Technical Note

Description:	Fengate Active Travel Early Funding Release	To:	Emma White
Reference:		From:	Ross Percy-Jones
Date:	23/08/2022	cc:	Lewis Banks, Richard Jones, Tamara Lanoix, Sally Savage

Introduction

Peterborough City Council (PCC) is requesting the early release of part of the construction funding for the Fengate Access Study from the Cambridgeshire and Peterborough Combined Authority (CPCA).

This is to accelerate the construction of two active travel schemes, which form part of the Fengate Access Study project, ahead of the main highways works which are scheduled to commence in Spring 2023 (subject to CPCA Board approval in January 2023). The schemes identified for accelerated delivery are:

- Newark Road Footpath
- Oxney Road Pedestrian Crossing.

Peterborough City Council and the CPCA have been considering opportunities to accelerate scheme delivery as the project is funded by the Transforming Cities Fund (TCF). The TCF is time limited and must be spent by 31st March 2024.

Including the Fengate Access Study project, there is approximately £17m of TCF funded transport infrastructure to deliver in Peterborough in the 2023 / 2024 financial year. Bringing forward some of the active travel schemes for delivery into the third and fourth quarters of the 2022 / 2023 financial year will reduce the pressure on the wider construction programme, and specifically reduce the risk to funding availability caused by any programme delays.

A Full Business Case (FBC) is required for the approval of construction funding by the CPCA Board. The Fengate Access Study FBC is due to be submitted in December 2022, ahead of the January 2023 Board meeting. This technical note provides a summary of the business case dimensions in relation to the two active travel schemes introduced above and demonstrates that the schemes offer very high value for money, and that there is a strong strategic case for investment as well as the necessary measures in place to successfully deliver the schemes.

Schemes

The Fengate active travel schemes are designed and ready to be delivered.

The Newark Road Footway scheme consists of the following:

- 473.5 sqm of footway from the south of Newark Road
- 25.0 sqm of tactile paving positioned either side of:
    - The East Vicarage Farm Road arm of the Newark Road / East Vicarage Farm Road Roundabout
    - The Newark Road north arm of the Newark Road / East Vicarage Farm Road Roundabout
    - Access junctions along the entire footway length on the western side of Newark Road.
- 25.0 sqm of carriageway resurfacing.

The Oxney Road Pedestrian Crossing scheme consists of the following:

- A new puffin crossing over Eastfield Road, west of Oxney Road.
- Red tactile paving on each side of the crossing.
- A total green time of 5.0 seconds for pedestrians, with up to 18.0 seconds of red time for motorised vehicles.
- A 2.4m wide footpath between Oxney Road (north of Sainsbury's) and Eastfield Road
- Break up of existing footway between Oxney Road (north of Sainsbury's) and Eastfield Road
- Buff-coloured tactile paving on each side of Oxney Road, where the proposed footpath meets.
- Buff-coloured tactile paving on each side of the Franklyn Crescent arm of the Oxney Road / Eastfield Road / Franklyn Crescent Roundabout.
- Footway resurfacing on the south side of the puffin crossing.

The scheme drawings for each scheme can be provided upon request.

Figure 1 overleaf shows the location of the schemes in Fengate.

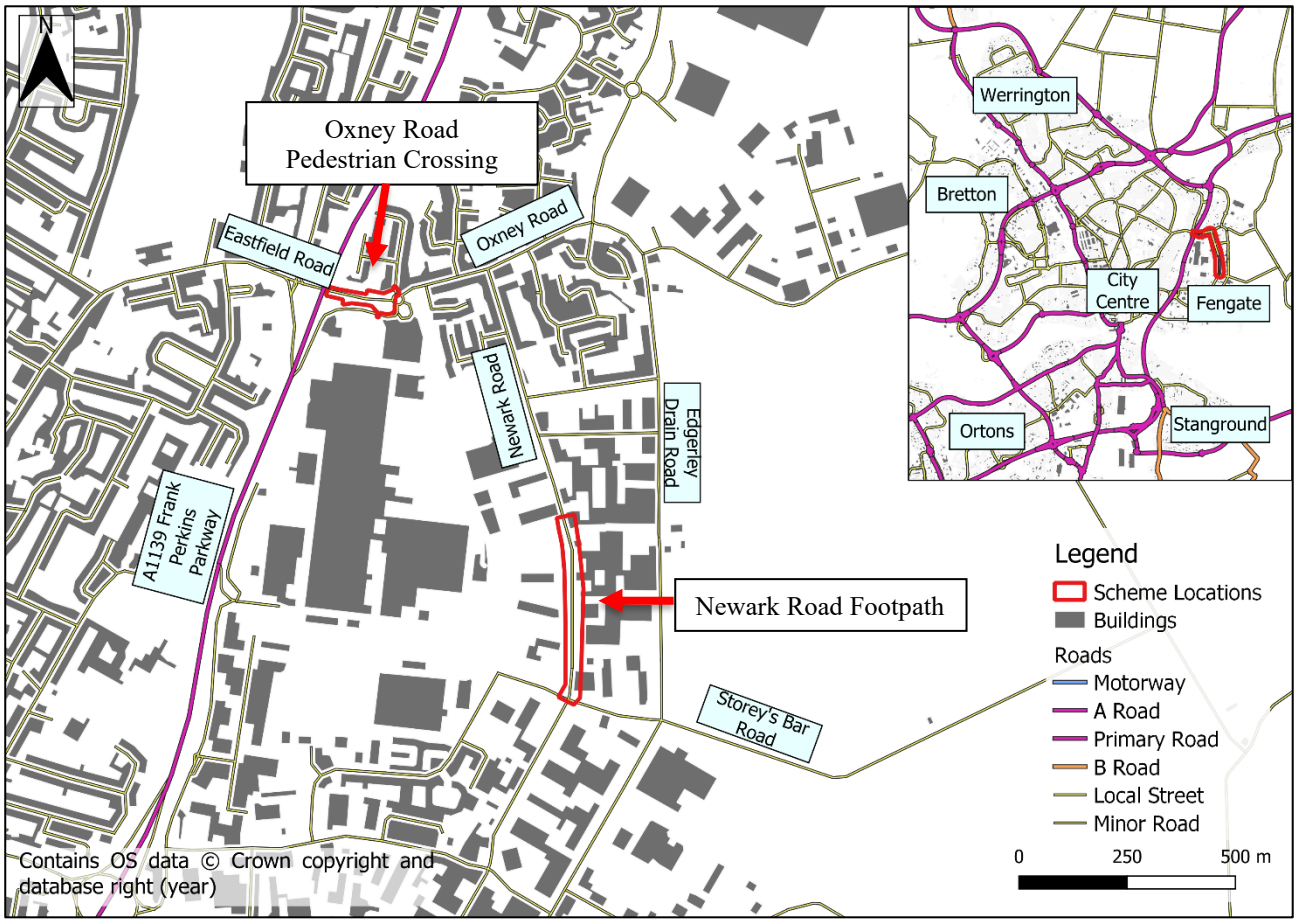

Figure 1: Fengate Active Travel Scheme Locations

Strategic Dimension

The Strategic Dimension considers the policy context in which the schemes have been developed. As well as policy, the need for intervention is explained, which includes the requirement to overcome the peak hour congestion and delay that compromises local growth aspirations.

