs across the region, the ABC tool shows a high willingness to pay value for improvements to signage and wayfinding.

3.4.8. Table 3-10 below shows the overall capital cost of the scheme. Within the economic appraisal these costs have been adjusted for optimism bias, deflated to 2010 prices and values, converted to market prices.

Table 3-10 – Capital Costs (Redacted due to Third Party Sensitivity)

3.4.9. The O&M costs in the appraisal are incurred over differing timeframes depending on the appraisal period of each intervention. The table below shows the total O&M costs.

Table 3-11 – O&M Costs (Redacted due to Third Party Sensitivity)



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3.5 INITIAL BCR

3.5.1. Implementing the methodology and assumptions in the previous section, the benefits and costs associated with the scheme have been estimated.

3.5.2. The table below shows the comparison of these benefits and costs, and the initial BCR.

Table 3-12 – Initial BCR

£m 2010 PV over appraisal period	
Noise	0.02
Local Air Quality	0.03
Greenhouse Gases	0.06
Journey Quality (ambience benefits from ABC, journey quality from AMAT, wayfinding, improved bus shelters)	26.81
Physical Activity (reduced risk of premature death and absenteeism from the corridors, Beryl bikes)	33.54
Accidents	0.25
Economic Efficiency: Commuting, Other and Business & Providers	-7.10
Wider Public Finances (Indirect Tax)	-0.12
PVB	53.49
Broad Transport Budget	42.66
PVC	42.66
NPV	10.83
BCR	1.3:1

3.5.3. The table above shows that the scheme comfortably delivers low value for money based on the initial BCR of 1.3:1.

3.6 ENVIRONMENTAL IMPACTS

3.6.1. The environmental impacts outlined below have been identified through a desk-based mapping exercise. Associated Environmental Constraints Maps are available in Appendix G. The environmental impacts considered include noise, air quality, greenhouse gases, landscape and townscape, historic environment, biodiversity and the water environment. Specific environmental constraints in relation to the S Corridors and surrounding SED city region are provided below.



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NOISE

- 3.6.2. The proposed sustainable corridors link the towns of Poole, Ferndown and Christchurch with employment areas in Ferndown, Wessex Fields and Bournemouth Hospital. There are numerous residential properties and community facilities along the S Corridors. Transport (primarily road, with rail noise in certain places) is likely to be the most significant contributor to the existing noise levels. Furthermore, Bournemouth International Airport is located immediately east of S5 and immediately north of S6, therefore noise associated with airport operations is also likely to be an existing contributor to noise in the area. Noise and vibration associated with industrial and commercial premises (where these are present) is also likely to contribute to the existing noise levels in localised areas.
- 3.6.3. There are many Noise Important Areas (NIA), locations most exposed to high levels of noise, within the SED City Region Area. There are a total of 15 NIAs present across both S Corridors on the B3068, A3049, Ringwood Road, A341, Castle Lane West, Castle Lane East and the A35, with further NIAs present within the surrounding area. The location of these NIAs adjacent to the S Corridors is shown on the Environmental Constraints Map in Appendix G.
- 3.6.4. A full quantitative assessment has not been undertaken for the noise impacts of the scheme at this stage. The scheme is aimed at encouraging a shift from car to more sustainable modes of travel. Overall, and, if the expected modal shift takes place, the expectation is that the long-term impact of the scheme would be beneficial.
- 3.6.5. Based on high level calculations within the AMAT and using the MECs approach, the monetised assessment of the noise impacts of the scheme is estimated to be £0.02m (2010 PV).

LOCAL AIR QUALITY

- 3.6.6. Bournemouth and Christchurch currently do not have any Air Quality Management Areas (AQMAs). There are two AQMAs in Poole, Ashley Road AQMA and Commercial Road AQMA. Neither of the AQMA's are within 500m of the S Corridors, as shown in Appendix G.
- 3.6.7. A full quantitative assessment has not been undertaken for the air quality impacts of the scheme. The scheme has the potential to positively impact air quality by reducing car emissions through encouraging a shift to more sustainable transport modes. Overall, the expectation is that the long-term impact of the scheme on air quality would be beneficial.
- 3.6.8. Based on high level calculations within the AMAT and using the MECs approach, the monetised assessment of the local air quality impacts of the scheme is estimated to be £0.03m (2010 PV).

GREENHOUSE GASES

- 3.6.9. Data published by the Department for Business, Energy and Industrial Strategy (BEIS) shows the total Carbon Dioxide emissions in Bournemouth, Christchurch and Poole were 1,442 CO₂ kt in 2018, with the largest sector emissions from road transport (528 CO₂ kt



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considering both A roads and minor roads) followed by domestic gas (370 CO₂ kt)¹⁹. The data also shows a reduction in Carbon Dioxide emissions between 2014 and 2018 in the local authority area.

- 3.6.10. A full quantitative assessment has not been undertaken for the greenhouse gases impacts of the scheme. One of the main aims of the proposed scheme is to reduce private car use, which will likely lead to be a reduction in greenhouse gas emissions. The expectation is that the long-term impact of the proposals on greenhouse gases would be beneficial.
- 3.6.11. Based on the high level calculations within the AMAT, the monetised assessment of the greenhouse gas emissions impacts of the scheme is estimated to be £0.06m (2010 PV).

LANDSCAPE & TOWNSCAPE

- 3.6.12. The majority of the length of the proposed S corridors are located within an urban setting therefore the scheme is not likely to alter the overall balance of features that comprise the existing views and local topography.
- 3.6.13. The scheme is located within National Character Area 135: Dorset Heaths, while at a local level, the scheme falls within the following three Landscape Character Areas (LCAs): Heath / Forest Mosaic, River Terrace and Valley Pasture. The Forest Heath LCA is characterised by straight roads lined by woodland / forest / grass / scrub mosaic and significant impacts created by urban development such as industrial, military use, quarrying, housing and transport corridors. The River Terrace LCA is found along the fringes of the River Stour. It is characterised by wide flat landform, mixed agricultural land comprised of arable and livestock with some marginal 'urban fringe' farming, fields divided by hedgerows or fencing and woodland blocks. The Valley Pasture LCA is found along the route of the River Stour and is characterised by flat and open valley floor landscape with distinctively meandering river channels which often flood.
- 3.6.14. The S corridors are not located within an Area of Outstanding Natural Beauty (AONB). The S5 corridor is located approximately 1.3km from the Cranbourne Chase & West Wiltshire Downs AONB to the north, and 1.7km from the Dorset AONB to the south. The S6 corridor is located in excess of 3.5km from the nearest AONB. Potential views from the AONBs have not been assessed at this stage but due to the intervening urban built form, views of the scheme from these locations are not considered likely.
- 3.6.15. There are sections of both corridors which pass through areas of Greenbelt. Given the corridors are largely incorporated within the existing road network and as a result the openness of the Greenbelt areas are mostly retained, the proposed scheme is not expected to detract from the existing sense of place and value of the landscape.
- 3.6.16. However, there will inevitably be direct impacts on the local landscape character at certain locations as a result of the scheme, including potential tree loss, which will be mitigated

¹⁹ <https://naei.beis.gov.uk/laco2app/>





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through sensitive and well-integrated design that supports wider social and environmental benefits. Potential landscape and visual impacts have not been assessed, but at this stage it is considered likely that potential impacts would be **Neutral**, assuming appropriate design and mitigation considerations at an early stage of the design process. As part of the design process following consultation it is likely these impacts will improve.

- 3.6.17. The TCF proposals have the potential to enhance the appearance, connectivity, human interaction and activity. Appropriate design with consideration to mitigation and amenity enhancements has the potential to enhance the immediate locality and area surrounding the S corridors. In this scenario the scheme is considered to have a **Slight Beneficial** impact on the townscape.
- 3.6.18. The design process at OBC has taken on board landscape considerations which will support a transformative, place-based approach for the corridors to promote a broader scope that also encompasses opportunities for social and environmental benefits. This will support delivery of wider corporate strategic objectives. As an example, incorporating green and blue infrastructure objectives would also deliver benefits that respond to climate change factors (such as air quality, flood risk, biodiversity loss and urban heat island effect) and benefit the health and well-being of users and local communities. Failure to consider landscape fully prior to design could result in adverse impacts but this is unlikely based on design development to date.

HISTORIC ENVIRONMENT

- 3.6.19. There are numerous statutory designated heritage assets within 100m of the S Corridors. These include over 45 Listed Buildings, two Scheduled Monuments, one Registered Park and Garden and five Conservation Areas. There are clusters of designated heritage assets associated with the centre of Christchurch to the east, Poole to the south-west and the villages of Holdenhurst and Muscliffe to the north and Wimborne Minster to the west. There are further heritage assets distributed in the wider surroundings across both S Corridors. Non-designated heritage assets are also likely to be present.
- 3.6.20. No significant direct adverse impacts on designated heritage assets are expected as a result of the scheme. There is, however, the potential for changes in the setting of the designated heritage assets and direct adverse impacts on unknown archaeological remains in areas where the scheme extends outside of the existing road network.
- 3.6.21. Based on the information available at this OBC stage, and following a precautionary approach, the scheme is considered to have a **Slight Adverse** impact on the historic environment until the risk to unknown archaeological assets can be determined at a later stage.
- 3.6.22. Further assessments of potential impacts to statutory and non-statutory designated heritage assets would be required to inform any required mitigation and minimise potential adverse impacts.

BIODIVERSITY

- 3.6.23. There are numerous statutory ecological designations in proximity to the S Corridors. These include international designations such as Special Areas of Conservation (SAC), Special Protected Areas (SPA), Ramsar sites, national statutory designations (i.e. Sites of Special





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Scientific Interest (SSSI), and Local Nature Reserves. Furthermore, there are numerous Priority Habitats present near the S Corridors including deciduous woodland, lowland heath and coastal floodplain grazing marsh.

- 3.6.24. Given the proximity to some statutory designated sites (i.e. sections of the S Corridors lie in the immediate vicinity of one or more designated sites) and the potential removal or disturbance to supporting priority habitats which could adversely affect protected and non-protected species, it is considered that the scheme has the potential to have a **Slight Adverse** impact on biodiversity.
- 3.6.25. Further surveys and assessments would be required to inform the required mitigation to minimise potential adverse impacts on designated sites, Priority Habitats and / or protected species and, to maximise potential opportunities such as planting to contribute towards carbon offsetting.

WATER ENVIRONMENT

- 3.6.26. The River Stour and River Avon run through the SED city region between Bournemouth and Christchurch. As a result, much of the SED city region within the vicinity of these two rivers is at risk of flooding. Both S Corridors generally are located in areas with very low risk of flooding from rivers and sea, however there are certain areas where the S Corridors cross the River Stour where flood risk increases to High, for example at Longham and Throop. It is envisaged that the S Corridors and associated infrastructure will be designed to ensure they do not impede water flow within the River Stour and associated floodplains, and careful consideration given to any part of the scheme that is over the River Stour.
- 3.6.27. The scheme is considered to have the potential for a **Slight Adverse** impact on the water environment and on flood risk. The design of the S Corridors will need to consider the location of existing water resources and the potential implications of climate change on flood risk.

IMPACTS DURING CONSTRUCTION

- 3.6.28. As stated in paragraph 1.4.3 of TAG Unit A3, it is usually not appropriate to consider environmental impacts during, or as a result, of construction as part of the transport appraisal process. However, there may be circumstances when these impacts are relevant and should be taken into consideration. Given the nature of the works involved in the scheme, construction impacts were not considered as part of the OBC.

SUMMARY

- 3.6.29. The table below summarises the environmental impacts, as considered as part of this stage of the transport appraisal process, of the scheme.



