

FORDER VALLEY INTERCHANGE

Part I Briefing Note – Business Case Update & Contract Award



1. RECOMMENDATIONS

It is recommended that the Leader of the Council:

- Approves the Business Case update
- Allocates £1,708,447 for the project into the Capital Programme funded from the Integrated Funding Block and reallocation of salary capitalisation
- Authorises the procurement process to award the construction works to Balfour Beatty by way of a Deed of Variation to the Forder Valley Link Road NEC3 SCAPE Framework contract.

2. SCHEME SUMMARY

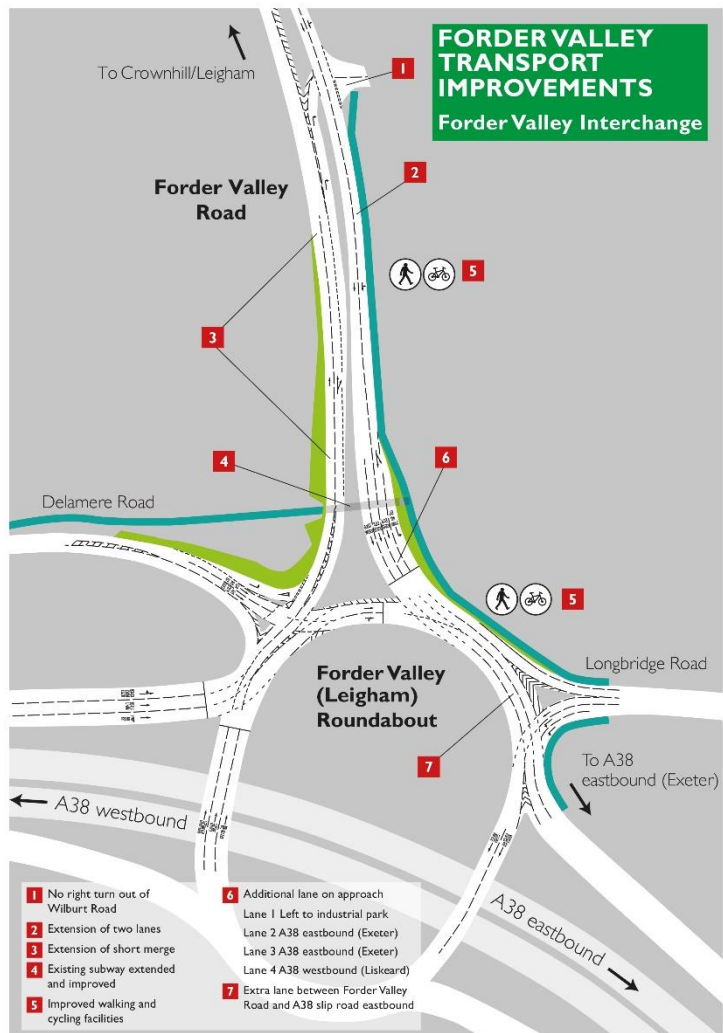
The Forder Valley Interchange scheme complements the Forder Valley Link Road works and the two schemes together optimise the benefits of providing a new key link as an alternative route to the north of the city from the east.

The new link this scheme facilitates is fundamental in relieving congestion at Manadon Roundabout and is therefore an essential project to the delivery of the growth identified in the Joint Local Plan.

The project is identified as a part of the strategic transport infrastructure required to support the significant numbers of new homes and jobs that are planned for the north and east of the city over the lifespan of the Plymouth and South West Devon Joint Local Plan. The Forder Valley Interchange scheme directly supports the following Joint Local Plan policies: SPT8; SPT9; SPT10; SPT12; PLY47; and PLY57.

The Forder Valley Interchange scheme will improve and extend the existing short merge from the Forder Valley (Leigham) Roundabout heading north on Forder Valley Road, extend the two lanes heading south and add a short fourth lane on the southbound approach to the roundabout. The scheme will also add an extra lane on the roundabout itself between Forder Valley Road and the A38 eastbound slip road.