Policy Context

A policy review of the following, in conjunction with a review of existing and future issues, has been undertaken as part of the Fengate FBC to identify scheme objectives:

- National:
    - Department for Transport Single Departmental Plan (June 2019)
    - Department for Transport Gear Change: One Year On (November 2020)
    - Department for Transport Cycle Infrastructure Design Local Transport Note 1/20 (LTN 1/20) (July 2020)
    - The Environment Act 2021
- Regional:
    - Combined Authority Annual Report & Business Plan 2021 / 22
    - Cambridgeshire and Peterborough Independent Economic Review (CPIER) (September 2018)
    - Mayor's Growth Ambition Strategy
    - Cambridgeshire and Peterborough Local Industrial Strategy (June 2019)
    - Cambridgeshire and Peterborough Combined Authority Local Transport Plan (January 2020)
    - Forthcoming Cambridgeshire and Peterborough Combined Authority Local Transport and Connectivity Plan
    - Natural Cambridgeshire Doubling Nature Vision
    - Cambridgeshire and Peterborough Independent Commission on Climate – Fairness, Nature and Communities: Addressing Climate Change in Cambridgeshire and Peterborough (October 2021)
- Local:
    - Peterborough City Council Strategic Priorities
    - Peterborough City Council Local Plan (July 2019)
    - Peterborough City Council – Trees and Woodland Strategy (2018)

Existing and Future Conditions

Trafficmaster Satellite Navigation data (November 2017) has been used to assess baseline vehicular journey times and delay within the study area for the free flow (00:00 – 05:00), AM peak hour (08:00 – 09:00), and PM peak hour (17:00 – 18:00) periods. The approaches of the following junctions have been considered within the Fengate FBC:

- Oxney Road / Edgerley Drain Road priority junction
- Edgerley Drain / Storey's Bar Road / Vicarage Road signalised junction
- Junction 8 signalised junction.

Significant delay was observed at all of these junctions in the AM and PM peak hours when compared to the free flow period.

An assessment of future year highway conditions was undertaken using the Peterborough Transportation Model (PTM3) and large increases in delay per vehicle are forecast to take place at all three junctions.

It is expected that providing improved active travel infrastructure will encourage residents to travel by foot or bicycle instead of by car, and therefore help reduce existing and future year peak hour congestion and delay.

Fengate is a particularly car-dependent employment destination, as shown in Figure 2 below, and the quality of the active travel infrastructure is of a lower quality compared to other areas of Peterborough. The density of cycleways per one square kilometre is also lower than other areas of the city as shown in Figure 3 overleaf.

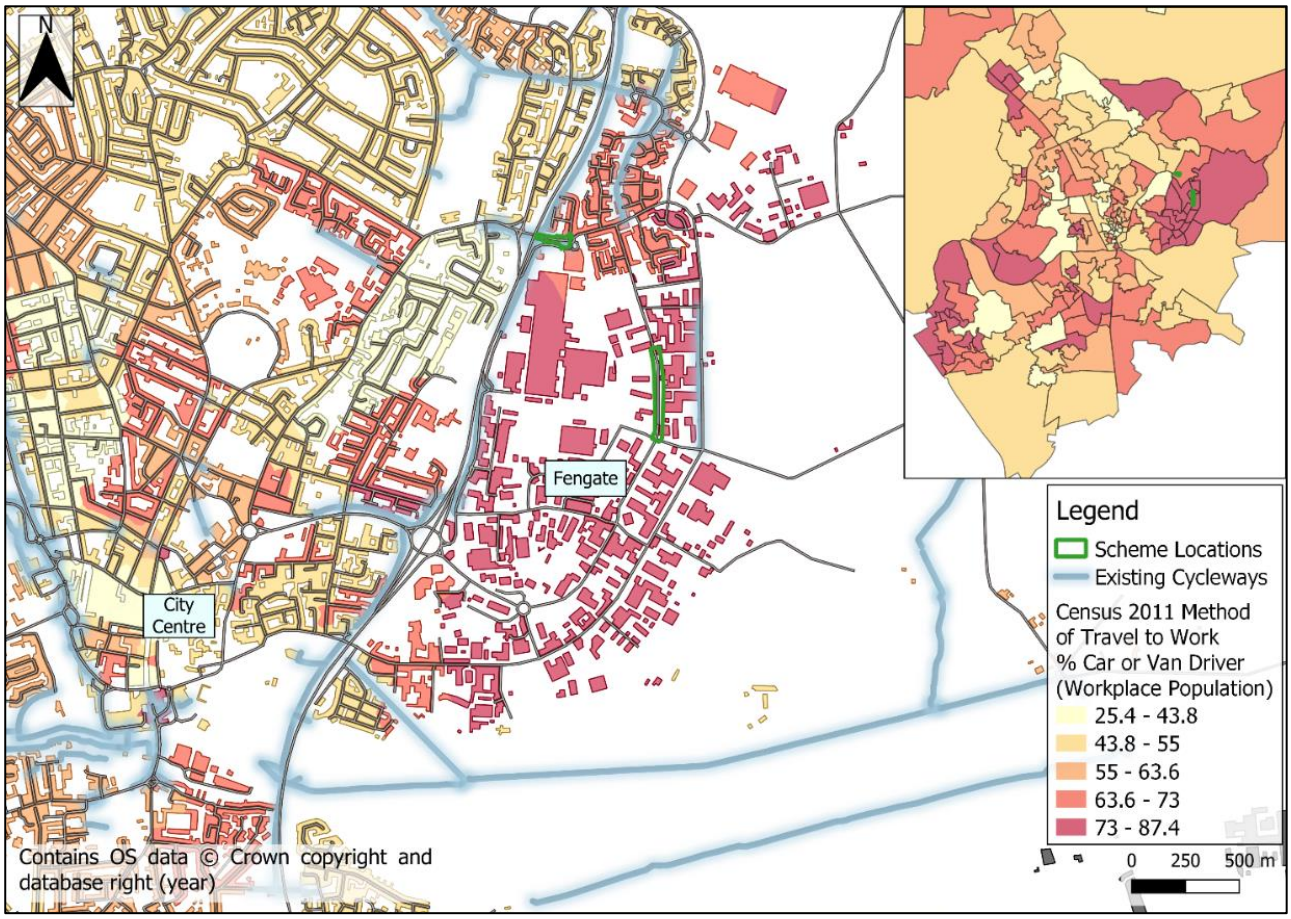

Figure 2: Census 2011 Method of Travel to Work – Percentage Car or Van Driver within Workplace Population