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Table 3-13 – Environmental Impacts

Environmental Impact	Assessment
Noise	Beneficial (£0.02m, 2010 PV)
Local Air Quality	Beneficial (£0.03m, 2010 PV)
Greenhouse Gases	Beneficial (£0.06m, 2010 PV)
Landscape & Townscape	Neutral / Slight Beneficial
Historic Environment	Slight Adverse
Biodiversity	Slight Adverse
Water Environment	Slight Adverse

3.7 SOCIAL IMPACTS

RELIABILITY

- 3.7.1. The corridors will provide bus priority signals and some dedicated bus lanes. These improvements will increase the reliability of bus journey times where services are less susceptible to delays through congestion. The expansion of smart ticketing will result in less variation in dwell times at stops where fewer passengers will pay with cash fares, this will improve the journey time reliability.
- 3.7.2. Through providing continuity of cycling and walking infrastructure, the S corridors will improve reliability for those travelling by active modes. The corridors will offer facilities that users can rely on to travel safely and with improved journey times and journey experience.
- 3.7.3. A full quantitative assessment of reliability impacts has not been undertaken, however it is anticipated that the scheme will have a beneficial impact on reliability. Considering the assessment thresholds within TAG Unit A1-3, it is estimated that the impact of the S corridors on reliability will be **Slight Beneficial**.

ACCIDENTS

- 3.7.4. A high-level quantification of the impact of the S corridors on accident rates has been carried out for this Business Case, a full COBA-LT assessment has not been undertaken.
- 3.7.5. The impact of the interventions on accidents have been considered within the AMAT model (based on mode shift from car to cycle). The benefits associated with reductions in accidents as a result of the scheme are £0.25m.
- 3.7.6. The estimation of accident benefits within the AMAT does not account for the improved safety of segregating cyclists and pedestrians from highway traffic along sections of the corridors. Reducing this interaction will reduce the likelihood of collisions.





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SECURITY

- 3.7.7. New bus shelters implemented along the corridors will increase the security of bus passengers whilst boarding, alighting and waiting for services through improved lighting and visibility.
- 3.7.8. Along the majority of sections of the cycleways and pedestrian paths, lighting will be installed which will increase the feeling of safety along these routes. For any environmentally sensitive areas, lighting solutions will be codeveloped with the relevant bodies.
- 3.7.9. The impact of the scheme on security is estimated to be **Slight Beneficial**.

ACCESS TO SERVICES

- 3.7.10. The proposed interventions on the S corridors will have a positive impact on the availability and physical accessibility of transport with the BCP and Dorset regions. The expansion of existing cycling and pedestrian infrastructure and 'filling the gaps' of the current network will provide access to transport in areas not currently well-served. The incorporation of these cycling and walking interventions with improved bus services and facilities will further expand the transport services on offer in the region.
- 3.7.11. The introduction of e-bikes to Bournemouth and Poole will improve transport facilities and access to services in areas that are currently geographically challenging for active modes.
- 3.7.12. The expansion of smart ticketing will improve interchange between modes where a single ticket can be used for bus, bike and rail. This will improve access to services and promote and simplify multi-modal journeys on the network.
- 3.7.13. The impact of the scheme on access to services is estimated to be **Slight Beneficial**.

AFFORDABILITY

- 3.7.14. The impacts of mode shift from car to bus are captured within TUBA as part of the assessment of user charges, and vehicle operating costs. Where travellers switch to bus due to the improved services and facilities, there may be an increase in user cost as a result of paying fares.
- 3.7.15. The cycling and walking interventions are not estimated to have any negative impact on affordability as these modes are free to use. As a result of improved infrastructure, current highway users are forecast to switch to cycling in the AMAT model. This may result in a reduction in cost to the user in terms of reduction in fuel costs and car maintenance.
- 3.7.16. The expansion of smart ticketing will improve transparency of fares, and provide integrated fares across modes. This may result in a lower cost of travel as passengers increase awareness of the ticket types available, and selecting the best option for their journey.
- 3.7.17. The impact of the scheme on affordability is estimated to be **Slight Beneficial**.

SEVERANCE

- 3.7.18. As part of the proposals for the corridors, over 30 new road crossings will be installed (both formal and informal). This will improve the permeability of travel for pedestrians and cyclists, reducing severance.



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- 3.7.19. The installation of cycleways and footways is alongside existing highway alignments, therefore there is estimated to be no negative impact on severance compared to the current situation.
- 3.7.20. A full quantitative assessment of severance impacts has not been undertaken. TAG Unit A4-1 states that severance impacts are considered to be slight beneficial where the change in severance is slight, or the number of people affected is low (i.e. less than 200 people). The impacts are considered to be large beneficial where the change in severance is large or the number of people affected is high (i.e. more than 1,000). Impacts within these thresholds are considered to be moderate. For both corridors, the average cyclist demand is over 200 per day, however the average pedestrian demand is below 200 for S6 and above 200 for S5. Overall the impacts of the scheme on severance are anticipated to be slight, although it is recognised that in places where crossings have been added / improved this is likely to be a moderate improvement. Therefore overall the impact of the scheme on severance is estimated to be **Slight Beneficial**.

OPTION AND NON-USE VALUES

- 3.7.21. The infrastructure proposed on the S corridors builds on and enhances existing transport infrastructure i.e. improvements for pedestrians, cyclists, bus users. Therefore there is not anticipated to be any impact on option and non-use values.
- 3.7.22. The impact of the scheme on option and non-use values is considered to be **Neutral**.

SUMMARY

- 3.7.23. The table below summarises the social impacts of the scheme.

Table 3-14 – Summary of Social Impacts

Social Impact	Assessment
Reliability	Slight Beneficial
Accidents	Beneficial (£0.25m, 2010 PV)
Security	Slight Beneficial
Access to Services	Slight Beneficial
Affordability	Slight Beneficial
Severance	Slight Beneficial
Option and Non-Use Values	Neutral

3.8 DISTRIBUTIONAL IMPACTS

Overview

- 3.8.1. Distributional Impacts (DIs) consider the variance of transport intervention impacts across different social groups. Both beneficial and/or adverse DIs of transport interventions need to be considered, along with the identification of social groups likely to be affected.





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- 3.8.2. In terms of distributional analysis, the categories that need to be considered include user benefits, accidents, affordability, security, severance and accessibility together with the effects of the scheme on local noise and air quality.
- 3.8.3. The effect of these impacts is assessed for the following social groups:
- Income distribution;
 - Children;
 - Young adults;
 - Older people;
 - Disabled;
 - Black and minority ethnic groups;
 - Those without access to a car; and
 - Carers.
- 3.8.4. A DI analysis is not necessarily required for all categories. A step-by-step screening process has been applied in accordance with TAG Unit A4.2 to establish whether a full DI analysis is required. This process is described below.
- 3.8.5. An overview of the DI appraisal process is outlined in Table 3-15.

Table 3-15 – Overview of the DI appraisal process

Step	Description	Output
1 - Screening	Identification of likely impacts for each indicator	Screening proforma
2 - Assessment	Confirmation of the area impacted by the transport intervention Identification of social groups in the impact area Identification of amenities in the impact area	DI social groups statistics and amenities affected within the impact area
3 – Appraisal of Impacts	Core analysis of the impacts Full appraisal of DIs	Appraisal worksheets

Screening Process

- 3.8.6. In order to ensure a proportionate approach, each indicator has been assessed using the screening proforma provided in TAG Unit A4.2 to determine whether further appraisal is required.
- 3.8.7. Table 3-16 sets out step 1 of the DI appraisal process for the S corridors.

Table 3-16 – Distribution Impact Screening – S Corridor Schemes

Indicator	Appraisal output criteria	Potential impact	Qualitative Comments	Proceed to Step 2
User benefits	The TUBA user benefit analysis software or an equivalent process has been used in the appraisal; and/or the value of user benefits Transport Economic Efficiency (TEE) table is non-zero.	Yes, positive	TUBA will be used to appraise user benefits for the scheme.	Yes
Noise	Any change in alignment of transport corridor or any links with significant	Yes, positive	The scheme is expected to lead to decreases in noise levels at	No





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Indicator	Appraisal output criteria	Potential impact	Qualitative Comments	Proceed to Step 2
	changes (>25% or <-20%) in vehicle flow as an indicator of significant change.		different receptors. However, there is no significant changes (>25% or <-20%) in vehicle flow, speed, %HGV content expected.	
Air quality	<p>Any change in alignment of transport corridor or any links with significant changes in vehicle flow, speed or %HGV content:</p> <ul style="list-style-type: none"> • Change in 24-hour AADT of 1000 vehicles or more • Change in 24-hour AADT of HGV of 200 HGV vehicles or more • Change in daily average speed of 10kph or more • Change in peak hour speed of 20kph or more • Change in road alignment of 5m or more 	Yes, positive	Minimal change in air quality anticipated. However, there is no significant changes (>10%) in vehicle flow, speed, %HGV content expected.	No
Accidents	Any change in alignment of transport corridor (or road layout) that may have positive or negative safety impacts, or any links with significant changes in vehicle flow, speed, %HGV content or any significant change (>10%) in the number of pedestrians, cyclists or motorcyclists using road network.	Yes, positive	As mentioned in 3.7.6, segregating cyclists and pedestrians from highway traffic along sections of the corridors would be expected to reduce the likelihood of collisions. However, there is no significant changes (>10%) in vehicle flow, speed, %HGV content expected.	No
Security	Any change in public transport waiting/interchange facilities including pedestrian access expected to affect user perceptions of personal security.	Yes, Positive	New bus shelters proposed.	Yes
Severance	Introduction or removal of barriers to pedestrian movement, either through changes to road crossing provision, or through introduction of new public transport or road corridors. Any areas with significant changes (>10%) in vehicle flow, speed, %HGV content.	Yes, Positive	The scheme includes provision of facilities for pedestrians and cyclists including a substantial number of additional crossings. However, there is no significant changes (>10%) in vehicle flow, speed, %HGV content expected.	No
Accessibility	Changes in routings or timings of current public transport services, any changes to public transport provision, including routing, frequencies, waiting facilities (bus stops / rail stations) and rolling stock, or any indirect impacts on accessibility to services (e.g. demolition & re-location of a school).	Yes, Positive	The scheme includes measures that will change the availability or accessibility of public transport services in the study area. The scheme is expected to result in changes in travel patterns or journey times for pedestrians and cyclists.	Yes – Qualitative Assessment only
Affordability	In cases where the following charges would occur; Parking charges (including where changes in the allocation of free or reduced fee spaces may occur); Car fuel and non-fuel operating costs (where, for example, rerouting or changes in journey speeds and congestion occur resulting in changes in	Yes	The scheme will have an impact on congestion and delays in the study area, and hence will change vehicle operating costs for vehicle users. These impacts would affect all road users and are not expected to be concentrated on any particular people groups.	Yes



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Indicator	Appraisal output criteria	Potential impact	Qualitative Comments	Proceed to Step 2
	costs); Road user charges (including discounts and exemptions for different groups of travellers); Public transport fare changes (where, for example premium fares are set on new or existing modes or where multi-modal discounted travel tickets become available due to new ticketing technologies); or Public transport concession availability (where, for example concession arrangements vary as a result of a move in service provision from bus to light rail or heavy rail, where such concession entitlement is not maintained by the local authority).		The scheme will encourage modal shift to active modes, which may reduce the cost of travel for users	

3.8.8. Limitations of the available modelling and data means that for some indicators a qualitative assessment has been undertaken.

Assessment

3.8.9. This assessment stage includes three sub-steps. These are:

Step 2a: Confirmation of Areas Impacted by the Intervention

3.8.10. The geographical extent over which the scheme may potentially have an effect has been considered for each of the included impact categories identified in the screening proforma. Due to the limitations of the model and the data available, the impacted area identified is the same for all indicators. This is shown in Appendix P, alongside the social groupings and amenities identified in Steps 2b and 2c.

Step 2b: Identification of Social Groups impacted by the intervention

3.8.11. This step analysed the socio-economic, social and demographic characteristics of:

- The **transport users** that will experience changes in travel generalised costs resulting from the intervention;
- The **people living in areas** who may experience impacts of the intervention even if they are not users; and
- The **people travelling** in areas identified as likely to be affected by the intervention.