These improvements will increase capacity and allow traffic to flow more smoothly, relieving congestion and queuing which currently extends back onto the roundabout circulatory and down the A38 westbound off-slip.



The subway under Forder Valley Road will be extended and walking and cycling facilities will be improved.

This project combined with the Forder Valley Link Road project (FVLR) enable the creation of an important new public transport link between the east of the City and the second busiest interchange at Derriford Hospital. It also facilitates the future link needed for the proposed Deep Land Park and Ride connection which is to be delivered as part of the Sherford new community.

3. PROGRESS UPDATE

The original business case and procurement approach was approved in March 2018. Since then, the Forder Valley Interchange scheme has progressed through the Outline Design stage and the Detailed Design was completed in August 2020. An early construction cost estimate indicated there would be budget pressures with the preferred design and a vigorous value engineering exercise was subsequently undertaken in May 2020 to review all options to reduce the scheme costs, whilst maintaining the scheme benefits on which the scheme was awarded £5 million of funding from the DfT.

Costs were reduced through changes to the road alignment to avoid retaining structures and some utility diversions, as well as programming the works so the new carriageway will be built offline, significantly reducing traffic management costs and the need for excessive temporary works.

Efficiencies of co-delivery with the Forder Valley Link Road works were also established, predominantly with re-use of site won material and sharing of staff resources.

Options to further de-scope the scheme were investigated but were not appropriate on the basis they would either

- reduce the scheme benefits and impact the business case BCR, putting the DfT funding at risk;
- not address existing highways maintenance issues which would undermine the new infrastructure being provided and leave the Council with residual maintenance pressures in the medium to long term
- or reduce the scheme's resilience to climate change (for example reducing the drainage attention or removing the walking and cycling upgrades that would otherwise help to encourage more trips through walking and cycling).

The preferred design was then completed to 'For Construction' status and the Contractor submitted a fully market-tested target cost package in October 2020, which creates an overall scheme budget pressure of £1.71m.

Key reasons for the increase in costs include: additional investment in obtaining robust design information through surveys and site investigations and assessments during pre-construction, change in drainage design to satisfy the appropriate climate change measures, need for full carriageway reconstruction on Forder Valley Road, extended construction programme and Covid-19 and the impact on market conditions

Alternative options to proceed with this scheme have been assessed and subsequently dismissed and are summarised below.

De-scope scheme – Rejected

Costs pressures have already been significantly captured through a vigorous value engineering exercise as part of the design process. Options to further de-scope the scheme were investigated but were not appropriate on the basis they would either

- reduce the scheme benefits and impact the business case BCR, putting the DfT funding at risk;

- not address existing highways maintenance issues which would undermine the new infrastructure being provided and leave the Council with residual maintenance pressures in the medium to long term
- or reduce the scheme's resilience to climate change (for example reducing the drainage attention or removing the walking and cycling upgrades that would otherwise help to encourage more trips through walking and cycling).

Re-tender – Rejected

The Council's Procurement team assisted with appraising three procurement routes for this scheme and the preferred option is to award the construction works to Balfour Beatty by way of a Deed of Variation to the existing Forder Valley Link Road NEC3 SCAPE Framework contract.

A full OJEU compliant new tender process would introduce a delay of at least one year.

Utilisation of other Frameworks has been considered and, whilst this would be a quicker procurement process than OJEU, there would still be significant delay to the current programme and in both re-tender scenarios, the efficiencies currently realised with co-delivery alongside FVLR would also be lost.

In order to overcome the current known budget shortfall in the existing target cost, when additional inflation and a loss of efficiencies are added, a new contractor would have to present a target cost around 35% cheaper and this is considered extremely unlikely.

Do not proceed – Rejected

If the scheme were to not go ahead, the existing bottleneck on Forder Valley Road (which has the potential to queue back onto the mainline A38 during busy periods) would remain. This currently deters vehicles using this route and adds strain to the Manadon Junction. These issues would not be resolved and some of the highway maintenance aspects of the scheme would still need to be resolved in the foreseeable future.