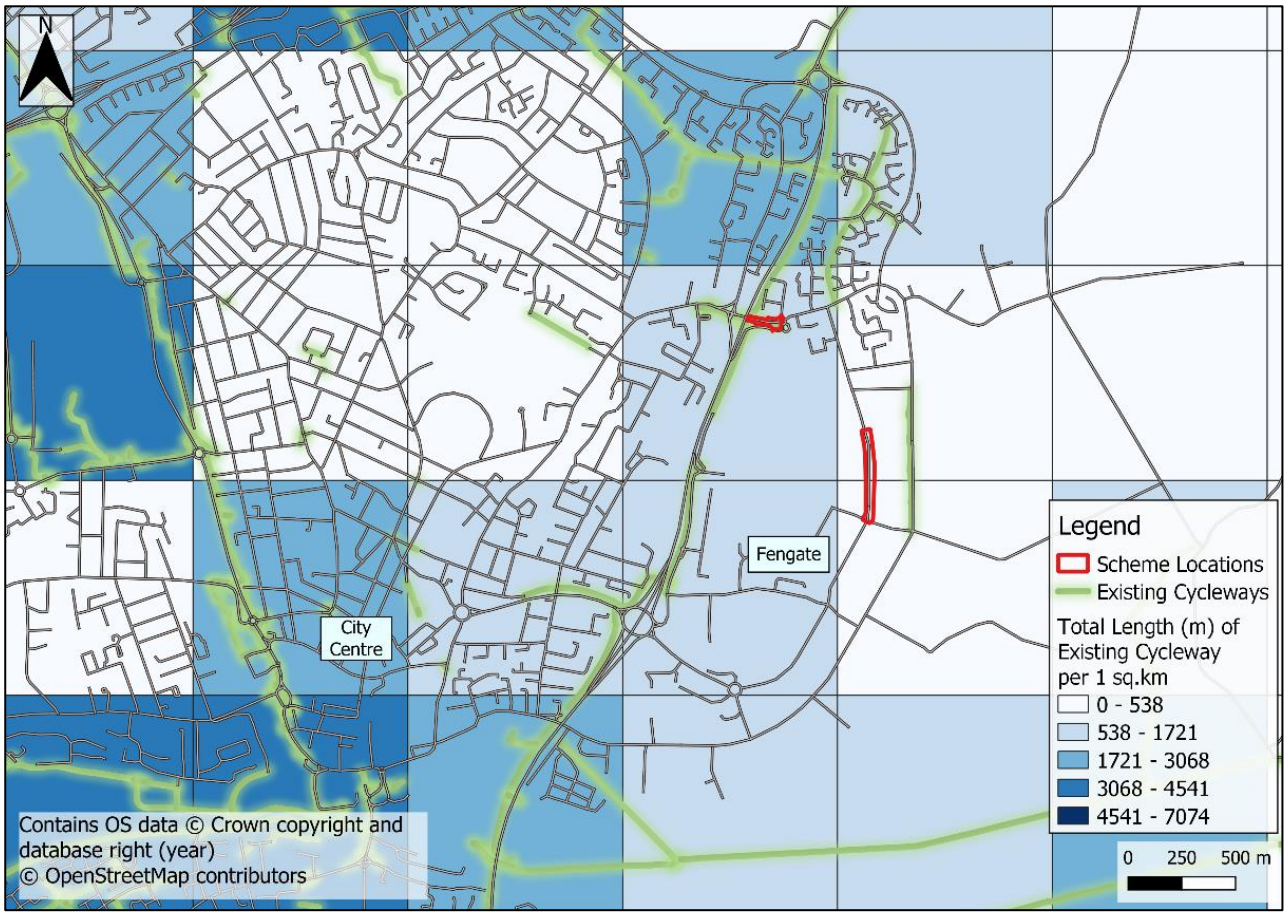

Figure 3: Total Length of Existing Cycleway per One Square Kilometre

The average car travel to work mode share for Fengate is 79%, whereas the whole of Peterborough is 61%. In contrast, Fengate has a low walking travel to work mode share of 3%, as shown in Figure 4 overleaf. The whole of Peterborough has a walking mode share of 8%, which is almost triple of the mode share in Fengate. Without an improvement in active travel infrastructure, Fengate will remain a car-dependent destination that is less accessible for those able to travel by foot or cycle.

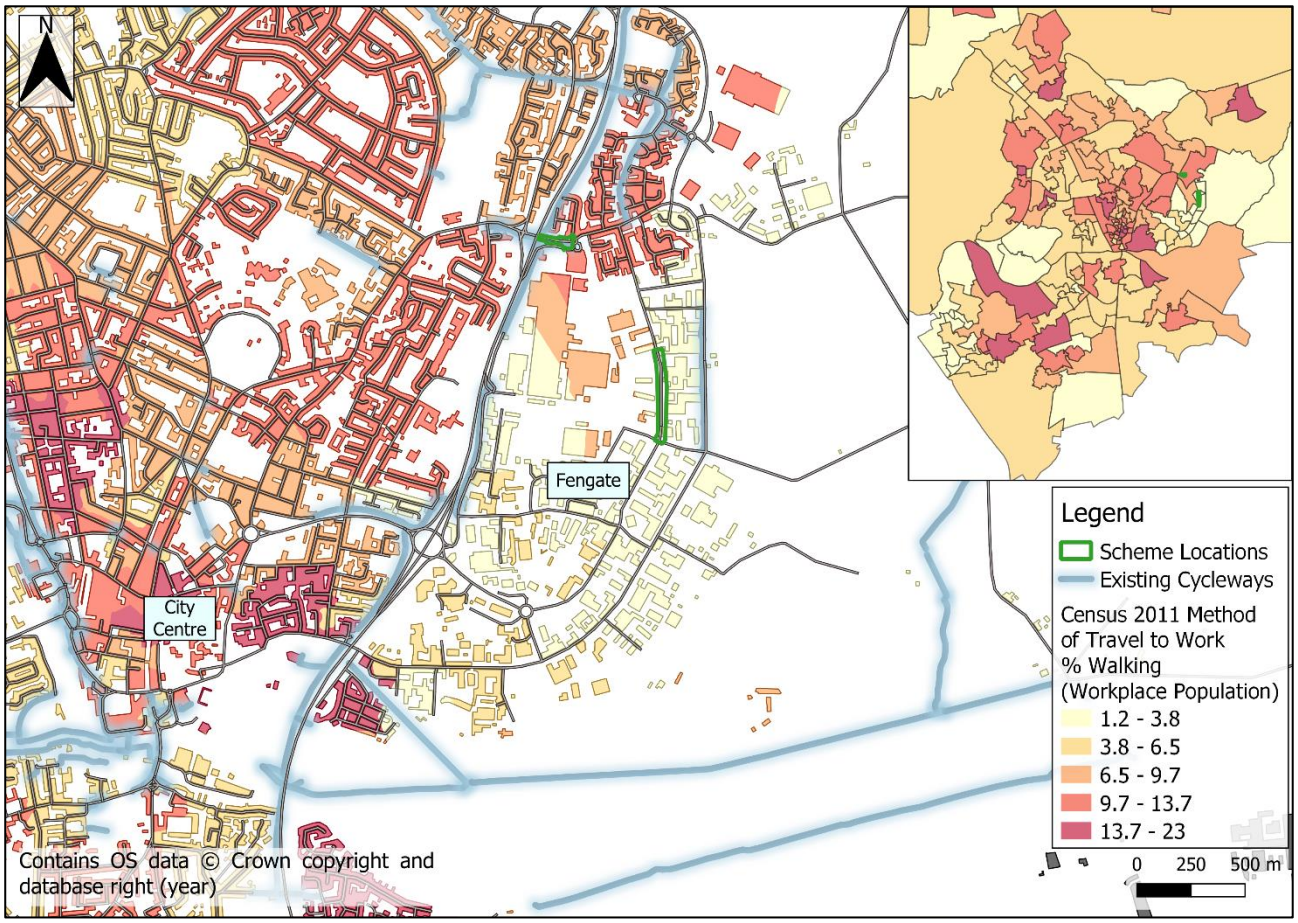

Figure 4: Census 2011 Method of Travel to Work – Percentage Walking within Workplace Population

Local Growth Aspirations

Peterborough is forecast to experience significant employment and population growth over the next few decades, reflecting a continuation of past trends. The Peterborough Local Plan (adopted July 2019) sets out the overall vision, priorities and objectives for Peterborough for the period up to 2036. The updated strategy identifies the required delivery of 19,440 new homes and 17,600 new jobs by 2036. This level of growth will in turn further strengthen the City's economy, contribute to regional growth, and increase the demand for travel on the local network.