3.8.12. The socio-demographic characteristics of the area is shown in Appendix P.

Step 2c: Identification of Amenities in the Impact Area

3.8.13. The identification of amenities such as schools, hospitals, retiree homes, etc adjacent to affected links, which are used by the concerned social groups identified in the analysis, provides further information on the distribution of impacts of a scheme.

3.8.14. The local amenities (key education, healthcare and transport amenities) in the impact area are shown in Appendix P.



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Identification of Social Groups and Amenities impacted by the intervention

- 3.8.15. For identifying characteristics of the people living and travelling in the impact area, data provided by the Office for National Statistics has been used. This data has been used at the 'Lower Super Output Area' (LSOA) level and mapped.
- 3.8.16. Based on TAG Unit A4.2 and the screening process, the group of people impacted by each indicator is shown in Table 3-17.

Table 3-17 - Scope of Socio-demographic analyses for distributional impact

Dataset / social group	User Benefits	Security	Accessibility	Affordability
Income Distribution	✓		✓	✓
Children: proportion of population aged <16		✓	✓	
Young adults: proportion of population aged 16-25			✓	
Older people: proportion of population aged 70+		✓	✓	
Proportion of population with a disability		✓	✓	
Proportion of population of Black and Minority Ethnic (BME) origin			✓	✓
Proportion of households without access to a car			✓	
Carers: proportion of households with dependent children				✓

- 3.8.17. In the data used for the DI assessment, there is a deviation in the analysis compared to the TAG Unit A4.2 guidance. The TAG unit specifies the older population as those over 70 years, while census classifications record the population of those over 65 years. Therefore, the available census classification has been used for the current assessment.
- 3.8.18. The spatial distribution of the social groups in the study area are shown in Appendix P. Note that the quintile distribution for these figures is based on the mid-year 2015 estimated population provided as part of the 2015 Indices of Multiple Deprivation data release.
- 3.8.19. Table 3-18 shows the impacts by income distribution quartiles as well as the different types of more 'vulnerable' groups. A range of impacts across different amenities (such as schools, hospitals and community facilities) are also shown. The DI Output Summary worksheet is included in Appendix Q.



Table 3-18 – Distribution Appraisal Matrix – Output summary

Social group and amenities indicators			User Benefits	Noise	Air quality	Accidents	Security	Severance	Accessibility	Affordability	Local Authority	England	
Resident population in the impact area	Income distribution quintiles	0-20%										20%	
		20-40%										20%	
		40-60%										20%	
		60-80%										20%	
		80-100%										20%	
	Children (<16)			16%	16%	16%	16%	16%	16%		16%	19%	
	Young people					11%				11%		12%	12%
	Older people			22%		22%	22%	22%	22%		20%	16%	
	People with a disability						19%	19%	19%		19%	8%	
	Black Minority Ethnic						1%		1%		1%	15%	
No car households							9%	9%		9%	26%		
Households with dependent children									11%	10%	29%		
Indicator population in the impact area			454,558	454,558	454,558	454,558	454,558	454,558	454,558	378,888	53,012,456		
Amenities present within the impact area	Schools / nurseries		✓	✓	✓	✓	-	✓	-	✓	-	-	
	Playgrounds		✓	✓	✓	✓	-	✓	-	✓	-	-	
	Parks and open spaces		✓	✓	✓	✓	-	✓	-	✓	-	-	
	Hospitals		✓	✓	✓	✓	-	✓	-	✓	-	-	
	Care homes / day centres		✓	✓	✓	✓	-	✓	-	✓	-	-	
	Community centre		✓	✓	✓	✓	-	✓	-	✓	-	-	



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Appraisal of Impacts – S Corridors

3.8.20. As indicated at the screening stage, a quantitative assessment has been undertaken for the user benefit and affordability elements, while for the remaining aspects a qualitative assessment has been completed. This is due to limitations within the modelling / analysis undertaken at this stage of the project.

User Benefits

3.8.21. At this stage the DI assessment for user benefits has not been undertaken given the continued work on modelling the bus / highway impacts of the scheme within the SEDMMTS model.

Security

3.8.22. TAG Unit A4.2 has identified several groups which have particular concerns about their personal security. In this, women, younger people (teenagers), older people, people with disabilities and Black and Minority Ethnic (BME) communities have been identified as those which tend to perceive risk more acutely when using public transport. The TAG Unit also identifies that public transport users tend to be, but are not limited to, lower income groups.

3.8.23. Concerns of safety when using public transport may potentially lead to suppression of travel for these users, which could reduce the effective accessibility of the transport system.

3.8.24. When assessing security, the following measures have been considered:

- Any change in public transport waiting facilities / interchange facilities;
- Changes to pedestrian access;
- Changes to provision of lighting and visibility;
- Changes to landscaping; and
- Changes to formal or informal surveillance.

3.8.25. The following elements are proposed through the implementation of the travel corridors, where there may be an impact on personal security.

- Bus stop and infrastructure upgrades; and
- Cycle and pedestrian infrastructure such as improved crossings and off-road alignments.

3.8.26. Due to the limited data and information regarding the distribution of users in terms of the various social groups mentioned above, it has not been possible to complete a quantitative assessment.

3.8.27. As stated in the social impacts assessment earlier in the report (3.7.7 to 3.7.9), the scheme is expected to be **slightly beneficial** in terms of security.

Accessibility

3.8.28. Accessibility appraisal focuses on the public transport accessibility of employment, services and social networks. This covers a wide range of factors, including journey times to reach key destinations, service frequencies and provision of accessible boarding at stops.

3.8.29. Other areas of the DI appraisal also impact on accessibility, such as severance (barriers to accessibility within the community), security and personal affordability. The accessibility appraisal considers the end-to-end journey, including physical accessibility at the bus stop



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and any measures provided on the bus such as audio-visual announcements informing passengers that the vehicle is stopping.

- 3.8.30. The implementation of the bus corridors will result in improved facilities at bus stops, improved accessibility at bus stops and on the buses themselves, and improved service frequencies and service patterns. Such improvements are likely to make the bus a more suitable or attractive travel option for public transport users, proving to be **beneficial** for all who currently use the bus and any who may switch to public transport.

Affordability

- 3.8.31. At this stage the DI assessment for user benefits has not been undertaken given the continued work on modelling the bus / highway impacts of the scheme within the SEDMMS model.

Summary of Findings

- 3.8.32. The initial screening process identified that the likely scale of impacts in terms of noise, air quality, accidents and severance were not of a magnitude to warrant more detailed assessment. The distributional impacts of user benefits, security, accessibility and affordability were progressed for further assessment, with user benefits and affordability being assessed quantitatively.
- 3.8.33. The assessment of DIs for user benefits and affordability will be undertaken once the modelling of the bus and highway impacts within the SEDMMS model is complete.
- 3.8.34. While a detailed assessment was not undertaken at this stage for security and accessibility, based on the nature of the scheme, it is expected that all the socio-demographic groups for whom these are a concern, as identified in Table 3-17, would expect to see some level of benefit from the proposed scheme.

3.9 SENSITIVITY ANALYSIS

- 3.9.1. Sensitivity testing has been undertaken to explore the sensitivity of the expected outcomes to changes in inputs. The following sensitivity tests have been carried out, drawing on the key assumptions made in the core scenario:
- Test 1: Increase cycling induced demand from 55% to 110% to reflect the high levels of demand increased observed across local cycling projects;
 - Test 2: Reduce cycling induced demand from 55% to 27% to reflect Cycling Demonstration Towns and Cycling City Demonstration Programmes case study evidence;
 - Test 3: Reduce pedestrian induced demand from 12% to 6%;
 - Test 4: Increase pedestrian induced demand from 12% to 24%;
 - Test 5: Reduce cycling induced demand from 55% to 27%, and reduce pedestrian induced demand to 6%; and
 - Test 6: Reduce wayfinding benefits by 50%.



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3.9.2. The table below show the impact on PVB, PVC, NPV and BCR of each of these tests compared to the initial BCR.

Table 3-19 – Sensitivity Analysis

Sensitivity Test	PVB (£m)	PVC (£m)	NPV (£m)	BCR
Initial BCR	53.49	42.66	10.83	1.3:1
Test 1: 110% cycling induced demand	90.72	42.65	48.07	2.1:1
Test 2: 27% cycling induced demand	34.53	42.66	-8.13	0.8:1
Test 3: 6% pedestrian induced demand	53.29	42.66	10.63	1.2:1
Test 4: 24% pedestrian induced demand	53.88	42.66	11.22	1.3:1
Test 5: 27% cycling induced demand and 6% pedestrian induced demand	34.34	42.66	-8.33	0.8:1
Test 6: 50% wayfinding benefits	48.60	42.66	5.94	1.1:1

- 3.9.3. The results of these tests show that the scheme benefits are most sensitive to change in cycle demand uplift.
- 3.9.4. Under sensitivity Test 1, where cycle demand uplift is doubled to 110% from 55%, the PVB can be seen to increase by almost 70%. Alternatively, under sensitivity Test 2, where the uplift is reduced to 27% from 55%, the PVB is seen to decrease by 35%, and the BCR falls below 1.0:1 to 0.8:1.
- 3.9.5. The benefits show minimal sensitivity to changes in assumptions of pedestrian demand uplift. Reducing the demand uplift to 6% and increasing to 24%, the BCRs remain at the same level as the central case. This is due to pedestrian benefits only making up a small percentage of the total benefits.
- 3.9.6. Test 5 represents a downside scenario where both cycling and pedestrian demand uplifts are at the lower bounds of the previous tests. Under this test the BCR falls to 0.8:1, demonstrating poor value for money.
- 3.9.7. Reducing the benefits through wayfinding by 50% within the appraisal has minimal impact on the BCR, with it reducing slightly to 1.1:1. This demonstrates that, although this infrastructure is an important element of the scheme, if there is a reduction in benefits through this, the scheme still offers value for money.

3.10 VALUE FOR MONEY STATEMENT

3.10.1. The initial BCR for the scheme is 1.3:1, demonstrating low VfM. The BCR calculation is based on the monetised impacts alone. There are a number of main sources of benefit contributing to the PVB. Firstly, the health impacts, including reduced risk of premature death and reduced absenteeism, associated with increased uptake of cycling on the corridors and Beryl Bikes. Secondly, journey quality benefits as a result of improved ambience for pedestrians and cyclists, and implementation of wayfinding signage and improved waiting facilities due to new bus shelters. In addition there are benefits related to reduction in accidents, noise, and greenhouse gas emissions and improvements to air





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quality. There is a third-party contribution [REDACTED] which is subtracted from the business user benefits. Accounting for this, the PVB is £53.49m.

- 3.10.2. The PVC is £42.66m, which includes 15% optimism bias. These costs include the construction costs of developing the corridors (including cycling, pedestrian and bus infrastructure), Beryl Bike expansion and installation of an HGV Management System on Longham Bridge. The PVC also includes the O&M costs associated with the corridors and wayfinding.
- 3.10.3. There is also the potential for other impacts not currently captured or monetised in the appraisal to positively impact on the scheme benefits, and further boost the VfM of the package. The potential user benefits associated with improved bus infrastructure are not currently being captured within the appraisal, although the costs associated with this are. In addition there are anticipated to be reliability benefits for bus and active mode users through providing improvement to, and continuity of, infrastructure. Improved lighting of routes and bus shelters will improve the safety and security of public transport and active mode travellers. Wider impacts have not been quantified or monetised within the appraisal, however the scheme is anticipated to increase labour and business productivity. The scheme is anticipated to have a positive impact on townscape, both enhancing the appearance and improving connectivity. There is the potential for the scheme to have a slight adverse impact on historic environment, biodiversity and water environment. However appropriate measures would be taken to mitigate these, minimising potential adverse impacts. Overall, the impact of these non-monetised impacts is likely to be beneficial overall and not impact on the VfM category.
- 3.10.4. The sensitivity test results demonstrate that if the uplift in cycling demand as a result of the scheme exceeds the core scenario forecast, the scheme could offer medium to high VfM. However, lower levels of demand uplift could result in the value for money of the scheme reducing to poor. The impact of pedestrian demand uplift on the VfM is less pronounced, where doubling or halving the core scenario uplift does not change the VfM category.
- 3.10.5. Overall, the scheme is most likely to return low VfM, although noting that the full extent of the impacts of the scheme in terms of bus and highway users are not currently being quantified within the appraisal. The initial BCR exceeds this threshold and there are then additional, non-monetised, impacts including reliability, severance and affordability, to be considered.



