Document Reference: LCC3.i.3

Lincolnshire COUNTY COUNCIL
HIGHWAYS ALLIANCE

1. The Lincolnshire County Council (A15 Lincoln Eastern Bypass) (Classified Road) (Side Roads) Order 2014

2. The Lincolnshire County Council (A15 Lincoln Eastern Bypass) Compulsory Purchase Order 2014

3. Application In Relation To Proposed Compulsory Purchase Of Land Held By The Canal & River Trust

Department for Transport Reference: NATTRAN/EM/LAO/0084

Response to Objector's Questions

Mr Lake to Mr Rowley

Response from Lincolnshire County Council to questions from Mr Lake to Mr Rowley

1) Cost Estimates

Question 1.1: Please provide a copy of your cost estimates for

Alternative 1 bridge,
Alternative 2 bridge + junction
Bunkers Hill/Hawthorn Road Signalisation
Wragby Road/Outer Circle Road improvements
Wickes Roundabout improvements

Question 1.2: Please indicate a full cost breakdown into components, your method of calculation and source of data for rates, unit costs etc.

Question 1.3: For the signal junctions please provide a description of the intended signalling scheme or changes to the current signalling scheme, level of provision at the junction including number, type and location of lanes, pedestrian crossings, detector types and numbers, civils work involved including kerb realignments, amount of ducting and service diversions by type.

Answer to the above 3 questions: The cost estimates are included in appendices 1 and 2 of this response. They are based upon the current scheme estimate, the professional knowledge of Mr Chetwynd of schemes constructed in Lincolnshire and have received input from the relevant specialist sections within the County Council. It has not been possible to produce detailed designs for signalised junctions but it has been possible to gain reasonably accurate estimates for these elements of the works based upon the knowledge of the network, a review of the forecast traffic flow and queuing data along with recent experience in delivering major signalisation refurbishment schemes in the City.

With regard to the Wickes Roundabout improvement, it has not been possible to develop a detailed estimate for the proposal beyond a geometric redesign and carrying out a Statutory Undertakers Plant search. A broad assessment of the construction costs, comprising of £130k for carriageway widening and footway alterations and £150k to £250k for plant diversions results in an estimate of between £280k and £380k.

2) High Load Route Designation

Question 2.1: Please provide full details of when it was decided to designate the LEB as a High Load Route (HLR). What process was followed in this decision, what was the timescale and who made the decision?

Answer: Following the grant of planning permission in June 2013, detailed design commenced shortly after on the scheme in advance of issuing tender documents. During the emerging design for the LEB the decision was taken in July 2013, by the County Council Client in consultation with the County Structures Abnormal Loads team, to design all the structures on the LEB for abnormal loads and high loads, to enable the A15 route within Lincolnshire from Sleaford to north of Lincoln to be designated as an Abnormal Load route and High Load route once the LEB was opened.

The existing designated HLR currently diverts traffic from the A15 at Sleaford westwards along the A17 and around a reduced height bridge at Leadenham onto a C class road through the centre of Leadenham and back onto the A17 then up the A46 and vice versa. (There are also constraints on the A1 north of Stamford and as such the A1 is not designated as a HLR and the HLR therefore diverts from that point). The proposed route would offer a significantly shorter route (approx. 30Km) with the added benefit of a fully compliant High Load Route on the Principal Road Network.

Decisions to use roads as HLR and to designate them as such are not matters that are consulted upon as it is a decision of the Highway Authority to make the most appropriate use of the road network. The approach is therefore similar to that used by Highways England for the trunk road network and once the scheme is nearer to opening Highways England will be notified of the new route that has been made available.

The reason why it has been necessary to deal with the matter in more detail now is that for the first time Mr Lake has promoted an alternative in sufficient detail to be able to assess it in detail in respect of the bridge clearance as shown on his diagram.

Question 2.2: Given that the Lincoln Western Bypass is already designated by the DfT as a HLR, why is it necessary to designate the proposed eastern bypass also as an HLR? Given consideration to HLR across the UK, this would appear at first glance to be somewhat extravagant.

Answer: Only 0.7% of the road network in Lincolnshire is Trunk Road managed by Highways England and the County Council is the Highway Authority with responsibility for managing Abnormal and High Loads within Lincolnshire. As noted above the additional HLR will offer a significant reduction in journey distances and travel times by using the route of the LEB and in addition will avoid the constraint on the current HLR between Sleaford and Newark.

Question 2.3: What standard of HLR and structure clearance will the LEB provide?

Answer: The standard of clearance for a High Load Route is defined as 6.45 metres (plus an allowance for any sag curves in the vertical alignment) in Table 6-1 of TD 27\05. The relevant structures are the bridge that takes the LEB under the Lincoln to Spalding railway line and the three NMU bridges at Hawthorn Road, Greetwell Road and Bloxholm Lane. The bridge over Heighington Road is in excess of the minimum clearances due to the LEB being in cut at this point.