Peterborough strives to become a 'destination of choice', to be continually recognised as a regional centre and economic partner with Cambridge. With the attractiveness of the city set to increase as a place to live, work and travel, this in turn creates pressure in relation to housing and employment growth, which in turn increases the strain on the transport infrastructure. Improving the transport infrastructure to enable Peterborough's strong history of growth to continue is the main internal driver for improving access to the key employment area of Fengate.

Tables 1 and 2 show the breakdown of the residential and employment developments that are proposed for Fengate, respectively.

Table 1: Residential Development Proposed for Fengate

	Residential Developments (Units)				
Local Plan Development	**Up to 2019**	**2019-2026**	**2026-2031**	**2031-2036**	**Total Units**
Potters Way Fengate	0	18	0	0	18
Fengate South	0	0	150	200	350
Former Perkins Engines Site Newark Road	0	104	0	0	104
Tanholt Farm, Eyesbury Road	0	3	0	0	3
Rear of 83 Oxney Road	0	5	0	0	5
105 Oxney Road	0	8	0	0	8

Table 2: Employment Development Proposed for Fengate

Mixed Commercial Developments (sq.m)						
Local Plan Development	**Land Use Class**	**Up to 2019**	**2019 -2026**	**2026 -2031**	**2031 -2036**	**Total Size (sq.m)**
Red Brick Farm	Employment	0	0	126,600	0	126,600
Oxney Road Site C	Employment	0	0	34,825	0	34,825
Perkins South	Employment	0	0	14,700	0	14,700
Land of Third Drove and fronting Fengate	Employment	0	0	5,950	0	5,950

Local residential and employment growth in Fengate will be compromised if no changes are made to existing congestion and delay. An increase in active travel within Fengate and a reduction in car travel will alleviate congestion and delay.

The October 2021 Cambridgeshire and Peterborough Independent Commission on Climate report recommends a reduction in car miles driven by 15% to 2030 relative to baseline levels to help the region mitigate and adapt to the impacts of climate change. The schemes will provide quality walking infrastructure that would encourage walking to work within Fengate as a more sustainable alternative to car travel.

Scheme Objectives

The project scope is to construct schemes within Fengate that achieve each of the primary objectives of the Fengate FBC.

The primary scheme objectives, as outlined in the Fengate FBC, are as follows:

- Tackle congestion and reduce delay
- Support Peterborough's Growth Agenda and facilitate the development of the Red Brick Farm site
- Protect the local environment and improve biodiversity.
- Reduce dependence on car travel and increase travel by healthier, more sustainable modes.

The secondary scheme objectives, as outlined in the Fengate FBC, are as follows:

- Positively impact traffic conditions on the wider network
- Improve road safety.

The Fengate FBC schemes were developed and shortlisted against the scheme objectives using the DfT's Early Assessment and Sifting Tool (EAST) assessment. An option development workshop was held on 15th May 2018 and attended by representatives from various disciplines within Peterborough Highway Services (PHS). The workshop used EAST to review existing and future issues relating to access to Fengate and site constraints.

As stated in the Department for Transport (DfT) Cycle Infrastructure Design Local Transport Note 1/20 (LTN 1/20), funding for local highways investment where the main element is not cycling or walking will be provided where schemes deliver or improve cycling infrastructure to the standards in LTN 1/20.

The Benefits Realisation Plan for the Fengate FBC will measure the success of the schemes against the scheme objectives.

Key Risks

A project Risk Register is available as part of the Fengate FBC that identifies each of the key risks and mitigation measures. The Risk Register is a live document, which is managed by PCC and is reviewed regularly by the CPCA in monthly Project Board meetings.

A construction Risk Register for each scheme has been produced and can be provided upon request. The Risk Register is a live document and will be regularly updated throughout the ten-week construction period.

Economic Dimension

The Economic Dimension provides evidence of how the proposed improvements are predicted to perform in relation to the stated objectives, identified problems, and targeted outcomes. The Economic Dimension determines whether the proposed improvements are likely to provide good value for money, with benefits outweighing its costs.

This section sets out the approach taken to initially assess the Economic Dimension for the Fengate Active Travel schemes and demonstrates that the proposed schemes would offer Very High Value for Money.

The scheme appraisal in this report focuses on the impacts that can be monetised and these include:

- Mode Shift
- Health
- Journey Quality
- Severance.

A full appraisal of other economic, environmental, social and distributional impacts that cannot be monetised will be assessed quantitatively and qualitatively within the FBC going to the CPCA January Board.

Present Value of Benefits

The active travel and severance Present Value of Benefits (PVB) of each scheme has been assessed using the Active Mode Appraisal Toolkit (AMAT) and the University College London (UCL) Tool to Value Reductions in Community Severance Caused by Roads, respectively.

AMAT requires the following intervention-specific details for calculating active travel benefits:

- Appraisal year – 2022
- Intervention opening year – 2023
- Final year of funding – 2023
- Appraisal period – 20 years
- Area type – Other Urban
- Number of daily walking and / or cycling trips without the proposed intervention
- Number of daily walking and / or cycling trips with the proposed intervention
- Percentage of an average walking or cycling trip that will use the intervention
- Current walking and cycling infrastructure for the route
- Proposed walking and cycling infrastructure for the route.

The number of walking and cycling trips without the proposed interventions have been sourced from Strava Metro, Census 2011 Method of Travel to Work, Vivacity AI sensors, and historic Automatic Traffic Counts (ATC).

The number of walking trips with the proposed interventions has been calculated by:

- Identifying a comparable location within Peterborough that has a higher walking mode share (based on the Census 2011) and better walking infrastructure
- Identifying the walking mode share for the scheme location based on the Census 2011
- Calculating an uplift factor based on the ratio of Shrewsbury Avenue to Fengate walk trips.
- Applying the resultant uplift factor to the number of walking trips without the proposed interventions.

A comparison between Shrewsbury Avenue in Orton Longueville, which is a comparable land use, and Fengate was undertaken to understand the potential for travel to work by walking. The assessment identified that Shrewsbury Avenue had a travel to work by walking mode share of 5.33%, whereas Fengate had a mode share of 4.45%. The uplift factor for walking would therefore be 1.198.

The number of cycling trips with the proposed interventions has been calculated by:

- Identifying the PCT Government Target (Equality) Ratio (Scenario / Baseline) for the existing route at the scheme location
- Applying the ratio as an uplift factor to the number of cycling trips without the proposed interventions.

Government Target (Equality) is the most conservative of all PCT scenarios and is representative of the Department for Transport's Cycling Delivery Plan (October 2014) target of doubling cycling from 2013 levels nationally. Nearly all PCT scenarios are calculated using a function based on trip distance and hilliness. Not all areas experience the same trip distances and hilliness, and this therefore results in increases that can be below or above a doubling of cycling nationally.

PCT is a measure of cycling potential and not an exact estimate of the impact of a specific scheme or intervention. However, site visits to each scheme location have shown that each scheme is integral to delivering a better-connected network that reduces severance and improves safety and journey quality for cycling. Without any infrastructure improvements, the study area would not be appropriate for increased cycling.