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4 THE FINANCIAL CASE

4.1 INTRODUCTION

- 4.1.1. This section describes the Financial Case for the programme of S5 and S6 corridors, outlining the high-level capital cost estimate and spend profile for public consultation and is subject to further S151 sign off.
- 4.1.2. The Financial Case provides details of the risk and inflation assumptions, the affordability of each element and potential funding arrangements.
- 4.1.3. The operating and maintenance costs are also presented to provide consideration of whole life costs.
- 4.1.4. This chapter deals with costs and accounting issues. The question of value for money is dealt with separately in the Economic Case.

4.2 COSTS

- 4.2.1. The development of the S5 and S6 corridors was funded at SOBC stage by SED. This included option reviews and development of the S5 and S6 corridors, preliminary design and SOBC was funded by SED through their annual funding allocations from 2018/19 and 2019/20.
- 4.2.2. After the award of the funding for the low ask in March 2020 further design work has taken place to develop the drawings for the S5 and S6 corridors and provide updated costings. Although the costs have changed slightly we still anticipate delivering the same outcomes for DfT as indicated when the TCF grant was awarded. The costs are presented in Table 4-1 below.

Table 4-1 – Sustainable Travel Corridor OBC Cost estimates (excluding wayfinding and network management costs)

Package	Sub-Package	OBC Cost estimate
Sustainable Transport Corridors	Sustainable Transport Corridor 5	£30, 622, 688.01
	Sustainable Transport Corridor 6	£18,618, 794.46
Total		£ 49,241,482.47

4.3 SCHEME PREPARATION AND CONSTRUCTION

- 4.3.1. The cost of Sustainable Transport Corridors has been estimated by SED. These have undergone a further independent Quantity Surveying review by consultants WSP.
- 4.3.2. This review has comprised the quantification of the significant elements of the work from the outline design available building on the work done at the SOBC stage. The resulting items/quantities have been priced using industry standard published data informed by tenders from similar projects with adjustments made for productivity issues associated with





working in live carriageways/pedestrian areas and the restrictions that this may have on working hours and efficiency. Allowances have been made for main contractor's preliminaries and OH & P and traffic management where required based on tenders comprising similar works.

- 4.3.3. This has produced a base estimate cost to which has been added an allowance for professional fees, STATS and risk.

4.4 RISK BUDGET

4.4.1. The detailed cost of delivering the Sustainable Travel Corridors schemes will not be known until the detailed design has been completed, land purchased (where applicable), and tender prices have been received. To reflect the uncertainty associated with known risks and the estimate, a Quantified Risk Assessment (QRA) and Estimating Uncertainty exercise have been undertaken to inform this OBC. The following risk categories were added to the sub total costs for each corridor based on the current status of design development and uncertainty.

- Work by Statutory undertakers and others (over and above risk allowance);
- Survey/Investigate/Design/Procure/Supervise/manage & liaise; and
- QRA Risk Allowance.

4.4.2. The QRA was conducted using the risk register put together by the Programme Management Team. It assesses the severity of impacts and the probability of a risk occurring and uses these assessments to calculate the % score of each risk (using impact x probability). From these calculations the 80th percentile value was used to ascertain the QRA risk value for the corridors.

4.5 SPEND PROFILE

4.5.1. The assumed annual profile of expenditure is shown in the Table below.

Table 4-2 – Sustainable Travel Corridor Financial Spend Profile

Source of funding	Sustainable Travel Corridors (including Wayfinding and Network Management) Spend profile by financial year			Total
	2020-2021	2021-2022	2022-2023	
TCF	£2,365,966.35	£9,595,582.58	£38,711,433.54	£50,672,982.47
SED City Region (LA) Contribution	£651,944.44	£1,326,944.44	£2,406,944.44	£4,385,833.33
Sub Total	£3,017,910.79	£10,922,527.02	£41,118,377.99	£55,058,815.80
Third party contribution*	Redacted due to Third Party Sensitivity			
Total	Redacted due to Third Party Sensitivity			





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4.6 OUT-TURN PRICE ADJUSTMENT

- 4.6.1. The cost estimates have a price base of Q3 2020. An allowance will therefore be made for expected inflation between the date of the estimate and the date when the expenditure is expected to occur.
- 4.6.2. The uplift factors to reflect price inflation have been estimated based on the Gross Domestic Product (GDP) deflator methodology recommended by WebTAG as well as inflation calculations undertaken by WSP in line with the latest Building Cost Information Service (BCIS) information available with an assumed average mid point of construction of 4Q'21.

4.7 BUDGETS / FUNDING COVER

An estimated funding profile for all the sustainable transport corridors, split by financial year in accordance with TCF guidance have been provided in Section 4.5. The funding from all parties stated has been secured and budgeted for as part of this scheme.

4.8 WHOLE LIFE COSTS

- 4.8.1. The sustainable transport corridor schemes will give rise to additional revenue liabilities for capital renewals and maintenance, when compared to a future scenario in which the scheme does not exist. All maintenance obligations will fall under the purview of SED city region and, as such, will be fulfilled as part of the maintenance regime operated. The following allowances have been made by SED city region towards maintaining the sustainable transport corridor schemes.

CAPITAL RENEWAL COSTS

- 4.8.2. Capital renewal costs have been calculated for the OBC construction costs and material types have been confirmed. These costs will be for the purpose of renewing all relevant transport infrastructure assets over a 60-year period.

ANNUAL MAINTENANCE AND OPERATING COSTS

- 4.8.3. Annual maintenance and operating costs have been estimated for on the basis of a proportion of capital costs. These costs are to meet annual maintenance liabilities including operations, infrastructure and safety inspections.
- 4.8.4. The whole life costs identified have been factored into the economic appraisal, and these costs will be covered by SEDs annual maintenance budget.
- 4.8.5. The Third-party contribution for the Sustainable Travel Corridors is included as the annual operating costs below, this will follow the launch of the bike share scheme, with operation and maintenance contributions profiled over four years below.





Table 4-3 – Third Party Contribution for Sustainable Transport Corridors (Redacted due to third party sensitivity)

4.9 ACCOUNTING IMPLICATIONS: CASH FLOW STATEMENT

4.9.1. The TCF programme is expected to have the following implications on public accounts:

- Funding from DfT is sought to fund the TCF Programme of schemes with funds being spent during the financial years 2020-2019, 2020-2021, 2021-2022 and 2022-2023;
- Local contribution for the programme will be provided through LA contributions, private development contributions and 3rd party contributions; and
- As part of the TCF programme management arrangements an Assurance Framework and Partnering agreement have been developed. These documents set out who is responsible if the scheme goes over budget.

4.10 SUMMARY OF THE FINANCIAL CASE

4.10.1. The total capital cost of the sustainable transport corridors including Local Authority match fund and excluding third party contributions (due to commercial sensitivity) is £55,058,815.80.

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5 THE COMMERCIAL CASE

5.1 INTRODUCTION

- 5.1.1. The Commercial Case sets out the procurement approach that is likely to be adopted to ensure that the TCF proposals are commercial viability, deliverable within the scheme budget and can achieve value for money.
- 5.1.2. This chapter outlines the commercial viability of the SED City Region TCF programme, and the procurement strategy which will be used to engage the market. It also provides:
- The intended approach to risk allocation and transfer;
 - Contract and implementation timescales; and
 - How the capability and technical expertise of the team delivering the programme will be secured to ensure effectively deliver of the TCF programme by March 2023.
- 5.1.3. Consideration has also been given to the following, which will be developed in more detail at the OBC/ FBC stage where appropriate under the TCF programme:
- Payment mechanisms;
 - Risk allocation and transfer;
 - Pricing Framework and charging mechanisms;
 - How the capability and technical expertise of the team delivering the project will be secured;
 - Contract length; and
 - Human Resource issues including Contract Management.

5.2 PROCUREMENT STRATEGY

- 5.2.1. The detailed design and constructions phases of the Sustainable Transport Corridors are significant tasks which require a robust procurement strategy. BCP Council and Dorset Council has considered that a mixture of procurement routes is required for design and construction to deliver the TCF programme. These form a 'traditional approach' to procurement for both design and construction phases, and include the following:
- In-house' capability; and
 - Contract tendering through use of frameworks.
- 5.2.2. The methods of procurement for the Sustainable Transport Corridors by BCP and Dorset Councils are described below.
- 5.2.3. The procurement strategy for the delivery of the SED City Region Transforming Cities Fund programme will utilise a suite of existing (proven) suppliers and providers to deliver all the themes covered within the TCF programme. New providers will also be established through new contractual relationships that are procured in accordance with the respective Council's



financial regulations which are aligned with procurement law. Current providers are set out in the table below:

Table 5-1 - Current Contractors and Professional Services providers for BCP Council and Dorset Council

Council	Contractor	Professional Services provider
BCP	Gen 4-2 Contract/Gen 4-3 (value dependent)– Existing Framework R&W Term service– Existing Framework BCP Council Neighbourhood Services– Existing Framework Clear Channel – Direct Contract from previous mini tender Beryl – Awarded via mini tender Siemens – Direct Contract from previous mini tender	WSP – Existing Framework
Dorset Council	Hanson Construction Projects – Existing Contract award following OJEU tender in 2016 Dorset Highways Network Operations-in house resource	WSP - Existing Framework

- 5.2.4. The overall procurement strategy for this TCF programme will be led by BCP Council and managed through their Growth and Infrastructure Directorate with direction from a TCF Programme Management Board
- 5.2.5. Where the scale of potential investment from the TCF programme could lead to existing contract thresholds being exceeded they will either be amended in accordance with procurement law and if necessary new contracts procured to meet the increased demand. In addition to the frameworks identified above, the respective Council’s within the city region have already began engaging with new framework contracts in advance of the anticipated TCF programme to ensure that the region is ready to deliver as soon as funding is confirmed. The following table sets out examples of the expected contractual route to delivery the TCF programme (including schemes that form the contributions towards the TCF programme).

Table 5-2 – Sustainable Transport Corridors TCF Procurement Routes by theme

Theme	Procurement route
Sustainable Connectivity Corridors –civils works	Gen 4-2 Contract/Gen 4-3 (value dependent) BCP R&W Term service contract BCP Council Neighbourhood Services Dorset Highways Works Term Service Contractor Dorset Highways Network Operations
Bus Priority	Existing contracts with Siemens





Bus Infrastructure (Shelters and RTI)	Existing contract with Clear Channel
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- 5.2.6. Both BCP Council and Dorset Council have dedicated procurement teams embedded within the financial services offices of their Corporate Services Directorates. Officers from within these teams form part of the TCF programme delivery team and the programme management team will ensure that these officers will work collaboratively across boundary to guarantee best use of resources/skills. The officer teams within the SED City region have extensive experience in delivering a variety of transportation schemes from inception to completion, such as the Local Sustainable Transport Programme
- 5.2.7. It is intended that each council will procure the schemes within their area and for any cross-boundary schemes, a decision will be made on which council will lead. As far as possible, it is intended to evenly distribute the procurement activities so as not to overload one council.
- 5.2.8. To ensure that the SED City Region is ready to deliver from day one, procurement timelines have been included as an integral part of the delivery programme. In advance and at check points during any procurement process Future Thinking will be applied to ensure that the scheme or product that is being procured is future proofed and represents value for money.
- 5.2.9. Where opportunities exist to purchase products/materials at scale across the SED City region, then this will be considered as part of the robust procurement strategy to ensure that the TCF funding delivers maximum value for money.