Question 2.4: What structures clearance provision is required for a road bridge for Hawthorn Road. When has this requirement changed since 2008 and why?

Answer: Any roadbridge at Hawthorn Road will need to be to the same High Load Route standard as the structures in the scheme that has planning permission. As explained above this decision was taken as part of the detailed design for the single carriageway scheme. Given the requirement to descope the scheme in 2010, no detailed design was carried out for the dual carriageway scheme following the granting of planning permission for the scheme in 2010.

Question 2.5: Are all structures on the LEB required to provide this clearance and if not why not and what criteria is used to determine the required clearance for each structure?

Answer: All structures must be in accordance with TD 27/05.

Question 2.6: If the clearance requirements of any structure has changed since 2008 please provide a history of these changes for each structure.

Answer: As explained above the decision to design the LEB as a High Load Route was in 2013, at which point the structures were required to meet the clearances in TD27\05.

Question 2.7: If clearance requirements are different for different structures why is the Hawthorn Road overbridge require to be higher than other structures over the LEB?

Answer: Any structures on the route will be required to comply with the High Load Route clearances.

Question 2.8: If it is intended to raise other structures over the LEB to provide the same clearance as required for a road bridge at Hawthorn Road how has or will this process been carried out in respect of changing the planning permission, evaluating cost changes and the effect on the environmental statement?

Answer: Condition 10a of the planning permission for the scheme requires "*No development shall take place until full details of all permanent bridges, structures, underpasses, bridge walls, abutments and crossings have been submitted to and approved in writing by the CPA. Such details shall include information on the colours and treatment of all surfaces, finishes and textures associated with these elements (e.g. railings, wing walls, side walls of underpass) as well as exact clearance heights. The bridges, structures, underpasses, bridge wing walls, abutments and crossings shall thereafter be constructed in accordance with the approved details."* In order to discharge this condition, details of all of the permanent structures (including clearances) on the scheme will be submitted for approval to the County Planning Authority.

Question 2.9: What process was used to evaluate the cost implications of being a HLR?

Answer: When reviewing the requirements of TD 27\05, the height difference between a High Load Route (6.45 metres clearance) and a NMU bridge (5.7 metres clearance) is limited to 0.75 metres which falls within the overall cost estimate for the proposals which were considered by the Department within the overall Business Case. The cost implications of every individual design change is not normally considered in developing a design since there are a number of interrelated consequences some positive and some negative that cannot be costed at the design stage.

Question 2.10: Where in LEB documentation for the Dual Carriageway planning application, the single carriageway Best and Final Bid, the single carriageway planning application and the last Inquiry is it stated that the LEB will be a HLR or that it is being considered?

Answer: As noted previously this decision is as a result of the detailed design process for the single carriageway scheme, commenced following granting of planning permission in June 2013. No detailed design was carried out on the dual carriageway scheme and the funding for the scheme and the planning application documentation did not cover this issue as the detailed design process had not started.

Question 2.11: Given that the designation as a HLR has cost implications, why was this not mentioned in previous design reports and documents and in the reports documenting the value engineering process in 2010/2011.

Answer: Please refer to responses above for a response on this answer.

Question 2.12: Given that the latest cost estimate appears to indicate that the requirement for HLR clearance significantly increases the cost why was this not made publically known much earlier in the process from July 2014 and leading up to this Inquiry?

Answer: There is no significant cost implication on the LEB as proposed by the County Council as explained previously. The issue of HLR clearance and it's impact on the cost of the roadbridge at Hawthorn Road was given in response to the Alternatives proposed by Reepham Parish Council which included details of the clearances that the Alternatives had been designed to.

Question 2.13: Given the reported large cost increase of the Hawthorn Road bridge due to the HLR designation, if justified, could this not have been a factor in the decision of many objectors to object?

Answer: It is not clear what this question refers to as there are two possible interpretations of this question:

I. On the assumption that this is referring to Objections being raised to the revised planning application submitted in respect to the NMU bridge, the proposals as submitted did not require alterations to the vertical alignment of the main line of the LEB and therefore did not represent a significant increase in costs of such a provision
II. On the assumption that this is referring to the basis on which an objector has chosen to object to the orders being considered at this Inquiry, this is not something that the County Council would wish to comment on.

3) LEB Roundabouts

Question 3.1: Please provide 1:200 or similar detail design drawings in PDF or DWG format for the Wragby Road/LEB and Greetwell Road/LEB roundabouts including proposed road markings.

Answer: These have been provided in 1:500 scale and are included in this response.