Table 3 below shows the number of walking trips by scenario for each scheme.

Table 3: Do Nothing and Do Something Daily Walking Trips by Scheme

Scheme	Daily Walking Trips	
	Do Nothing	Do Something
Oxney Road Pedestrian Crossing	1,701	2,038
Newark Road Footway	773	926

The UCL Tool to Value Reductions in Community Severance Caused by Roads (Anciaes and Jones, 2020) is a spreadsheet used to estimate the value of interventions that reduce the barrier effect caused by roads, including changes to road design, traffic, and crossing facilities. This tool is referred to as the "Severance Tool" within this report.

Severance is calculated at each point along a road. The Severance Tool assumes that severance originates from the road conditions at a particular point and the possibility of walking along the road to cross in a place with better road conditions or crossing facilities.

The Severance Tool has only been used for the Oxney Road Pedestrian Crossing scheme and it requires the following intervention-specific details for calculating active travel benefits:

- Length of road segment (100 – 5,000m)
- Total potential demand for walking trips crossing the road (minimum of 1,000 trips per day)
- Percentage of each age group in the demand
- Average walking speed by age group
- Journey purpose of each age group
- Percentage of demand at each crossing location along the road segment
- Lifetime of the project (maximum of 10 years)
- Road conditions including the number of lanes in each direction, central reservation (wide, narrow, or none), traffic density (low, medium, or high), and traffic speed (10, 20, 30, or 40mph).
- Crossing facilities available at the extreme and middle points of the road segment. Options include pedestrian refuge, straight pelican, staggered pelican, footbridge, or underpass.
- Waiting time (0 to 5 minutes).

It has been assumed that the scheme will generate an increase in walking trips and therefore the rule of half must be applied to the benefits associated with the increase.

Table 4 overleaf summarises the benefits for each scheme.

Table 4: Summary of Benefits by Scheme

Benefit Type	Benefit Item	Benefits ('000s)		
		Oxney Road	Newark Road	**Total**
Mode Shift	Congestion Benefit	21.84	9.91	31.75
	Infrastructure Maintenance	0.12	0.06	0.18
	Accident	3.75	1.70	5.46
	Local Air Quality	0.53	0.24	0.77
	Noise	0.25	0.11	0.36
	Greenhouse Gases	1.78	0.81	2.59
Health	Reduced Risk of Premature Death	793.36	360.19	1,153.55
	Absenteeism	165.06	74.94	240.00
Journey Quality	Journey Ambience	17.40	33.77	35.51
Severance (Indicative Monetised Impact)	Reduced Community Severance Caused by Roads	948.70	Not assessed	948.70
Indirect Taxation	Indirect Taxation	-2.24	-1.02	-3.26
Total		**1,950.43**	**480.66**	**2,431.09**

The benefits over a 20-year appraisal period for the Oxney Road and Newark Road schemes are £1,950,430 and £480,660, respectively. Health (49%) and Severance (49%) form most of the benefits for the Oxney Road scheme, whereas Health (90%) accounts for nearly all the benefits for the Newark Road scheme alone.

Present Value of Costs

The Present Value of Costs (PVC) used within the economic assessment are based on initial base investment costs and Optimism Bias (OB) that have been rebased and discounted to 2010 prices and adjusted to market prices using AMAT. Inflation has not been applied to the scheme costs because the costs are to be incurred during the 2022 price year.

Real Cost Increase (inflation) has been applied to the Base Investment Costs for the Oxney Road scheme only for 2022 to 2023 using TAG Data Book May 2022 Annual GDP and BCIS General Civil Engineering Cost Index (2022) values. The inflation factor applied (1.061) has been calculated by dividing the BCIS inflation factor of 1.080 (8.0%) by the TAG GDP factor of 1.018 (1.8%).

The OB rate has been sourced from TAG Unit A1.2 Scheme Costs (May 2022) and uses the Stage 3 Road OB of 20% to reflect the final stage (FBC) that the Fengate Business Case is currently at.

The conversion to market prices is undertaken by applying a market price factor of 1.19 to the discounted costs.

Table 5 below shows the scheme costs used within the economic assessment.

Table 5: Economic Dimension Costs

Cost Type	Oxney Road Pedestrian Crossing	Newark Road Footway	Total
Base Investment Cost	£253,526	£203,237	£456,763
Base Cost with Real Cost Increases	£269,070	£203,237	£472,307
Base Cost with Real Cost Increases and Optimism Bias	£322,883	£243,885	£566,768
Rebased and Discounted to 2010, and Adjusted to Market Prices (PVC)	**£187,560**	**£151,277**	**£338,837**

Net Present Value and Benefit Cost Ratio

The Net Present Value (NPV) has been calculated by subtracting the PVC from the PVB.

The Benefit Cost Ratio (BCR) has been calculated by dividing the PVB by the PVC.

The BCR is used to determine the Value for Money category that each scheme falls within, as shown in Table 6 below. The Value for Money categories have been sourced from the Department for Transport Value for Money Framework: Moving Britain Ahead (2017) document.

Table 6: Value for Money Categories

Value for Money Category	Benefit Cost Ratio (BCR) Range
Very Poor	BCR <= 0.0
Poor	1.0 < BCR > 0.0
Low	1.5 < BCR >= 1.0
Medium	2.0 < BCR >= 1.5
High	4.0 < BCR >= 2.0
Very High	BCR >= 4.0

The scheme should provide a BCR of at least 1.5 (Medium Value for Money) to be considered of good value for money. It should be noted that the CPCA state in its Local Assurance Framework (2021) that a scheme with a BCR less favourable than other alternatives but best delivers on a project's strategic objectives may be the best value way of delivering a project. However, it is for the CPCA Board to judge whether the achievement of the strategic objectives is worth the cost to the CPCA.

Table 7 overleaf provides the Analysis of Monetised Costs and Benefits (AMCB) Table.

Table 7: Analysis of Monetised Costs and Benefits Table

Benefit Item	Value (£'000s)		
	Oxney Road	Newark Road	Total
Noise	0.25	0.11	0.36
Local Air Quality	0.53	0.24	0.77
Greenhouse Gases	1.78	0.81	2.59
Journey Quality	1.74	33.77	35.51
Physical Activity (Health)	958.42	435.13	1,393.55
Accidents	3.75	1.70	5.46
Congestion Benefit	21.84	9.91	31.75
Infrastructure Maintenance	0.12	0.06	0.18
Indirect Taxation	-2.24	-1.02	-3.26
Present Value of Benefits (PVB)	**1,001.72**	**480.66**	**1,482.38**
Broad Transport Budget	187.56	151.28	338.84
Present Value of Costs (PVC)	**187.56**	**151.28**	**338.84**
Net Present Value (NPV)	**814.17**	**329.38**	**1,143.55**
Initial Benefit to Cost Ratio (BCR)	**5.34**	**3.18**	**4.37**

Severance is not currently considered as an Established Monetised Impact within TAG or the Value for Money Framework. However, it could be considered an Indicative Monetised Impact that when combined with the core benefits reported within the AMCB Table would demonstrate an indicative PVB.

Without severance impacts in the economic assessment of the Oxney Road scheme would provide a PVB of £1,001,720, NPV of £814,170, and a BCR of 5.34 which equates to Very High Value for Money. Including severance impacts increases the BCR from 5.34 to 10.39.

The Newark Road scheme provides a PVB of £480,660, NPV of £329,380, and a BCR of 3.18, which equates to High Value for Money.