5.3 IN HOUSE AND EXTERNAL DESIGN CAPABILITY

- 5.3.1. The SED city region has inhouse design and programme/project management resource in both BCP Council and Dorset Council.
- 5.3.2. BCP Council's Transportation Services Team has extensive experience in delivering sustainable transport schemes, from scheme inception and detailed design, with responsibility to complete works and check for compliance. The Transportation Services Team will ensure that the scheme is fully designed at the time of tender, to comply with the Council's preferred form of contract.
- 5.3.3. BCP Council's in-house contractor will also use their experience and expertise to undertake and construct elements of the programme of improvement works, including advance accommodation where required.
- 5.3.4. Dorset Council also has extensive experience in delivering transport schemes, for example the BIG Programme, through both the Dorset Council's Highways Improvements team and also through Dorset's framework agreement with WSP. This experience includes scheme inception through to detailed design.
- 5.3.5. To compliment this resource both have established consultancy service frameworks that will be utilised to increase resource to deliver the additional work that the TCF would provide. In addition to this SED will also utilise other consultancy frameworks as a top up. This approach gives SED a number of professionals to call upon to deliver the TCF programme.





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This will include WSP who provide support on existing Framework in place for the next 7 years. WSP have worked with both Bournemouth, Poole and Dorset for the past 12 years and provide civil engineering consultancy services, transport planning and project management.



5.4 IN HOUSE AND EXTERNAL CONSTRUCTION CAPABILITY

5.4.1. BCP and Dorset Councils will utilise a number of routes to market for construction works as detailed under the following sub headings

BCP FRAMEWORK/TERM CONTRACTOR

5.4.2. BCP has access to a Term Services Contractor. This contract will be utilised to deliver schemes between April 2021 and April 2022. The use of this contract will be dependent on the resource capability of the contract and extent to which the contract is utilised by other BCP projects.

5.4.3. The desirability of the use of the term service contract as a route to market for the TCF programme has been assessed by Officers from BCP strategic procurement and the TCF Programme Management Team. It has been deemed an appropriate route to market for works delivered within the BCP Council area.

5.4.4. Examples of schemes delivered using this contract include the following:

- Wallisdown Scheme FWP (Phase 1); and
- Boundary Roundabout improvements.

DORSET HIGHWAY WORKS TERM SERVICE CONTRACT (DHWTS)

5.4.5. Dorset Council has a strategic partnership contract with Hanson Construction Projects have significant experience of delivering schemes on the Dorset highway network which has included over £40 million of highway construction works in the east of Dorset, comprising 6 major projects valued between £22 and £3.2 million, funded by Dorset Local Enterprise Partnership (DLEP). BCP Council have worked with Dorset Council and DLEP on all these contracts. This experience will be utilised to deliver the sustainable transport corridors efficiently and within programme and budget.

5.4.6. Reciprocal working has been a key feature of the partnership with Hanson using the Dorset Highways Organisation's sign-shop, vehicle workshops, grounds maintenance and highway maintenance departments.

5.4.7. Working collaboratively and using early contractor involvement on all schemes has resulted in considerable benefits in both cost and time. Other initiatives include joint training and material testing, monthly KPI reviews and introduction of Hanson iPave tablet for all onsite recording and sharing of documentation.



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5.4.8. The Contract was tendered in 2016 following an OJEU notice with a value of £500,000 and a market engagement exercise. Depending on contractor’s performance and KPI scores, the contract can run until 2027.

HAMPSHIRE COUNTY COUNCIL GENERATION 4-2 AND 4-3 CIVIL ENGINEERING

5.4.9. In addition to the Term Service contracts both BCP Council and Dorset Council are named members of the Hampshire County Council Generation 4 Civil Engineering, Highways and Transportation Infrastructure Works Framework which includes several major contracting firms. Works through this framework are subject to mini-competition between interested framework contractors. This construction framework includes engineering contractors who have already demonstrated their technical, commercial and financial quality in a process of competitive pre-qualification and tendering. The proposed TCF Programme will utilise both lot 2 and lot 3 of the Gen 4 contract.

5.4.10. The Generation 4 Lot 2 contract consists of ten suppliers who can provide works between the values of £50,000 to £10million. While the Generation 4 Lot 3 contract consists of four suppliers who can provide works between the values of £8million and £150million. This offers BCP flexibility in procurement dependent on the value of the particular package of works being procured as part of the TCF programme.

5.4.11. The desirability of the use of the Hampshire Generation 4-2 and 4-3 contract as a route to market for the TCF programme has been assessed by Officers from BCP strategic procurement and the TCF Programme Management Team. It has been deemed an appropriate route to market for works delivered within the BCP Council area.

5.4.12. The contractors on the Generation 4 contract are the same contractors that BCP utilised in multiple schemes as part of the Generation 4 Framework. These schemes are detailed below:

Table 5-3 – Gen 3 Contract Awards

Contract	Details	Start	End	Tender Price
Gravel Hill Improvements	Cycleway provision, slope stabilisation, resurfacing	July 2016	Dec 2016	£1.8 million
Poole Bridge Refurbishment	Construction of piled foundations, widening of approach spans, provision of new bridge control system	Sept 2016	Jan 2018	£4.8 million
Townside Access Hunger Hill Improvements	Re modelling of gyratory to a signalised junction involving extensive and complex traffic management	Oct 2018	May 2019	£1.9 million
A35 Dorchester Road Axium centre	Provision of a right turn lane	Sept 2016	Dec 2016	£325 k





BCP COUNCIL NEIGHBOURHOOD SERVICES TEAM

- 5.4.13. The BCP Council Neighbourhood Services team is BCP Councils internal works team with the capacity to deliver highways improvements. BCP Neighbourhood services offers a route to construction supply that similarly to the BCP Term Service Contractor and eliminates the requirement for a defined tender period with schemes developed collaboratively from an early design stage.
- 5.4.14. There are numerous examples of BCP Council Neighbourhood Services delivering similar types of infrastructure schemes as the TCF programme including Dunyeats Road and the Townside Access scheme.

DORSET HIGHWAYS NETWORK OPERATION TEAM

- 5.4.15. Dorset Council has an internal team which is directly employed to deliver highways schemes across the County. This team benefits from a combination of directly employed construction works and sub-contractors. This team can be mobilised quickly and has delivered numerous highways schemes across the Dorset area of the SED City Region.

SUMMARY

- 5.4.16. The above provides a summary of the various procurement routes that BCP and Dorset Council will utilise to deliver the sustainable transport corridors. As part of corridor delivery, a mixture of routes will be utilised dependent upon scheme value and programme requirements. All the proposed procurement routes have a track record of successfully delivering similar schemes for BCP and Dorset Council.

5.5 PAYMENT MECHANISMS

- 5.5.1. BCP Council will tender the works contract based upon a fixed price. Payment timing will be adopted to maximise the value from the contract through minimising financing and constructing costs. Payment would be made to the contractor by monthly valuation with a BACS payment within 28 days of issue of the initial valuation.
- 5.5.2. Dorset Council will tender the works contract based upon a target price. Payment timing will be adopted to maximise the value from the contract through minimising financing and constructing costs. Payment would be made to the contractor by monthly valuation with a BACS payment within 28 days of issue of the initial valuation.

5.6 PRICING FRAMEWORK AND CHARGING MECHANISMS

- 5.6.1. The preferred competitive tender which will be utilised by the TCF programme for the delivery of the Sustainable Travel corridors is the HCC GEN4-2 and HCC GEN4-3 lots.
- 5.6.2. The remaining procurement routes outlined in Section 5.4 will use a contractual schedule of rates that is not subject to a competitive tender.





5.7 RISK ALLOCATION AND TRANSFER

- 5.7.1. The construction contracts in use by BCP Council and Dorset Council will include clauses to facilitate the transfer of appropriate risks from the Councils to the contractor, such as risks associated with construction costs increasing above those predicted in the Financial Case.
- 5.7.2. At this stage the sections are in various stages of design and only the quick win sections have had contractors appointed. This means the scheme cost estimates contain a greater proportion of risk borne by BCP and Dorset Councils, than will remain after appointment. The risk will be captured and quantified within the proposed QRA process. The detailed description of this process is outlined in the Management Case. Once the tendering process is complete, some of the risk (such as cost increases associated with the design and construction stages) can be transferred to a contractor(s). Other risks, such as the identification of statutory undertaker equipment, and mitigation costs associated with these, can be removed from the “risk pot” completely if they do not materialise, or transferred to “actual” scheme costs if they do materialise, rather than remaining as risk.
- 5.7.3. The contracts outlined in 5.4 include clauses to facilitate the transfer of appropriate risks from BCP and Dorset Council to the contractor, such as risks associated with construction costs increasing above those predicted in the Financial Case. The construction cost estimate includes an allowance for risk realised throughout construction. The risk budget for construction has been estimated using a quantified risk register.

5.8 CONTRACT LENGTH

- 5.8.1. A construction period across three financial years for the complete TCF programme is anticipated. The routes to market mentioned above extend beyond the end of the TCF programme delivery window except for the R&W Term Service contract which is limited to April 2022. Following the end of the Term Service contract it is anticipated another Term Service contract will be procured with similar terms to the existing contract. The timing of this contract length is being considered in the TCF programme and assignment of scheme packages will reflect this.
- 5.8.2. It is possible that tender submissions will propose a different period than this, and the programme contains elements of contingency following the risk assessment completed by BCP Council, Dorset Council and their technical advisors.

5.9 SUMMARY

- 5.9.1. This commercial case has demonstrated that with strong TCF governance in accordance with Local Assurance Framework and that BCP and Dorset Council has the appropriate procurement strategy in place to deliver the sustainable transport corridors.





6 THE MANAGEMENT CASE

6.1 INTRODUCTION

6.1.1. This chapter forms the management case for the sustainable transport corridors.

This section sets out:

- evidence of similar projects;
- programme and project dependencies
- the governance structure (management framework);
- the scheme / project scheduling (i.e. the development of the project programme, and the process for monitoring progress against the milestones within the programme, the assurance and approvals plan);
- the stakeholder management process (how stakeholders have been identified, and their influence on the project managed);
- Project reporting
- the risk management process; and
- how the benefits set out in the economic case will be monitored and realised.

6.2 EVIDENCE OF SIMILAR PROJECTS

6.2.1. The delivery of the proposed interventions will build upon experience gained on a number of highway and transport schemes delivered by the Bournemouth, Christchurch and Poole (BCP) Council and Dorset Council in recent times.

6.2.2. A selection of key schemes has been listed in Table 6-1, summarising the scope of works, capital costs, duration and form of contract. Opportunities will be taken, wherever possible, to improve delivery processes, through acting upon lessons learnt and a continuous improvement process of feedback.



