

Appendix A

Options for a new Lower Thames crossing KCC draft response to the Department for Transport's (DfT) 2013 consultation questionnaire

1. Do you agree that there is a strong case to increase road-based river crossing capacity in the Lower Thames area?

Agree.

Kent County Council (KCC) categorically agrees that it is clear from existing traffic volumes and levels of congestion on the Dartford -Thurrock Crossing that more road based capacity is needed across the Lower Thames now.

Traffic volumes are such that the design capacity of the crossing is regularly exceeded and the regular average delay per vehicle (almost 50% of vehicles in excess of 9 minutes) clearly points to the fact that the existing crossing is a current and real constraint to growth. The Council believes the DfT's estimated cost to the economy of this congestion of £15m is significantly underestimated (the DfT have previously quoted £40m) and that in reality, this figure should be substantially higher.

DfT's 2011 forecasts of traffic growth of 41% by 2035¹ on top of the existing congestion levels are sufficient to establish that the introduction of free-flow tolling will not create anything other than very short term relief. The fundamental issues of the crossing being over capacity and providing extremely low levels of network resilience will remain.

In addition to this the Thames Gateway is Europe's biggest regeneration area with 160,000 houses and 225,000 jobs planned by 2026. There are a number of substantial developments coming forward within this area including London Gateway opening in the 4th quarter of 2013 which will be the UK's biggest deep water port and Europe's largest logistics park generating 12,000 jobs and proposals for Paramount Park Resort generating 27,000 jobs with an anticipated opening in 2018.

Current congestion on the existing crossing along with forecast traffic growth and the significant scale of potential development makes additional crossing capacity top priority to ensure growth is not constrained across the Thames Gateway and the area delivers its full potential for the local and national economies.

While KCC agrees that more crossing capacity is required in the Lower Thames area and that in the first instance this needs to be roads based, the Council also urges DfT to maximise the opportunities for modal shift through scheme design.

¹ DfT Road Traffic Forecasts 2011

2. Which of the following location options for a new crossing do you prefer?

Option C variant: connecting the M2 with the A13 and the M25 between junctions 29 and 30, and additionally widening the A229 between the M2 and the M20.

Other

If other, please provide details.

KCC supports Option C variant on the condition that the connection to the M2 is moved westwards thus connecting into the A2. By realigning this connection westwards, significant adverse environmental impact on the Kent Downs Area of Outstanding National Beauty, a Site of Special Scientific Interest (SSSI), ancient woodlands and KCC's flagship country park can be minimised. This western alignment would connect in to the A2 between the East of Gravesend and Cobham junctions. KCC acknowledges it is likely there will be some impact for local access options where insufficient merge/weave lengths on the A2 may require the closure of a slip road. The Council's view is that overall, given the potential extent of the environmental impact of the DfT proposed connection, this realigned connection would be preferable and is a feasible and deliverable alternative.

In addition, to reduce the impact of this route on the residents on the eastern edge of Gravesend and on a SSSI to the north east of Chalk, KCC would want to see the tunnelling start south of Lower Higham Road (approx. chainage 2500 rather than chainage 4000).

Option C variant provides a clear opportunity for the DfT to not only radically improve the capacity and resilience of crossing the Lower Thames, but to also provide urgently needed resilience in the strategic network across Kent and between Kent's ports and the Midlands and the North. KCC has bifurcation, the splitting of traffic to and from the eastern and western dock facilities in Dover, between the M20/A20 and M2/A2 corridors, as a key objective of its transport policy. In addition to a new Lower Thames Crossing, bifurcation involves a number of improvements on the A2 to deliver a high quality strategic corridor that will cater for the significant growth planned at Dover with its plans for a new terminal, and Calais which is set to double in size by 2016, as well as general traffic and freight growth. DfT forecasts are for HGV volumes to growth by 43% and LGVs by 88% by 2035¹. In addition Government forecasts growth in Roll on Roll off (RoRo) traffic will grow by 101% by 2030². This would equate to 3.8 million HGVs using Dover with around 1.3 million of these using a Lower Thames crossing.

