

CAMBOURNE PARISH COUNCIL

District of South Cambridgeshire

Council Meeting 15th January 2019

15. TRAFFIC MATTERS & ROAD SAFETY.

15.1 ZEBRA CROSSING AT JUNCTION OF LANCASTER GATE / EASTGATE

The Parish Clerk attended the Local Highway Improvement panel meeting on Monday 14th January 2019 to speak in support of the application. The panel will then make a recommendation to the relevant County Council Committee and we should know in March 2019 if we have been successful with the grant application.

It is
RECOMMENDED that the report be received.

15.2 20MPH SPEED LIMIT

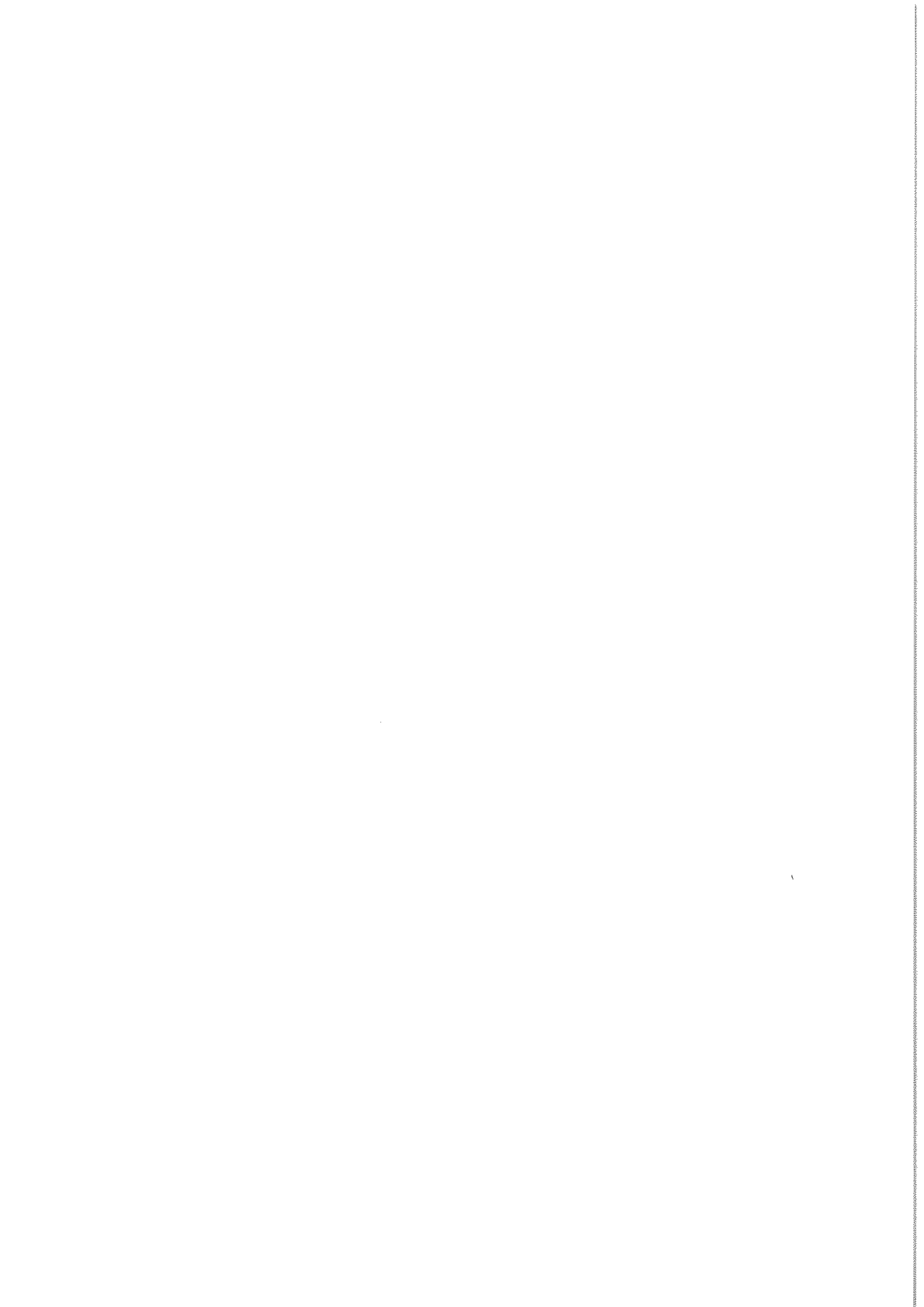
The County Council has reviewed the request and produced a feasibility study on various options for achieving a 20mph speed limit throughout Cambourne. Option B is the preferred option on safety grounds. The estimated cost of the work is £87,376 but this is the worst case with a large number of speed cushions. The extent of the works is subject to a number of speed checks, if the roads average speed is below 24mph traffic calming will not be required, only signage. Attached is a copy of the project feasibility summary.