Table 6-1 – Key Local Schemes

No.	Contract	Description	Works Date	Form of Contract	Approximate Value	Delivered by?	Project Delivered Successfully?
1	Twin Sails Bridge	Construction of a new twin bascule lifting bridge over the Back Water Channel	April 2010 to April 2012	NEC Option C	£20,000,000	BCP Council	Yes
2	Townside Access	Major access improvements to the Port of Poole and new development sites, improved pedestrian/cycle provision and place-making	October 2018 to December 2019	Competitive Tender & In-House Contractor	£8,000,000	BCP Council	On-going
3	A338 / Blackwater Improvements	Part of £45M of LEP 'BIG Programme' works. Major road works - A338 slip road onto the at Blackwater Junction extension, additional carriageway added	2018 to June 2019	TBC	£8,000,000	BCP Council & Dorset Council	Yes
4	Poole Bridge Approach Spans	Design construction and replacement of approach spans, abutments and supporting piles	September 2016 to December 2017	NEC Option A	£8,000,000	BCP Council	Yes
5	Canford Main Bridge Refurbishment	Repairs to 200 year old stone bridge and provision of a new footbridge	March 2008 to March 2009	NEC Option C	£2,500,000	BCP Council	Yes
6	Castle Lane West Pedestrian and Cycling Scheme	Showcase walking and cycling project. 2km of continental style segregated cycle facilities, enhanced public transport facilities, remodelled signalised junction, side road improvements and reconstruction of main carriageway and footways.	August 2014 – June 2015	Competitive Tender (NEC Option B)	£1,500,000	BCP Council	Yes
7	Royal Bournemouth Hospital Bus Hub	Created dedicated space with new shelters, an improved waiting area and 'real time' passenger information.	September 2013 – February 2014	Competitive Tender (NEC Option B)	£700,000	BCP Council	Yes
8	Gravel Hill Improvements	Bank stabilisation, improved pedestrian facilities and culvert refurbishment	July to December 2016	NEC Option A	£3,500,000	BCP Council	Yes
9	Highway Maintenance	Annual programme of structural maintenance schemes	On-going	In-House Contractor	£1,000,000	BCP Council	On-going
10	Hamworthy Park Footbridge Rail Crossing	Construction of a footbridge over the Hamworthy freight railway line	July 2015 to December 2015	NEC Option A	£781,000	BCP Council	Yes
11	Ringwood Road – Pedestrian and Cycling Scheme	High quality off-carriageway leisure / commuter route.	November 2012 – April 2013	Term Service Contract	£450,000	BCP Council	Yes, this scheme was shortlisted for a South West ICE
12	Bournemouth Travel Interchange	Remodelling of Travel Interchange providing improved and more accessible bus, taxi and cycling facilities.	January 2015 – September 2015	Competitive Tender (NEC Option B)	£1,200,000	BCP Council	Yes
13	Hatch Pond Signal Junction Improvement	Design and refurbishment of large, signalised junction and improvement of pedestrian facilities	February to May 2016	In-House Contractor	£450,000	BCP Council	Yes
14	LSTF (Large), LSTF (Small) and Better Bus Area Fund	Sustainable travel improvements across Bournemouth, Poole and Christchurch, including enhanced local bus, rail, walking and cycling alternatives through a combination of targeted infrastructure, service and operational improvements.	July 2012 to March 2016	ECI NEC	£27,000,000	BCP Council and Dorset Council	Yes
15	A338 Spur Road Maintenance	Re-construction of 9km of dual carriageway	Sept 2015 to May 2016	ECI NEC	£22m	Dorset Council	Yes - on time and under budget
16	Weymouth Relief Road	Construction of new 7 km highway with park and ride site. Also improvements to existing A353 highway on new alignment	2009- 2011	ECI NEC	£85m	Dorset Council	Yes
17	Weymouth Transport Package	Traffic Management improvements	2010- 2011	NEC?	£10m	Dorset Council	Yes
18	Chapel Gate	Reconstruction of the existing roundabout	Aug 2016 -Dec 2017	ECI / NEC	£2.8m	Dorset Council	Yes



Transforming Travel

6.3 PROGRAMME / PROJECT DEPENDENCIES

6.3.1. The TCF programme is dependent upon a number of activities and is subject to risks (as set out in the Risk Register). A detailed project programme is available in Appendix R with an indicative programme for each corridor from feasibility design to construction of all corridor sections is demonstrated in the table below:

Table 6-2 – Sustainable Transport Corridor indicative Timeline

Sustainable Transport Corridor	Commencement of Feasibility Design	Target Construction Date
Sustainable Transport Corridor 5	October 2020	May 2023
Sustainable Transport Corridor 6	May 2020	June 2023

6.4 GOVERNANCE, ORGANISATIONAL STRUCTURE & ROLES

OVERVIEW OF DELIVERABILITY

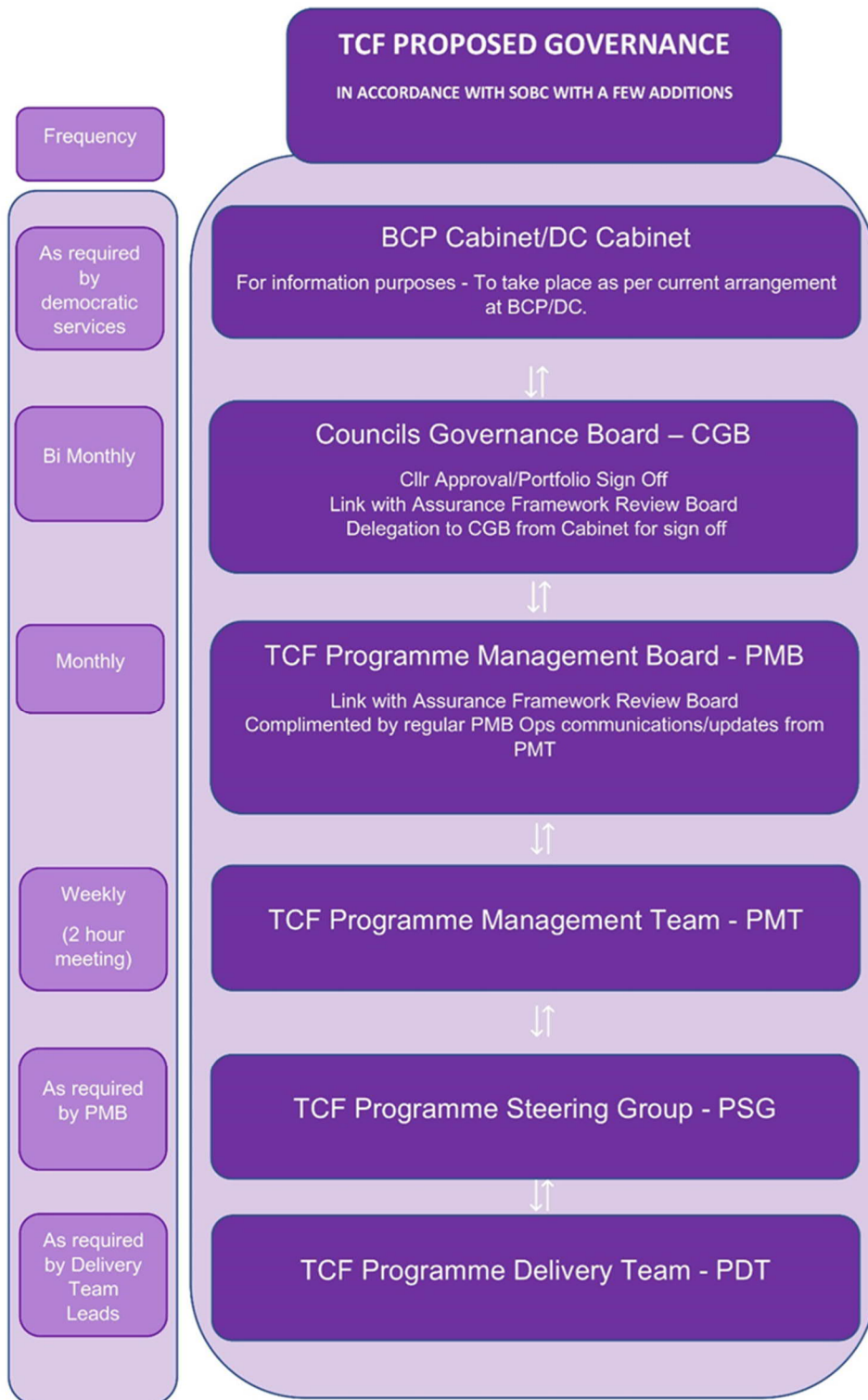
- 6.4.1. BCP Council is acting as lead authority partner for this programme, but both BCP Council and Dorset Council are committed to combining resources to effectively design, manage and deliver the programme packages. This will include an overall TCF programme manager and a delivery board comprising both BCP Council and Dorset Council officers, technical advisors and appointed contractors.
- 6.4.2. The implementation of the programme will benefit from the well-established joint governance and delivery arrangements which have resulted in the successful development and implementation of numerous cross-boundary schemes (some of which are highlighted in the table above) through joint Local Transport Plan working since 2006.
- 6.4.3. The remainder of this section discusses the sound management processes in place to deliver the programme effectively and efficiently demonstrating that there will be robust procedures in place for post-implementation monitoring.

GOVERNANCE ARRANGEMENTS

- 6.4.4. The Local Assurance framework which has been approved by DfT sets out a governance structure to oversee the implementation of the TCF programme. This structure is set out in Figure 6-1 below.



Figure 6-1 - TCF Governance Chart



ATION

BCP & DORSET COUNCIL CABINET

- 6.4.5. The BCP Council and Dorset Council Cabinet will continue to meet as required by democratic services. They will be kept updated on the progress of the TCF programme for information purposes only with powers delegated to the Councils Governance Board in relation to financial spend sign off. Information papers will be prepared for these meetings and TRO decisions will continue to be taken to cabinet for approval.

COUNCILS GOVERNANCE BOARD

- 6.4.6. The TCF Councils Governance Board (CGB) attended by Cabinet Members will meet bi-monthly to approve programme spend and measures planned for TCF programme delivery. Additional meetings will be held during the consultation process and during the delivery of the TCF programme as required/requested by Cabinet Members.

PROGRAMME MANAGEMENT BOARD

- 6.4.7. The Programme Management Board (PMB) will provide oversight, programme leadership, gateway reviews and challenge the TCF Programme Manager drawing on advice provided to the PMB by the Programme Steering Group.
- 6.4.8. The PMB will make formal recommendations to the CGB on spend and progress and provides reports to ensure Local Assurance during the delivery of the TCF programme.
- 6.4.9. The PMB will meet on a monthly basis. The PMB will be complimented by regular updates from Programme Management Team.

PROGRAMME MANAGEMENT TEAM

- 6.4.10. The Programme Management Team (PMT) will provide a regular coordinating role for the delivery of the TCF programme. The team is made up of officers and consultants providing direct support to delivering the TCF programme. The PMT will provide feedback and updates to the Programme Manager who will then feed into the PMB and CGB.

PROGRAMME STEERING GROUP

- 6.4.11. The Programme Steering Group (PSG) will include representatives of key stakeholders and delivery partners, plus a wider reference group. As this scheme is a quick win scheme it is taking place prior to the set up of the PSG. In the interim this role is currently fulfilled by a regular PMB operational call ahead of the PSG being formally established in January 2021.
- 6.4.12. The PSG will provide advice to the PMB and will guide project development and provide technical oversight on TCF programme and specific project issues. It will also contribute to the identification and management of risk and programme reporting. The Programme Manger will provide reports to the PSG.

TCF PROGRAMME MANAGER

- 6.4.13. The Programme Manager, who will have experience of similar programme delivery, will have a key role to play to deliver the TCF programme. This will ensure co-ordination between programme/ project delivery teams, the PSG and PMB. The overall role of the Programme Manager will be to run the programme on a day to day basis and will be



accountable to the PSG and report to the PMB on behalf of the PSG. Key responsibilities to include:

- Ensuring the programme delivery meets the TCF objectives through engagement with programme delivery group;
- Planning and monitor the sub-programmes/projects, ensuring that delivery milestones are met;
- Providing progress and financial reporting to the PSG and PMB,
- Receive and act on feedback from PSG and PMB;
- Make recommendations to the PSG and PMB;
- Manage and mitigate risk;
- Issuing works packages / orders to the relevant teams;
- Procuring consultants and contractors with support from skilled staff from within the programme delivery team
- Liaising with external bodies to minimise potential conflicts; and
- Providing periodic progress reports to the PMB and to the DfT as part of the Local Assurance Framework requirements such as quarterly updates.

PROGRAMME DELIVERY TEAM (PDT)

- 6.4.14. The proposed resource structure for this team as set out above will be delivered through full-time and part-time roles utilising existing local government roles in BCP Council and Dorset Council.
- 6.4.15. The PDT will be supported by consultants WSP through the existing frameworks as described in the Commercial Case.
- 6.4.16. The principal focus of the delivery arrangements will be to make the most effective and efficient use of joint resources between BCP Council and Dorset Council. Due to the nature of the programme, with many different components, and resources across two authorities, co-ordination of the various delivery elements will be particularly important.
- 6.4.17. Corridor and design delivery leads have been identified based around required skills groups to deliver the TCF programme. The Corridor team leads will have overall responsibility for co-ordinating the design and delivery teams reporting to, and working closely with, the Programme Manager. Key responsibilities will include:
- Notifying the Programme Manager of changes and problems to the TCF programme scheme designs or programmes that may have an impact of costs and / or timescales;
 - Identifying risks and opportunities within the sub-streams;
 - Overseeing delivery of the sub-workstreams to standard and timescales; and
 - Arranged PDT meetings on a weekly basis.