Whilst the CIL funding contribution could be reallocated for use on another scheme, the £5m of funding from the DfT would need to be returned.

It is therefore recommended that we proceed with the preferred scheme and procurement process and that £1.71m of additional funding is approved and allocated to the Capital Programme. The Forder Valley Interchange construction can then be awarded by way of a Deed of Variation to the existing Forder Valley Link Road (FVLR) NEC 3 SCAPE Framework contract with Balfour Beatty.

4. PROPOSED PROGRAMME

- Contract award – January / February 2021
- Enabling works and mobilisation – Early February for site set up and key utility diversions
- Main constructions works – February / March 2021-April/ May 2022

5. RISKS

Potential Risk 1 Identified				
Description	Supply chain disruption during construction as a result of Covid-19 or Brexit			
Mitigation	Utilisation of subcontractors who are working on FVLR and who are familiar with new working practices where possible. Consideration for vesting any key materials once in contract to de-risk this issue. The contractor & sub-contractors have been asked to price on the basis of implementing the Construction Leadership council's Site Operating Procedures.			
Risk assessment	Initial	Post mitigation	Current	Current total rating
Likelihood To be scored 1 (low) – 5 (high)	5	2	2	6
Impact To be scored 1 (low) – 5 (high)	4	4	4	
Trend	Reducing	Lead officer	Sarah McVeigh	
		Risk champion	Philip Heseltine	
Potential Risk 2 Identified				
Description	Delays to the contract award result in missing window for site clearance works and enabling works to take place ahead of the bird nesting season.			
Mitigation	This business underwrites the full scheme costs to enable the construction works to be awarded. Work for the main contractor to secure the subcontractors undertaking clearance works may need to start in advance of the Deed of Variation being signed. These works can be undertaken as a Compensation Event to the main Forder Valley Link Road contract to ensure that the tree and vegetation clearance can take place in advance of bird nesting season.			
Risk assessment	Initial	Post mitigation	Current	Current total rating
Likelihood To be scored 1 (low) – 5 (high)	4	3	2	6
Impact To be scored 1 (low) – 5 (high)	4	3	3	
Trend	Reducing	Lead officer	Sarah McVeigh	
		Risk champion	Philip Heseltine	
Potential Risk 3 Identified				
Description	Statutory Undertakers works estimates increase in value			
Mitigation	Completed detailed design information issued to each utility company. Attendance of Prestart meetings at the earliest opportunities.			
Risk assessment	Initial	Post mitigation	Current	Current total rating
Likelihood To be scored 1 (low) – 5 (high)	5	3	3	12
Impact To be scored 1 (low) – 5 (high)	4	4	4	
Trend	Reducing	Lead officer	Sarah McVeigh	
		Risk champion	Philip Heseltine	

Potential Risk 4 Identified				
Description	Traffic disruption requires additional TM infrastructure			
Mitigation	The traffic management proposals have been developed to minimise disruptive measures and where this cannot be avoided, these works activities will take place off-peak or overnight. Meetings with PCC network management and Highways England have taken place to discuss traffic management plans and phasing. The plans are to be agreed in principle with approving authorities prior to contract award. Encouragement of continued communication throughout construction.			
Risk assessment	Initial	Post mitigation	Current	Current total rating
Likelihood To be scored 1 (low) – 5 (high)	5	2	2	6
Impact To be scored 1 (low) – 5 (high)	4	3	3	
Trend	Reducing	Lead officer	Sarah McVeigh	
		Risk champion	Philip Heseltine	
Potential Risk 5 Identified				
Description	Unforeseen ground condition			
Mitigation	Extensive Ground Investigation surveys and assessments have been undertaken across the site to reduce this risk.			
Risk assessment	Initial	Post mitigation	Current	Current total rating
Likelihood To be scored 1 (low) – 5 (high)	5	2	2	6
Impact To be scored 1 (low) – 5 (high)	4	3	3	
Trend	Reducing	Lead officer	Sarah McVeigh	
		Risk champion	Philip Heseltine	