It is
RECOMMENDED to delegate the review of the feasibility study to the transport working party to make a recommendation to Full Council.

15.3 ADOPTION WORKS

MCA have commissions contractors to carry out adoption works to Back Lane from the hump back bridge, Lancaster Gate, Sterling Way, Eastgate, Sackville Way, De La Warr Way, part of the High Street (North End), Brace Dein and Mosquito Way. The works will commence late February early March with the carriageway works commencing in April 2019. The works are expected to last between 30 and 40 weeks. The works will include, re surfacing/re building stretches of the road and footpaths. Once these works have been carried out, all the roads leading off them can then be programmed for remedial works, ready for adoption.

It is
RECOMMENDED that the report be received.



PROJECT FEASIBILITY SUMMARY

Local Highway Improvement (LHI) Initiative



Applicant	Cambourne PC	Status	draft
Application Reference No		Version	1.0
Assigned Highways Officer	John O'Donnell	Approved by	
Location of proposal	Junction of Eastgate and Lancaster Gate		
Streetview Link	https://www.google.co.uk/maps/@52.2186062,-		
Highway Issue or Improvement	Provide a location where children and adults can cross		
Key Considerations	<p>Backlane designed as a 30mph road consisting of bends with straights with speeds controlled by visibility (rather than the meandering adjoining roads with 20mph design speeds). As there is no significant on-street parking this can encourage higher speeds especially from the north. Cambourne PC is currently undertaking PFHI feasibility for 20mph zone. This road this road has been identified from local design standard as requiring additional traffic calming to be considered in 20mph zone. Potential need for new surface course with higher PSV if road remains 30mph. Detailed design must consider slowing cyclists on the slight downhill approach.</p>		
Optimum Solution	<p>Zebra crossing on a speed table to tie in with Cambourne 20mph zone PFHI scheme. If in a traffic calmed area the requirement for resurfacing/HFS overlay may be negated as there will be a lower risk of wet skid accidents</p>		
Other options considered	<p>Zebra crossing with no traffic calming- will likely require additional high friction surfacing £7k overlay/£13k inlay. Raised table uncontrolled crossing- may not be suitable for a school route with high vehicle traffic (see PV2 result)</p>		
Supporting Documents			

TECHNICAL APPRAISAL OF PROPOSED SOLUTION

Road Safety Benefit and/or Issues		RAG
No injury collisions at the location, however an overtaking collision just to the south – possible speed. Issue with cyclists coming down the path and onto the zebra, suggest a chicane to slow down cycle speeds		
Risks to Delivery		RAG
Amount of resident consultation done regarding flashing belishas. Traffic calming will require consultation and to consider location on bus route. If designed as 20mph speed limit consultation will need to be complete as potential for rejection. No allowance made for surfacing not included in road		
Effectiveness		RAG
Will provide safer place to cross if speeds are lowered		
Maintenance Considerations		RAG
Commuted sums will cover additional BBLP costs		

ESTIMATED CONSTRUCTION & OTHER COSTS

Item	Estimated Cost
Staff Costs	2057.34
Labour	£2,060
Equipment	£2,000
Materials	£10,080
Commuted sums	£4,000
Traffic Management & TTRO	£2,200
Safety Audit	£1,500
Legal Traffic Regulation Order (Includes 2 No. Newspaper Adverts)	£1,000
Sub-Total	£24,897
10% Risk Contingency	£2,490
GRAND TOTAL	£27,387.07