- 6.4.18. Nominated Officers will have responsibility for leading on design and delivery of tasks under each corridor and theme, reporting to the Corridor and or design lead.
- 6.4.19. The PDT resources will consist of existing officers across BCP Council and Dorset Council with specific positions appointed. The PDT will have the support of other officers and partnering consultants to fill skills gaps or resource shortages.
- 6.4.20. Key delivery partners will support relevant design and delivery teams, making use of their unique skills, knowledge and influence. BCP Council and Dorset Council will seek to maximise the added value from partners across all sectors. The delivery of various measures within the programme will be carried out in full consultation with relevant bodies and the local community. This will help to ensure political and public acceptability of the proposals and minimise any risk of associated delay and disruption.

DELIVERY PARTNERS

- 6.4.21. The delivery of the sustainable transport corridors will build upon the excellent record of collaborative joint working between the authorities and the productive relationships with key delivery partners, as demonstrated in the joint Local Transport Plan, LSTF and the Bournemouth International Growth (BIG) programme. Key partners will add value to the programme and are an integral part of the programme team. Delivery Partners will also be included within the membership of the Programme Steering Group, as detailed above.

LOCAL ASSURANCE FRAMEWORK

- 6.4.22. The SED TCF Local Assurance Framework has been completed and approved by DfT. The SED TCF Assurance Framework sets out the policies, rules and processes to be applied throughout the TCF programme. The framework provides details of roles and responsibilities, accounting arrangements, and governance and financial management.

6.5 PROGRAMME / PROJECT PLAN

- 6.5.1. Project plans for the Sustainable Travel Corridors are set out in Section 6.3 above which identifies key project tasks and their duration and the interdependencies between each task. For certain elements of the programme we have built in tolerance / contingency to account for risks identified in the programme risk register.
- 6.5.2. Each section(s) of the Sustainable Travel Corridors based on the delivery programme will have its own FBC, as set out in the local assurance framework, including a project plan that will then feed into the overarching high-level master programme. They will consist of live documents, with progress on planned task completion being monitored against actual progress by the Programme/Project Managers. The Project Managers will report progress against plan to the Programme Management Team and subsequently to the Programme Management Board.



6.6 ASSURANCE & APPROVALS PLAN

- 6.6.1. Responsibility for the assurance of subsequent Final Business Cases based on the delivery programme rests with PMB and CGB to approve supported by independent review carried out by Dorset Council, who will assess the technical content of business cases against appropriate business case, transport appraisal guidance and the SED TCF Local Assurance Framework to confirm that the scheme represents value for money to the taxpayer.

6.7 COMMUNICATIONS AND STAKEHOLDER MANAGEMENT

STAKEHOLDER MANAGEMENT

- 6.7.1. Since the publishing of the SOBC the authorities have produced a three year communications plan which outlines and identifies key stakeholders which will be engaged as part of the programme. As this is a quick-win scheme there has been consultation prior to the formal engagement or consultation planned on the OBC's.
- 6.7.2. Throughout the detailed design and construction of sustainable transport corridors there will be detailed stakeholder engagement with the following stakeholder groups:
- Ward Members;
 - Town & Parish Councillors;
 - Business Improvement Districts (BIDs);
 - Public Transport Operators;
 - Local businesses;
 - Local Schools;
 - Local residents;
 - Community Groups (including active travel groups); and
 - Emergency Services.
- 6.7.3. The authorities have involved key stakeholders and attracted their support from an early stage in the development of the programme, with feedback having informed the SOBC content and the development of detailed design proposals for the sustainable transport corridors. This has included extensive stakeholder outreach through a series of workshops and presentations that took place alongside public online engagement.
- 6.7.4. There is a detailed plan of engagement on the corridors themselves followed by detailed public consultation on proposals for each section of the Sustainable Travel Corridors.



- 6.7.5. Transforming Travel email addresses (transformingtravel@bcpcouncil.gov.uk and transformingtravel@dorsetcouncil.gov.uk) have been established to manage public and stakeholder enquiries and to send out regular updates.

RESOURCES AND COMMUNICATIONS PROTOCOLS

- 6.7.6. The communications activities and protocols for the sustainable transport corridors are resourced and managed by BCP and Dorset Council communications teams. Protocol has been established for approving communication and marketing outputs as required, to ensure deadlines are met and optimum media and promotional opportunities gained. The 'Transforming Travel' brand (and guidelines) have been developed to promote the aims and ambitions of the programme and to provide a visual connection to sustainable transport and the region's green spaces and coastline. www.transformingtravel.info has been established and an animation video created. The communications team meets weekly with programme managers to keep abreast of programme developments and to prepare appropriate communications activities. A monthly communications plan supports all of the programme's activities, initiatives and schemes.
- 6.7.7. A range of communications tactics, collaterals and channels are used to promote the programme including press releases, media relations, media briefings, blogs, social media campaigns (organic and paid for) using Twitter, Facebook, LinkedIn and Instagram, newsletters, leaflets, advertisements, animations, videos, banners, events, competitions, maps and infographics.

NOTICE OF WORKS

- 6.7.8. As part of the delivery of the sustainable transport corridors notice of works will be provided by BCP & Dorset using a range of marketing tactics and channels including media relations, press releases, website updates, social media campaigns (organic and paid for), newsletters, stakeholder emails and videos. Communications plans are tailored according to the needs and scope of individual schemes but in general follow this format:
- Strategic announcement outlining scheme plans and start dates; letters to local residents and businesses: 4-8 weeks ahead of start of construction;
 - Operational announcement detailing construction plans and traffic management; letters to local residents and businesses; TRO advertised: three weeks prior to start of construction;
 - Start of works announcement: day one of construction; and
 - Following the start of works, updates on the progress of works are regularly communicated.

6.8 PROGRAMME / PROJECT REPORTING

- 6.8.1. The SED City Region has an effective and proven reporting system that will be put in place for this scheme, based on that used in previous schemes and in accordance with the Local Assurance Framework.



6.8.2. As part of this programme and agreed with the DfT there will be quarterly progress reports submitted alongside monthly reports to the CGB and reports to both BCP and Dorset Councils every quarter in line with the Local Assurance Framework.

6.9 KEY ISSUES FOR IMPLEMENTATION

6.9.1. The risk register for the Sustainable Travel Corridors is part of a combined programme risk register. This is a live document and has been reviewed throughout the design stage of this project as part of our project team meetings. The key risks for the Sustainable Travel corridors have been identified Section 6.11.

6.10 CONTRACT MANAGEMENT

6.10.1. Each contract outlined in the Commercial case defines specific roles in accordance with the terms and conditions of the contract. These roles will be fulfilled by both officers from Dorset and BCP Council and the contractor in question. Contract management communication will be undertaken in accordance with the conditions of contract including the raising of early warnings to identify potential impact on cost and programme. The contract management of each procurement route is summarised in the Table below.

Table 6-3 – Contract Management arrangements for each Route to Market

Council	Route to Market	Contract management
BCP	Term service contract	Plan in place as part of contract works information
Dorset	Highways Term Service Contract	Plan in place as part of contract works information
BCP	GEN4-2 and GEN4-3 Civil Engineering	Plans will be written as part of works information for each contract
BCP	BCP Neighbourhood services	Existing arrangements in place but would need to be documented
Dorset	Dorset Highways Network operation team	Existing arrangements in place but would need to be documented

6.11 RISK MANAGEMENT STRATEGY

6.11.1. The risk register is a live document and has been reviewed throughout the design stage of this project as part of our project team meetings and scrutinised by Programme Management and Council Governance Boards The key risks categories for the delivery of



the cycle corridors have been identified in the table below and managed by appropriate individuals from the Programme Management Team.

Table 6-4 – Contract Management Processes

Council	Route to Market	Contract management
BCP	Term service contract	Plan in place as part of contract works information
Dorset	Highways Term Service Contract	Plan in place as part of contract works information
BCP	GEN4-2 and GEN4-3 Civil Engineering	Plans will be written as part of works information for each contract
BCP	BCP Neighbourhood services	Existing arrangements in place but would need to be documented
Dorset	Dorset Highways Network operation team	Existing arrangements in place but would need to be documented

6.12 BENEFITS REALISATION PLAN

- 6.12.1. A Benefits Realisation Plan will be prepared for the approved TCF programme of schemes. The plan is designed to enable benefits, and disbenefits, that are expected to be derived from the projects, to be planned for, managed, tracked and realised. The plan will help demonstrate whether the schemes objectives identified in the Strategic Case are able to generate the desired 'measures for success'. This can be assessed by tracking and realising the desired outputs and outcomes of the projects.
- 6.12.2. The Programme Manager will develop the Benefits Realisation Plan, intrinsically linked to the Monitoring and Evaluation Plan set out below.
- 6.12.3. The benefits realisation plan will:
- Summarise the scheme objectives and associated outcomes;
 - Outline the benefit measurement methods and associated data requirements; and
 - Outline the responsibilities and resources required to oversee the plan.
- 6.12.4. The Benefits Realisation Plan will be owned by the SRO and reviewed as part of the Project Board meetings to ensure that the benefits remain aligned with the study objectives and that appropriate monitoring processes are adopted.
- 6.12.5. A Table summarising the Benefits Register is presented below.



Table 6-5 – Benefits Register Summary

Benefits	Benefit Recipient	Target	Data Requirement	Owner
Supporting the housing delivery being proposed as part of the new Local Plan	UK Public	Providing 29,400 houses by between 2016 to 2026	Obtain housing build out rates from the respective planning teams, focusing on sites along the corridor.	Programme Manager
Support the Local Economy and Boost Productivity	UK Public	Output per hour (productivity) in Dorset Council is £4.80 lower than in the UK on average and in Bournemouth & Poole areas of BCP Council it is £3.90 per hour lower. At the SOBC stage it was identified that filling the output gap is expected to raise this by £2.5bn across the whole of Dorset. Transport was identified by local businesses as a key element in achieving this. This assessment would highlight this impact, though aware that there are other factors impacting this parameter, which are outside the purview of the scheme.	GVA output in Travel to Work area Delivery of commercial development – consents and construction levels by 2028 for South East Dorset City region provided by the BCP Council and Dorset Council.	Programme Manager
Improve bus usage due to improved service offer, smart ticketing and upgrades to bus stops and shelters	Private sector partners	Increase bus patronage from 2019 levels	Public transport data to be collected from the operators, who would provide the data collected through smart ticketing. If only origin information is available, primary bus stop user surveys will need to be undertaken.	Programme Manager
Increased uptake of cycling on S and C corridors	UK Public	As identified in the SOBC stage, BCP aims to double cycle mode share in main urban area, leading to 10% increase in conurbation.	Classified volume count information to be collected using manual count surveys, so as to include cyclists and pedestrians.	Programme Manager
Journey quality benefits as a result of improved ambience for pedestrians and cyclists	UK Public	No reported issues along the corridor and accident impacts	Number of signages and wayfinding totems, and associated accidents (KSI and minor) along the corridors	Programme Manager



6.13 MONITORING AND EVALUATION

6.13.1. Monitoring and evaluation of benefits is required to establish the extent to which the scheme meets the objectives and the forecast benefits described in the Economic Case section of the SOBC. To be fully effective, plans for monitoring and evaluation should form part of the early development of the scheme's business case and also be a continuous process within the project. The HM Treasury Magenta Book provides the following definition of Monitoring and Evaluation²⁰:

- Monitoring – seeks to check progress against planned targets and can be defined as the formal reporting and evidencing that spend and outputs are successfully delivered and milestones met; and
- Evaluation – is the assessment of the initiatives effectiveness and efficiency during and after implementation. It seeks to measure the causal effect of the scheme on planned outcomes and impacts and assessing whether the anticipated benefits have been realised, how this was achieved, or if not, why not.