Appendix 1: Estimate Breakdown for Reepham Parish Council Alternative 1

		£k	£k	£k	£k	£k
Hawthorn Road Overbridge						
	Piling, pile cap, bearing shelves, pier	1,350				
	Bridge Deck	646				
	Concrete Finishes, parapet rails.	150				
	Sub Total	**2,146**	2,146			
	Deck drainage, pre-excavation drainage, increased retention volume, resized pumping station.	525				
	Earthworks	380				
	Carriageway construction	113				
	Kerbing	20				
	Signs and lines	12				
	Street Lighting	5				
	Accommodation works	5				
	Sub Total	**1,060**	1,060			
	Sub Total		**3,206**	3,206		
	Prelims (TM etc)@15%			481		
	E/O Statutory Undertakers Diversions			75		
	VRS			15		
	Sub Total			**3,762**	3,762	
	Fees @11%				414	
	Total				**4176**	**4176**
Hawthorn Road / Bunkers Hill Signalisation						
	Signals Equipment including modifications to existing Pedestrian crossing and Scoot	150				
	Drainage, kerbing, traffic islands, new footway and carriageway construction, relocate existing bus stops.	150				
	Resurfacing	75				
	Sub Total	**375**	375			
	Prelims (TM etc)@15%		56			
	Utility diversions – BT, Virgin Media, WPD, AWS Water & Nation Grid MP Gas		350			
	Sub Total		**781**	781		
	Fees @11%			86		
	Total			**867**		**867**
Outer Circle Road / Wragby Road Junction Improvement						
	Signals Equipment	110				
	Drainage, kerbing, traffic islands, new footway and carriageway construction, relocate existing bus stops.	325				
	Resurfacing	95				
	Sub Total	**530**	530			
	Prelims (TM etc)@15%		80			
	Utility diversions – BT, Virgin Media, WPD, AWS Water & Nation Grid MP Gas		160			
	Sub Total		**770**	770		
	Fees @11%			85		
	Total			**854**		**854**
Hawthorn Road NMU Bridge						
	Piling, pile cap, bearing shelves, pier	309				
	Retaining Wall	297				
	Steel Superstructure	177				
	Sub Total	**783**				**-783**
Removal of Left In Left Out Junction						
	Side road approach and slip road including earthworks, street lighting, signs and lines.	**250**				**-250**
	Final Total					**£4,864**

Appendix 2: Estimate Breakdown for Reepham Parish Council Alternative 2

		£k	£k	£k	£k	£k
Hawthorn Road Overbridge						
	Piling, pile cap, bearing shelves, pier	1,350				
	Bridge Deck	759				
	Concrete Finishes, parapet rails.	155				
	Sub Total	**2,264**	2,264			
	Deck drainage, pre-excavation drainage, increased retention volume, resized pumping station.	525				
	Earthworks	395				
	Carriageway construction	152				
	Kerbing	23				
	Signs and lines	55				
	Street Lighting	125				
	Accommodation works	50				
	Sub Total	**1,325**	1,325			
	Sub Total		**3,589**	3,589		
	Prelims (TM etc)@15%			538		
	E/O Statutory Undertakers Diversions			75		
	VRS			15		
	Sub Total			**4,217**	4,217	
	Fees @11%				464	
	Total				**4,681**	**4,681**
Hawthorn Road / Bunkers Hill Signalisation						
	Signals Equipment including modifications to existing Pedestrian crossing and Scoot	150				
	Drainage, kerbing, traffic islands, new footway and carriageway construction, relocate existing bus stops.	150				
	Resurfacing	75				
	Sub Total	**375**	375			
	Prelims (TM etc)@15%		56			
	Utility diversions – BT, Virgin Media, WPD, AWS Water & Nation Grid MP Gas		350			
	Sub Total		**781**	781		
	Fees @11%			86		
	Total			**867**		**867**
Outer Circle Road / Wragby Road Junction Improvement						
	Signals Equipment	110				
	Drainage, kerbing, traffic islands, new footway and carriageway construction, relocate existing bus stops.	325				
	Resurfacing	95				
	Sub Total	**530**	530			
	Prelims (TM etc)@15%		80			
	Utility diversions – BT, Virgin Media, WPD, AWS Water & Nation Grid MP Gas		160			
	Sub Total		**770**	770		
	Fees @11%			85		
	Total			**854**		**854**
Hawthorn Road NMU Bridge						
	Piling, pile cap, bearing shelves, pier	309				
	Retaining Wall	297				
	Steel Superstructure	177				
	Sub Total	**783**				**-783**
Removal of Left In Left Out Junction						
	Side road approach and slip road including earthworks, street lighting, signs and lines.	**250**				**-250**
	Final Total					**£5,369**