These improvements to achieve bifurcation of traffic between the M20/A20 and M2/A2 corridors to and from Dover include:

- A2 Lydden dualling and dualling of a number of single carriageway sections on approach to Dover

² National Ports Statement

- M2 J7 Brenley Corner improvement to increase capacity and provide free flow between the M2 and A2
- M2 J5 Stockbury to provide free flow between the M2 and A249 to enable the A249 link between the M2 and M20 to provide relief to the A229 link and additional network resilience
- Improvements to A249 including widening and straightening of A249 Detling Hill and 2 underpasses to remove local access
- M20 J7 improvements to provide ease of access between A249 and M20.

KCC has carried out preliminary work to assess the feasibility of the above works and concludes that these schemes are feasible and deliverable. A preliminary cost estimate for the above works is £280 million.

KCC advocates in the strongest terms and presses Government to deliver as a matter of urgency:

1. Option C variant with the connection to the M2 J1 realigned to the west between East of Gravesend and Cobham junctions
2. An increased length of tunnelling from chainage 4000 to chainage 2500
3. The bifurcation improvement works and A249 resilience works outlined above and costed at £280 million.

KCC firmly believes the above offers the best option to support local and national economic growth.

Conversely, Options A and B lack strategic vision, are a missed opportunity to deliver real economic growth, and the lack of network resilience and reliability afforded by each of these corridors would lead to continued misery for motorists and costs to business. Also a significant omission and fundamental flaw in DfT's cost estimates is the exclusion of the cost of M25 J30/J31 at £750 million and J2 improvements (not costed). This would significantly reduce the BCR and hence value for money of either Option A or B.

3. Please indicate how important the following factors were in influencing your preference for the location of a new crossing, in answer to Q2.

	Not Important	Important	Very Important
Forecast contributions to the national economy			x
Forecast reductions in congestion at the existing Dartford-Thurrock Crossing and forecast improvements to the resilience of the surrounding road network			x
Forecast reductions in greenhouse gas emissions			x
Smaller forecast adverse impacts on environmentally sensitive areas and larger forecast improvements in quality of life relative			x

to other location options			
Smaller forecast adverse impacts on planned development relative to other location options			x
The distribution of forecast impacts on people within a range of different income groups		x	
Lower estimated costs relative to other location options	x		
Forecast value for money		x	
Other			

The key objectives for KCC in securing additional crossing capacity of the River Thames are:

- The ability to maximise the opportunity to provide real economic benefits both locally and nationally, and;
- To provide urgently needed network resilience and reliability, and improved strategic connectivity

while achieving both these elements with the least adverse impact on people and the environment.

Economic benefit, network resilience and strategic connectivity

In terms of the economic growth and regeneration aspects, a number of studies have been carried out over the years. The table below sets out the results of 3 of those studies.

Regeneration	Option A	Option B	Option C	Option C variant
DfT study (jobs)	500	2100	3000	3200
KPMG study ³ (jobs)	1000	-	6000	-
URS study ⁴ (jobs)				
Local jobs	7,600	10,600	9,100	-
Local + hinterland	23,000	35,807	32,300	-

Economic Growth	Option A	Option B	Option C	Option C variant
Total business benefits	£950m	£1,800m	£3,400m	£4,400m

For regeneration potential and the creation of jobs, the DfT work as part of the current consultation shows that Option C and C variant will provide the greatest job numbers. The KPMG study commissioned by KCC in 2010 similarly shows that Option C would contribute £12.7 billion to local GVA, through a six-fold increase in jobs over Option A. The most recent study by consultancy firm URS, jointly

³ Lower Thames Crossing, KPMG for Kent County Council (August 2010)

⁴ Third Thames Crossing Regeneration Impact Assessment (December 2012)

commissioned with Essex County Council and Thurrock Council, shows that Option B has slightly greater job potential than Option C and significantly greater than Option A. These URS figures include the Paramount Park Resort development and therefore assume that this development would be compatible with Option B. The DfT Option B corridor, however, clearly impacts on the potential to deliver the Paramount Park Resort as well as the already consented Ebbsfleet development for 3,300 dwellings and commercial quarter. An earlier iteration of the URS work without Paramount Park Resort concluded that Option C performed better than Option B for the number of jobs created.

While all 3 studies have used different methodologies in assessing regeneration impacts, they are relatively consistent in concluding that Option C (this is the case for the URS work without Paramount Park Resort) will provide the strongest regeneration benefits.

For total business benefits again Option C and C variant provide substantially higher returns than either Options A or B.