6.13.2. In March 2013, the DfT published a Monitoring and Evaluation Strategy, setting out a framework for enhancing the generation of good quality monitoring and evaluation evidence, which would provide greater accountability and a stronger evidence base for future decision making and communication activities. The strategy outlines that good quality monitoring and evaluation evidence is important for helping make and communicate decisions about where best to target public spending, demonstrating the value for money and benefits which are generated by investment in transport, and learning about how to effectively design and deliver policies, programmes and communications.

6.13.3. The DfT has also published a document entitled, 'Monitoring and Evaluation Framework for Local Authority Major Schemes' (2012), designed to make the process as consistent and proportionate as possible. It also aimed to be complementary with the devolution of decision making. The document sets out three levels of monitoring and evaluation:

- Standard monitoring;
- Enhanced monitoring; and
- Fuller evaluation.

6.13.4. All schemes are required to conduct the 'standard monitoring' approach, whereas schemes costing more than £50 million are expected to follow the 'enhanced' guidance.

6.14 SCHEME EVALUATION

6.14.1. Before and after scheme monitoring will be undertaken to evaluate the effectiveness of the sustainable transport corridors against stated objectives. Traffic and cycle count data will be

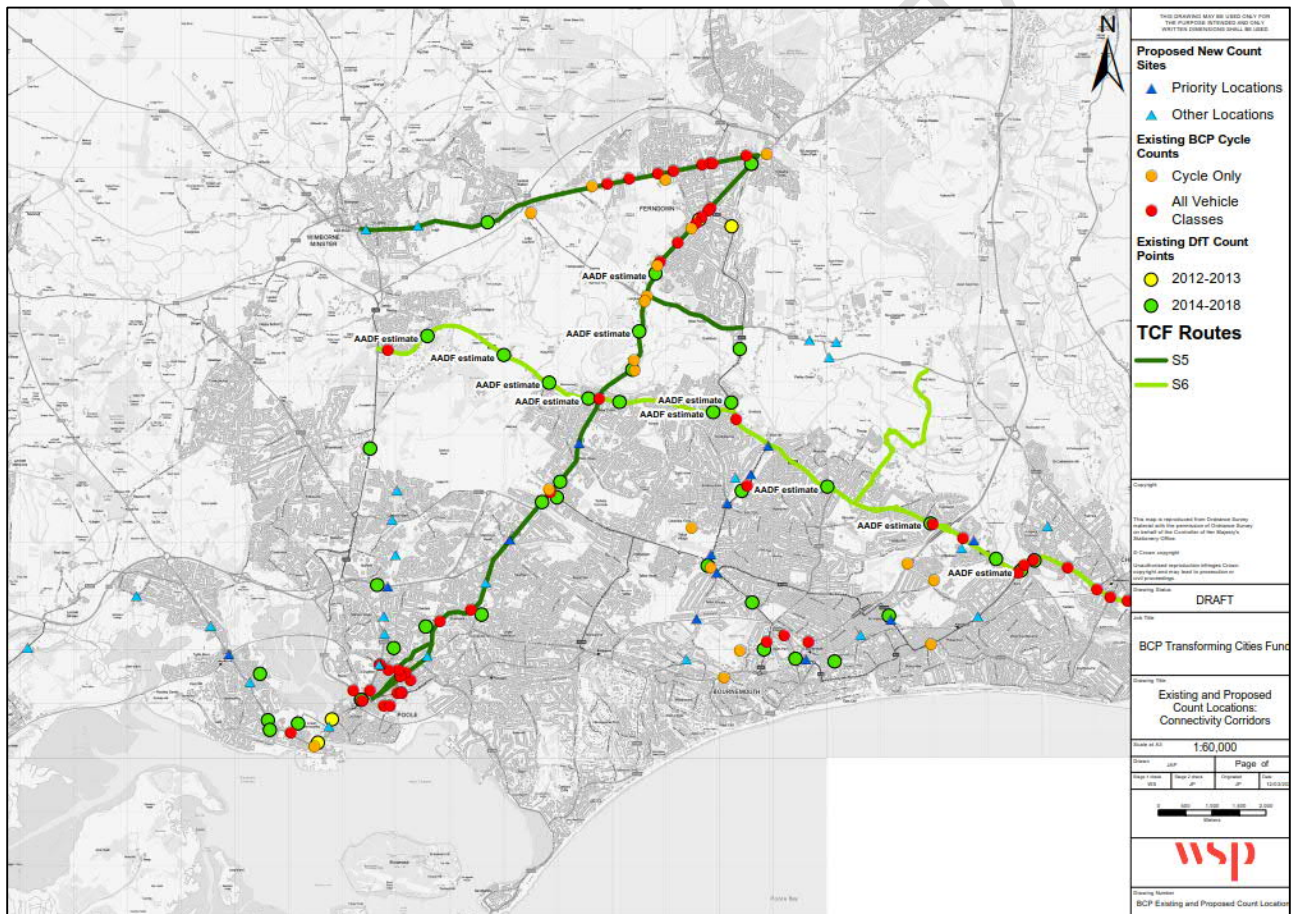
²⁰ The Magenta Book, HM Treasury (2011)

collected and collated, and journey time data evaluated. Existing traffic count data as well as updated survey data will be used to establish the baseline for the scheme prior to its construction. Monitoring (data collection) will also take place at regular intervals before and after the scheme has opened at one year and five years after opening. This will allow a full before and after comparison to be made and allow judgment of whether the scheme has met its objectives.

TYPE OF EVALUATION

6.14.2. The type of evaluation method proposed to evaluate the scheme will be an 'outcome evaluation'. Outcome evaluations compare the existing situation, i.e. before the interventions have been introduced, against the situation with the interventions in place. Any observed changes (in the metrics outlined below) are assumed to be the result of the intervention.

Figure 6-2 - TCF Count Locations



DATA REQUIREMENTS

6.14.3. The metrics proposed for the sustainable transport corridors (which will be specific to the intervention for each scheme but generally follow those listed below), associated data collection requirements and frequency of data collection are as follows:

Table 6-6 – TCF Data Requirements

Metric	Frequency	Data
INPUTS		
Expenditure	Post Opening	Financial monitoring of project
Funding Breakdown	Post Opening	Financial monitoring of project
In kind resources provided	During delivery	Monitoring of resources delivering the project (use of project diary)
OUTPUTS		
Delivered schemes	Post Opening	Full description of implemented scheme outputs including design changes post funding approval with reasons for such changes, post scheme as built drawings of works completed
OUTCOMES		
Average daily traffic and by peak / non-peak periods	Pre and post construction, Years 1 and 5 post opening	Annual ATCs and turning counts, collected at junctions where interventions are and wider ATCs across the network
Average AM and PM peak journey time on key routes (journey time measurement)	Pre and post construction, Years 1 and 5 post opening	Journey time surveys and DfT Congestion Statistics on LA A Roads
Cycling and walking usage	Pre and post construction, Years 1 and 5 post opening	Cycle and pedestrian surveys
Accident and casualty rates	Pre and post construction, Years 1 and 5 post opening	Annual monitoring of collisions (STATS 19)
Business attraction to South East Dorset City region	Pre and post construction, Years 1 and 5 post opening	Business Demography Data (indicating new start-ups and closures) provided by the BCP Council and Dorset Council
Economic growth rate	Pre and post construction, Years 1 and 5 post opening	GVA headline figures for South East Dorset City region provided by the BCP and Dorset Councils.
Supporting Regeneration	Pre and post construction, Years 1 and 5 post opening	Monitoring report (of employment, sites delivered)

SOURCES OF DATA

6.14.4. The following surveys will be undertaken to support the delivery and monitoring of the sustainable transport corridors:

15. Journey times;



16. Automatic Traffic Counts (ATCs);
17. ANPR survey;
18. Turning counts; and
19. Mode share.

6.14.5. Other data will be collected by the Council on an annual basis including accidents, financial and planning data (e.g. Annual Monitoring Report).

IMPLEMENTATION

- 6.14.6. The monitoring and evaluation for the TCF programme will be undertaken by the Programme Manager as part of a Monitoring and Evaluation Plan.
- 6.14.7. Before and after TCF programme/scheme monitoring will be undertaken to evaluate the effectiveness of schemes against stated objectives. At the time of writing SED awaiting further details from DfT on the engagement with DfT to provide advice on evaluation methods, particularly in light of the COVID-19 pandemic.
- 6.14.8. Whilst SED await further guidance from DfT Traffic and cycle count data will be collected and collated, and journey time data evaluated. Existing traffic count data as well as updated survey data will be used to establish the baseline for the scheme prior to its construction.
- 6.14.9. Due to the COVID-19 pandemic additional data collection will not take place during lockdown measures. As the situation develops BCP Council and Dorset Council will decide using guidance from DfT as to when it is appropriate to resume data collection to inform additional baseline data.
- 6.14.10. Monitoring (data collection) will also take place at regular intervals before and after the scheme has opened at one year and five years after opening. This will allow a full before and after comparison to be made and allow judgment of whether the scheme has met its objectives.

RESPONSIBILITY AND COSTS

- 6.14.11. The Programme Manager is responsible for ensuring monitoring and evaluation of the sustainable transport corridors is undertaken. Monitoring of successful delivery will be carried out through the individual project monitoring documentation, including the risk register, project programme and financial reports. The CGB will ensure that scheme monitoring is undertaken in a timely fashion and can be reported back to DfT on a quarterly basis or as required.
- 6.14.12. The monitoring costs will form part of existing revenue/resources within, for example Traffic Modelling and environmental teams. Further details will be provided in scheme specific FBC addendums and the M & E report including monitoring plans at specific locations.

SETTING TARGETS

- 6.14.13. BCP and Dorset Council recognises the importance of setting specific indicators and targets, and accepts that the Monitoring and Evaluation Plan does not yet include these. The Plan will be updated in the Full Business Case to include these. It may be possible to



involve stakeholders to take ownership of some parts of the monitoring and evaluation; this will become clearer after the consultation phase.

SUMMARY OF ANALYSIS

6.14.14. The sustainable transport corridors will be monitored during delivery through the achievement of KPIs. The KPIs will relate back to the key objectives of the fund and will comprise the following:

- Investment in new local transport infrastructure to boost productivity – job creation;
- Improve public and sustainable transport connectivity – modal shift to public and sustainable travel;
- Improve access to employment sites – journey time improvements on scheme corridors;
- Reducing carbon emissions – Air Quality and EV vehicle uptake;
- Delivering wider social and economic benefits – Increased GVA output in Travel to Work area;
- Supporting housing delivery – delivery of homes within scheme catchments;
- Improvements to air quality – improved air quality at locations close to scheme corridors.

6.14.15. The KPIs will be monitored and issued as part of a Quarterly Monitoring returns and will cover spend profile, milestones, TCF Programme and scheme progress and KPIs.

6.15 CONTINGENCY PLAN

- 6.15.1. If implementation is delayed, the funding profile may need to be revised which could result in updated business case submissions to the DfT, which may impact on any funding allocations. Any changes to the scheme programme and funding profile will be reported as soon as possible to the PMB and DfT as required.
- 6.15.2. In light of the COVID-19 pandemic there are additional considerations for the contingency plan. Lockdown measures and social distancing requirements on site may lead to delays. BCP Council, Dorset Council and any appointed contractors will be liaising constantly over changes in government advice and will factor these into the contingency plan as each cycle corridor scheme is constructed.
- 6.15.3. A further contingency that needs to be planned for is the risk of material shortage due to Brexit, which at time of writing is being observed in February 2021 on some materials. This could lead to delays in the delivery of building materials and aggregates. Over the delivery of the cycle corridors this will be monitored and managed accordingly with advanced orders of materials and aggregates wherever possible to meet the agreed programme.



6.16 SUMMARY

- 6.16.1. The management case clearly outlines strong project governance, local assurance and communications to support the delivery of the sustainable transport Corridors. There is a risk management strategy that has clearly identified critical scheme risks and mitigations. Following the delivery of the sustainable transport corridors the management case has also outlined how benefits will be realised and evaluation of the impacts will take place and be reported as part of ongoing programme reporting.

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