Combining both schemes together (without severance) provide a PVB of £1,482,380, NPV of £1,143,550, and a BCR of 4.37, which equates to Very High Value for Money. Including severance impacts increases the overall BCR from 4.37 to 7.17.

Non-monetised Impacts

Impacts that have not been monetised for active travel include:

- Journey time savings for active users (Social and Economy)
- Security (Social)
- Personal Affordability (Social)
- Accessibility (Social).

The distributional impacts of security and personal affordability have been quantitatively assessed. Accessibility has not been assessed on the basis that the guidance within TAG Unit A4.2 focuses solely on public transport.

The following non-monetised environmental impacts have been considered in full within the Fengate FBC:

- Landscape
- Townscape
- Historic Environment
- Biodiversity
- Water Environment.

Security

Security impact appraisal is recommended for road users, public transport passengers or freight, or a combination of these as stated in TAG Unit A4.1 Social Impact Appraisal. Whilst there is no specific guidance for the security of active mode users, the process as outlined within TAG Unit A4.2 Distributional Impact Appraisal has been used. Indicators such as surveillance, lighting and visibility, and landscaping were noted during site visits and used to inform the appraisal.

The security distributional impact appraisal found that each scheme would not deliver any change in terms of security for older people, females, or young people.

Personal Affordability

Personal Affordability appraisal considers how the monetary costs of travel can be a major barrier to mobility for certain groups of people and their ability to access key destinations. The more deprived groups of society typically spend less money on travel, but the cost of travel will account for a greater proportion of their income. The most significant impacts of the costs of travel are on younger and older groups, and low-income households.

Figures 5 and 6 show the distribution of younger (0 to 15) and older (65 plus) age groups across Peterborough in relation to key services that would likely be used, respectively.

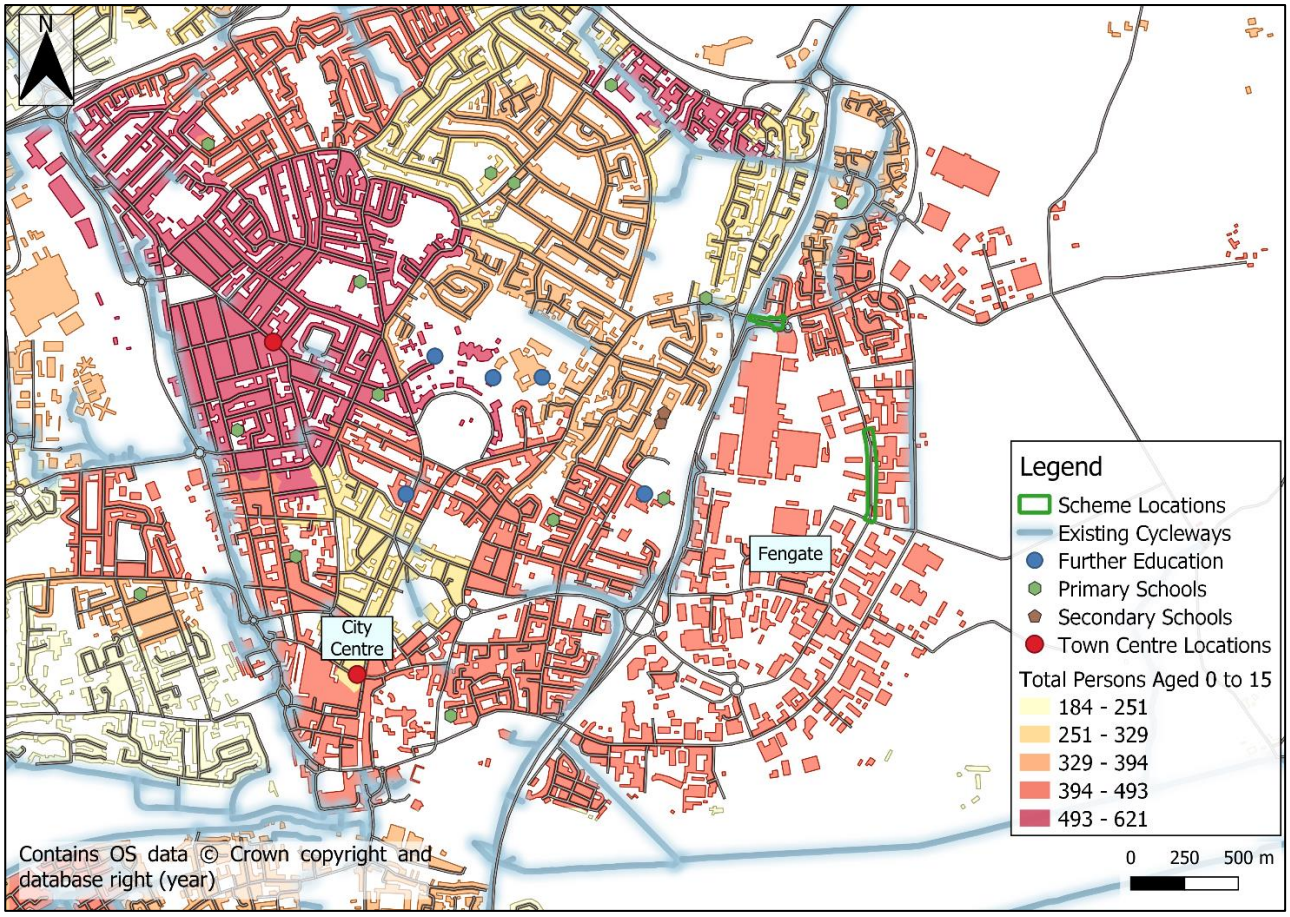

Figure 5: Number of Persons Aged 0 to 15 at LSOA Level across Peterborough in Relation to Key Services