Regarding the network resilience aspect key to the objectives KCC would want from any new crossing it is clear that Option A, while relieving the immediate crossing will not do anything to the approaches to the crossing. Congestion and incidents on these approaches will to a large extent negate the benefits from the additional crossing capacity in this location. Peak traffic volumes of up to 180,000 vehicles per day will still gridlock J30/31 and J2 and the approach roads and will lead to queuing traffic for 18 hours a day. This will simply reduce UK productivity and competitiveness and result in a missed opportunity to boost British business and the national economy.

The DfT's own modelling work concludes that Option B is attractive for local trips and therefore will operate to add traffic to the already congested local road network while providing none of the network resilience or strategic connectivity so vital to productivity and economic growth.

Environmental and local impacts

For environmental factors covering biodiversity, landscape and townscape, the pattern is greater impact the further east the route on the Kent side of the Thames. Option B has number of significant heritage constraints in Kent and the key issues for Option C in Kent are in relation to environmental designations to protect wildlife and habitats. For greenhouse gas emissions Option C variant and C are strongest as they produce the greatest reductions due to the reduced journey distances for long distance traffic.

Option C variant is forecast to provide the most benefit in relation to local impacts on air quality due to the shortened journey distances for long distance trips combined with free flow traffic conditions over a greater area of the road network. Option B performs worst in relation to air quality. Option A is forecast to have least impact in terms of noise with this impact increasing as the corridor options move east.

For congestion Options C and C variant produce the greatest congestion reduction in Dartford and Thurrock and also the most network resilience through the creation of a new strategic route as an alternative to the existing crossing corridor. The table below summarises this.

Key to Table	
□□	Very positive impact
□	Positive impact
-	No discernible impact
x	Negative impact
xx	Very negative impact

	Option A	Option B	Option C	Option C variant
Biodiversity	Slight to large adverse xx	Moderate to large adverse xx	Very large adverse xx	Very large adverse xx
Landscape and townscape	Neutral to slight adverse x	Moderate adverse xx	Moderate to large adverse xx	Moderate to large adverse xx
Greenhouse gases	£31m □	-£60m x	£278m □□	£381m □□
Air quality	£0m	-£2m	£8m	£10m
Noise	-£9m	-£70m	-£72m	-£79m
Congestion: - In Dartford - In Thurrock	-16% 1%	-17% 1%	-19% -3%	-20% -3%

It is KCC's view that the only option that will provide a real opportunity to boost economic growth, assist regeneration and provide the strategic connectivity business needs to boost productivity and competitiveness while 7 minimising adverse impacts, is Option C variant with the additional improvements specified in Q2 above.

4. Is your preference for the location of a new crossing, in answer to Q2, conditional on whether a bridge, bored tunnel or immersed tunnel is provided?

Yes

Either bored or immersed tunnel

KCC would want to see either a bored or immersed tunnel structure for Option C as this presents good value for money for this route which would, with an additional 1.5km of tunnel from chainage 4000 to chainage 2500, minimise impact to residents and the environment in North Kent. A tunnel option will also eradicate the issue of

disruption and congestion caused by restrictions or closure of a bridge due to high winds.

5. Do you wish to add any further comments?

KCC has held extensive discussions with North American private sector investors who regularly finance large scale tolled roads projects and are keen to be involved in the delivery a new Lower Thames crossing. They firmly hold the view that this scheme could be delivered at no cost to the public purse and are hungry for such opportunities.

KCC also urges DfT to significantly accelerate their programme of delivery to a 2018 start on site and an opening year of 2020 rather than the DfT stated starting date of not later than 2021 with an opening year of 2025. With a clear lead from Government, KCC believes a 2018 start date would be feasible and more importantly, is essential, given the clear and immediate need for additional crossing capacity.

KCC firmly believes the option set out under Q2 presents a real and deliverable opportunity for Government to show the kind of leadership and vision that the Victorians demonstrated in building the great transport systems of over a century ago which are still critical to business and society today. Choosing the least cost option would obviously be the easy option, but it would also be a real missed opportunity that the UK economy simply cannot afford. DfT needs to make a bold decision that will be the right choice for not only Kent, but also the Treasury through the long term returns to the national economy.

The vision KCC's preferred option will deliver is not only a resilient and futureproofed strategic network, but a massive and much needed boost to the local Thameside economy and more importantly, to UK plc.