Total Project Budget Required	£27,387.07	
Applicant Contribution	£17,387.07	63.4 %
CCC Contribution applied for	£10,000.00	
Estimated duration of project	8-12 months	

Commencing *1st April 2018*

John Vickery

From: O'Donnell John <John.O'Donnell@cambridgeshire.gov.uk>
Sent: 30 November 2018 12:15
To: clerk@cambourneparishcouncil.gov.uk
Subject: Cambourne 20mph PFHI
Attachments: Cambourne 20mph options estimate.xlsx; Cambourne PFHI Feasibility 1.0.pdf

Dear John

I have completed the technical feasibility on the options to implement a Cambourne wide 20mph. After our previous discussions I discontinued the option of leaving the distributor roads as 30mph and only implementing the 20mph based on the design speeds.

This has left 3 options all of which I have provided an estimated scheme budgets- see attached excel file. These all include the cost of this feasibility and also speed survey costs.

- A) 20mph Speed Limit Signs only- this option is only feasible if all roads already have average speeds lower than 24mph. I have costed this for comparison but this is very unlikely to still be possible once the speed surveys have been completed. Total costs to include 5 pairs of terminal signing, 307 repeater signs (estimated from road lengths at 200m intervals to be confirmed at detailed design).
- B) 20mph Speed Limit with traffic calming- signing the same as Option A with traffic calming designed from traffic speed surveys on the distributor roads to lower average speeds on these roads. Overall cost £87,376.
- C) 20mph zone- this relies completely on design using frequency of traffic calming rather than signs to ensure compliance. The maximum spacing between features (which can include but not solely be speed limit repeaters) can be no greater than 100m. I believe although fewer signs are needed in theory for this option it will actually be more onerous due to the smaller spacing required and potential of requiring additional features in some of the smaller roads to ensure TSRGD definitions are met. Overall cost £123,174.

Having liaised with Policy and Regulation I believe Option B should be taken forward and budgeted for as this option is closest to existing CCC/national policy and is less open to dispute (i.e 20mph zones which do not meet the design criteria of a feature as described in the TSRGD could be unenforceable). If some of the 30mph roads are already achieving lower than 24mph average speeds these will not require traffic calming. This may reduce the overall scheme costs but this will not be confirmed until detailed design is complete. I have based the technical feasibility attached on this option.