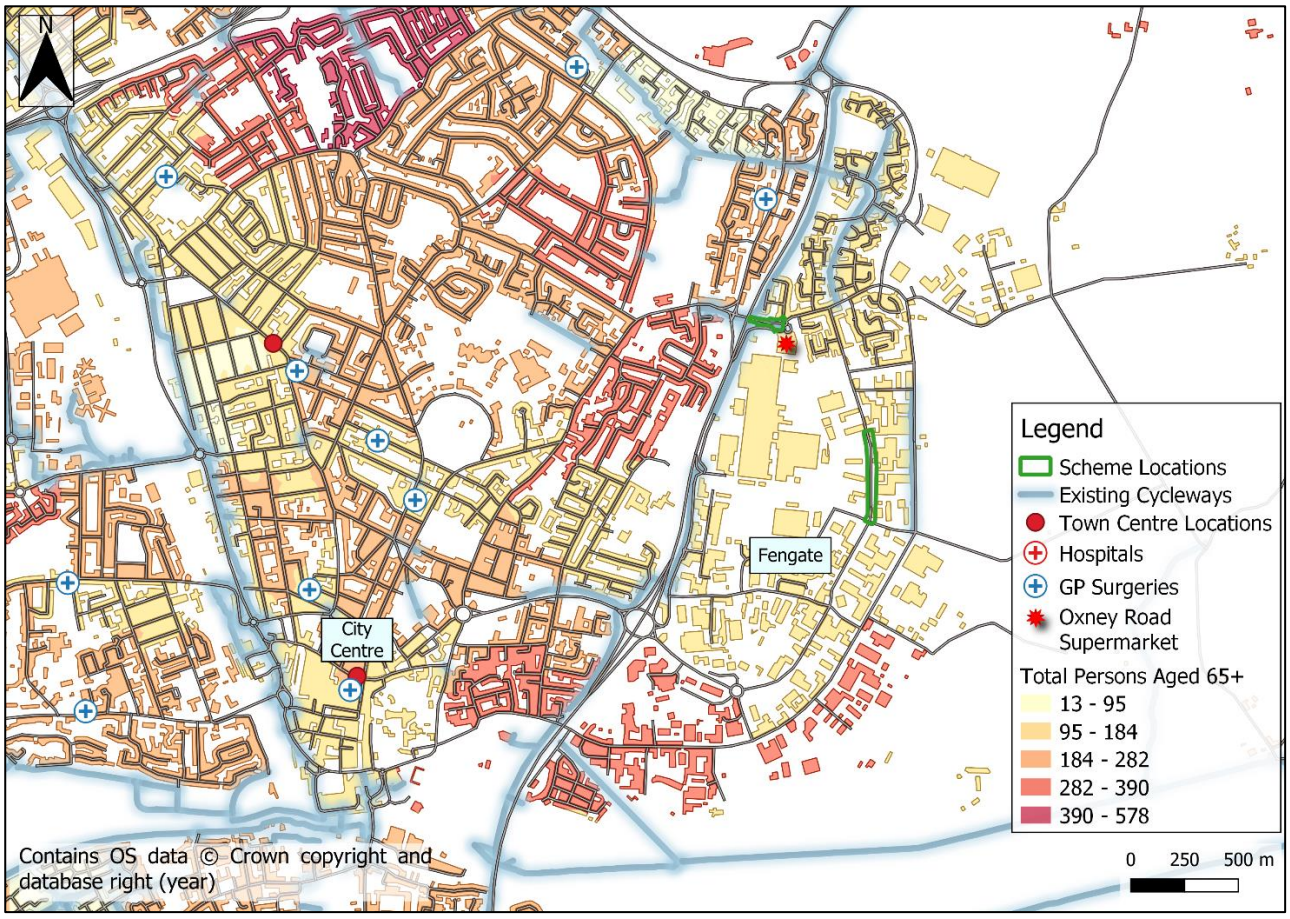

Figure 6: Number of Persons Aged 65+ at LSOA Level in Relation to Key Services

There is a particularly high number of persons aged 0 to 15 that live along Oxney Road and north-east of the nearest secondary schools that would be currently disadvantaged by the lack of a direct crossing point along Eastfield Road. Young people walking to school would have to wait for a gap in the traffic on Eastfield Road to cross or travel further west to find a suitable crossing and even then, they would have to cross the Eye Road Approach and Exit arms of the Eastfield Road / Eye Road Signalised Junction. Without the proposed crossing, it is expected younger people choosing to walk to school are currently experiencing increased journey times and therefore an increased cost of travel.

There is a significant number of persons aged 65 and above to the west of the Oxney Road Supermarket that would be currently disadvantaged by the lack of a direct crossing point along Eastfield Road. Whilst bus travel is free for senior citizens and there is a bus stop at the Oxney Road Supermarket, travelling by bus does not offer the same health benefits as those associated with active travel. The lack of a direct crossing point would increase journey times and the cost of travel for those wanting to walk.

Figure 7 shows the Income Deprivation Domain of the English Indices of Multiple Deprivation dataset for the study area.

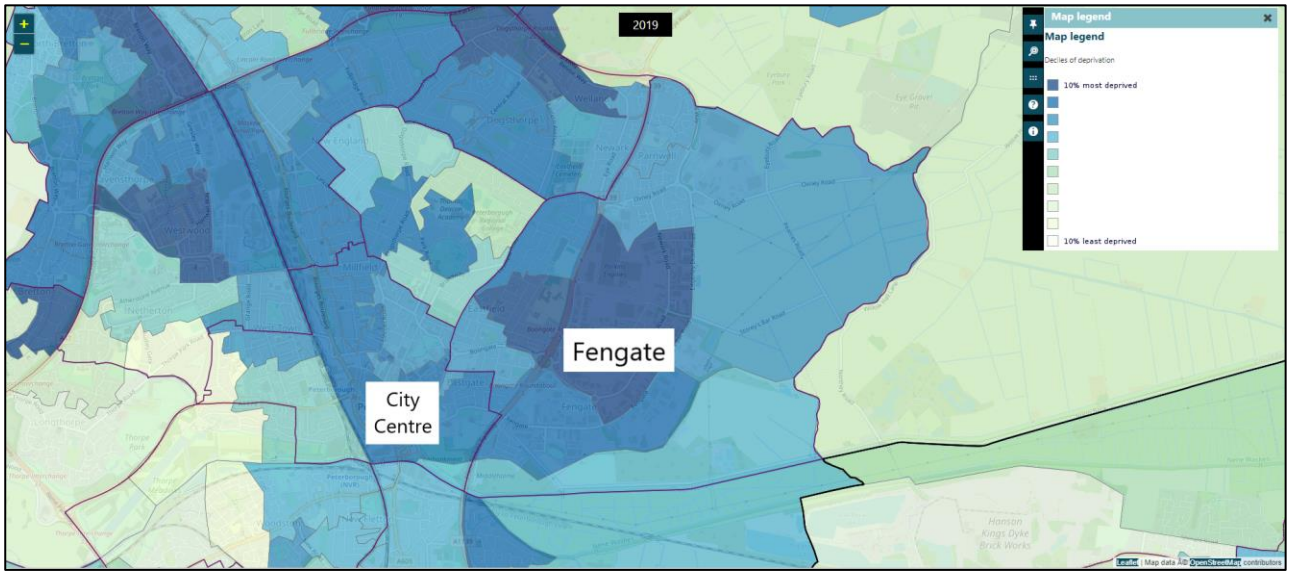

Figure 7: Income Deprivation Domain by LSOA

The LSOAs in and surrounding Fengate are in the top 30% most income deprived deciles for England. An improvement in the walking infrastructure of Fengate would help make walking to work or other local key services a more realistic alternative to car and bus travel for those in income deprived areas that are more greatly affected by the cost of travel for reaching work.

Fengate is a particularly car-dependent employment destination, as previously shown in Figures 2 to 4 of the Strategic Dimension, and the quality of the active travel infrastructure is of a lower quality compared to other areas of Peterborough.

The average car travel to work mode share for Fengate is 79%, whereas the whole of Peterborough is 61%. In contrast, Fengate has a low walking travel to work mode share of 3%, as shown in Figure 6. The whole of Peterborough has a walking mode share of 8%, which is almost triple of the mode share in Fengate. Without an improvement in active travel infrastructure, Fengate will remain a car dependent destination that is less accessible for those who cannot afford to travel by car.

Value for Money Statement

Delivering the Oxney Road Pedestrian Crossing and Newark Road Footway active travel schemes together will provide a PVB of £1,466,780 overall, with a BCR of 4.37 (Very High Value for Money) based on physical activity, journey quality, accidents, noise, local air quality, greenhouse gases, and congestion benefits. Including severance benefits increases the overall PVB to £2,415,600, with a BCR of 7.17.

The schemes are not expected to deliver any change in security impacts for vulnerable active travel users.

The removal of a barrier to travel along Eastfield Road and the provision of a new footway on Newark Road is expected to make walking a more realistic and affordable alternative to car travel to key services in and around Fengate. The schemes would also benefit nearby residential areas that are currently in the top 30% most income deprived deciles for England.