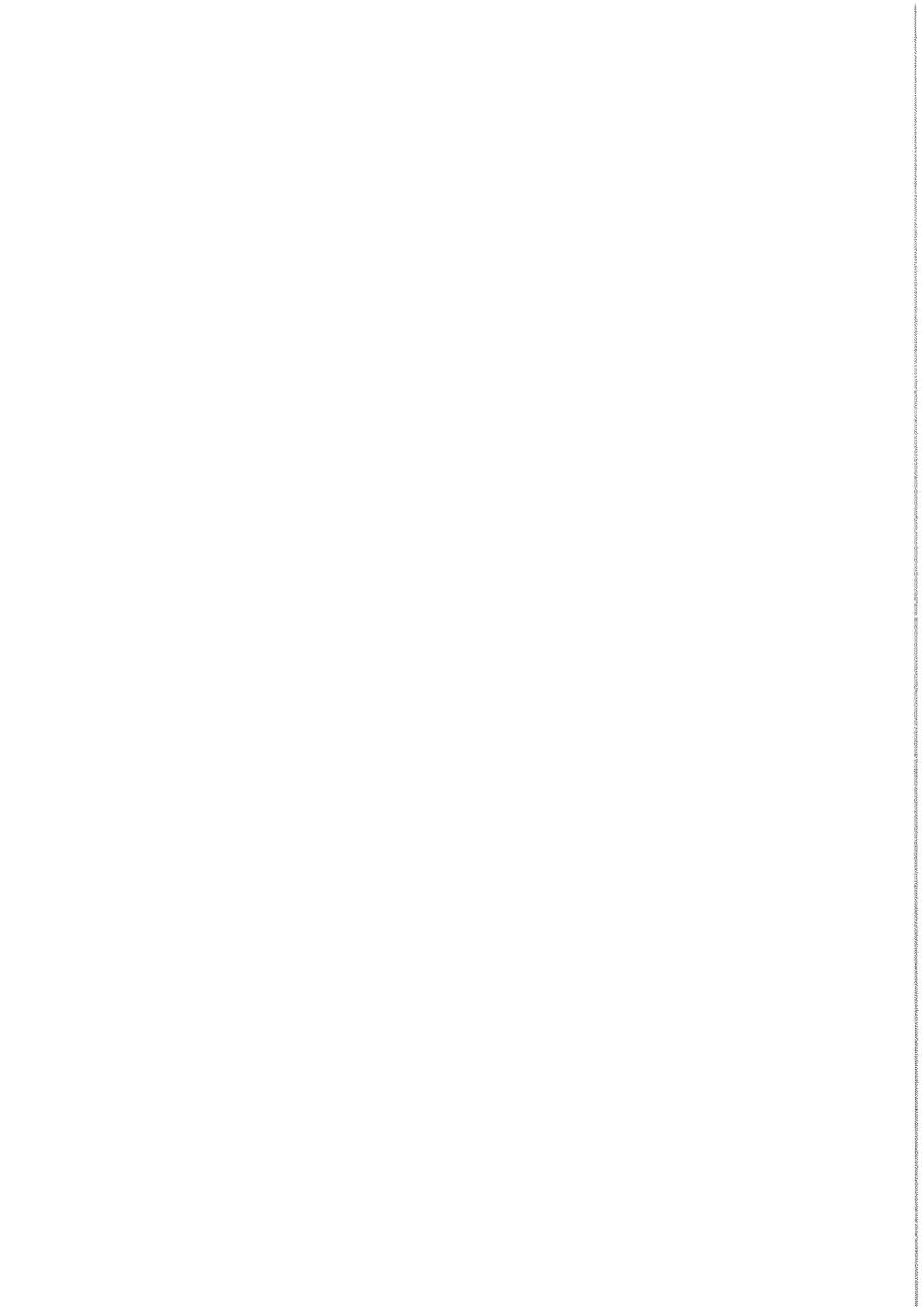
An additional point to consider will be we will have to charge you VAT at 20% on any construction costs. I assume you will be able to claim this back and so have left this out of the estimate figures but for option B this would increase the invoiced cost to £99,004.

Regards

John O'Donnell

Highway Projects
Cambridgeshire County Council
01480 377651

The information in this email is confidential and may be legally privileged. It is intended solely for the addressee. If you receive this email by mistake please notify the sender and delete it immediately. Opinions expressed are those of the individual and do not necessarily represent the opinion of Cambridgeshire County Council. All sent and received email from Cambridgeshire County Council is automatically scanned for the presence of computer viruses and security issues. Any personal data will be processed in line with the Data Protection legislation, further details at www.cambridgeshire.gov.uk/privacy Visit www.cambridgeshire.gov.uk



PROJECT FEASIBILITY SUMMARY

Local Highway Improvement (LHI) Initiative



Applicant	Cambourne PC	Status	draft
Application Reference No	PFHI	Version	1.0
Assigned Highways Officer	John O'Donnell	Approved by	
Location of proposal	Cambourne village wide to include all streets apart from Cambourne Road		
Streetview Link	https://www.google.co.uk/maps/place/Cambourne,+Cambridge/@52.2179906,-		
Highway Issue or Improvement	<p>The Parish Council would like a 20mph speed limit in the whole of Cambourne. This is to improve the road safety in Cambourne and reflects the design of the majority of roads. Cambourne is heavily family orientated with a high proportion of children reflected by the fact it has 4 primary schools and a secondary school. The Parish Council wish to reduce the speed limit from 30mph to 20mph to make the roads safer and more family friendly.</p>		
Key Considerations	<p>20mph limits requires average speeds lower than 24mph. Roads with higher average speeds will require traffic calming to achieve this. Speed limits require repeater signs at a maximum 200m interval.</p> <p>A 20mph zone does not require repeater signs but needs a traffic calming feature at least every 100m. The majority of roads in Cambourne have a design speed of <20mph so would not require additional features. However there is over 6km of roads with a design speed of 30mph that would require extensive traffic calming for the implementation of a 20mph zone to include these</p>		
Optimum Solution	<p>A 20mph limit requiring less extensive traffic calming with these features being located by design to reduce existing speeds rather than by arbitrary distances. It will require repeater signs on all roads at a maximum interval of 200m (alternating sides). Cul-de-sacs less than 80m will require 1 repeater sign. It will be possible to mount these signs on existing signs or light columns or to use road markings instead.</p>		
Other options considered	<p>It is possible to implement the scheme as either a 20mph zone or limit. A 20mph zone would require fewer (and in some cases no) 20mph repeater signs. However on the 30mph designed roads more extensive traffic calming than a 20mph speed limit would be required as features would be required every 100m or less. It may also be necessary to install these on some of the 20mph roads due to TSRGD 2016 definitions</p>		
Supporting Documents	<p>References- Local Transport Note LTN01/07 Traffic Calming; TSRGD 2016; Traffic Signs Manual Chapter 3 Regulatory Signs</p>		

TECHNICAL APPRAISAL OF PROPOSED SOLUTION

Road Safety Benefit and/or Issues	RAG
No issues with 20mph. Any additional traffic calming scheme will require a road safety audit.	
Risks to Delivery	RAG
Consultation may bring objections to the 20mph speed limit. Further objections are also likely due to required consultation on the additional traffic calming (humps required)	
Effectiveness	RAG
Side roads should already be achieving average speeds below 24mph through design. If properly designed to the speed surveys the distributor roads (30mph) should also achieve average speeds without having to rely on enforcement	
Maintenance Considerations	RAG
Additional speed limit signs and road markings to maintain but no bespoke signs or lining. Islands/cushions of bolt down types. If diag.610 required these can become liability	

ESTIMATED CONSTRUCTION & OTHER COSTS

Item	Estimated Cost
Design Costs	£10,156
Signs and Road markings	£17,740
Civils Traffic Calming	£40,000
Road Safety Audit	£1,782
Traffic Management	£400
Legal Traffic Regulation Order (Includes 2 No. Newspaper Adverts)	£5,250
Sub-Total	£75,328
20% Risk Contingency (on construction only)	£11,548
GRAND TOTAL	£86,876.00

Total Project Budget Required	£86,876.00	
Applicant Contribution	£86,876.00	100 %
CCC Contribution applied for	£0.00	
Estimated duration of project	12-18 months	

Commencing **1st April 2019**

SCHEME BUDGET ESTIMATE

Scheme Title Cambourne PFHI
Option A 20mph Speed limit no traffic calming
(terminals in 5 locations & 307 repeaters)
Date 26 November 2018

Disciplines	Financial years		
	2018/19	2019/20	2020/21
Feasibility	£500	£0	£0
Traffic surveys	£0	£2,700	£0
Scheme design 20mph	£0	£4,908	£0
Scheme design Traffic calming	£0	£0	£0
Safety Audit	£0	£279	£0
Stakeholder/ public consultations	£0	£2,500	
Advance works	£0	£0	£0
Construction - Signs	£0	£15,740	£0
Construction - Road markings	£0	£1,000	£0
Construction - Civils (traffic calming)	£0	£0	£0
Total	£500	£27,127	£0

Optimism Bias/ Contingency = 10 - 20% (On Construction)

£0	£3,348	£0
----	--------	----

Grand totals	£500	£30,475	£0
---------------------	-------------	----------------	-----------

Overall Scheme Total £30,975

SCHEME BUDGET ESTIMATE

Scheme Title	Cambourne PFHI
	Option B 20mph Speed limit with Speed Cushions
	(A plus 20 sets cushion approx 100m spacing)
Date	26 November 2018

Disciplines	Financial years		
	2018/19	2019/20	2020/21
Feasibility	£500	£0	£0
Traffic surveys	£0	£2,700	£0
Scheme design 20mph	£0	£4,908	£0
Scheme design Traffic calming	£0	£2,548	£0
Safety Audit	£0	£1,782	£0
Stakeholder/ public consultations	£0	£3,750	£1,500
Advance works	£0	£200	£200
Construction - Signs	£0	£3,935	£11,805
Construction - Road markings	£0	£1,000	£1,000
Construction - Civils (traffic calming)	£0	£30,000	£10,000
Total	£500	£50,823	£24,505