Financial Dimension

The Financial Dimension focuses on the affordability of the proposed schemes, funding arrangements, and technical accounting issues.

The scheme cost estimates for the Financial Dimension have been prepared in line with guidance set out in TAG Unit A1.2 Scheme Costs (May 2022).

The estimates have been costed based on a bill of quantities produced from the preliminary designs and a schedule of construction activities. These costs have been peer reviewed, and include:

- Detailed design costs and additional surveys where required
- Land acquisition and planning costs
- Ecology surveys, and specialist environmental advice
- Staff and legal fees, including local overheads and consultation costs
- Third party costs
- Construction costs, including mobilisation, supervision, and costs associated with statutory undertakers works
- Risk Allowance.

It should be noted that Optimism Bias is not applied within the Financial Dimension and is only for use within the Economic Dimension.

Project costs incurred to date have been omitted from the costs presented in this section as “sunk costs”, which is in line with TAG Unit A1.2.

The cost profile is based upon the milestone activities set out in the Management Dimension, and the dates used to calculate the scheme costs, including the application of inflation, are shown in Table 8.

Table 8: Milestone Activities

Timescale	Activity
August 2022	Present Active Travel Schemes Business Case Technical Note to CPCA
September 2022	CPCA Sponsors present papers to CPCA Board to request approval of funding. Raising Work Orders and mobilising works
October 2022 – December 2022	Newark Road scheme construction undertaken
January 2023 – March 2023	Oxney Road scheme construction undertaken
January 2023	CPCA Board to make funding decision for the main Fengate project. This was the original CPCA Board date for the Fengate active travel schemes.

Table 9 below shows the Financial Dimension Scheme Cost Estimates. The costs calculated for use within the Economic Assessment are presented in the Economic Dimension.

Table 9: Financial Dimension Scheme Cost Estimates

Description of Cost Type	Oxney Road	Newark Road
Base Investment Cost	253,526	203,237
Risk Adjusted Base Cost	275,960	252,387
Risk Adjusted Base Cost with Industry Inflation (Outturn Cost)	**298,037**	**252,387**

The Outturn cost represents the amount required to deliver the scheme, and is the amount requested for early release.

The schemes will be delivered within the same year as the cost estimates and therefore inflation has not been applied. Therefore, the outturn costs for Oxney Road Pedestrian Crossing and Newark Road Footpath are £298,037 and £252,387, respectively.

Budgets and Funding Cover

It is anticipated that the full combined Outturn Cost of £550,424 will be funded from the Transforming Cities Fund (TCF). The TCF is time limited and must be spent by 31st March 2024.

There are not known to be any financial constraints beyond the availability of funding from the TCF, which is currently considered adequate to cover the scheme costs.

Commercial Dimension

The Commercial Dimension serves to demonstrate that the Fengate active travel schemes can be reliably procured and implemented through existing channels whilst ensuring value for money in delivery of the scheme.

All phases to date and future phases of construction and site supervision will be delivered by Peterborough Highway Services (PHS). All skills and competencies to deliver this scheme are available within the PHS contract and its supply chain.

The scheme construction will be procured using a Target Cost payment mechanism. This incentivises both parties to work together to reduce cost through a pain / gain mechanism. To ensure that the procurement remains commercially competitive and offers value for money, all subcontract packages will be subject to competitive tendering.

Management Dimension

The Management Dimension demonstrates that the Council, through the PHS Framework, has the necessary experience and governance structure to successfully manage the delivery of the Fengate active travel schemes.

PHS has successfully delivered the following active travel schemes in recent years:

- Pop-up cycleways:
    - Between Midland Road and Bourges Boulevard along Thorpe Road on the eastbound carriageway. Installed during the first COVID-19 lockdown in 2020.
    - Along the southbound side of Priestgate. Designed in 2020 and installed in late 2021, the cycleway consisted of a cycle lane delineated by ‘Rediweld One Piece Wand Orca’ units. Cones were taken down in 2022.
    - Between St. Johns Street and Cattle Market Road along City Road. Designed in 2020 and installed in late 2021, the cycleway consisted of a cycle lane delineated by ‘Rediweld One Piece Wand Orca’ units. Cones were taken down in 2022.
    - Westbound between the Junction 39 roundabout and Cattle Market Road. Designed in 2020 and installed in late 2021, the cycleway consisted of a cycle lane delineated by ‘Rediweld One Piece Wand Orca’ units. Cones were taken down in 2022.

  - In both directions along Broadway. Designed in 2020 and installed in late 2021, the cycleway consisted of a cycle lane delineated by 'Rediweld One Piece Wand Orca' units. Cones were taken down in 2022.

- Haddon Cycleway. Designed in 2021 and constructed in 2022, the scheme improved the footway / cycleway connection between Haddon Hill and Orton Goldhay.
- Toucan Crossings:
  - Bishop's Road toucan crossing upgraded in 2019 to allow for cycle use.
  - Oundle Road toucan crossing by Peterborough High School
  - Lincoln Road / Manor House Road crossing improved to a toucan crossing between 2021 and 2022.

To date, the delivery of the scheme has been managed by a Project Team, led by a PCC Project Manager. The Project Team consists of all the key project delivery partners and has been responsible for the daily running of the project. The Project Team includes key stakeholders such as the CPCA.

The existing PHS Project Board has overseen the continued development and delivery of the schemes to date by the Project Team and has made key decisions relating to the delivery of the project. The Project Board has been supported by technical specialists, with key stakeholders invited to attend as necessary.

Key project milestones for progressing to scheme delivery are outlined in Table 10.

Table 10: Key Project Milestones

Timescale	Activity
August 2022	Present Active Travel Schemes Business Case Technical Note to CPCA
September 2022	CPCA Sponsors present papers to CPCA Board to request approval of funding. Raising Work Orders and mobilising works
October 2022 – December 2022	Newark Road scheme construction undertaken
January 2023 – March 2023	Oxney Road scheme construction undertaken
January 2023	CPCA Board to make funding decision for the main Fengate project. This was the original CPCA Board date for the Fengate active travel schemes.
March 2024	One-year post-scheme monitoring undertaken
March 2028	Five-year post-scheme monitoring undertaken

Stakeholder engagement was undertaken by the Project Team following approval of the SOC and were in line with the timings of the Public Consultation (February 2021 – March 2021). All stakeholders were consulted via email or letter for comments on the Preferred Scheme of the Fengate Access Study prior to the completion of Detailed Design.

Communication with stakeholders was maintained throughout the project and feedback from stakeholders largely centred on the environment, biodiversity, and sustainable travel elements of the Fengate Access Study preferred scheme. All feedback has been incorporated into the Detailed Design where appropriate.

A construction Risk Register for each scheme has been produced and can be provided upon request. The Risk Register is a live document and will be regularly updated throughout the ten-week construction period.

The schemes will be monitored and evaluated in line with the CPCA Assurance Framework and DfT guidance. The monitoring and evaluation will include a range of qualitative and quantitative data collection methods that will be undertaken one year and five years post scheme completion.

Outputs from the monitoring and evaluation stage will be summarised within a Scheme Evaluation Report to determine whether the schemes have been delivered as planned and justify the investment. Where outcomes differ from what is expected, data collected during the monitoring and evaluation phases will be used to form an evidence base that will assist in understanding the reasons for this and any lessons that can be learnt.