Optimism Bias/ Contingency = 20% (On Construction)	£0	£6,987	£4,561
--	----	--------	--------

Grand totals	£500	£57,810	£29,066
---------------------	-------------	----------------	----------------

Overall Scheme Total	£87,376
-----------------------------	----------------

SCHEME BUDGET ESTIMATE

Scheme Title	Cambourne PFHI
	Option C 20mph Zone Traffic Calmed
	(40 sets speed cushions and 50 repeaters)
Date	26 November 2018

Disciplines	Financial years		
	2018/19	2019/20	2020/21
Feasibility	£500	£0	£0
Traffic surveys	£0	£2,700	£0
Scheme design 20mph	£0	£3,509	£0
Scheme design Traffic calming	£0	£3,398	£0
Safety Audit	£0	£3,257	£0
Stakeholder/ public consultations	£0	£3,750	£1,500
Advance works	£0	£200	£200
Construction - Signs	£0	£2,400	£2,400
Construction - Road markings	£0	£1,000	£1,000
Construction - Civils (traffic calming)	£0	£40,000	£40,000
Total	£500	£60,214	£45,100
Optimism Bias/ Contingency = 10 - 20% (On Construction)	£0	£8,680	£8,680
Grand totals	£500	£68,894	£53,780

Overall Scheme Total £123,174

A Signs Only

Speed surveys	10
TRO incl 250 fee	2
Gateways	5
20mph design repeaters	307
Lining visit	1

B Limit with traffic calming

Speed surveys	10
TRO incl 250 fee	2
Gateways	5
20mph design repeaters	307
Lining visit	1
Cushions pair	20

C Traffic Calmed zone

Speed surveys	10
TRO incl 250 fee	3
Gateways	5
20mph repeaters (traffic calming)	50
Lining visit	2
Cushions pair	40

Projects - Staff costs breakdown

TRO - 20Speed Limit

Task	Resource Grade (hrs)					Total
	A	B	C	D	E	
Design and applicant liaison	£0.00	£0.00	£406.28	37	£1,716.06	£2,122.34
Consultation prep	£0.00	£0.00	£216.68	4	£185.52	£402.20
Consultation responses - emails, phone calls	£0.00	£0.00	£216.68	7.5	£347.85	£564.53
Delegated Decision - prepare report	£0.00	£124.30	£406.28		£0.00	£530.58
Final design changes	£0.00	£124.30	£108.34	4	£185.52	£418.16
Prepare Health & Safety Information	£0.00	£0.00	£108.34		£0.00	£108.34
Contractor liaison & works ordering	£0.00	£62.15	£108.34		£0.00	£170.49
Site supervision & Contract Management	£0.00	£0.00	£406.28	4	£185.52	£591.80
					GRAND TOTAL	£4,908.43

TRO - 20 Zone

Task	Resource Grade (hrs)					Total
	A	B	C	D	E	
Design and applicant liaison	£0.00	£0.00	£216.68	15	£695.70	£912.38
Consultation preparation	£0.00	£0.00	£216.68	4	£185.52	£402.20
Consultation responses - emails, phone calls	£0.00	£0.00	£216.68	7.5	£347.85	£564.53
Delegated Decision - prepare report	£0.00	£124.30	£406.28		£0.00	£530.58
Final design changes	£0.00	£124.30	£108.34	4	£185.52	£418.16
Prepare Health & Safety Information	£0.00	£0.00	£108.34		£0.00	£108.34
Contractor liaison & works ordering	£0.00	£62.15	£108.34		£0.00	£170.49
Site supervision & Contract Management	£0.00	£0.00	£216.68	4	£185.52	£402.20
					GRAND TOTAL	£3,508.88

External hourly rates based on actual cost

Grade	Description	Hourly Rate
A	Service Manager	£69.85
B	Project Manager	£62.15
C	Engineer	£54.17
D	Assistant Engineer	£46.38
E	Technician	£38.57